Knowledge Organiser

Year 9

Term 3
2024/25

The Abbey School

Contents

Maths
Science
RE
English
Hospitality & Catering
Dance
Drama
Geography
Health and Social Care
Media
Music
Photography
Sport Science
Art
French
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History

Maths Year 9 Term 3

F - Graphs, tables and charts

F - Averages

H - Graphs, tables and charts

Term Focus

How can you extend your knowledge of displaying data from year 7 and 8?
How can you use your knowledge of averages for tables and charts?

Prior Learning Links

Pie charts introduced in term 1 of year 8. Basic pie charts drawn and interpretations made with simpler diagrams.
Scatter graphs in Year 8 (Term 2) are looked at and correlation is discussed. Links with Time Series very well.
Stem and leaf also looked at in Year 8 and are built on in Year 9. Students will look at using stem and leaf diagrams to find averages from a set of data.
Averages last looked at in Year 7 and are seen for the first time (explicitly) during this term. Students are expected to know the difference between the mean, median, mode and range and should be able to calculate them from a simple list of data.

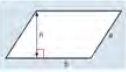
Future Learning Links

Reading graphs in every-day life is essential. Many forms of a graph/diagram are presented to students and they need to know how to read them. Furthermore, being able to read and unpick harder graphs link together with Science well where they need to present their data/findings in a variety of ways.
Taught early in year 9 to develop the problem solving aspect that tends to appear in GCSE questions.
Links to other topics such as frequency polygons and cumulative frequency diagrams.
(H only) - Year 10, Term 5, Chapter 14H – Further Statistics. Students need to be able to draw and interpret cumulative frequency diagrams, box plots, histograms, use sampling methods and also estimate populations.

Subject: Mathematics
Topic: Recall Knowledge

Year / Group: GCSE F/H
Term: 1-6

Areas

Rectangle = $l \times w$	
Parallelogram = $b \times h$	
Triangle = $\frac{1}{2} b \times h$	
Trapezium = $\frac{1}{2}(a+b)h$	

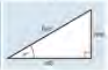
Volumes

Cuboid = $l \times w \times h$	
Prism = area of cross section × length	
Cylinder = $\pi r^2 h$	
Volume of pyramid = $\frac{1}{3}$ × area of base × h	

Pythagoras

Pythagoras' Theorem
For a right-angled triangle, $a^2 + b^2 = c^2$

Trigonometric ratios (*new to F*)
$\sin x^\circ = \frac{\text{opp}}{\text{hyp}}$, $\cos x^\circ = \frac{\text{adj}}{\text{hyp}}$, $\tan x^\circ = \frac{\text{opp}}{\text{adj}}$



Compound measures

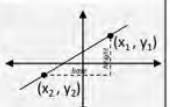
Speed	speed = $\frac{\text{distance}}{\text{time}}$
Density	density = $\frac{\text{mass}}{\text{volume}}$
Pressure	pressure = $\frac{\text{force}}{\text{area}}$

Gradient of a Line

$m = \frac{y_2 - y_1}{x_2 - x_1}$

or

$m = \frac{\text{height}}{\text{base}}$



Midpoint of two points

between (x_1, y_1) and (x_2, y_2) $\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$

Compound Growth & Decay

The amount after n years (or days, etc.) is:

$\text{starting amount} \times \left(1 \pm \frac{r}{100}\right)^n$

where r is the rate of change.
The $\pm$ means + for growth and – for decay

Literacy In Maths	Command Words
Evaluate ...	Work out and write your answer
Work out ...	Working out is required
Calculate ...	Working out is required. A calculator may be needed.
Solve ...	Work out the values
Prove ...	All working must be shown in steps to link reasons and values.
Expand...	Multiply out of the brackets
Draw...	Draw accurately with a pencil and equipment.
Explain ...	Use words to give reasons
Factorise	The reverse process of expanding brackets. Remove the HCF.
Estimate	Work out an approximate answer using rounded values.

Circles

Circumference = $\pi \times$ diameter, $C = \pi d$

Circumference = $2 \times \pi \times$ radius, $C = 2\pi r$

Area of a circle = $\pi \times$ radius squared, $A = \pi r^2$

Area of a Sector

$A = \frac{\theta}{360^\circ} \times \pi r^2$

Length of an Arc

$A = \frac{\theta}{360^\circ} \times \pi d$

Set Notation

$A \cup B$
Union: in A or B (or both)
$A \cap B$
Intersection: in both A and B

$P(A \text{ or } B) = P(A) + P(B)$

$P(A \text{ and } B) = P(A) \times P(B)$

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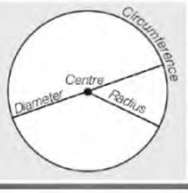


Area of a Sector

$A = \frac{\theta}{360^\circ} \times \pi r^2$

Length of an Arc

$A = \frac{\theta}{360^\circ} \times \pi d$

1. What are the different types of graphs and charts I will learn this term?

Red Amber Green

Key Terms

Stem and leaf diagrams are used to order and organise data. A **key** must be included.

Averages can be found easily from stem and leaf diagrams.

A **two way table** is used to represent categorised data.

e.g. gender and school year group

Once completed, probabilities can be formulated easily from two way tables.

Key Terms

Pie charts use angles to represent, proportionally, the quantity of each group involved.

Pie charts can only be compared to one another when the total frequency or populations are given.

Scatter-graphs show the relationship between two variables. This relationship is called the **correlation**.

2. How do I draw a stem and leaf diagram?

Red Amber Green

Here are the times, in minutes, taken to solve a puzzle.

5	10	15	12	8	7	20	35	24	15
20	33	15	24	10	8	10	20	16	10

Draw an ordered stem and leaf diagram:

0	5 7 8 8
1	0 0 0 0 2 5 5 5 6
2	0 0 0 4 4
3	3 5

Key: 2 | 4 = 24 mins

Calculate the median value = 15

State the mode = 10

Calculate the range = 35 – 5

= 30

1. **List the Data**: Arrange your data in ascending order.
2. **Identify Stems and Leaves**:
   - Separate each number into *stem* (first digit(s)) and *leaf* (last digit).
   - For example, in 34, "3" is the stem, and "4" is the leaf.
3. **Draw the Stems**:
   - List all unique stem values vertically on the left, in ascending order.
4. **Add Leaves**:
   - Write each leaf next to its corresponding stem.
   - Place leaves in ascending order beside each stem.
5. **Check Your Work**:
   - Ensure all data points are included.
   - Double-check order for accuracy.
6. **Add a Key**: Include a key explaining how to read the stems and leaves (e.g., "3 | 4 means 34").

3. How do I draw and use a two-way table?

Red Amber Green

80 children went on a school trip.
They either went to London or to York.
23 boys and 19 girls went to London.
14 boys went to York.
(a) Complete a two way table for this information.

	London	York	Total
Girls	19	24	43
Boys	23	14	37
Total	42	38	80

(b) What is the probability that a person chosen at random went to London? $\frac{42}{80}$

(c) A girl is chosen, what is the probability that she went to York? $\frac{24}{38}$

4. How do I draw a pie chart?

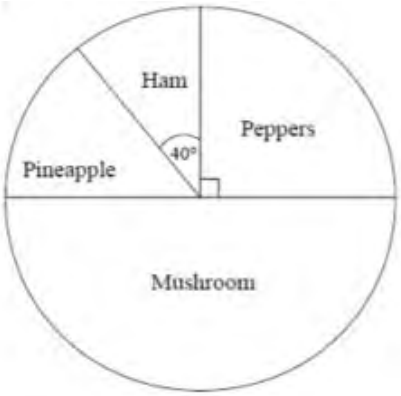
Red Amber Green

Topping	Frequency	Angle of Sector
Peppers	18	90°
Mushroom	36	180°
Pineapple	10	50°
Ham	8	40°

Total=72 360°

360° ÷ 72

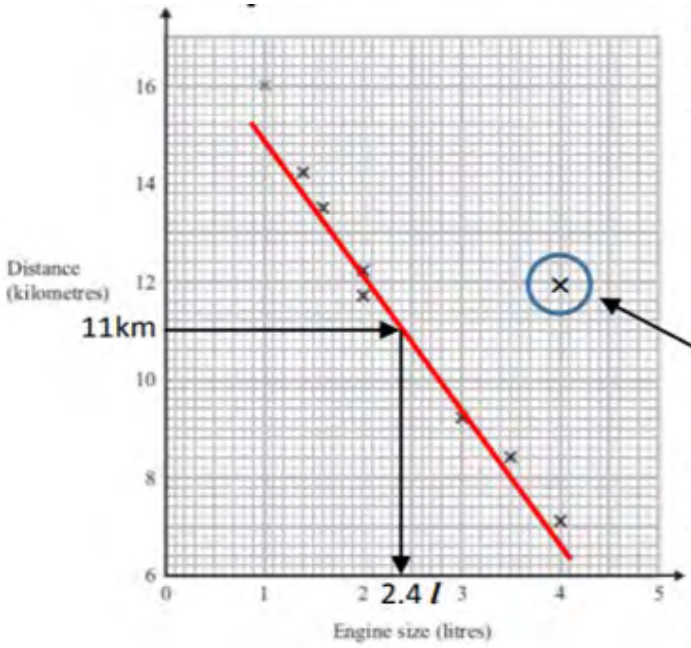
×5



1. **Calculate Degrees per Person**:
   - Divide 360 by the total number of people to find *degrees per person*.
2. **Calculate Each Angle**:
   - Multiply the number of people in each category by the degrees per person.
   - This gives the angle for each section of the pie chart.
3. **Draw the Circle**: Use a compass to draw a circle, marking the center.
4. **Plot Each Angle**:
   - Start at the top of the circle and use a protractor to measure each angle from the center.
   - Draw lines from the center to the edge for each category section.
5. **Label the Sections**: Write the category name and (optionally) the percentage for each section.
6. **Add a Key (if needed)**: Use colors or patterns to distinguish sections and add a key if helpful.

5. How do I draw and use a scatter graph?

Red Amber Green



A scatter-graph is drawn to show the relationship between the engine size of a car and how far it can travel.

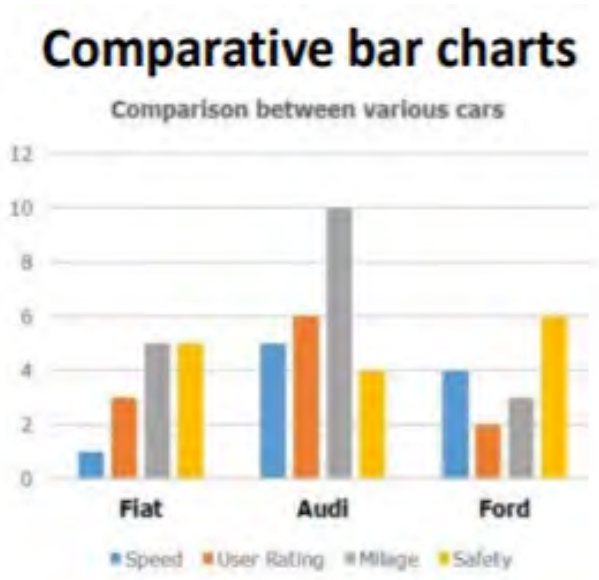
It shows negative correlation.

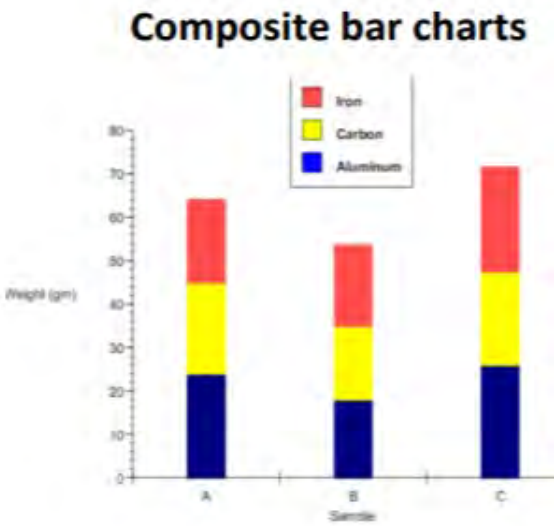
This is an outlier.
It does not match the trend.

We draw a line of best fit through the data points to help estimate readings, based on the data sample. For example, estimating the engine size of a car that can travel 11km would be 2.4 litres.

6. What are the different types of bar charts?

Red Amber Green





7. What are the different types of averages?

Red Amber Green

Averages

There are three types of **average** that we use to analyse and compare data. We can calculate averages from a **discrete** data set.

Mode The most common value that appears in the list.

Median Once ordered, the middle value.

Mean

$$\frac{Total\ of\ all\ data}{Number\ of\ pieces\ of\ data}$$

The **range** is used to analyse the **spread** of a data set or how **consistent** the data is.

Range

$$largest\ data\ value - smallest\ data\ value$$

8. How do I calculate averages from a table?

Red Amber Green

Averages

Modal class (mode)
Group with the highest frequency.

Median group
The median lies in the group which holds the $\frac{total\ frequency+1}{2}$ position.
Once identified, use the cumulative frequency to identify which group the median belongs from the table.

Estimate the mean
For grouped data, the mean can only be an estimate as we do not know the exact values in each group. To estimate, we use the midpoints of each group and to calculate the mean we find $\frac{total\ fx}{total\ f}$.

Examples

Length (L cm)	Frequency (f)	Midpoint (x)	fx
$0 < L \leq 10$	10	5	$10 \times 5 = 50$
$10 < L \leq 20$	15	15	$15 \times 15 = 225$
$20 < L \leq 30$	23	25	$23 \times 25 = 575$
$30 < L \leq 40$	7	35	$7 \times 35 = 245$
Total	55		1095

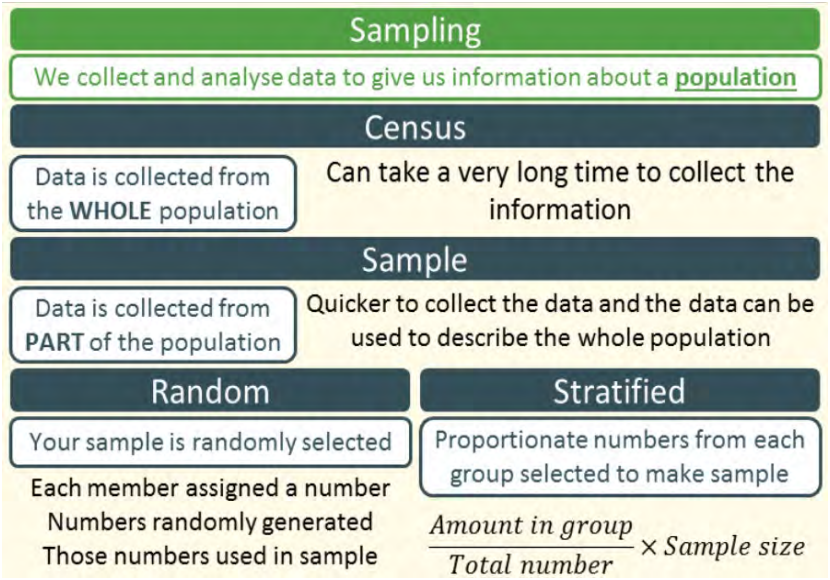
a) Estimate the mean of this data.
step 1: *calculate the total frequency*
step 2: *find the midpoint of each group*
step 3: *calculate* $f \times x$
step 4: *calculate the mean shown below*

$$\frac{Total\ fx}{Total\ f} = \frac{1095}{55} = 19.9\text{cm}$$

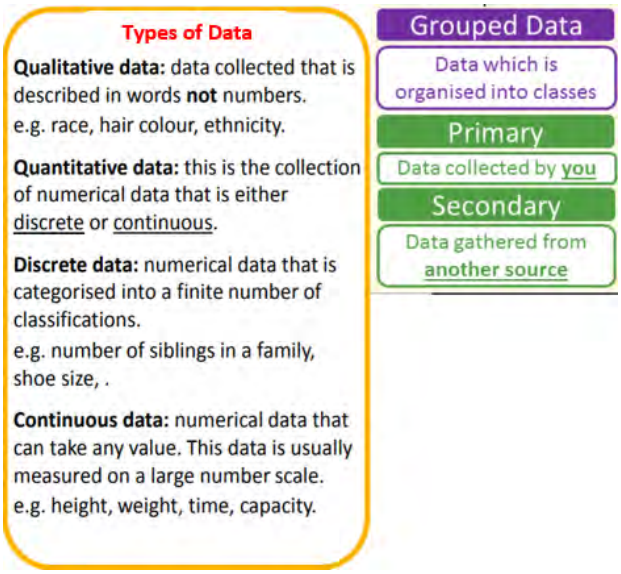
b) Identify the modal class from this data set. *" the group that has the highest frequency "*
Modal class is $20 < x \leq 30$

c) Identify the group in which the median would lie. Median $= \frac{Total\ frequency+1}{2} = \frac{56}{2} = 28th\ value$
" add the frequency column until you reach the 28th value " Median is the in group $20 < x \leq 30$

9. How do I take a sample? Red Amber Green



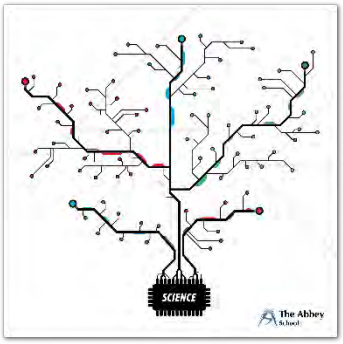
10. What are the different types of data? Red Amber Green



HOME LEARNING TASKS	
Task Description	**Done?**
U981 Interpreting frequency tables and two-way tables	
U363 Drawing bar charts	
U557 Interpreting bar charts	
U506 Drawing and interpreting pictograms	
U508 Drawing pie charts	
U172 Interpreting pie charts	
U840 Drawing and interpreting frequency polygons	
U277 Interpreting scatter graphs	
U199 Plotting scatter graphs	
U260 Finding the mode	
U291 Calculating the mean	
U456 Calculating the median	
U569 Finding averages from frequency tables	

Subject Year 9 Block 2 – Organisation

TERM FOCUS – How are different substances transported around cells
Big Ideas



Prior Learning Links

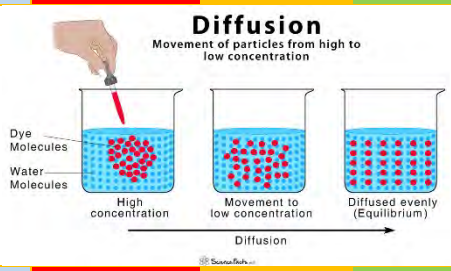
1. The tissues and organs of the human digestive system, including adaptations to function and how the digestive system digests food (enzymes simply as biological catalysts)
2. The structure and functions of the gas exchange system in humans, including adaptations to function

Future Learning Links

1. Factors affecting the rate of enzymatic reactions
2. Carbohydrates, proteins, nucleic acids and lipids as key biological molecules
3. The need for transport systems in the multicellular organisms, including plants

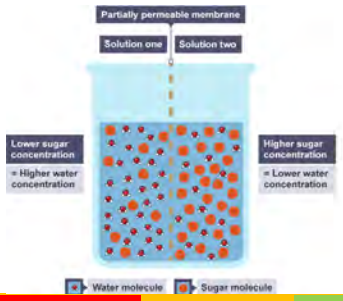
1. What is diffusion? Red Amber Green

Diffusion is the movement of particles from an area of high concentration to low concentration.
Diffusion happens in both solutions and gases as the particles in these substances are able to move about freely. Think about spraying perfume or deodorant



2. How is osmosis different to diffusion? Red Amber Green

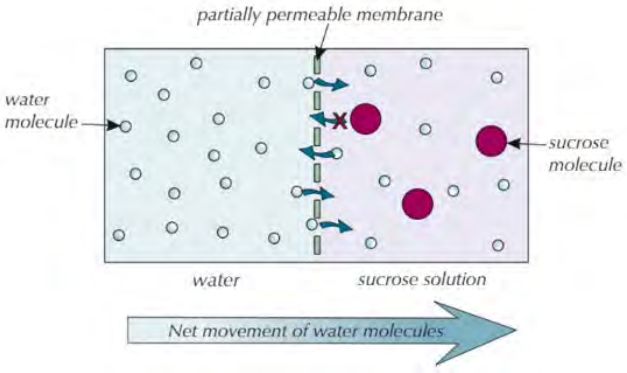
Osmosis is the movement of molecules across a partially permeable membrane from a region of higher water concentration to a region of lower water concentration.
A partially permeable membrane is a membrane with microscopic holes that only very small particles can pass through



3. How can you measure osmosis? RP Red Amber Green

Required practical method:

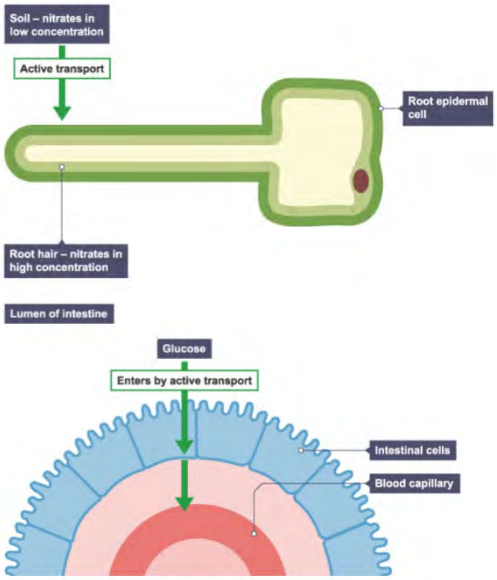
1. Cut up a potato into identical cyclinders and measure their masses
2. Get some beakers with different concentrations of sugar solutions in them.
3. Have one beaker be pure water with slowly increasing to 1 mol sugar solution
4. Place one potato cylinder in each beaker, leave them in the beaker for 24 hours
5. Take the cylinders out dry them with a paper towel and measure their masses again



4. What is active transport?

Red | Amber | Green

Active transport is the movement of particles against the concentration gradient (from an area of lower concentration to an area of high concentration) this process requires energy
This happens in the root hair cells in the plant, plants need mineral ions from the soil normally there is a high concentration of these mineral ions in the root hair cell already.
Another place that this happens is in the gut there is a higher concentration of nutrients in the blood than there is in the gut this means that active transport happens to get the nutrients into the blood system.

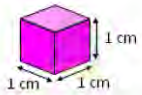


5. How are exchange surfaces adapted for exchanging materials?

Red | Amber | Green

Depending on the surface to volume ratio this will depend on how easy it is for an organism to exchange substances within the environment. Some parts will have special adaptions so that the exchange system can work efficiently.
To calculate volume we use the following equation:
Volume = length x width x height

Example:



Volume = length x width x height
= 1 x 1 x 1
= 1 cm^3

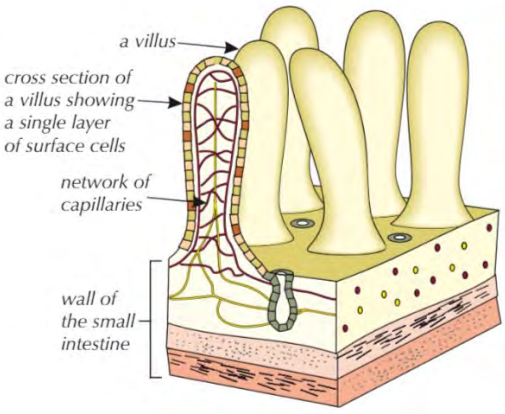
Surface area = length x width x number of sides
= 1 x 1 x 6
= 6 cm^2

SA:V = 6:1

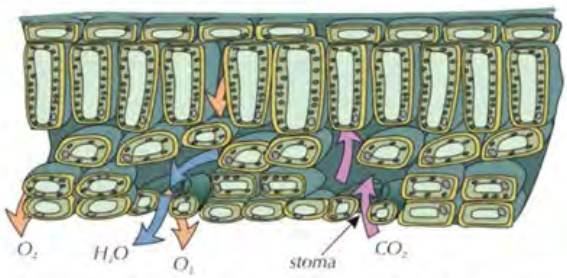
6. How are substances exchanged in organisms?

Red | Amber | Green

Gas exchange in humans happens in the lungs, the lungs need to transfer oxygen from the lungs to the blood within your lungs you have air sacs called alveoli. Surrounded with blood vessels called capillaries to help with the gas exchange.
In the digestive system you have parts in the small intestine called villi these are finger like structures that increase the surface area, to also support with substances exchanging.

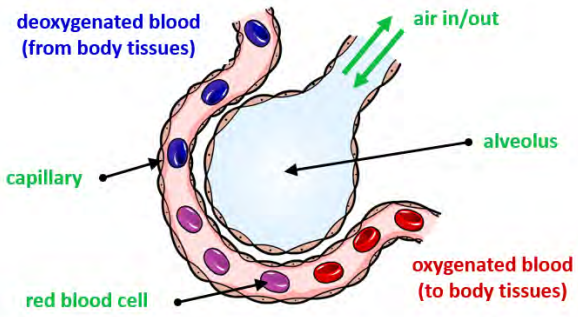


The underneath of the leaf is an **exchange surface**. It's covered in little holes called **stomata** which the carbon dioxide diffuses in through. Oxygen (produced in photosynthesis) and water vapour also diffuse out through the stomata. This is shown in Figure 7.



Oxygen (O_2) and water vapour (H_2O) diffuse out of the leaf.

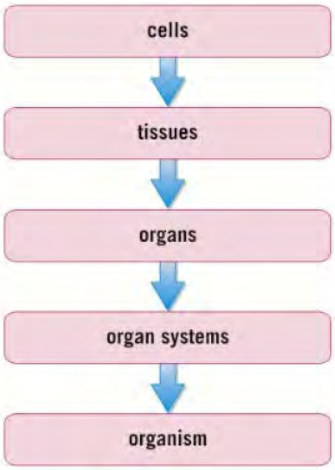
Carbon dioxide (CO_2) diffuses into the leaf.



7. How are organisms organised?

Red | Amber | Green

Cells are specialised for their function (muscle cell)
Tissues are a group of cells that are working together (muscle tissue)
Organs are a group of tissues working together (muscle)
Organ systems are groups of organs working together (muscular system)
Organism is an individual life form (you)



8. What is the chemistry of our food?

Red | Amber | Green

Carbohydrates:

- Provide us with energy
- All contain carbon oxygen and hydrogen
- Glucose is a simple carbohydrate molecule
- Found in starchy foods like potato, bread pasta

Lipids (fats and oils):

- These are energy stored in our cells they provide insulation and help protect internal organs
- They are also made of carbon, oxygen and hydrogen
- Insoluble in water

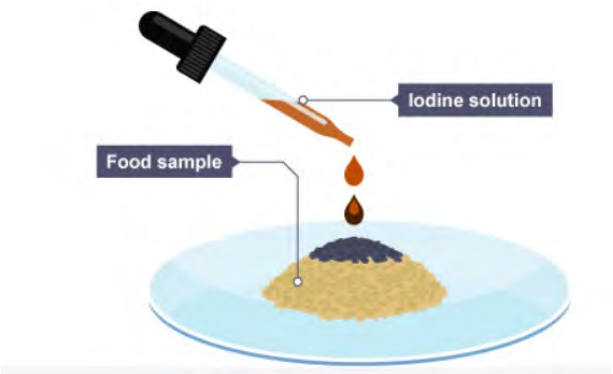
Proteins:

- Polymers made of amino acids joined together
- Twenty different amino acids to make new proteins
- Used for growth and repair of tissues and our enzymes
- Make up of carbon, hydrogen, oxygen and nitrogen

9. How can we test for the products of digestion?

Red | Amber | Green

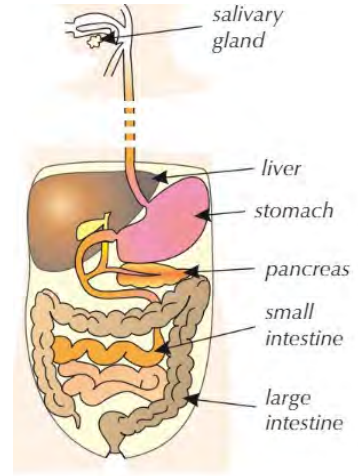
Testing for products of digestion
To test for starch iodine is used and the normal colour for iodine is brown/orange, when exposed to starch it will turn blue back
Testing for glucose we use benedict's solution when this is exposed to glucose it turns from a light blue to a brick red depending on the concentration on sugars.
To test for proteins use a reagent call biuret, this will go from a blue colour to purple if protein is present.
For lipid testing ethanol is used to add to the substance that is being tested and distilled water if lipids are present then a milky white emulsion forms.



10. How is the digestive system organised

Red | Amber | Green

In the digestive system this is where food is broken down into nutrients to be absorbed through the gut. There are two ways that this happens through mechanical digestion where the food is physically broken down this happens in the mouth (grinding teeth) and the stomach that churns while breaking down food.
Chemical digestion is where the body uses enzymes to break down food into smaller molecules.



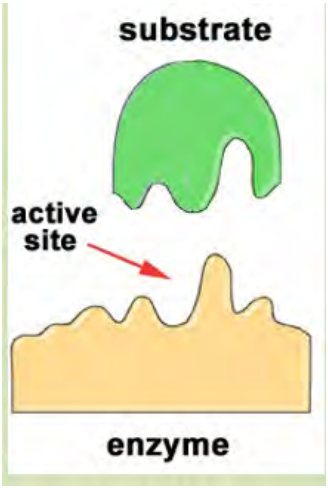
11. How do enzymes assist with reactions?

Red | Amber | Green

Enzymes are known as biological catalysts, this means that they can speed up a reaction without being used up during the reaction (increases rate of reaction).

Enzymes are made from proteins. Each enzyme has an active site, each enzyme is specific to the substrate it breaks down. This is referred to as the lock and key method.

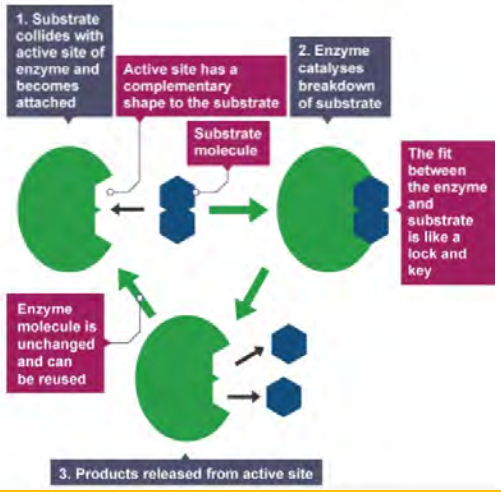
There are optimum conditions for the enzymes to work within the body. These are temperature ideally the temperature should be around 37°C. The body also has an optimum pH that it needs to function effectively at.



12. How are enzymes used in digestion

Red | Amber | Green

In the body there are three enzymes that are used to break down different foods. Carbohydrates are broken down by amylase, this is made in the salivary gland, pancreas and small intestine. Is mainly used in the mouth and the small intestine. Proteins are broken down by protease this is made in the stomach, the pancreas and the small intestine. This mainly works in the stomach and the small intestine. Lipids (fats and oils) are broken down by lipase, this is made in the pancreas and the small intestine. Lipase works mainly in the small intestine.



HOME LEARNING TASKS	
Task Description	**Done?**
GCSE Pod principles of organisation 	
GCSE Pod animals, tissues, organs and organ systems 	
Describe the lock and key model of enzyme function List the key stages in the digestion of food	
Explain what each of the enzymes groups in digestion works on and list the products of the digestion.	
Describe how the surface area to volume ratio helps a snake and a polar bear to be adapted to their environment	

Subject Year 9 Block 3 –

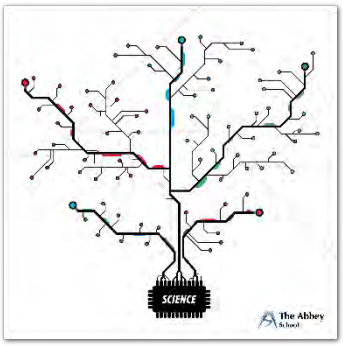
TERM FOCUS – How are different substances transported around cells
Big Ideas

Prior Learning Links

1. The structure and functions of the gas exchange system in humans, including adaptations to function
2. The mechanism of breathing to move air in and out of the lungs, using a pressure model
3. To explain the movement of gases, including simple measurements of lung volume
4. The impact of exercise, asthma and smoking on the human gas exchange system
5. The role of leaf stomata in gas exchange in plants

Future Learning Links

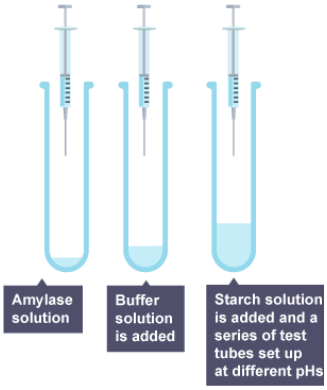
1. The relationship between the structure and functions of the human circulatory system.
2. non-communicable diseases

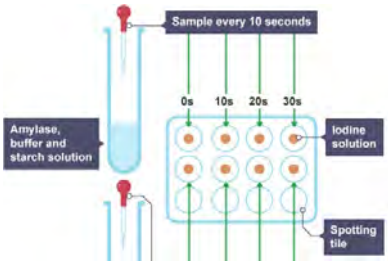


1. Enzyme required practical

Red Amber Green

1. Add 1ml of amylase solution to a test tube
2. Add 5mls of buffer solution to the test tube
3. Add 5mls of starch solution to the test tube and start the stop clock. Give the test tube a swirl to mix the contents
4. After 20 seconds take three drops of the liquid out of the test tube and place into a spotting tile
5. Add a drop of iodine solution to the liquid





2. The lungs

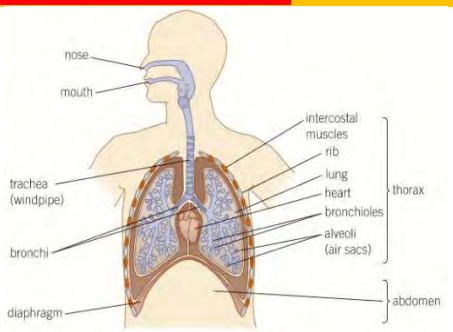
Red Amber Green

Ventilation is the process of movement of air into and out of your lungs. It occurs by contraction and relaxation of the intercostal muscles between the ribs and the diaphragm. The movement of the ribcage changes the pressure inside the chest cavity, the air gets forced in or out of the lungs as a result in pressure changes.

Adaptions of the alveoli

- Very thin walls only once cell thick
- Covered in a network of fine capillaries, enabling the gasses to pass almost directly between the lungs and blood stream.
- They are moist, encouraging gas molecules to easily dissolve
- They have a large combined surface area, allowing large amounts of gases to be exchanged with each breath

Diffusion – see knowledge organiser term 2



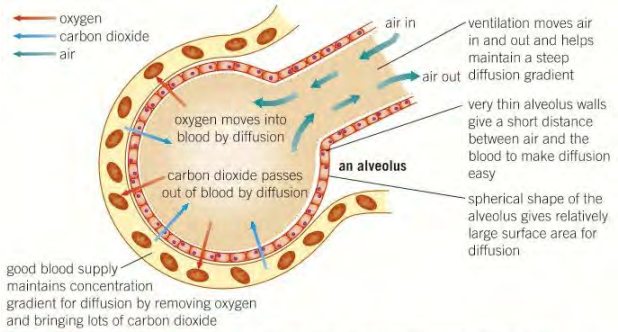


Figure 3 *The alveoli are adapted so that gas exchange can take place as efficiently as possible in the lungs*

3. The blood

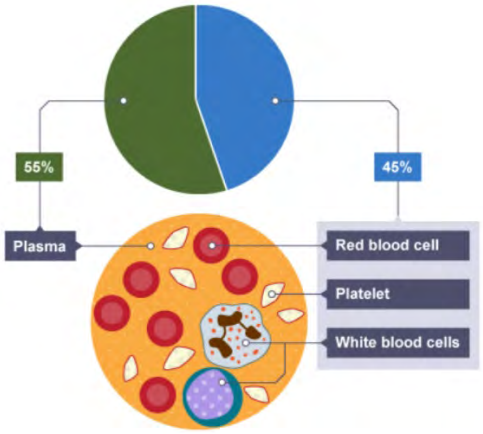
Red Amber Green

Blood is a tissue, this means that it is made of different cells that work together.its function is to transport

substances around the body. It is made from red blood cells, white blood cells, platelets and plasma
Red blood cells have the important job of transporting oxygen around the body. They have a concave shape and do not contain a nucelus. They have haemoglobin that carries the oxygen.
White blood cells there are different types of white blood cells but their main function is to defend the body against microorganisms that cause disease

- They engulf unwelcome microorganisms and digest them
- They can produce antibodies to fight microorgansims
- They can prodcue antitoxins to neutralise any toxins produced by mircoorganisms

Platelets are small fragmented parts of cells, they have no nucleus and they help the blood to clot at a wound.
Plasma is a pale straw coloured liquid that carries everything in the blood.

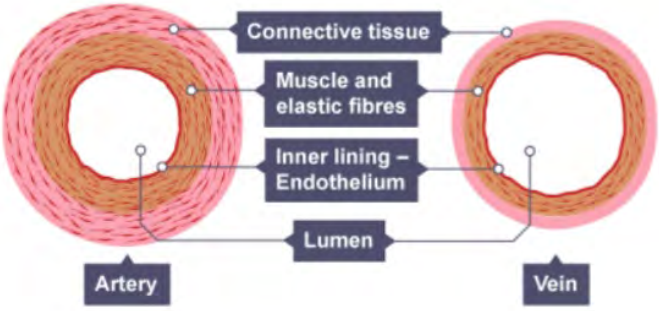


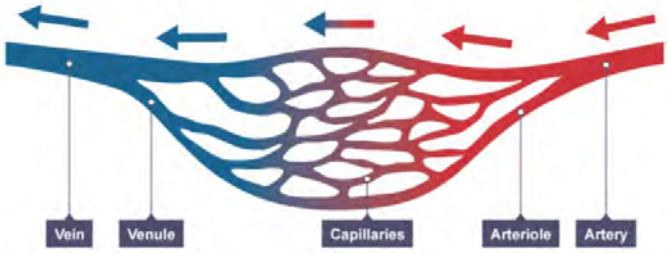
Component	Function(s)
Plasma	Transporting carbon dioxide, digested food molecules, urea and hormones; distributing heat
Red blood cells	Transporting oxygen
White blood cells	Ingesting pathogens and producing antibodies
Platelets	Involved in blood clotting

4. Blood vessels

Red | Amber | Green

Arteries
Carry blood away from the heart towards the organs (Arteries AWAY). This is at high pressure so the artery walls are thick, strong and elastic. They have thick layers of muscle to make them strong and elastic fibres help them stretch and spring back. The walls are thick in comparison to the lumen in the middle.
Capillaries
Arteries branch into capillaries that are needed for the exchange of substances to tissues, for example oxygen and food. They take away carbon dioxide. They are really tiny and are hard to see, they have a permeable wall this is to make diffusion across the cell walls easier and quicker. The walls are only one cell thick to help with quick diffusion of substances. They are narrow giving them large surface area compared to their volume.
Veins
Capillaries eventually will join up to make veins. They carry blood to the heart (Veins IN heart) they have a lower pressure so the walls do not need to be as thick, they have bigger lumens to help with the flow of blood. They also have valves to help keep the blood flowing in the right direction.





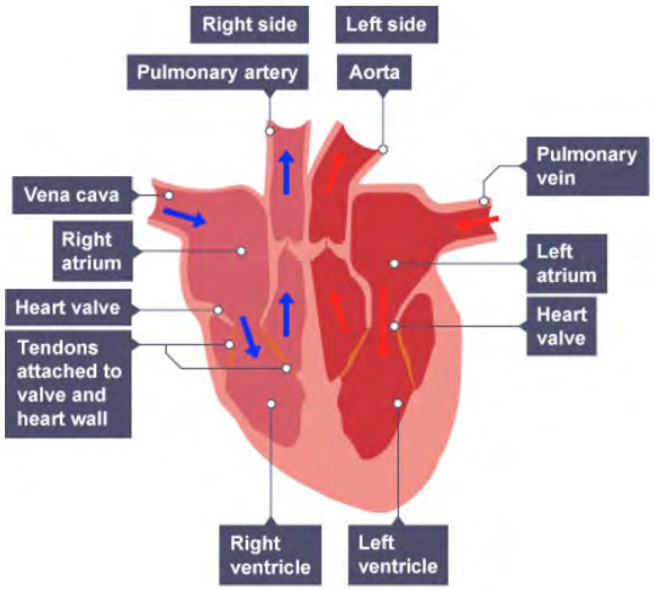
5. The heart

Red | Amber | Green

Humans have a double circulatory system this is to get food and oxygen to every cell in the body. It is not just a delivery service it also takes away any waste produced in the cells.
The walls of the heart are mainly made of cardiac muscle tissue, this is what contracts to cause the heart to beat. The heart has four chambers right atrium, right ventricle, left atrium left ventricle. This is what is used to pump the blood around. There is also the vena cava, pulmonary artery, aorta and pulmonary vein.
The valves in the heart prevent the blood from being pumped backwards. The heart being a muscle also requires oxygenated blood – there are coronary arteries that will branch off and supply the muscle cells with oxygen.

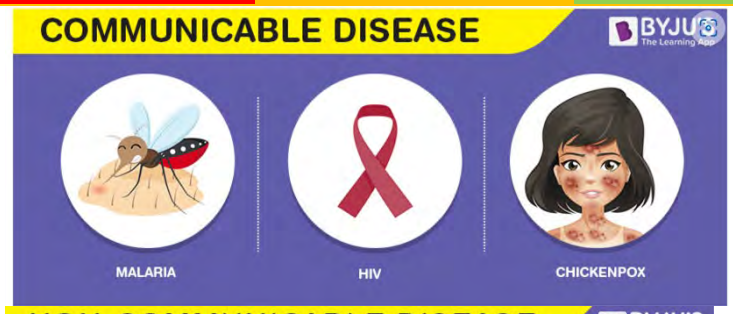
1. Blood flows into the two atria from the vena cava and the pulmonary vein.
2. The atria contract, pushing the blood into the ventricles
3. The ventricles contract forcing the blood into the pulmonary artery and the aorta and out the heart
4. The blood then flows to the organs through arteries and returns through veins
5. The atria fill again and the whole cycle starts again

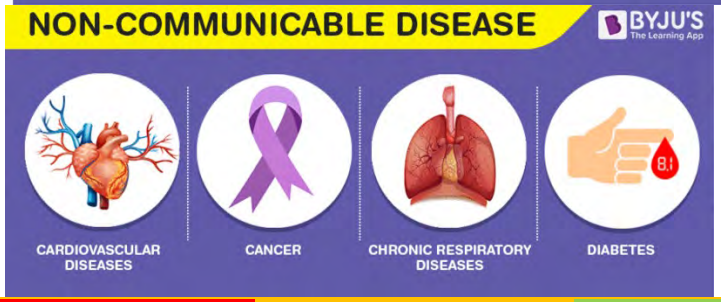
The heart has its own pacemaker cells, in the right atrium wall they produce a small electric impulse that spreads to the surrounding cells causing a contraction.



6. Health and disease	Red	Amber	Green

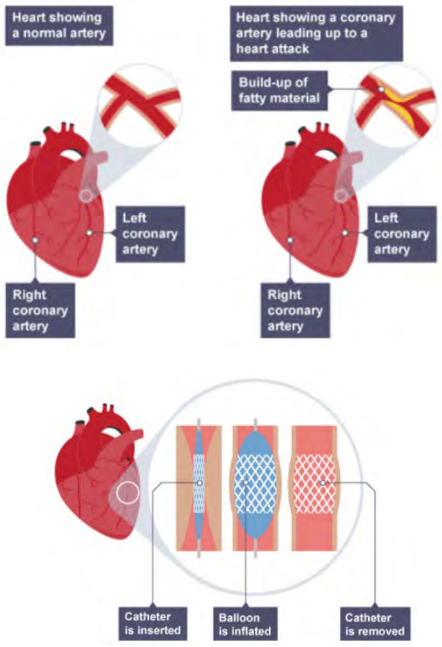
Diseases are responsible for causing ill health.
Health is known as the state of physical and mental wellbeing.
There are two types of diseases, communicable – can be spread from person to person (covid-19, flu, cold). Non-communicable diseases that cannot be transmitted from person to person (asthma, cancer, Coronary heart disease)
It is not just diseases that can make you ill, not looking after yourself can also impact this. Including
Diet, starvation anaemia, rickets and type 2 diabetes
Stress – risk of heart disease, cancer and mental health issues
Life situations – where you live in the world, your gender, ethnic group, number of children, sewage and rubbish disposal.





7. CVD	Red	Amber	Green

Cardiovascular disease is the term used to describe any disease of the heart or blood vessels
Coronary heart disease is where the arteries that supply blood to the heart are blocked by layers of fatty materials. The arteries get blocked up and it becomes difficult for blood to flow meaning lack of oxygen will be able to get to the heart causing a heart attack.
Treatment options:
Stents are wire metal tubes that are inserted to keep the arteries open, this means that the blood is able to travel to the heart muscles. These are good to reduce the risk of having a heart attack in patients, they work long term and have a quick recovery time. The risks associated are complications during surgery, and developing a blood clot in the area.
Statins are another method that reduces the amount of bad cholesterol in the blood preventing the build-up of fatty deposits. The advantages reduces the risk of stroke, heart attack by reducing bad cholesterol. Disadvantages are that they will need to be taken long term, people may forget to take them, there are some side effects also.



8. Risk factors for non-communicable diseases

A risk factor is something that will increase the likelihood of the development of a certain disease. The risk factors are generally to do with someone's lifestyle, environment and exercise. Not one of these will mean that you get a disease but a combination puts you at higher risk.

Red	Amber
Smoking	**Has been proven to directly cause cardiovascular disease, lung disease and lung cancer.**
Obesity	**Has been found to cause the body to be less sensitive or resistant to insulin**
Drinking too much alcohol	**This has been shown to cause the development of liver disease. This can also occur when toxic chemicals leak from the gut from damaged intestines. Also causes damage in the nerve cells and the brain to loose volume**
Smoking/drinking pregnant	**When pregnant smoking reduces the amount of oxygen able to get to the baby. Drinking alcohol whilst pregnant can be found to affect the babies development.**
Cancer	**Can be caused by exposure to certain substances or radiation. Some things that cause cancer are still unknown.**

9. Cancer

Cancer is where there is uncontrolled cell growth and division forming a growth of abnormal cells.
Benign tumours these are where the tumour will grow until there is no more room – the tumour will stay in this one place.
Malignant tumours this is where the tumour will grow but will spread from the tumour to the neighbouring healthy tissue. This will form secondary tumours within someone's body.

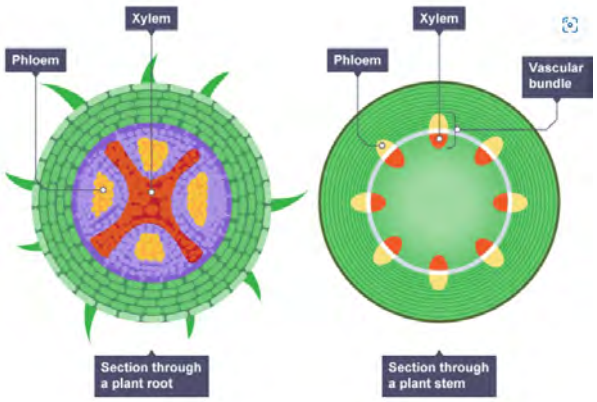
Type of Cancer	Risk Factors	Area
Lung	Smoking, air pollution, exposure to radon gas, previous lung disease and family history Prevent by not smoking and maintain a healthy diet and exercise regularly	
Skin	Exposure to the sun's rays using sunbeds, fair skin, family history and other skin conditions Prevent by wearing high factor sun cream, don't use sunbeds, wear hat and glasses	
Cervical	HPV virus, smoking, sexually transmitted infections, being overweight, long term use of oral contraceptives, family history and multiple pregnancies Prevent by using condoms, HPV vaccination, cervical smear at 25 years old, no smoking	
Breast cancer	Age, woman are at greater risk than men, inherited genes and race and ethnicity Prevent with breast cancer screening for those over the age of 45, regular exercise and healthy diet, breastfeeding can reduce your risk	
Testicular cancer	Men born with abnormal testicles, race (more common in white men) family history, tall men	

	are more at risk, smoking, infertility and sexually transmitted infections Prevent by using condoms, do not smoke, regularly get checked by GP
Brain tumours	Age, medical radiation, previous cancers, genetic history, being overweight, smoking, alcohol. Prevent by not drinking or smoking, healthy diet with exercise, show any signs and get to the GP.

10. Plant organisation

Red | Amber | Green

Plants are made of organs, for example stems, roots and leaves. The plant organs work together to make an organ system.
Epidermal tissue – covers the whole plant
Palisade mesophyll tissue – part of the leaf where most photosynthesis happens
Spongy mesophyll tissue – this is the leaf also and has big air spaces to allow gases to diffuse
Xylem and phloem – transport things like water, mineral ions and food around the plant
Meristem tissue – this is found at the growing tips of shoots and roots, this is able to differentiate



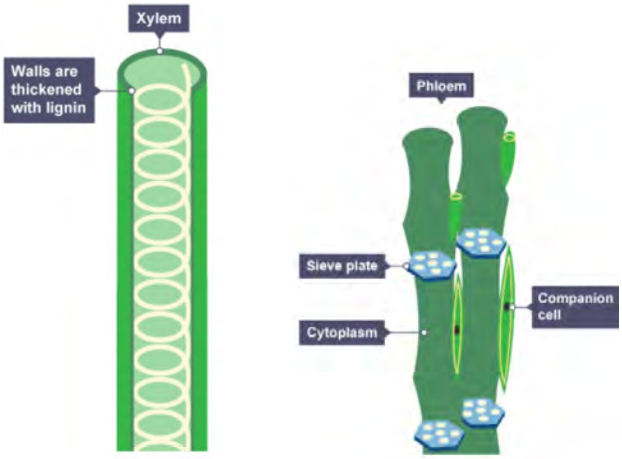
11. Rate of transpiration

Red | Amber | Green

Plants have two separate types of tissues phloem and xylem.

Phloem tubes are elongated living cells with small pores in the end walls to allow the flow of cell sap. They transport food substances (dissolved sugars) from the leaves to the rest of the plant for them to be used. The transport system goes in both directions from the roots to the tip, and from the tip to the roots. This is called translocation.

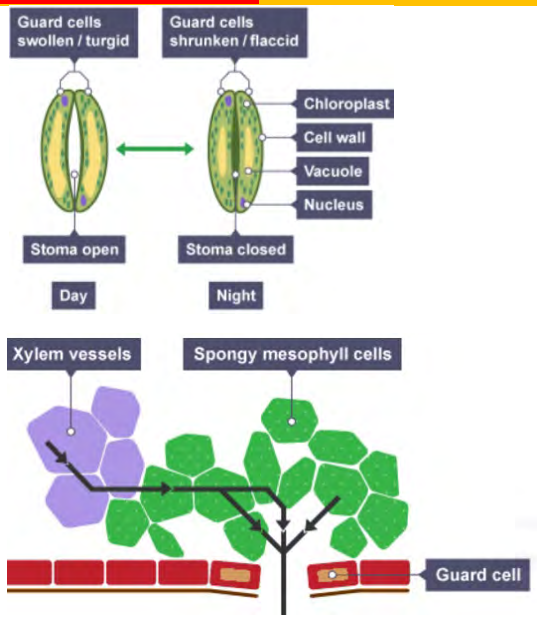
Xylem are tubes of dead cells that have been joined together end to end with no end walls between them. They have a hole down the middle, they have lignin that strengthens the walls. They carry water and mineral ions up the plant from the roots to the stem and leaves this is called the transpiration stream.



12. Transpiration and stomata

Red | Amber | Green

Stomata are tiny holes in the underside of leaves, they control water loss and are involved in gas exchange by opening and closing.
Transpiration can be effected by different things.
Light intensity – the better the light the higher the transpiration rate. Photosynthesis can't happen during the dark. Stomata will close as it starts to close, very little water is able to escape.
Temperature – the warmer it is the faster transpiration happens, water particles have more energy to evaporate and diffuse out the stomata
Air flow- if the air flow around the leaf is great then the transpiration rate will happen at a higher rate. If there is no wind the water will just surrounds the leave and reduces the rate of diffusion.
Humidity – the drier the air around the leaf the faster transpiration happens, if the air is humid there's a lot of water in it already so not much difference between the inside and outside of the leaf.

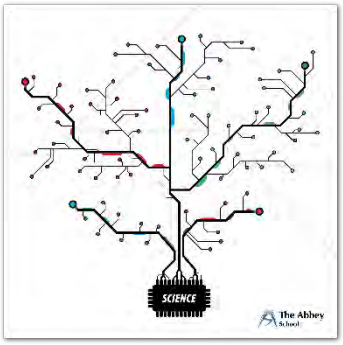


HOME LEARNING TASKS

Task Description	Done?
GCSEPod Plant tissues, organs and systems	
GCSEPod Lifestyle and health	
GCSEPod Animal tissues, organs and organ systems	

Physics Year 9 Block 2

- **P2A – Circuits**
- **P2B Domestic Electricity**
- **P3 Particle Model of Matter**



TERM FOCUS –
P2A BQ - What is Electricity?
P2B BQ – How do we use Electricity?
P3 BQ – How do we understand matter through the arrangement of particles?

Prior Learning Links

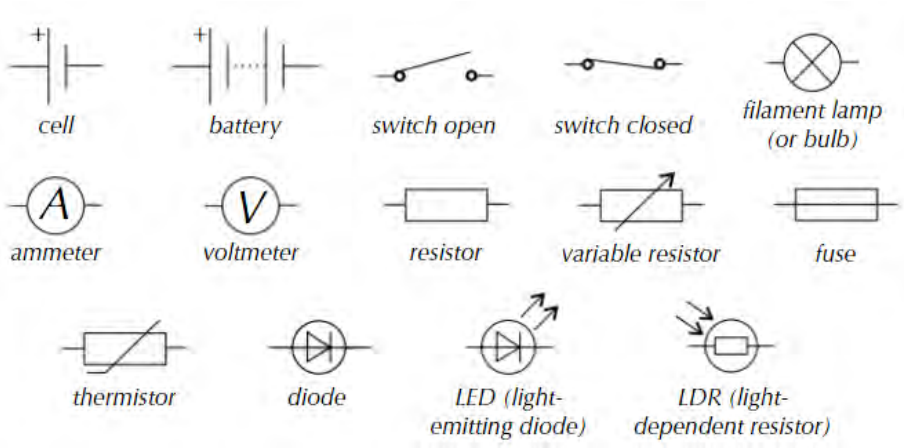
1. KS3 Science – Electricity
2. KS3 Science– Use of formula and basic formula symbols.
3. KS3 Science – Understanding of Particle theory
4. KS3 Science – Understanding of how to conduct a scientific investigation

Future Learning Links

1. Electricity and the arrangement of particles in matter all link to the fundamentals of physics and having a comprehensive knowledge of these topics is a necessity to understanding the Physics course.

1. Circuits , Current and Potential Resistance

Red | Amber | Green



<u>Voltmeters and Ammeters</u>

A Voltmeter measures potential difference. It is always connected 'across' a component in Parallel

An Ammeter measure current. It is always connected 'in line' with a component in Series

<u>Charge</u>

Charge (Q) is measured in coulombs (C).

(A coulomb of charge is just a very large group of electrons.)

Q= I x t

Q = Charge, measured in Coulombs (C)

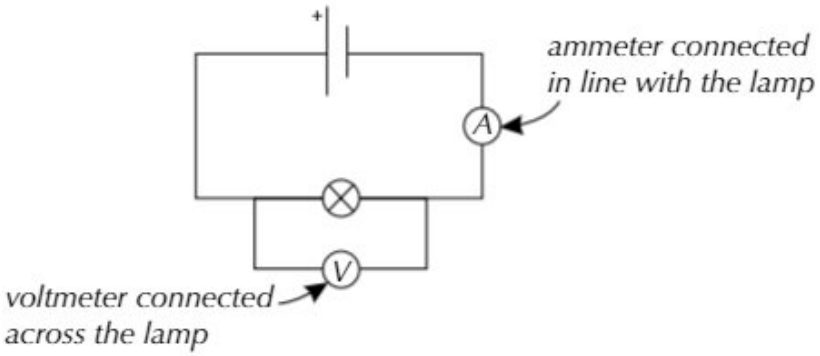
I = Current measured in Amperes (A)

t = Time, measured in Seconds, (s)

<u>Current</u>

Current is the flow of electric charge (electrons).

<u>Potential difference</u>



Potential difference is the driving force that pushes the force around.

A current can only flow if there is a source of potential difference.

2. Resistance Theory (inc Resistance of a Wire Practical)

Red Amber Green

Resistance

Resistance is anything in the circuit that reduces the flow of current

- It is measured in ohms, **Ω**

Ohm's Law:
The current through a resistor at *constant temperature* is ***directly proportional*** to the potential difference across it.

V = I x R

V = P.d measured in Volts, V

I = Current measured in Amperes, A

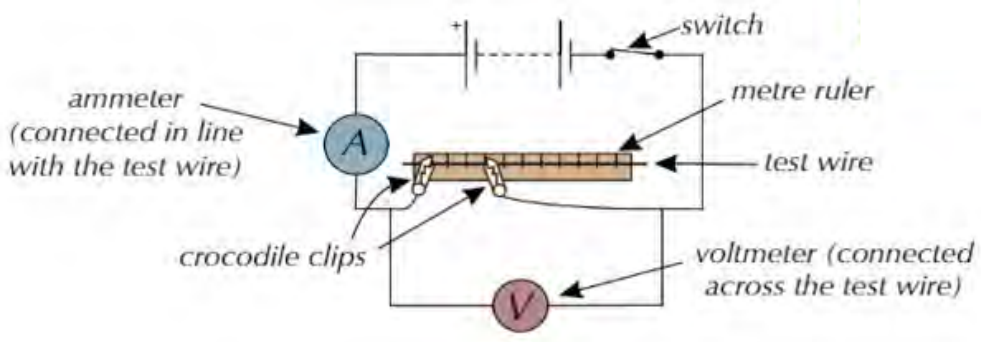
R = Resistance measured in Ohms, **Ω**

How does resistance of a wire vary with its length?
REQUIRED PRACTICAL

Your results

You should see that as the length of the wire increases, the resistance also increases.

Specifically, if the length of the wire doubles, the resistance doubles.

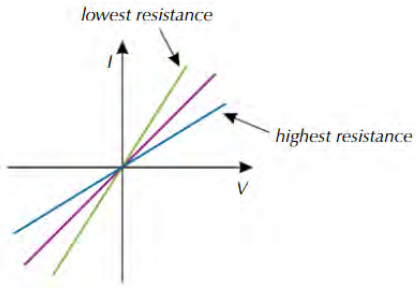


This is a **directly proportional** relationship.

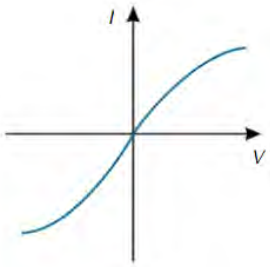
Therefore a wire is also known as an **ohmic conductor** as it follows Ohms law

I-V characteristics

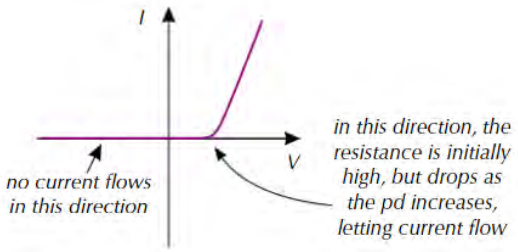
I-V characteristics (current-potential difference graphs) show how the current varies as you change the potential difference across a component.



The I-V graph for an ohmic conductor (resistor)



The I-V graph for a filament bulb



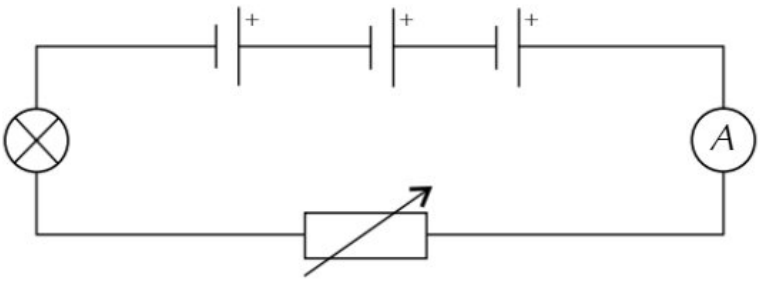
The I-V graph for a diode

3. Series Circuits

Red Amber Green

Series circuit

- All components are connected in one loop.
- If you disconnect one component, the circuit is incomplete, and they all stop.



$I_{total} = I_1 = I_2 = ...etc.$

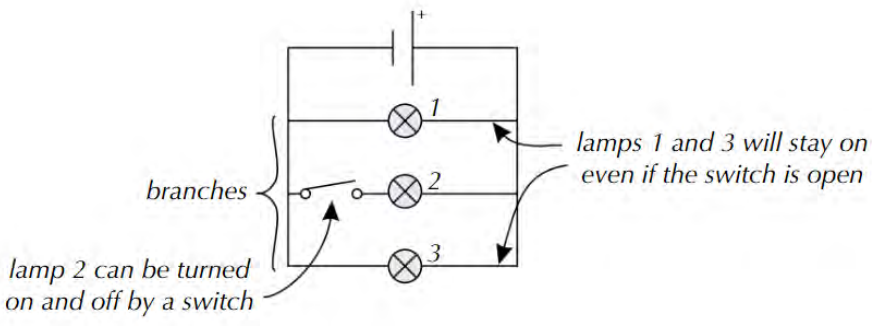
$V_{total} = V_1 + V_2 + ...etc.$

$R_{total} = R_1 + R_2 + ...etc.$

4. Parallel Circuits

Red Amber Green

Parallel Circuit



$I_{total} = I_1 + I_2 + ...etc.$

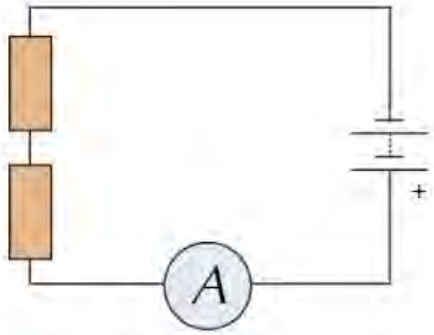
$V_{total} = V_1 = V_2 = ...etc.$

The total resistance of a parallel circuit is less than the resistance of the smallest resistance.

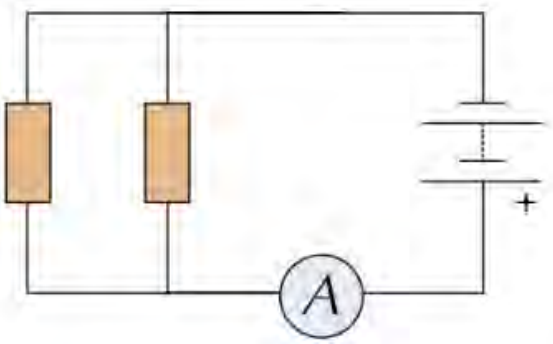
$R_{total} = <$ smallest resistance

5. Investigating Resistance

Red Amber Green



1. Connect the circuit for two resistors in series, as shown in the diagram.
2. Switch on and record the readings on the ammeter and the voltmeter.
3. Switch off and add another resistor in series.
4. Switch on and record the readings on the ammeter and the voltmeter.
5. Switch off and add the fourth resistor in series.
6. Switch on and record the readings on the ammeter and the voltmeter.
7. Calculate the total resistance for each number of resistors added.



1. Connect the circuit for two resistors in parallel, as shown in the diagram.
2. Switch on and record the readings on the ammeter and the voltmeter
3. Switch off and add another resistor in parallel (you will need to create another loop).
4. Switch on and record the readings on the ammeter and the voltmeter.
5. Switch off and add the fourth resistor in parallel (you will need to create another loop).
6. Switch on and record the readings on the ammeter and the voltmeter.
7. Calculate the total resistance for each number of resistors added

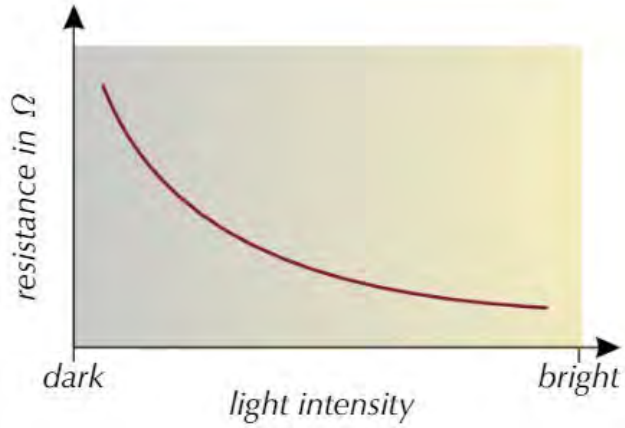
6. LDRs and Thermistors

Red Amber Green

Light-dependent resistors (LDRs)

An LDR is a resistor that is dependent on the intensity of light.

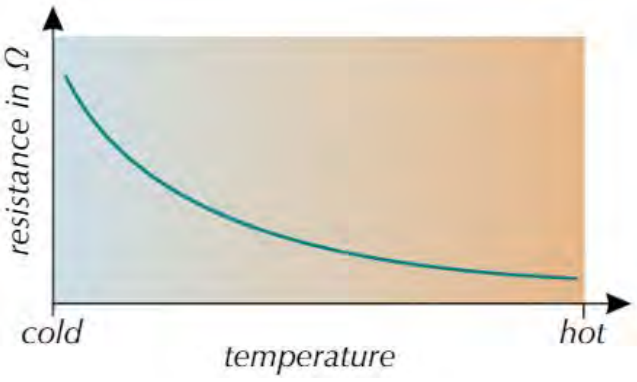
- In bright light, the resistance decreases
- In darkness, the resistance is highest



Thermistor

A thermistor is a resistor that is dependent on temperature.

- As the temperature increases, the resistance decreases.



7. Electricity in the Home

Red Amber Green

Alternating and direct current

Alternating current (AC)

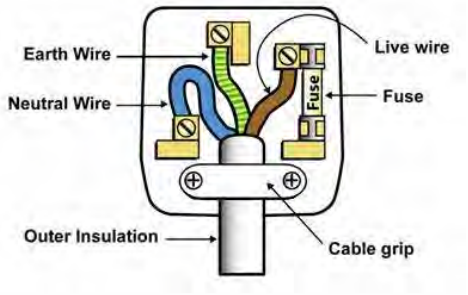
- The current is constantly changing direction.
- It is created by a direct potential difference, where the positive and negative ends of the source are fixed.

Direct current (DC)

- The current is always flowing in the same direction.
- This occurs due to alternating potential differences in which the positive and negative ends keep alternating

The UK domestic mains supply is an AC supply at around 230V.

- The frequency (how often the current changes direction) is 50 cycles per second (50 Hertz, Hz)



Earth wire

- The 'safety wire'
- Provides a low resistance path to the Earth

Live wire

- How the current enters the device
- Provides the 230 V

Neutral wire

- Completes the circuit
- Carries the current away

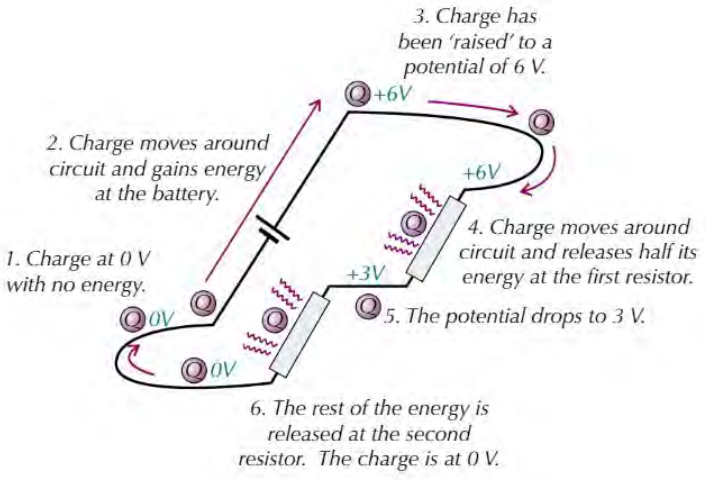
8. Power and Energy Transfer

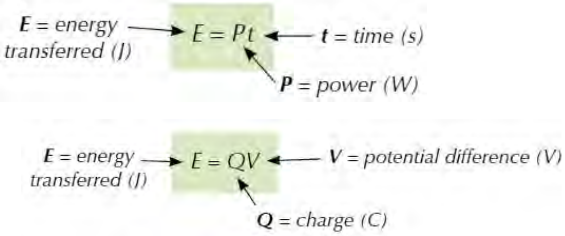
Red Amber Green

Potential difference and energy transfer

At the power supply, coulombs of charge (lots of electrons) are provided with energy (volts).

- When a component is reached, the charge gives up this energy.
- It then returns to the power source to gain energy again.





Calculating Electrical Power

Power = current x potential difference
(Watts) (Amps) (Volts)

Power = current² x resistance
(watts) (Amps) (Ohms)

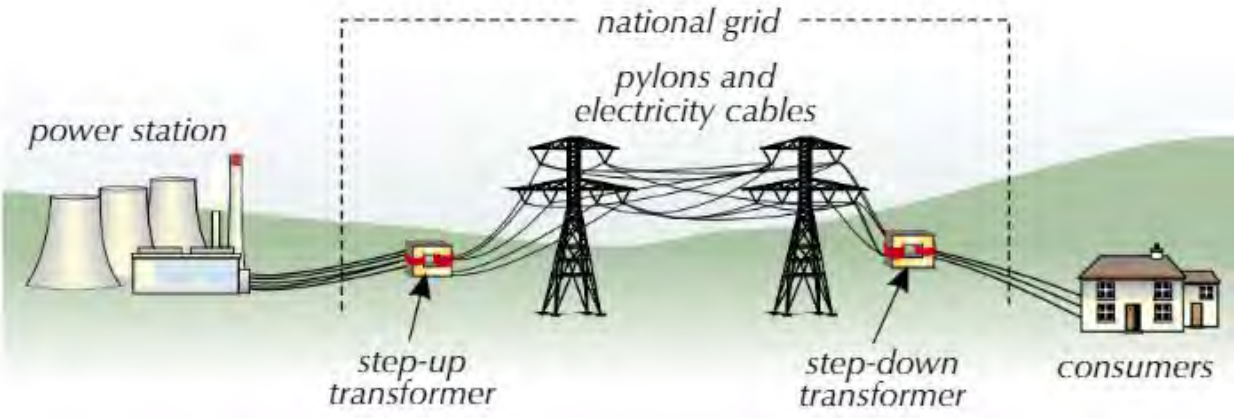
9. The National Grid

Red Amber Green

National grid

The national grid is a network of cables and transformers.

- It connects power stations to consumers.
- Electrical power is transferred from power stations to anywhere on the grid (homes, businesses).

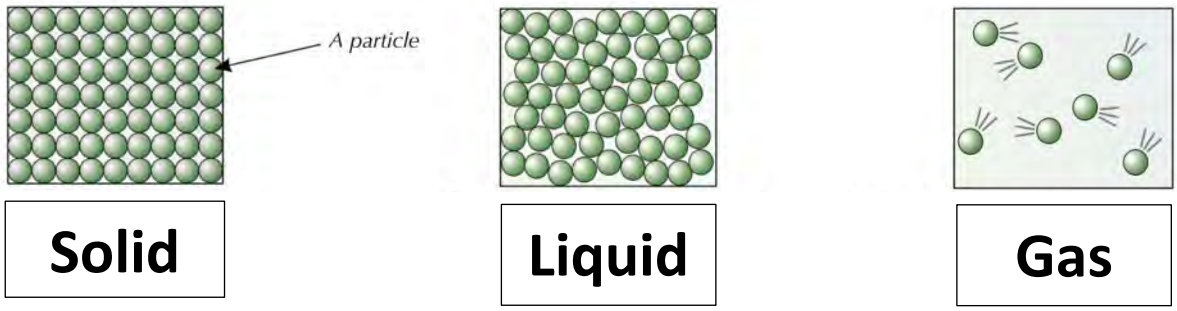


Transformers

A transformer is a device used to change the potential difference of an electrical supply.

- A s**tep-up** transformer **increases the potential difference** from the power station to allow for efficient transmission.
- A **step-down** transformer **reduces the potential difference** before it enters people's homes (domestic use).

10. Density and States of Matter Red Amber Green



Density

Density is a measure of how compact a substance is

There's a formula for finding the density of a substance:

ρ = density (kg/m³) → $\rho = \frac{m}{V}$ ← **m** = mass (kg), **V** = volume (m³)

Density can also be measured in g/cm³ (1 g/cm³ = 1000 kg/m³).

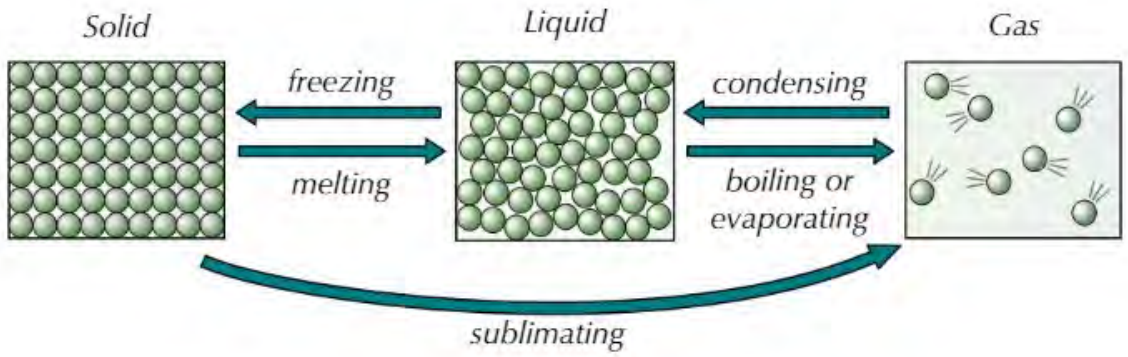
11. Specific Latent Heat and Changes of State Red Amber Green

Internal Energy

- A system of particles store energy in their movement (kinetic energy) and in their interactions with each other (potential energy).
- Internal energy is the total energy of all the particles' kinetic and potential energy stores.

Internal Energy - Heating

- **Heating** a system **transfers energy** to the particles.
- The particles gain kinetic energy, moving faster, so there is an increase in **internal energy**.
- This leads to an **increase in temperature** – depending on the mass of substance, the material (specific heat capacity) and the energy transferred.

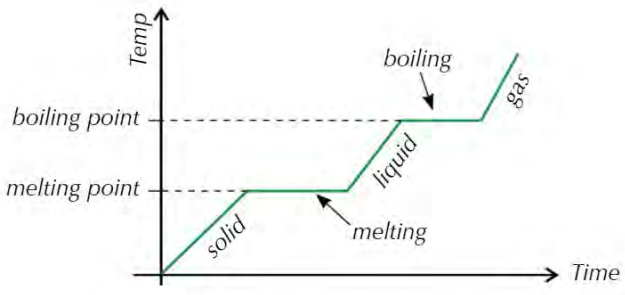


Internal Energy – Change of State

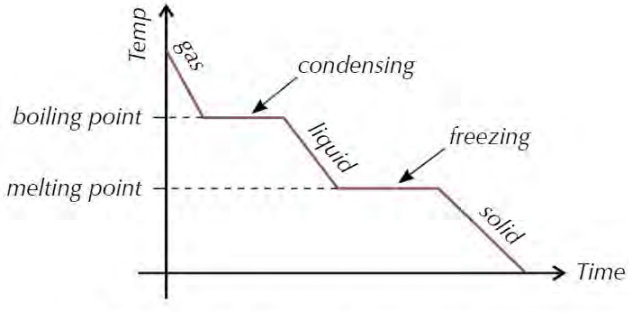
- If a substance is heated enough, particles will have enough energy to overcome the forces or bonds holding them together.

Change of State

- Changing state is a **physical change**. A change of state does **not** create a new substance, just a different arrangement.
- **Intermolecular** forces and bonds, those in between different molecules, are broken.
- The number of particles and what they are made of does not change. **Mass is conserved**.



Heating graph, showing temperature against time for a substance which is being heated.



Cooling graph, showing temperature against time for a substance which is being cooled.

12. Particle Motion in Gases Red Amber Green

Temperature of gases

- Particles with a gas move with random speed and direction.

- Increasing the temperature of the gas transfers energy into the kinetic energy stores of the particles.
- The temperature of a gas is related to the average kinetic energy stores of its particles.

Gas Pressure

- As gas particles move about at high speeds, they collide into one another and anything else in their path.
- When a particle collides with a surface, it exerts a force on it.
- Pressure (force per unit area), is exerted by gas particles colliding with a surface.

Gas Pressure and Temperature

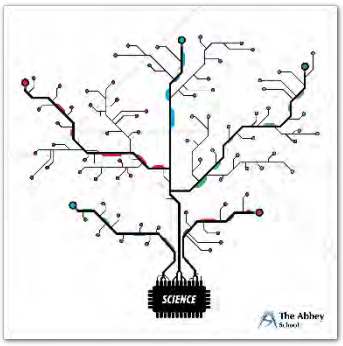
- Increasing temperature increases the speed of particles.
- Increasing the speed of particles increases the force and frequency of collisions.
- Increasing the force of collisions increases the net force on a surface.
- Increasing the net force increases the pressure.
- So, increasing the temperature of a gas will increase the pressure.

HOME LEARNING TASKS	
Task Description	**Done?**
Draw a circuit diagram with a cell , a filament lamp and a switch	
State the difference between a series circuit and a parallel circuit	
Describe the process of electricity being transported through the national grid Explain the role of the 3 different wires in a 3 core domestic plug	
Explain the change in energy levels when a material changes state	
Draw a graph which shows the change in state of a material	

Physics Year 9 Block 3

- **P3 Particle Model of Matter**
- **P4 Atomic Structure**
- **P5A Force Basics**

TERM FOCUS –
P3 BQ – How do we understand matter through the arrangement of particles?



Prior Learning Links

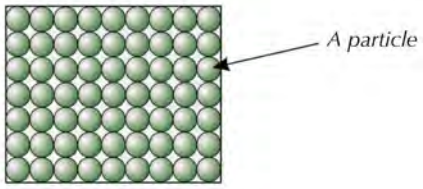
Particle knowledge AND model gained in KS2 Science.
Atoms in general are made of a nucleus and electrons that move around the nucleus.
Most of the mass of the atom is concentrated in the nucleus, which is in turn made up of protons and neutrons.
The numbers of the individual particles can tell us the identity of a particular atom and determine its properties.
KS2/3 Science – The Scientific Method
KS2/3 Science – Evaluating experiments and planning for the future

Future Learning Links

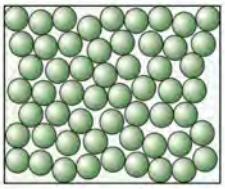
1. The arrangement of particles in matter all link to the fundamentals of physics and having a comprehensive knowledge of these topics is a necessity to understanding the Physics course.

1. Density and States of Matter

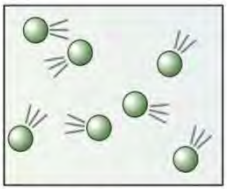
Red | Amber | Green



Solid



Liquid



Gas

Density

Density is a measure of how compact a substance is

There's a formula for finding the density of a substance:

$$\rho = \frac{m}{V}$$

ρ = density (kg/m^3)

m = mass (kg)

V = volume (m^3)

Density can also be measured in g/cm^3 ($1\ g/cm^3 = 1000\ kg/m^3$).

2. Density Required Practical

Red | Amber | Green

Required Practical

Measuring the density of a regularly shaped object:

- Measure the mass using a balance.
- Measure the length, width and height using a ruler.
- Calculate the volume.
- Use the density ($\rho = m/V$) equation to calculate density.

Measuring the density of an irregularly-shaped object:

- Measure the mass using a balance.
- Fill a eureka can with water.
- Place the object in the water – the water displaced by the object will transfer into a measuring cylinder.
- Measure the volume of the water. This equals the volume of the object.
- Use the density ($\rho = m/V$) equation to calculate density.

Density

Density is a measure of how much mass there is in a given space.

Density (kg/m^3) = mass (kg) ÷ volume (m^3)

A more dense material will have more particles in the same volume when compared to a less dense material.

3. Internal Energy and Changes of State

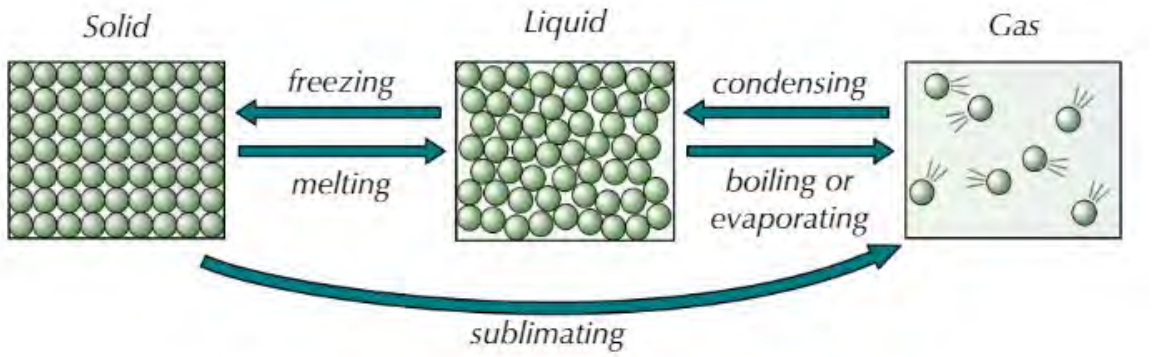
Red | Amber | Green

Internal Energy

- A system of particles store energy in their movement (kinetic energy) and in their interactions with each other (potential energy).
- Internal energy is the total energy of all the particles' kinetic and potential energy stores.

Internal Energy - Heating

- **Heating** a system **transfers energy** to the particles.
- The particles gain kinetic energy, moving faster, so there is an increase in **internal energy**.
- This leads to an **increase in temperature** – depending on the mass of substance, the material (specific heat capacity) and the energy transferred.



Internal Energy – Change of State

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Change of State

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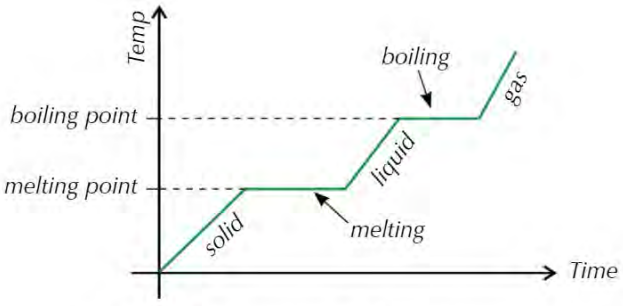


Figure 5: *Heating graph, showing temperature against time for a substance which is being heated.*

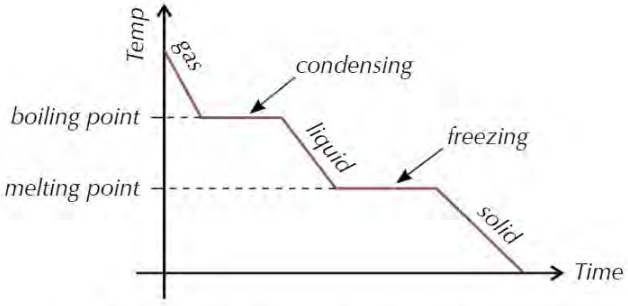


Figure 6: *Cooling graph, showing temperature against time for a substance which is being cooled.*

4. Specific Latent Heat

Red | Amber | Green

Specific Latent Heat

Specific latent heat is the amount of energy needed to change 1 kg of a substance from one state to another without changing its temperature.

Specific Latent Heat of Fusion

The energy for changing between a solid and a liquid is the specific latent heat of fusion.

Specific Latent Heat of Vaporisation

The energy for changing between a liquid and a gas is the specific latent heat of vaporisation.

5. Particle Motion in Gases

Red | Amber | Green

Temperature of gases

- Particles with a gas move with random speed and direction.
- Increasing the temperature of the gas transfers energy into the kinetic energy stores of the particles.
- The temperature of a gas is related to the average kinetic energy stores of its particles.

Gas Pressure

- As gas particles move about at high speeds, they collide into one another and anything else in their path.
- When a particle collides with a surface, it exerts a force on it.
- Pressure (force per unit area), is exerted by gas particles colliding with a surface.

Gas Pressure and Temperature

- Increasing temperature increases the speed of particles.
- Increasing the speed of particles increases the force and frequency of collisions.
- Increasing the force of collisions increases the net force on a surface.
- Increasing the net force increases the pressure.
- So, increasing the temperature of a gas will increase the pressure.

The History of the Atom
6. LQ: How has our understanding of the atom developed over time?

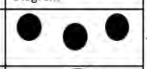
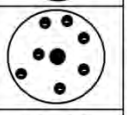
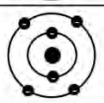
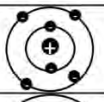
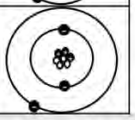
Red | Amber | Green

Key term/question	Definition/answer
1. What are the three subatomic particles?	Protons, neutrons and electrons
2. Which subatomic particles are found in the nucleus?	Protons and neutrons
3. Which subatomic particle orbits the nucleus?	Electrons
4. The mass number is...	number of protons and neutrons. (Big number)
5. The atomic number is...	number of protons and therefore the number of electrons (Small number)
6. Define ion.	An atom gains of lose electrons to become charged.
7. What is an isotope?	Same element with the same number of protons, but different number of neutrons.
8. What is the structural difference between Carbon- 12 and Carbon-14?	Number of neutrons
9. What are the three types of radioactive decay?	Alpha, Beta, Gamma
10. What is an alpha particle composed of?	A helium nucleus: two protons and two neutrons.
11. What is a beta particle?	A fast-moving electron
12. How does beta decay occur?	A neutron in the nucleus turns into a proton and electron. The proton remains and the electron is ejected.
13. What is gamma radiation?	An electromagnetic wave emitted from the nucleus
14. What was Rutherford's experiment and why was it important?	Rutherford fired alpha particles at a thin sheet of gold. 1 alpha particle in 8000 bounced back, disproving the plum pudding model and it suggested that atoms have a dense nucleus.
15. What is irradiation?	When an object is exposed to radiation
16. What is contamination?	When radioactive material gets on an object.
17. How is radiation measured?	Using a Geiger-Muller counter. (In Becquerels: Bq)

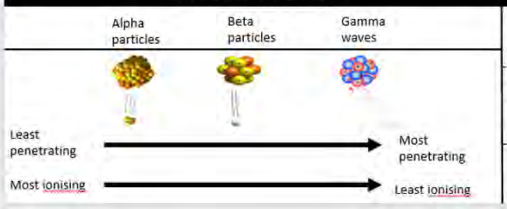
1. Subatomic particle properties

What is the mass of a proton?	1
What is the mass of a neutron?	1
What is the mass of an electron?	0 (1/2000)
What is the charge of a proton?	+1
What is the charge of a neutron?	0
What is the charge of an electron?	-1

2. Timeline of the atom

Date	Model of the atom	Diagram
1805	Indivisible spheres	
1897	Plum pudding model	
1909	Nuclear model following Rutherford's experiment	
1913	Bohr model	
1919	Bohr model with protons in the nucleus	
1932	Bohr with neutrons and protons in the nucleus	

3. Radioactive Decay



4. Nuclear equations

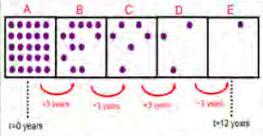
Alpha decay: $^{226}_{88}Ra \rightarrow {}^{222}_{86}Rn + {}^{4}_{2}He$

Beta decay: $^{8}_{3}Li \rightarrow {}^{8}_{4}Be + {}^{0}_{-1}e$

Gamma decay: $^{60}_{28}Ni \longrightarrow {}^{60}_{28}Ni$

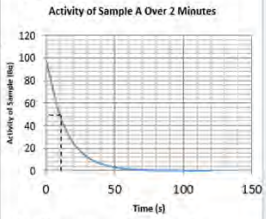
P4 - Atomic structure

5. Half-life



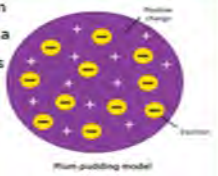
Half life: The time taken for the number of radioactive nuclei/decay events to decrease by half.

Calculating half-life from a graph.



1. Choose two values from the activity/number of nuclei (Y axis). One number should be half of the other. E.g 100 and 50.
2. Use a ruler to draw across to the plotted line for each value.
3. Use a ruler to draw down to the time (X axis)
4. Find the difference in time, which shows the half life. In the example the half-life is 10 seconds.

Developing the Model of the Atom

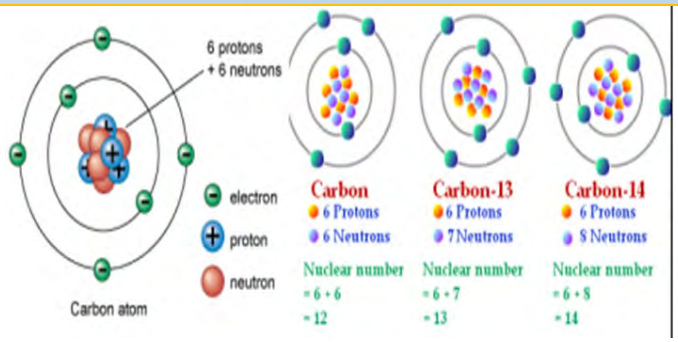
Scientist	Time	Contribution
John Dalton	Start of 19th century	Atoms were first described as solid spheres.
JJ Thomson	1897	Thomson suggested the plum pudding model - the atom is a ball of charge with electrons scattered within it. 
Ernest Rutherford	1909	Alpha Scattering experiment - Rutherford discovered that the mass is concentrated at the centre and the nucleus is charged. Most of the mass is in the nucleus. Most atoms are empty space. 
Niels Bohr	Around 1911	Bohr theorized that the electrons were in shells orbiting the nucleus. 
James Chadwick	Around 1940	Chadwick discovered neutrons in the nucleus.

Key term/question	Definition/answer
1. What are the three subatomic particles?	Protons, neutrons and electrons
2. Which subatomic particles are found in the nucleus?	Protons and neutrons
3. Which subatomic particle orbits the nucleus?	Electrons
4. The mass number is …	Number of protons and neutrons. (Big number)
5. The atomic number is…	number of protons and therefore the number of electrons (Small number)
6. Define ion.	An atom gains of lose electrons to become charged.
7. What is an isotope?	Same element with the same number of protons, but different number of neutrons.
8. What is the structural difference between Carbon- 12 and Carbon-14?	Number of neutrons

7. The structure of the atom

LQ: What do modern scientists understand about an atom's structure?

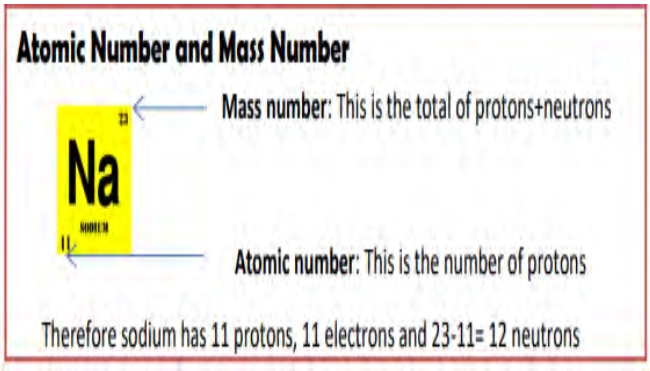
Red | Amber | Green



Isotopes

An isotope is an element with the same number of protons but a different number of neutrons. They have the same atomic number, but different mass numbers.

Isotope	Protons	Electrons	Neutrons
$^{1}_{1}H$	1	1	0
$^{2}_{1}H$	1	1	1
$^{3}_{1}H$	1	1	2



Some isotopes are unstable and, as a result, decay and give out radiation. Ionising radiation is radiation that can knock electrons off atoms. Just how ionising this radiation is, depends on how readily it can do that.

8. Radioactivity

LQ: How can unstable atoms become stable through radioactive decay?

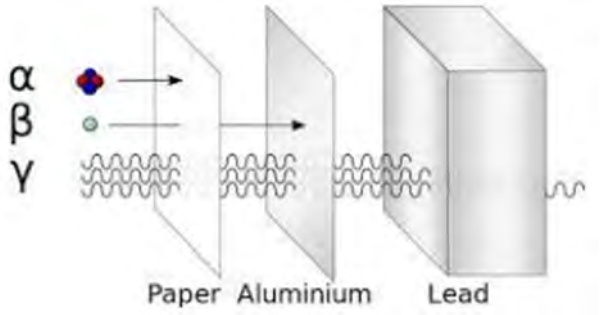
Red | Amber | Green

Key term/question	Definition/answer
9. What are the three types of radioactive decay?	Alpha, Beta, Gamma
10. What is an alpha particle composed of?	A helium nucleus: two protons and two neutrons.
11. What is a beta particle?	A fast-moving electron
12. How does beta decay occur?	A neutron in the nucleus turns into a proton and electron. The proton remains and the electron is ejected.
13. What is gamma radiation?	An electromagnetic wave emitted from the nucleus
14. What was Rutherford's experiment and why was it important?	Rutherford fired alpha particles at a thin sheet of gold. 1 alpha particle in 8000 bounced back, disproving the plum pudding model and it suggested that atoms have a dense nucleus.
15. What is irradiation?	When an object is exposed to radiation
16. What is contamination?	When radioactive material gets on an object.
17. How is radiation measured?	Using a Geiger-Muller counter. (In Becquerels: Bq)

The three types of radiation

Use this table to find information about and to compare α, β and γ radiation

	Alpha (α)	Beta (β)	Gamma (γ)
Nature	It's a nucleus of helium ${}^{4}_{2}He$. Two protons and two neutrons	It's an electron e^-	It's an electromagnetic wave
Charge	+2	-1	0
Mass	Relatively large	Very small	No mass
Speed	Slow	Fast	Speed of light
Ionizing effect	Strong	Weak	Very weak
Most dangerous	When source is inside the body	When source is outside the body	When source is outside the body



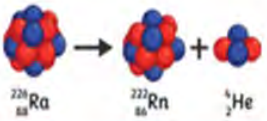
$^{235}_{92}U$ decay by releasing an alpha particle $\rightarrow$ $^{4}_{2}\alpha$ + $^{231}_{90}Th$

$^{14}_{6}C$ decay by releasing an beta particle $\rightarrow$ $^{0}_{-1}\beta$ + $^{14}_{7}N$

$^{235}_{92}U$ decay by releasing a gamma wave $\rightarrow$ $^{0}_{0}\gamma$ + $^{235}_{92}U$

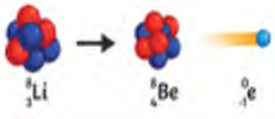
Alpha Decay Equations

An alpha particle is made of two protons and two neutrons. The atomic number goes down by two and its mass number decreases by four.



Beta Decay Equations

A neutron turns into a proton and releases an electron. The mass of the nucleus does not change but the number of protons increases.



Gamma rays

There is no change to the nucleus when a radioactive source emits gamma radiation. It is the nucleus getting rid of excess energy.

9. Activity and Half-life
LQ: How does the radioactive substance's activity change over time?

Red | Amber | Green

Half-life

Half life is defined as the **time** it takes for the activity of a radioactive source to **halve**, or the **time** it takes for **half** the radioactive nuclei to decay.

The half life for the radioactive source shown on the graph below is **100 days**. The time it takes for the activity to halve from 800 to 400 counts per minute(cpm) is 100 days, it takes the same time to halve from 400 to 200 cpm and from 200 to 100 cpm. The half-life of a radioactive isotope is always the same.

Calculations using half-life

At the start, 100% of the source has not decayed, after 1 half life this will be 50% and after 2 half lives 25%.

100% $\xrightarrow{1\text{ half-life}}$ 50% $\xrightarrow{2\text{ half-lives}}$ 25% $\xrightarrow{3\text{ half-lives}}$ 12.5%

You can use the half-life of a material and this method to calculate the age of a sample or to predict the amount of a sample that will be left after a certain time.
For example, strontium-90 has a half-life of 29 years. The time it takes for the number of radioactive nuclei to drop to $\frac{1}{8}$ of its original value can be calculated using this technique.

1 $\xrightarrow{1\text{ half-life}}$ $\frac{1}{2}$ $\xrightarrow{2\text{ half-lives}}$ $\frac{1}{4}$ $\xrightarrow{3\text{ half-lives}}$ $\frac{1}{8}$

Three half-lives would be; 3 × 29 years = 87 years

10. Irradiation and contamination

LQ: What is the difference between irradiation and contamination?

Red	Amber	Green

Radioactive decay

Of the two isotopes of carbon shown above, only carbon-12 is stable. Carbon-14 is **unstable because of an imbalance between the number of protons and neutrons in its nucleus**. This means it will try to become more stable by releasing some radiation. This is called decaying.

This is a **random process** as it is impossible to guess when a nucleus will decay but estimations can be made from the probability. This is similar to throwing several dice, you cannot guess which will land on 6 each time but you would expect roughly one sixth to land on 6.

Due to its random nature, any measurements of radiation should be taken over a **long time** or **repeated** several times **to reduce the effect of random fluctuations**.

Irradiation and Contamination

- What is the difference?
- Irradiation involves exposure to ionising EM waves (UV, X-rays, gamma rays) and alpha or beta particles.
- Contamination involves radioactive material (which produces ionising radiation) being physically transferred.
- e.g. alpha sources outside the body are harmless because our skin is a barrier to alpha particles. However, if radioactive alpha sources (like radon) are airborne they can be breathed in and then produce alpha particles in the lungs where they can do damage.

Topic 5 Forces

L1: Contact and Non-contact Forces & L2: Weight ,mass and Gravity

LQ: What is the difference between contact and non-contact forces?

LQ: How can gravity and mass be used to calculate weight?

Red	Amber	Green

Scalar and vector quantities

Scalar quantities have only a magnitude. Vector quantities have a magnitude and direction.

Scalar	Vector
Distance	Displacement
Speed	Velocity
mass	Acceleration
Temperature	Force
Pressure	Weight
Volume	Momentum
Work	

Contact and Non-contact Forces

Forces are always the result of objects **interacting** with each other. For instance, the force of gravity keeping this piece of paper on the desk is the result of the interaction between the Earth's mass and the paper's mass. All forces can be classified as contact or non-contact forces.

Examples of contact forces: friction, air resistance, tension, the normal contact force. Examples of non-contact forces: gravitational force, electrostatic force and magnetic force.

Key Terms	Definitions
Quantity	Anything that can be given a numerical value.
Magnitude	Size of a quantity. E.g. a distance of 5 metres has a higher magnitude than 2 metres.
Scalar	Describes quantities that only have a magnitude (size). E.g. speed (how fast something is moving).
Vector	Describes quantities that have a magnitude AND a specific direction. E.g. velocity (speed in a particular direction)
Force	A vector quantity. Forces are pushes or pulls that act on an object. Forces have size and direction. Forces are the result of objects interacting with each other.
Contact forces	For these forces to act, the interacting objects have to be physically touching.
Non-contact forces	For these forces to act, the interacting objects don't have to be touching (they are physically separate).
Resultant force	The single overall force acting on an object. It has the same effect as all the forces acting on the object all together. The resultant force is the vital thing in working out how an object will move. If there is a resultant force, the object's speed will change; or the shape of the object will change; or the direction of the object will change. If the resultant force is nothing (the forces cancel out), the object will keep doing what it was doing – either not moving at all, or moving along at a steady speed.

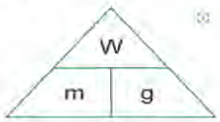
MASS AND WEIGHT

Mass means how much matter an object contains, whereas **weight** is the force on an object due to gravity. Mass is measured in **kg**, whereas weight is measured in **N**. Mass is measured using a **balance,** whereas weight is measured using a **newton meter**. Mass does not vary depending on gravitational field strength, whereas weight does depend on gravitational field strength.

Gravity

Gravity is a force that acts between any two objects with mass. W = mg is the equation that relates weight to mass and gravitational field strength. On Earth g = 10 N/kg. Gravity is the force that holds objects in orbit

The Wmg triangle



W = weight

m = mass

g = gravitational field strength

$W = mg$	$W = m \times g$
$m = \frac{W}{g}$	$m = W \div g$
$g = \frac{W}{m}$	$g = W \div m$

Challenge question: How do forces shape the movement of objects in the world?

Suggested reading: GCSCEPOD https://www.bbc.co.uk/bitesize/topics/z4brd2p/articles/zs3896f

Forces - GCSE Physics (Single Science) - BBC Bitesize

HOME LEARNING TASKS	
Task Description	**Done?**
Look, cover, write the definition of keywords used in topic 1-history of an atom. Draw a timeline showing the history of the atom, starting with the ancient Greeks in 500BC, and ending with the nuclear model.	
Describe the plum pudding model of an atom Compare the plum pudding to the current nuclear model of an atom.	
Write a definition of: mass number, atomic number and an isotope. A doctor weighs 600 N. A lift moves her 40 m to the top floor of a hospital. Calculate the work done on the doctor by the lift. In a scrum, a rugby team pushes the other team backwards 5 m using a force of 1000 N. Calculate the work done moving the other team. A sample has a half-life of 8 hours. It has an initial activity of 200 Bq. Calculate the activity of the sample after 1 day.	
Write a description of the three different radiation sources in terms of: their ionising ability, how far they travel, and what they are stopped by. A nucleus emits a gamma ray; what happens to the mass and charge of the atom? Give the definition of an isotope. Give the definition of half-life.	

Science Year 9 Term 3 – C4 "Chemical Changes"

TERM FOCUS –
Big Ideas: How **do energy changes in chemical reactions affect the speed and feasibility of those reactions?**
What **factors influence how quickly reactions happen, and why is controlling reaction rates important in real-world applications?**

Prior Learning Links

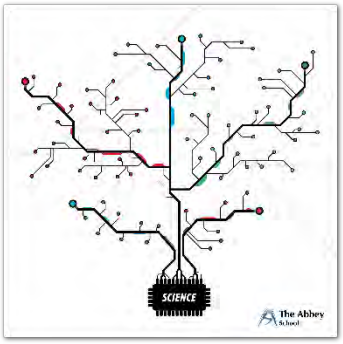
Introduction to Chemical Reactions and Equations
Identifying reactants and products
Balancing basic chemical equations
Energy in Chemical Reactions
Idea of energy changes
States of Matter and Changes in State
The Periodic Table and Reactivity of Elements
KS2/3 Science – The Scientific Method
KS2/3 Science – Evaluating experiments and planning for the future

Future Learning Links

1. KS3 Science Investigations
2. GCSE Required Practical Activities
3. GCSE Science Investigations

Acids and Base
https://youtu.be/vt8fB3MFzLk?feature=shared

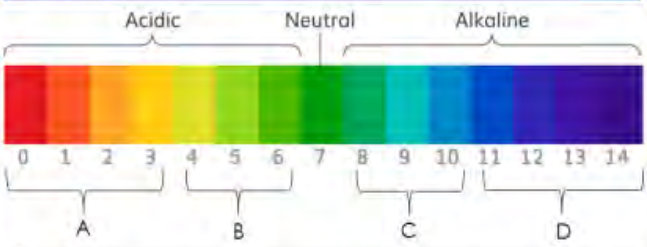
Electrolysis
https://youtu.be/7ulIq_Ofzgw?feature=shared



Topic 4
Acids and alkalis

Red | **Amber** | **Green**

5. pH scale



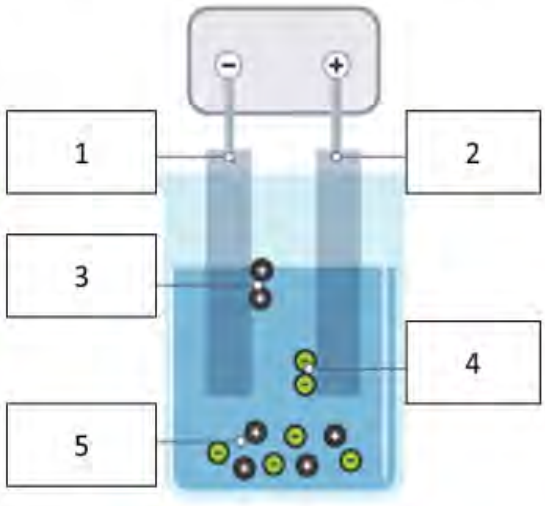
	Name	Level of ionisation in water
A	Strong acid	Fully
B	Weak acid	Partially
C	Weak base	Partially
D	Strong base	Fully

6. Equation for all neutralisations

$$H^+_{(aq)} + OH^-_{(aq)} \rightarrow H_2O_{(l)}$$

7. Electrolysis

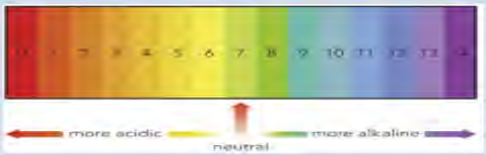
1	Cathode	The negative electrode
2	Anode	The positive electrode
3	Positive ion	Move to cathode
4	Negative ion	Move to anode
5	Electrolyte	The ions that are being electrolysed



8. Electrolysis of aqueous solutions

Place in reactivity series	Product of electrolysis
Metal more reactive than hydrogen	Hydrogen is produced at the cathode
If the negative ion is not a halide ion (group 7)	Oxygen is produced at the anode

The pH Scale



pH is a number to show the acidity or alkalinity of a solution based on a scale on which 7 is neutral, lower are acid and higher values more alkaline.

The indicator colours are produced when UNIVERSAL INDICATOR is added to a solution.

Acids produce hydrogen ions H^+ and alkalis produce hydroxide ions OH^- when dissolved in water.

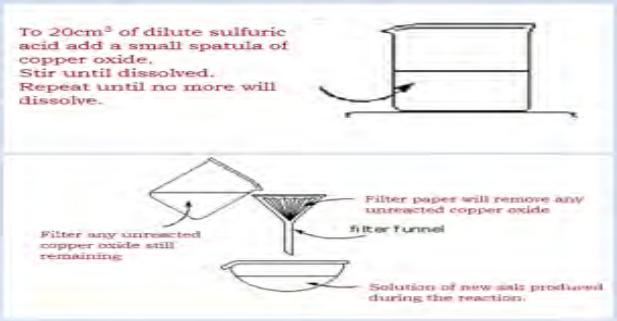
In all neutralisation reactions the equation is:

$$H^+_{(aq)} + OH^-_{(aq)} \rightarrow H_2O_{(l)}$$

The acid used provides the metal salt produced with its name:

Hydrochloric acid → chloride
Sulfuric acid → sulfate
Nitric acid → nitrate

Copper oxide and sulfuric acid reaction



How do we know a chemical reaction has taken place?
- Colour change (black → blue)
- Heat given out (exothermic reaction)
- New product is formed (a metal salt)

The general equation for the reaction is

Metal oxide + acid → metal salt + water

Equation for the reaction;

Copper oxide + sulfuric acid → copper sulfate + water

$$CuO_{(s)} + H_2SO_{4\,(aq)} \rightarrow CuSO_{4(aq)} + H_2O_{(l)}$$

Reactions of acids | **Red** | **Amber** | **Green**

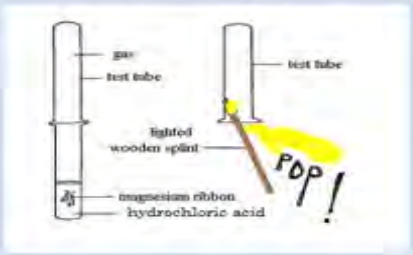
Metals reacting with acids

Some metals will react with acid.

To test tubes add a few cm^3 of the acid:
To the test tubes add a few pieces of the metal and record your observation.

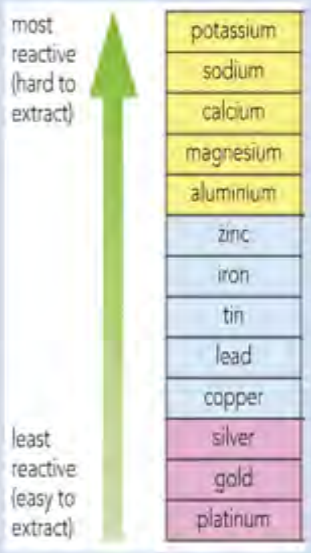
How do we know a chemical reaction has taken place?
- Observe fizzing (effervescence)
- Heat given out (exothermic reaction)
- New product is formed (a metal salt)

The gas produced is always HYDROGEN and is tested:



Why is hydrogen produced?
The metals which produce hydrogen (those above copper on the reactivity series – see next column) are MORE reactive than

The Reactivity Series of Metals



The general equation for the reaction is:

Metal + Acid → Metal Salt + Hydrogen

Equation for the reaction:

Iron + hydrochloric acid → iron chloride + hydrogen

$$Fe_{(s)} + 2\,HCl_{(aq)} \rightarrow FeCl_{2\,(aq)} + H_{2\,(g)}$$

Metal carbonates reacting with acids

Metal carbonates will react with acids.

Set up the equipment as shown:

How do we know a chemical reaction has taken place?
- Observe fizzing (effervescence)
- New product is formed (a metal salt)
- A colour change (if a transition metal carbonate is used)
- Heat energy is released (exothermic)

The gas produced is CARBON DIOXIDE. The test is LIMEATER goes CLOUDY/MILKY.

The general equation.

Metal Carbonate + acid → metal salt + carbon dioxide + water

Calcium carbonate + hydrochloric acid → calcium chloride + carbon dioxide + water

$$CaCO_3 + 2HCl \rightarrow CaCl_2 + CO_2 + H_2O$$

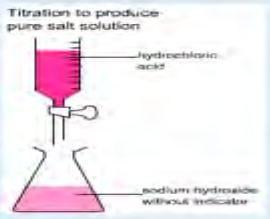
Metal hydroxides reacting with acid

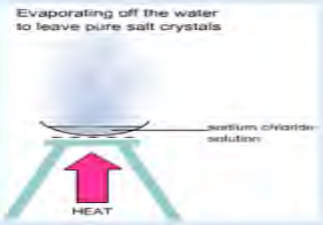
The neutralisation reaction between an acid and an alkali produces water and a salt.

Complete the practical:

For this acid/alkali titration the indicator used is PHENOLPHTHALEIN – this is made from one compound.

A **pink to colourless** change is observed when the titration is complete and WATER is formed.





This is shown by the equation:

metal hydroxide + acid → salt + water

Sodium hydroxide + hydrochloric acid → sodium chloride + water

$$NaOH_{(aq)} + HCl_{(aq)} \rightarrow NaCl_{(aq)} + H_2O_{(l)}$$

REMEMBER :

In all neutralisation reactions the equation is:

$$H^+_{(aq)} + OH^-_{(aq)} \rightarrow H_2O_{(l)}$$

Required practical 8 – Making soluble salts | **Red** | **Amber** | **Green**

KNOWLEDGE ORGANISER

Chemistry Topic C4 Chemical changes

Section 3: Extracting Metals

Very unreactive metals e.g. Silver and gold	Found **naturally** in the ground. Extracted using **mining**.
Metals **less reactive than carbon** e.g. Zinc, Iron & Lead	Metals less reactive than carbon can be extracted from their ores by **reduction** using carbon, coke or charcoal. $2PbO(s) + C(s) \rightarrow 2Pb(s) + CO_2(g)$ Carbon has displaced lead from its oxide because carbon is more reactive than lead. This extraction takes place in a **blast furnace** at high temperature.
Metals **less reactive than hydrogen** e.g. Tungsten	Metals less reactive than hydrogen can be extracted from their ores by **reduction** using hydrogen. Tungsten is obtained from its oxide by reduction using hydrogen. $WO_3(s) + 3H_2(g) \rightarrow W(s) + 3H_2O(g)$
Metals more reactive than carbon e.g. Aluminium	Extracted by **electrolysis**.

Section 4a: Salts from metals (neutralisation reactions)

With metal	Acid + Metal → Salt + Hydrogen $2HCl(aq) + Fe(s) \rightarrow FeCl_2(aq) + H_2(g)$
With alkali	Acid + Metal Hydroxide → Salt + Water $HCl(aq) + NaOH(aq) \rightarrow NaCl(aq) + H_2O(l)$
With metal oxide	Acid + Metal Oxide → Salt + Water $2HCl(aq) + MgO(s) \rightarrow MgCl_2(aq) + H_2O(l)$
With carbonate	Acid + Metal Carbonate → Salt + Water + Carbon Dioxide $2HCl(aq) + CaCO_3(s) \rightarrow CaCl_2(aq) + H_2O(l) + CO_2(g)$

Section 4b: Making a Soluble Salt

A salt is a compound formed when the hydrogen in an acid is wholly, or partially, replaced by metal or ammonium ions.
Salts are made when a suitable metal, metal carbonate, metal oxide or metal hydroxide is reacted with acid.

Crystallisation

Pure dry crystals can be obtained from solution by:
- **Add solid** metal, metal carbonate, metal oxide or metal hydroxide **to an acid**.
- Add solid **until no more reacts** (saturated solution).
- **Filter** off excess solid.
- **Evaporate** to remove some of the water.
- Leave to **crystallise**.
- Filter the crystals
- Leave to dry **in air**/in a **desiccator/oven**.

Evaporation

When you react an acid with an alkali, you need to be able to tell when the acid and alkali **have completely reacted**. Then you can collect pure dry crystals of the salt.
- Carry out an **acid/alkali titration** using an indicator to see how much acid **reacts completely** with alkali
- **Run that volume of acid again** into solution of alkali but **without indicator**.
- Pour solution into evaporating basin
- Heat
- **Leave to crystallise** / boil off water

Section 5: Strong and weak acids

Aqueous solutions of **weak acids have higher pH** than solutions **of strong acids with the same concentration**. Strong acids **completely ionise** in solution to produce hydrogen ions. e.g. $HCl(aq) \rightarrow H^+(aq) + Cl^-(aq)$
Weak acids **only partially ionise** in solution. The reaction is **reversible** (unlike the ionisation of strong acids.) So as the molecules of the weak acid split up to form its ions, the ions recombine to form the original molecule.
e.g. Ethanoic acid: $CH_3COOH(aq) \rightleftharpoons CH_3COO^-(aq) + H^+(aq)$
A position of **equilibrium** is reached in which both the original molecule (majority) and its ions (minority) are present.

Measuring acidity or alkalinity

Indicators are substances that change colour when you add an acid or an alkali. Litmus is an indicator that turns red in acid and blue in alkali. You can also use a pH meter which gives a digital reading of pH.

Electrolysis
Electrolysis of metal ores
Electrolysis of aqueous solutions
Required practical 9 – Investigating electrolysis of an aqueous solution

Red	Amber	Green

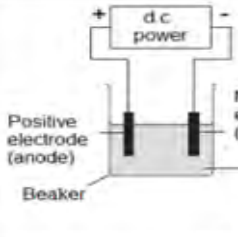
KNOWLEDGE

Chemistry Topic C4 Chemical Changes

ORGANISER

Section 1 Electrolysis key terms

Electrolysis	The process of **splitting an ionic compound** by passing **electricity** through it.
Electrolyte	An **ionic compound** that is **molten** (melted) or **dissolved in water**. The electrolyte is broken down by electricity enabling its **ions** to and hence carry a charge. **move freely**
Electrode	An **electrical conductor** that is placed in the **electrolyte** and connected to the **power supply**.
Cathode	The **negative electrode**. The electrode attached to the negative terminal of the power supply.
Anode	The **positive electrode**. The electrode attached to the positive terminal of the power supply.
Oxidation	Loss of electrons
Reduction	Gain of electrons



Positive
Anode
Negative
Is
Cathode

Section 2a: Changes at the electrodes – Pure ionic compounds

Electrolyte	Cathode	Anode
Molten Compound	Metal	Non-metal produced.
Molten lead bromide (diagram above)	**Lead metal** is produced $Pb^{2+} + 2e^- \rightarrow Pb$	**Bromine** is produced $2Br^- \rightarrow Br_2 + 2e^-$

Section 2b: Changes at the electrodes – Aqueous solutions

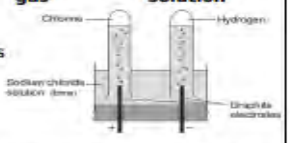
Electrolyte	Cathode	Anode
Dissolved compound (aqueous solution)	The **metal** if the metal is **less reactive than hydrogen**. **Hydrogen** is produced if the **metal is more reactive than hydrogen.**	**Oxygen** is produced **unless the solution contains halide ions** (chloride, bromide, iodide) when the **halogen** (chlorine, bromine, iodine) is produced.

Electrolyte	Cathode	Anode
$CuBr_{2(aq)}$	Copper	Bromine
$NaCl_{(aq)}$	Hydrogen	Chlorine
$KI_{(aq)}$	Hydrogen	Iodine
$Na_2SO_{4(aq)}$	Hydrogen	Oxygen

Electrolysis of Brine (concentrated sodium chloride solution)

In the electrolysis of brine, **three products** are formed, **hydrogen, chlorine** and **sodium hydroxide.**

Sodium chloride solution → hydrogen gas + chlorine gas + sodium hydroxide solution



At the **cathode hydrogen** gas forms
$2H^+ + 2e^- \rightarrow H_2$ **(reduction)**

At the **anode, chlorine** gas forms
$2Cl^- \rightarrow Cl_2 + 2e^-$ **(Oxidation)**

Sodium ions stay in solution (as sodium is more reactive than hydrogen) and **combine with hydroxide ions** to form sodium hydroxide.
$Na^+ + OH^- \rightarrow NaOH$

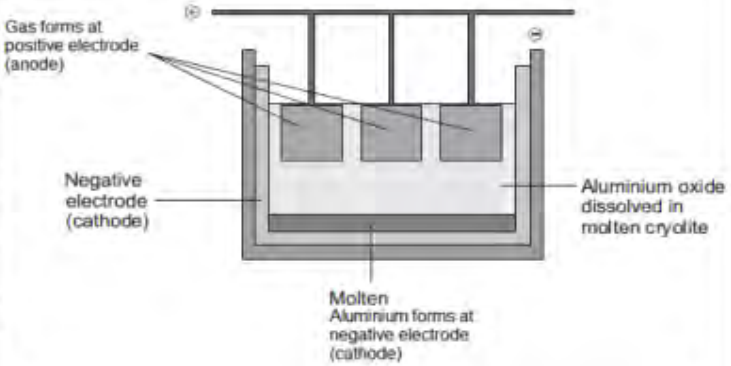
KNOWLEDGE

Chemistry Topic C4 Chemical Changes

ORGANISER

Section 3a: The extraction of Aluminium by electrolysis

Bauxite	You get aluminium oxide from the ore called **Bauxite**, the ore is mined by **open cast mining**.
Cryolite	**Aluminium oxide** is **dissolved in cryolite** to **lower its melting point**. This **saves money on energy costs**.
Graphite	The **electrodes** are made from **graphite** (carbon) as graphite can conduct electricity (due to it having delocalised electrons between it's layers.)
Cathode	Positive Al^{3+} **ions move to the cathode.** Aluminium is produced (reduction). $Al^{3+} + 3e^- \rightarrow Al$
Anode	Negative O^{2-} **ions move to the anode.** Oxygen is made (oxidation). $2O^{2-} \rightarrow O_2 + 4e^-$ The anode **wears away** gradually as the **carbon graphite anode reacts with oxygen to form carbon dioxide.**



Section 3b: Uses of Aluminium

Aluminium is a very important metal, the uses of its metal or alloys include:

- Pans
- Overhead power cables
- Aeroplanes
- Cooking foil
- Drink cans
- Window and patio door frames
- Bicycle frames and car bodies

HOME LEARNING TASKS	
Task Description	**Done?**
Look, cover, write the definition of keywords used in topic	
Basic Recall: What is the difference between a strong acid and a weak acid? Provide an example of each.	
Application: Explain how you would carry out a titration to determine the concentration of an unknown acid solution using a standard solution of an alkali. **Comparison**: Compare the reactivity of metals with water and with dilute acids. Why do some metals react with one but not the other? **Analysis**: Predict the half-equations for the reactions at the anode and cathode during the electrolysis of sodium chloride solution. **Evaluation**: Why is the electrolysis of molten ionic compounds, such as aluminium oxide, used in industry despite its high energy cost? Discuss both advantages and disadvantages.	
Look at the various questions linked with the topics covered in the knowledge organiser and answer the conclusion questions for it.	

R.E. Year 9 Term 3 – Christian Beliefs and Practices

In this unit, **Christian Beliefs and Practices**, you will explore the diverse ways Christians express their faith through worship, prayer, sacraments, and pilgrimage. You will examine key practices such as baptism, Holy Communion, and pilgrimages to sacred sites like Lourdes and Iona, understanding their significance in different Christian traditions. You will also analyse the importance of scripture and beliefs in shaping these practices, comparing Catholic, Orthodox, and Protestant perspectives. By the end of the unit, you will develop skills in critical analysis, comparing theological viewpoints, and using religious terminology to evaluate the influence of Christian practices on individuals and communities.

GCSE Pod – Scan me!

Prior Learning Links

- Year 9 Term 1-2 Christian Beliefs & Practices

Future Learning Links

- Year 9 Term 4 Christian Practices

KEY VOCABULARY

Religious Education – Christianity Key Vocabulary

1. **Atonement** - The reconciliation of humanity with God through the actions of Jesus, particularly his crucifixion and resurrection.
2. **Authority** - The power or right to give orders, make decisions, and enforce obedience; in religious terms, the source of moral or spiritual guidance.
3. **Doctrine** - A belief or set of beliefs held and taught by a religious tradition, often based on sacred texts or teachings.
4. **Interpretation** - The action of explaining the meaning of something, especially religious texts or teachings.
5. **Justification** - The process of being made right with God, often discussed in terms of faith, grace, and works within Christianity.
6. **Ordinance** - A religious ritual or practice instituted by Jesus, such as baptism or the Lord's Supper, observed in some Christian traditions.
7. **Pilgrimage** - A journey undertaken for religious purposes, often to a sacred site, as an act of devotion and reflection.
8. **Redemption** - The act of being saved from sin, often through Jesus' sacrifice and resurrection.
9. **Sacrament** - A visible sign of an inward grace, considered a sacred rite in Christianity, such as baptism or holy communion.
10. **Tradition** - The transmission of customs, beliefs, or practices from generation to generation within a religious community.

Christianity Key Terms

1. **Ascension** - The event in which Jesus returned to heaven after his resurrection, as described in the New Testament.
2. **Baptism** - A Christian sacrament of initiation involving water to symbolize purification and admission to the church.
3. **Believer's Baptism** - A form of baptism performed on individuals who personally profess their faith, common in Protestant traditions.
4. **Catholic** - Relating to the Roman Catholic Church, the largest Christian denomination with specific beliefs and practices.
5. **Communion** - Also known as the Eucharist or the Lord's Supper, a sacrament commemorating Jesus' Last Supper with his disciples.
6. **Confession** - The acknowledgment of sins to God or a priest as part of seeking forgiveness in Christianity.
7. **Creation** - The belief that God created the universe, often based on biblical accounts such as Genesis.
8. **Crucifixion** - The execution of Jesus by being nailed to a cross, central to Christian beliefs about salvation and atonement.
9. **Evangelical** - A Protestant Christian tradition emphasizing the authority of Scripture, personal conversion, and sharing the gospel.
10. **Grace** - The unearned favor and love of God bestowed on humanity for salvation.
11. **Holy Communion** - A sacrament in which Christians share bread and wine to remember Jesus' sacrifice.
12. **Holy Spirit** - The third person of the Trinity, believed to guide, empower, and sanctify Christians.
13. **Incarnation** - The Christian belief that God became human in the person of Jesus Christ.
14. **Judgment** - The belief that God will assess the actions of every person, determining their eternal destiny.
15. **Liturgy** - The set forms of public worship, especially in Catholic, Orthodox, and some Protestant churches.

16. **Lord's Prayer** - A central prayer in Christianity taught by Jesus to his disciples, expressing key themes of faith and worship.
17. **Orthodox** - Relating to the Eastern Orthodox Church, which emphasizes traditional practices and beliefs.
18. **Original Sin** - The belief that all humans inherit a sinful nature due to the actions of Adam and Eve.
19. **Pilgrimage** - A religious journey to a sacred place, such as Lourdes or Iona, for spiritual growth or healing.
20. **Protestant** - A branch of Christianity that separated from the Catholic Church during the Reformation, emphasizing scripture and faith.
21. **Resurrection** - The belief that Jesus rose from the dead three days after his crucifixion, symbolizing victory over sin and death.
22. **Sacrament** - A sacred ritual recognized as a means of grace, such as baptism or the Eucharist.
23. **Salvation** - The deliverance of humanity from sin and its consequences, often through faith in Jesus Christ.
24. **The Trinity** - The Christian doctrine of God as three persons in one: Father, Son, and Holy Spirit.
25. **Worship** - The act of showing reverence and adoration for God, which can include prayer, singing, and rituals.

1. What are the different types of worship in Christianity?	**Red**	**Amber**	**Green**
Can you describe the differences between liturgical and non-liturgical worship? **Are you able to explain why Christians worship in different ways?** **Can you give examples of how worship reflects Christian beliefs?**			
2. Why is the Lord's Prayer significant in Christianity?	**Red**	**Amber**	**Green**
Can you recite the Lord's Prayer and explain its key themes? **Are you able to discuss how this prayer is used in different types of Christian worship?** **Can you analyse the meaning of specific lines in the prayer?**			
3. What are sacraments, and why are they important in Christianity?	**Red**	**Amber**	**Green**
Can you define the term 'sacrament' and list examples? **Are you able to compare how sacraments are understood in Catholicism, Orthodoxy, and Protestantism?** **Can you explain how sacraments influence Christian life and beliefs?**			
4. What is baptism, and what does it signify?	**Red**	**Amber**	**Green**
Can you describe the ritual of infant baptism and its symbolism? **Are you able to explain the theological significance of baptism?** **Can you give examples of biblical teachings that support baptism?**			
5. What is believer's baptism, and how is it different from infant baptism?	**Red**	**Amber**	**Green**
Can you explain why some Christians choose believer's baptism over infant baptism? **Are you able to describe the steps involved in a believer's baptism?** **Can you analyse why believer's baptism is significant in some Protestant traditions?**			
6. Why is Holy Communion significant in Christianity?	**Red**	**Amber**	**Green**
Can you describe the key elements of Holy Communion and their symbolism? **Are you able to explain the differences between Catholic and Protestant views on Holy Communion?** **Can you discuss how Holy Communion strengthens Christian faith?**			
7. What is pilgrimage, and why is it important in Christianity?	**Red**	**Amber**	**Green**
Can you define pilgrimage and describe its purposes? **Are you able to explain how pilgrimage reflects Christian teachings and beliefs?** **Can you give examples of how pilgrimage impacts the lives of believers?**			
8. Why do Christians visit Lourdes as a place of pilgrimage?	**Red**	**Amber**	**Green**
Can you describe the key features of Lourdes as a pilgrimage site? **Are you able to explain the spiritual significance of Lourdes for Christians?**			

Can you analyse how pilgrimage to Lourdes reflects Christian beliefs about healing and faith?			
9. Why do Christians visit Iona as a place of pilgrimage?	**Red**	**Amber**	**Green**
Can you explain the historical and spiritual significance of Iona? **Are you able to describe activities pilgrims undertake on Iona?** **Can you discuss how pilgrimage to Iona encourages reflection and community?**			
10. What are the key differences between Catholic, Orthodox, and Protestant practices?	**Red**	**Amber**	**Green**
Can you identify specific practices unique to each Christian tradition? **Are you able to compare the use of sacraments across these traditions?** **Can you explain how these practices reflect different theological beliefs?**			
11. How do Christian beliefs influence worship and daily life?	**Red**	**Amber**	**Green**
Can you explain how prayer and worship impact a Christian's daily decisions? **Are you able to discuss the role of sacraments in guiding moral behaviour?** **Can you analyse how Christian teachings about God shape their worship?**			
12. How does Christianity contribute to the religious diversity of Great Britain?	**Red**	**Amber**	**Green**
Can you identify how different Christian traditions coexist in Great Britain? **Are you able to explain how Christianity influences British culture and values?** **Can you analyse the importance of understanding religious diversity in modern society?**			

HOME LEARNING TASKS	
Task Description	**Done?**
Worship Comparison Table Create a table comparing liturgical and non-liturgical worship. Include examples of denominations that use each type, their key features, and the reasons behind their use. Write a short paragraph explaining which type of worship you think best reflects Christian beliefs and why.	
The Lord's Prayer Analysis Write a detailed explanation of three key lines from the Lord's Prayer, discussing what they reveal about Christian beliefs about God and human relationships. Include how this prayer might be meaningful in a modern Christian's daily life.	
Sacrament Fact File Research and create a fact file for one Christian sacrament (e.g., baptism or Holy Communion). Include a definition, key symbols, relevant Bible references, and differences in how it is practiced across Catholic, Orthodox, and Protestant traditions.	
Virtual Pilgrimage Reflection Watch a short online video about pilgrimage to Lourdes or Iona. Write a diary entry from the perspective of a pilgrim visiting that site, explaining what they did, how they felt, and why the experience might strengthen their faith.	
Christianity in Britain Poster Design a poster showcasing the contributions of Christianity to modern British society, such as festivals, moral teachings, or community practices. Include images, key terms, and a brief explanation of how different Christian traditions coexist today.	
Creative Baptism Comparison Draw or write a step-by-step guide comparing infant baptism and believer's baptism. Use visuals or short paragraphs to explain the rituals and theological significance of each. Conclude with a reflection on which you think better expresses Christian beliefs and why.	

English Year 9 Term 3
J.B Priestley's *An Inspector Calls*

You will learn how to:

- Identify information and ideas about characters, themes and events in a post-1914 play.
- Explain what you have inferred from the play, supporting your comments with key quotations from the text in an exam-style response.
- Perform close textual analysis of the play, with reference to relevant language, form and structure methods.
- Make links between the play and its social and historical context, considering the reactions of historical and modern audiences, as well as the life and perspective of the playwright, J.B Priestley.

Prior Learning Links:

- In Year 7, students read the novel *Skellig*, focusing on the development of character and the exploration of key themes. These skills will be returned to with further emphasis this term.
- In Year 8, students read a play adaptation of *Frankenstein*, which embeds students' understanding of the form and structure of plays.
- In the first two terms of Year 9, students read *Animal Farm* by George Orwell, which prepared them for their GCSE studies. Students' study of *Animal Farm* also reinforced the importance of social and historical context, while further developing their analysis of language and structure methods.

Future Learning Links:

- *An Inspector Calls* comprises one fifth of the English Literature GCSE texts and is worth approximately the same percentage of the total marks.
- *An Inspector Calls* will continue to be a focus in revision and afterschool tuition sessions throughout the rest of KS4.
- In Year 11, students will study for the English Language GCSE, in which their analytical skills will continue to be a focus.
- Students' understanding of how language and structure methods are used in the Literature texts, such as *An Inspector Calls*, will form the foundation of knowledge necessary for successful analysis in English Language.

KEY VOCABULARY	
KEY WORDS	**KEY SUBJECT TERMINOLOGY**
Context: In English Literature, context refers to anything that might have contributed to the writing of a text, including the lives of the writers and the themes their text explore. For example, the life of J.B Priestley is contextually relevant because his personal experiences informed the ideas he was aiming to communicate. It is also important to know what was happening socially and historically in the time period in which the text was written (1945). Likewise, you need to know what was happening socially and historically in the time period in which the text is *set* (1912).	**Dramatic irony:** Dramatic irony has been used/created whenever the audience has access to knowledge that the **characters** in a text do not. For example, J.B Priestley uses **dramatic irony** when Mr Birling makes a range of predictions about what will happen in the years following 1912. Because the play was written in 1945, the audience knows that Mr Birling's statements are false, highlighting how arrogant and foolish the **character** must be as a result.
Edwardian era: The Edwardian era was a period in the early 20th Century that spanned the reign of King Edward VII. While King Edward VII technically reigned from 1901-1910, it is commonly extended to the start of the First World War, which began in 1914. As such, it is appropriate to refer to the **setting** of the play as the Edwardian era.	**Setting:** The time and place in which the story takes place; provides the backdrop to the story and helps create **mood**. **Foreshadowing**: an advance sign or warning of what is to come.
Class system: The class system refers to the hierarchy of social classes, the most common being the working class, middle class and upper class. In *An Inspector Calls*, the Birling family are an upper-middle class family thanks to Mr Birling's position as a "prosperous manufacturer" and history as "lord mayor"; he is a wealthy factory owner and local politician with a significant amount of social influence in the town of Brumley. Gerald Croft is the son of Sir George and Lady Croft of Crofts Limited; his parents' titles, along with Mr Birling's comments about the Croft company being "both older and bigger than Birling and Company", imply that Gerald is from an even wealthy family than the Birlings.	**Act:** The main division in a play. Some plays are further divided into scenes, but *An Inspector Calls* is not. It is divided into three acts. **Narrative arc:** The structure and shape of a story. Most narrative arcs are comprised of the following: **exposition**; **complicating action**; **climax**; **falling action**; and **resolution**. **Exposition:** The opening of a text, in which the **setting** is established and **characters** are introduced.

On the opposite end of the spectrum, Eva Smith/Daisy Renton represents the working class. Her treatment at the hands of the Birlings and Gerald Croft ultimately led her to commit suicide, emphasising the unfair living and employment conditions of the working class in a capitalist society.	**Complicating action:** The stage in a story in which the lives of the **characters** are complicated in some way.
Social responsibility: Social responsibility refers to the idea that a society's poorer members should be helped by those who have more than them. In other words, everyone in society should be responsible for each other.	**Climax:** When the tension and suspense is at its highest and matters are most threatening.
Socialism: Socialism is a political theory that believes the production, distribution and exchange of goods should be owned or regulated by the community. Put simply, socialists believe all people in society should have equal rights and that equal opportunities should be available to everybody. To achieve this, they believe that resources should be shared out fairly amongst everyone regardless of their class or personal wealth. Socialism stands in opposition to **capitalism**. J.B Priestley was a socialist. His political beliefs are woven throughout his work, and are especially clear in *An Inspector Calls*.	**Falling action:** The stage in a story in which the consequences of the **climax** are described. **Resolution:** A solution for the **complicating action** is described – it may not be a happy one! **Cliffhanger:** When a **narrative**, or part of a **narrative**, is left **unresolved**. A cliffhanger usually results in tension.
Capitalism: Capitalism is an economic system in which the production and distribution of goods is owned privately. Put simply, capitalists believe that individual people and companies should be able to privately own – and make as much profit as possible from – the resources they produce. Capitalists believe that property and resources should be retained by those that own them and their families. Capitalism stands in opposition to **socialism**. J.B Priestley was staunchly anti-capitalist. His negative depictions of capitalism are particularly prevalent in *An Inspector Calls*.	**Stage directions:** An instruction in the text of a play indicating the movement, position, or tone of an actor, or the sound effects and lighting. **Dialogue:** Lines in the text of a play indicating a conversation between two or more **characters**. **Monologue:** Lines in the text of a play indicating that one **character** is speaking alone. Alternatively, a monologue may refer to a long speech.

Language: The **choice of words** used in a poem. Different kinds of language have **different effects**.

In English, the **GOMASSIVE/PPS** acronym is a useful way of remembering some of the most common Language Methods that writers use. The methods in the acronym are defined in the generic Literacy Page of your Knowledge Organiser.

Remember: The **GOMASSIVE/PPS** acronym does not include every language method that you could identify and analyse in a poem.

Characterisation: The way in which writers create **characters** and make them believable. Describing the tone of someone's voice and the colour or style of clothing their wearing are both examples of characterisation.

Symbolism: A literary device in which a writer uses one thing to represent something more abstract. A **symbol** can be a word, object, action, **character** or concept.

Form: The **type** of text, e.g. a play or a poem, and its **features**, like the way in which it is divided into **Acts** instead of chapters.

When studying a play, it is important to remember that the text is comprised of **dialogue** and **stage directions**.

Structure: The **order** and **arrangement** of ideas and events in a text, e.g. how it begins, develops and ends.

Microcosm: When a small place, society, situation or **character** has the same characteristics as something much larger.

For example, the fictional northern industrial town of Brumley, in which the action of the play takes place, is a microcosm of *all* northern industrial towns in **Edwardian** Britain.

Likewise, the **character** of Inspector Goole is a microcosm for the views of **socialism** in **Edwardian** Britain.

1. What social aspects was J.B. Priestley interest in?

Red | Amber | Green

Who was J.B Priestley?

Below are a series of summarised points about the life of J.B Priestley:

- John Boynton Priestley was born in Bradford, Yorkshire on 13 September 1894
- Priestley's mother died the same year that he was born; his father, a politically-minded schoolmaster with group of socialist friends, remarried four years later
- Priestley knew he wanted to be a writer at an early age, leaving school at 16 to gain practical experiences
- Prior to the outbreak of WW1, between the years of 1911-1914, Priestley found himself surrounded by like-minded people who cared about reading, art and politics
- It was during this time that Priestley began to write in earnest; in his autobiography, Priestley wrote, 'I was a writer-poet, story-teller, humourist, commentator, social philosopher, at least in my own estimation.'
- When World War One broke out in 1914, Priestley joined the infantry, aged 20
- By the time he left the army in 1919, he had seen active front-line service in France and had narrowly escaped being killed by shellfire and gas attacks; Priestley said, 'I was lucky in that was and never ceased to be aware of the fact.'

- Following the war, Priestley took a place at Cambridge University to read Modern History and Political Science; he was successful at university but found that academic life did not suit him

- In 1921, Priestley left for London to work as a freelance writer, achieving consistent success as an essayist throughout the 1920s

- When his first novel, *The Good Companions*, was published in 1929, Priestley became a best-selling writer

- Over the next seven years, Priestley established himself as a leading figure in the London theatre, emphasising the importance of responsibility in many of his plays

- When World War Two broke out in 1939, Priestley began writing and broadcasting talks on BBC radio, reflecting upon the conditions of wartime; while they proved popular with is listening audience, the BBC cancelled Priestley's programmes for being too critical of the British Government's actions

- Priestley wrote *An Inspector Calls* at the end of World War Two; it was first performed in the Soviet Union in 1945 and at the New Theatre in London the following year

2. Who are the Birlings?

Red Amber Green

At the beginning of *An Inspector Calls*, J.B Priestley uses the **stage directions** to establish what the main characters are like.

The majority of the main characters are members of the Birling family: Mr Arthur Birling, Mrs Sybil Birling, Miss Sheila Birling and Mr Eric Birling. The fifth main character introduced at the beginning of the play is Gerald Croft, Sheila Birling's fiancé.

How do the stage directions describe the main characters?

Mr Birling: "A heavy-looking, rather portentous man in his middle fifties with fairly easy manners but rather provincial in his speech."

Mrs Birling: "…about fifty, a rather cold woman and her husband's social superior."

Eric: "…in his early twenties, not quite at ease, half shy, half assertive."

Sheila: "…a pretty girl in her early twenties, very pleased with life and rather excited."

Gerald: "An attractive chap about thirty, rather too manly to be a dandy but very much the easy well-bred young man-about-town."

What else can we learn from the stage directions?

The **stage directions** also tell the audience about the **setting**, the **costumes** and the **props** that the actors will make use of:

- "The dining-room of a fairly large suburban house, belonging to a prosperous manufacturer. It has good solid furniture of the period. The general effect is substantial and heavily comfortable, but not cosy and homelike."

- "At rise of curtain, the four Birlings and Gerald are seated at the table, with Arthur Birling at one end, his wife at the other, Eric downstage, and Sheila and Gerald seated upstage."

- “Edna, the parlourmaid, is just clearing the table, which has no cloth, of dessert plates and champagne glasses, etc., and then replacing them with decanter of pot, cigar box and cigarettes. Port glasses are already on the table.”

- “All five are in evening dress of the period, the men in tails and white ties, not dinner-jackets.”

- “At the moment they have all had a good dinner, are celebrating a special occasion, and are pleased with themselves.”

3. How does Priestley use dramatic irony to make Mr Birling unlikeable?	Red	Amber	Green

What does Mr Birling say in his opening speech?

At the beginning of the play, Mr Birling delivers a speech to the rest of the main characters, in which he says the following:

- “I say, you can ignore all this silly pessimistic talk. When you marry, you’ll be marrying at a very good time. Yes, a very good time – and soon it’ll be an even better time.”

- “Last month, just because the miners came out on strike, there’s a lot of wild talk about possible labour trouble in the near future. Don’t worry. We’ve passed the worst of it.”

- “And we’re in for a time of steadily increasing prosperity.”

- “Just because the Kaiser makes a speech or two, or a few German officers have too much to drink and begin talking nonsense, you’ll hear some people say that war’s inevitable. And to that I say – fiddlesticks!”

- “The Germans don’t want war. Nobody wants war, except some half-civilised folks in the Balkans.”

- “And I say there isn’t a chance of war. The world’s developing so fast that it’ll make war impossible.”

- “In a year or two we’ll have aeroplanes that will be able to go anywhere.”

- “Why, a friend of mine went over this new liner last week – the Titanic – she sails next week – forty-six thousand eight hundred tonnes – New York in five days – and every luxury – and unsinkable, absolutely unsinkable!”

- “In twenty or thirty years’ time – let’s say, in 1940 – you may be giving a little party like this – your son or daughter might be getting engaged – and I tell you, by that time you’ll be living in a world that’ll have forgotten all these capital versus labour agitations and all these silly little war scares.”

- “There’ll be peace and prosperity and rapid progress everywhere – except of course in Russia, which will always be behind, naturally.”

What was ironic about Mr Birling’s predictions?

Because **the play was written in 1945**, the writer – and **the audience – have access to knowledge that Mr Birling does not**. For example, the audience would have been aware of the following, all of which proves Mr Birling's predictions to have been wrong:

- World War I began in 1914, just two years after the play is set. This means that Sheila and Gerald cannot possibly be "marrying at a very good time."

- World War II began in 1939 and had only just ended when the play was first performed in 1945 (in Soviet Russia) and 1946 (in Britain). With this in mind, Mr Birling's prediction about that Sheila's and Gerald's "son or daughter might be getting engaged" in "twenty or thirty years' time" seems particularly silly.

- Mr Birling's reference to "steadily increasing prosperity" is also shown to be wrong because of the Great Depression. The Great Depression is the name given to the worst economic downturn in the history of the industrialised world, lasting from 1929 to 1939. It began after the stock market crash of October 1929, and caused millions of people to become bankrupt and/or unemployed.

- Whilst Birling was correct to say that technological advancements were on the horizon in 1912, his predictions fail to address what most new technology was put towards – new weapons of war, such as aeroplanes that could drop bombs and chemical weapons.

- When Mr Birling says "the miners came out on strike" recently, he is talking about the national coal strike of 1912. This was the first national strike by coal miners in the UK. Its main goal was to secure a minimum wage for miners. In contrast to Mr Birling's prediction, the strike was successful after just 37 days, and the governments passed the Coal Mines Act, establishing a minimum wage for the first time.

- The "unsinkable" new "liner" that Mr Birling refers to is probably the most obvious example of his foolishness and arrogance, outside of his repeated predictions about war being unlikely. As most will know, the Titanic was a luxury steamship that sank in the early hours of April 15th 1912, just five days into its maiden voyage from the UK to America. More than any other part of Mr Birling's speech, the sinking of the Titanic stands out because of what it represents; the majority of those who died when the Titanic sank were lower class passengers, symbolises the lack of equality in the Edwardian class system.

4. Who is the Inspector?

Red Amber Green

What is significant about the arrival of the Inspector?

Unlike the other main characters, the Inspector arrives midway through another of Mr Birling's speeches, after the **characterisation** of the main cast has been established.

Below is an excerpt of the moment at which the Inspector arrives. As you might be able to tell, the Inspector rings the doorbell at a very portentous moment, right when Mr Birling is about to make a statement that the Inspector (and J.B Priestley) would not have agreed with:

> **Birling**: (*solemnly*) But this is the point. I don't want to lecture you two young fellows again. But what so many of you don't seem to understand now, when things are so much easier, is that a man has to make his own way – has to look after himself – and his family too, of course, when he has one – and so long as he does that he won't come to much harm. But the way some of these cranks talk and write now, you'd think everybody has to look after everybody else, as if we were all mixed up together like bees in a hive – community and all that nonsense. But take my word for it, you youngsters – and I've

learnt in the good hard school of experience – that a man has to mind his own business and look after himself and his own – and -

We hear the sharp ring of a door bell. Birling stops to listen.

Eric: Somebody at the front door.

Birling: Edna'll answer it. Well, have another glass of port, Gerald – and then we'll join the ladies. That'll stop me giving you good advice.

What political perspective is Mr Birling promoting in his speech here? What kind of political perspective is he criticising?
With answers to the above in mind, why is it significant that Priestley chooses *this* specific moment for the Inspector to arrive? **Which political perspective do you think the Inspector is going to embody?**

How do the stage directions describe the Inspector?

"The Inspector enters, and Edna goes, closing door after her. The Inspector need not be a big man but he creates at once an impression of massiveness, solidity and purposefulness. He is a man in his fifties, dressed in a plain darkish suit of the period. He speaks carefully, weightily, and has a disconcerting habit of looking hard at the person he addresses before actually speaking."

What do you learn about the Inspector from his clothing (**costume**)? What do you learn about him from the way he speaks and the way he looks at the other characters? Consider the "impression" that he creates on the other characters, despite not being "a big man". Does the Inspector get his power from physical strength – or something else?

What else can we learn from the stage directions?

The opening **stage directions** also reveal a small detail about the **lighting**, which becomes relevant now that the Inspector has entered the story:

"[At the beginning of the play, the] lighting should be pink and intimate until the Inspector arrives and then it should be brighter and harder."

Why do you think Priestley chose to make the **lighting** become "brighter and harder" once the Inspector arrives? What might this represent?

5. How does Mr Birling react to the Inspector? Red Amber Green

What does dialogue, in response to the Inspector, reveal about his character?

Below are many of Mr Birling's first lines of **dialogue** to the Inspector, prior to him being told about the death of Eva Smith:

- "Sit down, Inspector."
- "Have a glass of port – or a little whiskey?"
- "You're new aren't you?"

- "I thought you must be. I was an alderman for years – and lord mayor two years aho – and I'm still on the bench – so I know the Brumley police officers pretty well – and I thought I'd never seen before."

- "Well, what can I do for you? Some trouble about a warrant?"

What does Mr Birling begin by doing in the **dialogue** above? What kind of impression is he trying to impress upon the Inspector by talking about his roles of responsibility in the local community? Why might he try to emphasise his personal connections with important members of the local police force?

Now, here are some of Mr Birling's lines of **dialogue** after finding out about the death of Eva Smith:

- "(*rather impatiently*) Yes, yes. Horrid business. But I don't understand why you should come here, Inspector –"

- (*slowly*) No – I seem to remember hearing that name – Eva Smith – somewhere. But it doesn't convey anything to me. And I don't see where I come into this."

- "I don't mind your being here, Gerald. And I'm sure you've no objection, have you, Inspector Perhaps I ought to explain first that this is Mr Gerald Croft – the son of Sir George Croft – you know, Crofts Limited."

- "I can't accept any responsibility. If we were all responsible for everything that happened to everybody we'd had anything to do with, it would very awkward, wouldn't it?"

- "What did you say your name was, Inspector?"

- "How do you get on with our chief constable, Colonel Roberts?"

- "Perhaps I ought to warn you that he's an old friend of mine, and that I see him fairly frequently. We play golf together sometimes up at the West Brumley."

- "I don't see we need to tell the Inspector anything more. In fact, there's nothing I can tell him. I told the girl to clear out, and she went. That's the last I heard of her."

Compare these lines of **dialogue** with those that you considered before. How does Mr Birling's attitude change when he finds out that he is connected to the death of Eva Smith? To what extent does he acknowledge any kind of connection to her?

You should also consider the questions that Mr Birling asks the Inspector. Why does he ask him to repeat his name and question his relationship with the chief constable? What is Mr Birling trying to do?

6. Who is Eva Smith?

Red Amber Green

How does the Inspector introduce the character of Eva Smith and what happened to her?

The Inspector first describes Eva Smith – and her death – with the following lines of **dialogue**:

- "Two hours ago a young woman died in the infirmary. She'd been taken there this afternoon because she'd swallowed a lot of strong disinfectant. Burnt her inside out, of course."

- “Yes, she was in great agony. They did everything they could for her at the infirmary, but she died. Suicide, of course.”

- “I’ve been round to the room she had, and she’d left a letter there and a sort of diary. Like a lot of these young women who get into various kinds of trouble, she’d used more than one name. But her original name – her real name – was Eva Smith.”

The Inspector’s **dialogue** is mostly simple and straightforward, but harsh and powerful in contrast to the casual conversation that the Birling’s have mostly been having so far. What does this signify?

Consider Eva Smith’s name, which the Inspector establishes early on was only one of her names. What kind of person might Eva Smith represent, and how does her name help to show this?

Why does the Inspector only show the photograph of Eva Smith to one person at a time?

When the Inspector shows the photograph of Eva Smith to Mr Birling, he goes to great lengths to ensure that neither Gerald nor Eric see the photograph.

Here are the **stage directions** that first demonstrate this:

> *“Inspector takes a photograph, about postcard size, out of his pocket and goes to Birling. Both Gerald and Eric rise to have a look at the photograph, but the Inspector interposes himself between them and the photograph They are surprised and rather annoyed.”*

When questioned about this, the Inspector says the following:

> “It’s the way I like to go to work. One person and one line of inquiry at a time. Otherwise, there’s a muddle.”

Later on in the play, the Inspector will do the same thing with Sheila and Mrs Birling, and none of the main characters will ever be able to confirm if they’ve seen the same photograph of Eva Smith as another main character. Why do you think this might be? What might it imply about the identity of Eva Smith?

7. How are Mr Birling’s attitudes shown in his treatment of Eva Smith?

Red | Amber | Green

What connection did Eva Smith have to Mr Birling?

Below are the lines of **dialogue** that establish how Eva Smith knew Mr Birling:

> **Inspector**: She was employed in your works at one time.
>
> Birling: Oh – that’s it, is it? Well, we’ve several hundred young women there, y’know, and they keep changing.
>
> **Inspector**: This young woman, Eva Smith, was out of the ordinary.
>
> …
>
> **Inspector**: I think you remember Eva Smith now, don’t you, Mr Birling?

Birling: Yes, I do. She was one of my employees and then I discharged her.

…

Birling: This girl left us nearly two years ago. Let me see – it must have been in the early autumn of nineteen-ten.

…

Birling: Now – about this girl, Eva Smith. I remember her quite well now. She was a lively good-looking girl – country-bred, I fancy – and she'd been working in one of our machine shops for over a year. A good worker too. In fact, the foreman there told me he was ready to promote her into what we call a leading operator – head of a small group of girls. But after they came back from their holidays that August, they were all rather restless, and they suddenly decided to ask for more money. They were averaging about twenty-two and six, which was neither more nor less than is paid generally in our industry. They wanted the rates raised so that they could average about twenty-five shillings a week. I refused, of course.

Inspector: Why?

Birling: (*surprised*) Did you say 'Why?'?

…

Birling: Well, it's my duty to keep labour costs down. And if I'd agreed to this demand for a new rate we'd have added about twelve per cet to our labour costs. Does that satisfy you? So I refused. Said I couldn't consider it. We were paying the usual rates and if they didn't like those rates, they could go and work somewhere else. It's a free country, I told them.

…

Birling: [The strike was broke], after a week or two. Pitiful affair. Well, we let them all come back – at the old rates – except the four or five ring-leaders, who'd started the trouble. I went down myself and told them to clear out. And this girl, Eva Smith, was one of them. She'd had a lot to say – far too much – so she had to go.

8. How does Sheila respond to her involvement in Eva Smith's life?	**Red**	**Amber**	**Green**

What is Sheila's initial reaction to finding out about Eva Smith's death?

Below are the lines of **dialogue** shared by Sheila and the Inspector, in which she first hears about the death of Eva Smith:

Inspector: (*impressively*) I'm a police inspector, Miss Birling. This afternoon a young woman drank some disinfectant, and died, after several hours of agony, tonight in the infirmary.

Sheila: Oh – how horrible! Was it an accident?

Inspector: No. She wanted to end her life. She felt she couldn't go on any longer.

…

Sheila: (*rather distressed*) Sorry! It's just that I can't help thinking about this girl – destroying herself so horribly – and I've been so happy tonight. Oh I wish you hadn't told me. What was she like? Quite young?

Inspector: Yes. Twenty-four.

Sheila: Pretty?

Inspector: She wasn't pretty when I saw her today, but she had been pretty – very pretty.

How does Sheila react when she realises she was responsible for the firing of Eva Smith?

Below are the **stage directions** which describe Sheila's reaction when she realises she got Eva Smith fired from Milwards:

- *"He moves nearer a light – perhaps a standard lamp – and she crosses to him. He produces the photograph. She looks at it closely, recognizes it with a little cry, gives a half-stifled sob, and then runs out. The inspector puts the photograph back in his pocket and stares speculatively after her. The other three stare in amazement for a moment."*

How does Sheila behave when she returns to the room, explaining her interaction with Eva Smith?

Below are the lines of **dialogue** shared by Sheila and the Inspector after she returns to the room and regains her composure:

Enter Sheila, who looks as if she's been crying.

Inspector: Well, Miss Birling?

Sheila: (*coming in, closing the door*) You knew it was me all the time, didn't you?

Inspector: I had an idea it might be – from something the girl herself wrote.

Sheila: I've told my father – he didn't seem to think it amounted to much – but I felt rotten about it at the time and now I feel a lot worse. Did it make much difference to her?

Inspector: Yes, I'm afraid it did. It was the last real steady job she had. When she lost it – for no reason that she could discover – she decided she might as well try another kind of life.

…

Sheila: (*distressed)* I went to the manager at Milwards and I told him that if they didn't get rid of that girl, I'd never go near the place again and I'd persuade mother to close our account with them.

Inspector: And why did you do that?

Sheila: Because I was in a furious temper.

Inspector: And what had this girl done to make you lose your temper.

Sheila: When I was looking at myself in the mirror I caught sight of her smiling at the assistant, and I was furious with her. I'd been in a bad temper anyhow.

…

Sheila: I'd gone in to try something on. It was an idea of my own – mother had been against it, and so had the assistant – but I insisted. As soon as I tried it on, I knew they'd been right. It just didn't suit me at all. I looked silly in the thing. Well, this girl had brought the dress up from the workroom, and when the assistant – miss Francis – had asked her something about it, this girl, to show us what she meant, had held the dress up, as if she was wearing it. And it just suited her. She was the right type for it, just as I was the wrong type. She was very pretty too – with big dark eyes – and that didn't make it any better. Well, when I tried the thing on and looked at myself and knew that it was all wrong, I caught sight of this girl smiling at miss Francis – as if to say: 'doesn't she look awful' – and I was absolutely furious. I was very rude to both of them, and then I went to the manager and told him that this girl had been very impertinent – and – and – [*She almost breaks down, but just controls herself.*] How could I know what would happen afterwards? If she'd been some miserable plain little creature, I don't suppose I'd have done it. But she was very pretty and looked as if she could take care of herself. I couldn't be sorry for her.

Inspector: In fact, in a kind of way, you might be said to have been jealous of her.

Sheila: Yes, I suppose so.

Inspector: And so you used the power you had, as a daughter of a good customer and also of a man well known in the town, to punish the girl just because she made you feel like that?

Sheila: Yes, but it didn't seem to be anything very terrible at the time. Don't you understand? And if I could help her now, I would –

Inspector: (*harshly*) Yes, but you can't. It's too late. She's dead.

…

Sheila: It's the only time I've ever done anything like that, and I'll never, never do it again to anybody. I've noticed them giving me a sort of look sometimes at Milwards – I noticed it even this afternoon – and I suppose some of them remember. I feel now I can never go there again. Oh – why had this to happen?

9. How is responsibility shown in Act One? Red Amber Green

Which quotations demonstrate the theme of social responsibility in Act One?

Consider the following quotations carefully. Each of them appears in Act One and links to the theme of **social responsibility** – but what are audiences supposed to think in response to each quotation?

Mr Birling:

- "...and as it happened more than 18 months ago – nearly two years ago – obviously it has nothing whatever to do with the wretched girl's suicide."

- "Still I can't accept any responsibility."

- “If we were all responsible for everything that happened to everybody we’d had anything to do with, it would be very awkward, wouldn’t it?”

- “If you don’t come down sharply on some of these people, they’d soon be asking for the earth.”

Sheila Birling:

- “You talk as if we were responsible –”

- “But these girls aren’t cheap labour – they’re people.”

- “It was my own fault. (s*uddenly, to Gerald*])All right, Gerald, you needn’t look at me like that. At least, I’m trying to tell the truth. I expect you’ve done things you’re ashamed of too.”

- “How could I know what would happen afterwards?”

- “If she’d been some miserable plain little creature, I don’t suppose I’d have done it. But she was very pretty and looked as if she could take care of herself. I couldn’t be sorry for her.”

- “And if I could help her now, I would –”

Based on the above, consider **which characters have accepted responsibility**, and **which have chosen to reject responsibility.** What is it that separates these two characters, and how might their differences impact their decisions to accept/reject responsibility for their part in Eva Smith’s death?

Lastly, consider this exchange between Sheila and the Inspector:

> **Sheila Birling:** So I’m really responsible?
>
> **Inspector:** No, not entirely. A good deal happened to her after that. But you’re partly to blame. Just as your father is.

What is the **message** is Priestley trying to communicate with the Inspector’s **dialogue** here?

10. How does Gerald reveal that he knew Eva Smith/Daisy Renton? Red Amber Green

What connection did Eva Smith have to Gerald?

Below are the lines of **dialogue** that establish Gerald knew Eva Smith when she was using a different name (Daisy Renton):

> **Inspector**: Now [Eva Smith] had to try something else. So first she changed her name to Daisy Renton
>
> **Gerald:** (*startled*) What?
>
> **Inspector:** (*steadily*) I said she changed her name to Daisy Renton.
>
> **Gerald:** (*pulling himself together*) D'you mind if I give myself a drink, Sheila?
>
> …

Sheila: You not only knew her but you knew her very well. Otherwise, you wouldn't look so guilty about it. When did you first get to know her?

He does not reply.

Was it after she left Milwards? When she changed her name, as [the Inspector] said, and began to lead a different sort of life? Were you seeing her last spring and summer, during that time you hardly came near me and said you were so busy? Were you?

He does not reply but looks at her.

Yes, of course you were.

Gerald: I'm sorry, Sheila. But it was all over and done with, last summer. I hadn't set eyes on the girl for at least six months. I don't come into this suicide business.

11. How is Gerald's relationship with Eva Smith/Daisy Renton presented?	**Red**	**Amber**	**Green**

Below are the lines of **dialogue** that in which Gerald confesses to having had a relationship with Eva Smith/Daisy Renton:

Gerald: I met her first, sometime in march last year, in the stalls bar at the palace. I mean the palace music hall here in Brumley–

…

Gerald: I happened to look in, one night, after a long dull day, and as the show wasn't very bright, I went down into the bar for a drink. It's a favourite haunt of women of the town–

…

Gerald: I didn't propose to stay long down there. I hate those hard-eyed dough-faced women. But then I noticed a girl who looked quite different. She was very pretty – soft brown hair and big dark eyes- (*breaks off.)* My god! […] Sorry – I – well, I've suddenly realized – taken it in properly – that's she's dead–

…

Gerald: She looked young and fresh and charming and altogether out of place down here. And obviously she wasn't enjoying herself. Old Joe Meggarty, half-drunk and goggle-eyed, had wedged her into a corner with that obscene fat carcass of his– […] The girl saw me looking at her and then gave me a glance that was nothing less than a cry for help. So I went across and told Joe Meggarty some nonsense – that the manager had a message for him or something like that – got him out of the way – and then told the girl that if she didn't want any more of that sort of thing, she'd better let me take her out of there. She agreed at once.

Inspector: Where did you go?

Gerald: We went along to the county hotel, which I knew would be quiet at that time of night, and we had a drink or two and talked.

…

Gerald: I discovered, not that night but two nights later, when we met again – not accidentally this time of course - that in fact she hadn't a penny and was going to be turned out of the miserable back room she had. It happened that a friend of mine, Charlie Brunswick, had gone off to Canada for six months and had let me have the key of a nice little set of rooms he had – in Morgan Terrace – and had asked me to keep an eye on them for him and use them if I wanted to. So I insisted on Daisy moving into those rooms and I made her take some money to keep her going there. (*carefully, to the inspector.)* I want you to understand that I didn't install her there so that I could make love to her. I made her go to Morgan Terrace because I was sorry for her, and didn't like the idea of her going back to the palace bar. I didn't ask for anything in return.

…

Inspector: She became your mistress?

Gerald: Yes. I suppose it was inevitable. She was young and pretty and warm-hearted – and intensely grateful. I became at once the most important person in her life – you understand?

…

Gerald: In the first week of September. I had to go away for several weeks then – on business – and by that time daisy knew it was coming to an end. So I broke it off definitely before I went. […] She told me she'd been happier than she'd ever been before – but that she knew it couldn't last – hadn't expected it to last. She didn't blame me at all. I wish to God she had now. Perhaps I'd feel better about it.

Inspector: She had to move out of those rooms?

Gerald: Yes, we'd agreed about that. She'd saved a little money during the summer – she'd lived very economically on what I'd allowed her – and didn't want to take more from me, but I insisted on a parting gift of enough money – though it wasn't so very much – to see her through to the end of the year.

12. What is Mrs Birling's relationship with Sheila like?

Red Amber Green

How do Sheila and Mrs Birling talk to each other at the beginning of the play, prior to the arrival of the Inspector?

Below are lines of dialogue shared by Sheila and Mrs Birling, taken from the beginning of Act One. Consider what each exchange reveals about their relationship and how they treat one another.

Sheila: Yes, go on, mummy. You must drink to our health.

Mrs Birling: (*smiling*) Very well, then. Just a little, thank you.

…

Mrs Birling: Now, Shelia, don't tease [Gerald]. When you're married you'll realise that men with important work to do sometimes have to spend nearly all their time and energy on their business. You'll have to get used to that, just as I had.

Sheila: I don't believe I will.

…

Sheila: (*to Eric*) You're squiffy.

Eric: I'm not!

Mrs Birling: What an expression, Sheila! Really, the things you girls pick up these days!

Eric: If you think that's the best she can do –"

Sheila: Don't be an ass, Eric.

Mrs Birling: Now stop it, you two.

…

Sheila: (*who has put the ring on, admiringly*) I think it's perfect. Now I really feel engaged.

Mrs Birling: So you ought, darling. It's a lovely ring. Be careful with it.

Sheila: Careful! I'll never let it go out of my sight for an instant.

Mrs Birling: (*smiling*) Well, it came just at the right moment. That was clever of you, Gerald. Now, Arthur, if you've no more to say, I think Sheila and I had better go into the drawing room and leave you men –"

How do Sheila and Mrs Birling talk to each other at the beginning of the play, prior to the arrival of the Inspector?

Below are lines of dialogue shared by Sheila and Mrs Birling, taken from the middle of Act Two. Consider what each exchange reveals about their relationship and how they treat one another now that Sheila has begun to adopt some of the socialist ideals shared by the Inspector:

Mrs Birling: I think you ought to go to bed – and forget about this absurd business.

Sheila: Mother, I couldn't possibly go. Nothing could be worse for me.

…

Mrs Birling: Please don't contradict me… I don't suppose for a moment that we can understand why the girl committed suicide. Girls of that class –'

Sheila: (*urgently, cutting in)* Mother, don't – please don't. For your own sake, as well as ours, you mustn't –

Mrs Birling: (*annoyed*) Mustn't – what? Really, Sheila!

Sheila: (*slowly, carefully now*) You mustn't try to build up a kind of wall between us and that girl. If you do, then the inspector will just break it down. And it'll be all the worse when he does.

…

Mrs Birling: That – I consider – is a trifle impertinent, inspector.

Sheila gives short hysterical laugh

Mrs Birling: Now, what is it, Sheila?

Sheila: I don't know. Perhaps it's because impertinent is such a silly word.

Mrs Birling: In any case…

Sheila: But, mother, do stop before it's too late.

HOME LEARNING TASKS

Task Description	**Done?**
Watch videos about the play on GCSE Pod. Your teacher will direct you to suitable videos.	
Revise key details about the play, including characters, themes and context.	
Revise key quotations from the play. You could begin by annotating your quotations with notes about language and/or structure methods. Consider linking each quotation to a key theme, as well as any relevant social or historical context.	
Answer exam-style questions. Your teacher will direct you to suitable questions.	
Revise the content and context of the play using your Knowledge Organiser. Your teacher will direct you to suitable sections of the Knowledge Organiser in preparation for recall quizzes in class.	

Knowledge Organiser

Hospitality & Catering
Year 9
Term 3
2024/25

The Abbey School

Subject Year 9 Term 3 – Theme: Hospitality and catering

Term Focus –
Introduction to Hospitality and Catering
Understanding the importance of nutrition
Causes of food related ill health
Symptoms and signs of Food related ill health
How cooking methods can impact nutritional value of food

Prior Learning Links

- Eatwell guide
- Food and personal hygiene requirements
- Use of the cooker (methods of cooking)
- Various practical skills

Future Learning Links

- WJEC Hospitality and Catering
- H & C provisions
- Catering to specific needs
- Front and back of house roles.
- Reviewing dishes and own performance

KEY VOCABULARY

KEY WORDS	KEY SUBJECT TERMINOLOGY
Hospitality	**Front of house**
Catering	**Back of house**
Nutrition / nutrients	**Eatwell guide**
Carbohydrates	**Hand of Nutrients**
Protein	**Macronutrients**
Fat	**Micronutrients**
Vitamins	**Diabetes – type A and type B**
minerals	**Food spoilage**
Malnutrition	**High risk foods**
Obesity	**Food poisoning**
Diabetes – type A and type B	**Temperature danger zone**
Temperature	**Binary fission**
Dormant	**Temperature probe**
Pests	**Health and safety at work act (HASAWA)**
Vomiting	**Control of substances hazardous to health (COSHH)**
Nausea	**Risk Assessment**
Diarrhoea	**Hazard analysis can critical control point (HACCP)**
Bacteria	**Visible / non visible signs**

1. What is Hospitality and what does the Hospitality and catering course entail ?

Red | Amber | Green

Hospitality is the act of being friendly and welcoming to guests or visitors. Nowadays hospitality is a worldwide industry which has become one of the biggest employers in the world, requiring a wide range of skills.
The word 'hospitality' comes from the Latin word 'hospes' meaning 'guest', 'visitor' or 'stranger'.

Unit 1: The Hospitality and Catering industry You will:
• Learn about the hospitality and catering industry, the types of hospitality and catering providers and about working in the industry.
• Learn about health and safety, and food safety in hospitality and catering, as well as food related causes of ill health.
Unit 2: Hospitality and Catering in action You will:
• Learn about the importance of nutrition and how cooking methods can impact on nutritional value.

• Learn how to plan nutritious menus as well as factors which affect menu planning. You will learn the skills and techniques needed to prepare, cook and present dishes as well as learning how to review your work effective

Unit 1 The hospitality and catering industry External 40% of your overall grade
Unit 2 Hospitality and catering in action Internal 60% of your overall grade

2. Why is it important that we understand basic nutrition?

Red Amber Green

Food choices made in restaurants or fast food outlets are up to the customer but the hospitality industry also has a responsibility to make healthier options available.

Food served in these outlets are only a part of a person's diet but should allow the customer to make choices within the recommended guidelines for a balanced diet.
In the catering services sector, customers, or people who use the service, have much less choice when it comes to meal times. That's why there's a greater responsibility on those providers - like a hospital or residential home - to offer much healthier, balanced dishes.
Government guidelines have been in place for years with recommendations for a healthy balanced diet. A healthy balanced diet involves eating a variety of foods each day from all of the five food groups.
These guidelines aim to educate people with the following intended outcomes:

To reduce childhood obesity
To reduce tooth decay in children
To help children build strong bones and teeth
To prevent heart disease
To prevent type 2 diabetes in older people
To reduce the number of overweight adults
To prevent high blood pressure in adults
To prevent diet related cancers.

Nutrient	Main Use in the Body	Found in
Protein	Growth - so it is very important in the diet of children. Building and repair of body cells - so important for all age groups.	Meat, milk, fish, eggs, cheese, peas, beans, lentils, nuts, cereals e.g. oats, wheat (made into flour then made into bread)
Carbohydrate: 2 types	Provides energy. **Starch** releases energy slowly when digested into glucose. **Sugar** releases energy quickly (If carbohydrate is not used to produce energy in the body it is changed to fat and stored leading to weight gain)	Starch - bread, potatoes, rice, pasta, root vegetables e.g. carrots, parsnips. Sugar - naturally found in fruit; added to cakes, chocolate, fizzy drinks, sweet foods. ** Eating these foods should be limited to avoid, tooth decay, diabetes and obesity.
Fats and oils: 2 types **Saturated** (eat less of/solid at room temperature) **Unsaturated** (oils - eat in moderation)	All fats and oils have the same use in the body- provide long term energy and insulate the body (keep it warm). Protect delicate organs like the kidneys. Provide fat soluble Vitamins A, D, E,K. (see below) The body does need fats and oils but only in small amounts compared to what most people eat.	Fats - butter, margarine, lard, dripping, red meat, full fat milk. Oils – olive oil, rape seed oil, sunflower oil, groundnut oil, sesame seed oil, and oily fish.
Vitamins – fat soluble Vitamin A – a daily supply is not necessary as it can be	Used in production of rhodopsin (visual purple) in the eyes which aids vision in	Milk, cheese, egg yolk, butter, oily fish, liver, red and

stored by the body in the liver to be used when needed.	dim light. Required for maintenance and health of the skin. Required for normal growth in children particularly bones and teeth.	yellow coloured vegetables and fruit e.g. carrots, spinach, cabbage, apricots.
Vitamin D – known as the sunshine vitamin as it is the only vitamin the body can manufacture itself by the action of sunlight on the skin. Can also be stored in the body.	Required for absorption of the mineral calcium to build strong teeth and bones.	Liver, fish liver oils e.g. cod liver oil, oily fish e.g. sardines, herrings. Added by law to margarine and white flour.
Vitamin E	An anti-oxidant that research has shown protects against heart disease as it can help prevent cholesterol being deposited on the coronary arteries.	Found in small quantities in many plants e.g. lettuce, peanuts, seeds, vegetable oils, milk and milk products, egg yolk.
Vitamin K	Assists with the production of coagulants that help blood clot properly after injury.	Green vegetables. Bacteria in the intestine produce a useful supply that the body can use.
Vitamins – water soluble (These vitamins are more likely to be low in the body as they can be destroyed by cooking in water)		
Vitamin B complex There are as many as 13 substances in the vitamin B complex.		The food sources for all the B vitamins are similar including: Cereals, especially wholegrain cereals, bread, flour, yeast extracts, beer, all meat especially pork, ham, bacon, eggs and milk.
Vitamin B1 (Thiamin)	Helps the release of energy from carbohydrates. Required for normal growth in children. Increased amounts are needed in pregnancy. Required for the function and maintenance of nerves.	
Vitamin B2 (Riboflavin)	Essential for normal growth. Required for release of energy from proteins and fats.	
Nicotinic acid	Helps release energy from carbohydrates.	
Folate	A lack of folate in early pregnancy may result in spina bifida in the baby. Women are advised to eat foods high in folate during the first 12 weeks of pregnancy and take supplements.	Folate is found in potatoes, green leafy vegetables, Brussels sprouts, peas, green beans, bananas, grapefruit, oranges, bread, cereals, pulses and dairy products.
Vitamin B12	Required for metabolism. A deficiency can result in megaloblastic anaemia which can	It is produced by the intestine by bacteria and in animal foods.

	occur in patients with dietary disorders or in old age.	
Vitamin C (Ascorbic acid) A daily supply is required, as it cannot be stored by the body. Is also easily destroyed by heat when cooking and dissolves easily in water.	Required to help the body absorb the mineral iron for healthy blood and so prevent anaemia. Required to build connective tissue which binds the body cells together. Required for the building and maintenance of skin. Boosts the immune system against viruses like the cold.	Fresh fruit and vegetables especially kiwi, blackcurrants oranges, grapefruit, cabbage, sprouts, broccoli, potatoes in their jacket (if they are eaten in large quantities).

3. How is food related ill health caused? Red Amber Green

Bacteria – tiny single celled organisms called pathogenic bacteria will cause food poisoning.
They need Food, Moisture, Warmth and Time to grow.
Food intolerances – The body has a chemical reaction from eating or drinking a specific food, making it difficult to digest. This causes nausea, bloating, wind, stomach cramps and diarrhoea.
Food allergies – This is a response from the bodies immune system, usually within minutes of eating or touching the food. However there is the possibility of a delayed reaction over the course of hours. Severe symptoms can be experienced including anaphylactic shock and, in some cases can be fatal.
Temperature control – it is important that food is received, stored, prepared and served at the correct temperature, to prevent the possibility of food poisoning.
Cross contamination – when bacteria is transferred from one object to another.
Chemicals – different chemicals can cause food related ill health: pesticides, fertiliser, additivities, packaging and cleaning.
Diabetes
Diabetes is a condition that causes the body's blood sugar level to become too high.
Heart conditions
A diet high in saturated fat can cause cholesterol to build up in the arteries leading to heart disease and even a heart attack.
Obesity
Obesity is becoming a major health issue as it can lead to more serious conditions like heart disease, cancer, and stroke as well as respiratory and mobility problems.
Coeliac disease
Coeliac disease is a common digestive condition where the small intestine becomes inflamed and unable to absorb nutrients.

4. What are the symptoms and signs of food related ill health? Red Amber Green

Visible symptoms – Chills, diarrhoea, bloating, vomiting, sweats, fatigue.

Non visible symptoms – Feeling sick, Nausea, stomach aches, aches and pains, cramps, fever and chills.

5. How do cooking methods impact the nutritional value of food?

Cooking methods

In the hospitality industry, staff responsible for menu planning must have a sound understanding of nutrition. Where possible they should try to use healthy ingredients and cooking methods to provide meals with a high nutritional value.

Before looking at diets for particular groups it is important to know about cooking methods and how these impact on the quality of food produced.

The recommended cooking methods for a healthy diet are:

Steaming - where the food is cooked by the steam from boiling water so it is not placed in the water but in a steamer – green vegetables that are steamed have a higher vitamin content than those that are boiled because the water soluble vitamins are not dissolved into the water and lost. Fat is not added when steaming so this is a no fat method.

Poaching – fish, eggs and fruit can be poached in a minimal amount of water and no fat is added

Boiling – a moist method of cooking in boiling/simmering water used for root vegetables that are low in water soluble vitamins so the nutritional value is not affected by cooking

Braising – a method of slowcooking meat with a little liquid in the oven - lower in fat and preserves water soluble vitamins in the cooking liquid

Stewing – a slow method of cooking meat and vegetables in a small amount of liquid on the hob. Low in fat

Baking – cooking in the oven without adding fat e.g. baked potato in it's jacket, baking cakes

Stir frying – vegetables, meat, fish and chicken are cut into strips and cooked quickly in a little oil

Roasting – cooking meat and vegetables in the oven using a little fat to brush over them to add colour as the food cooks and prevents it drying out

Grilling – a fast method of cooking meat under a hot grill (salamander), the fat drains away as it melts

Frying – cooking of food in a hot pan, usually in a shallow amount of hot oil or fat

Both shallow and deep fat frying increase the fat content of food. According to healthy eating guidelines they should be avoided.

In order to meet the needs of customers, a chef in any hospitality outlet must be aware of the different dietary requirements they may have.

HOME LEARNING TASKS

Task Description	Done?
Learn the meaning of the key words and phrases	
Understand the causes of food related ill health	
Understand the signs of food related ill health	
Know the 5 main nutrients. Learn their food sources and the role they do in the body.	

Knowledge Organiser

Dance
Year 9
Term 3
2024/25

The Abbey School

Dance Year 9 Term 3
Component 1: Choreography – how to approach creating a piece

Term Focus
You will learn how to:
- Develop your understanding of dance technique and choreographic skills
- Develop choreographic devices
- Develop an understanding of space, relationships and dynamics in response to creating a dance or motif
- Develop your ability to produce motif variation

Prior Learning Links
- In Term 1 students will have developed basic dance skills in relation to safe practice and used physical skills to perform to peers and consider expression.
- In Term 2 students developed a basic understanding of action, space, relationships and dynamics in response to creating a sequence of movements

Future Learning Links
- Key vocabulary underpins all performance elements of the course. This will lead into Term 4. Students will be expected to build upon these skills theoretically and practically.
- Safe practice is an integral part of all practical lessons. This will feed into all lessons of KS4.

KEY VOCABULARY: PHYSICAL SKILLS

Physical Skills enable a dancer to physically complete the action therefore giving an effective performance.

TOP TIP: We use BASIC SPEC FM to help us remember these skills.

Balance	A steady or held position achieved by an even distribution of weight.
Alignment	The correct placement of body parts in relation to each other.
Stamina	The ability to maintain energy over a period of time.
Isolation	An independent movement of part of the body.
Control	The ability to stop and start movement, change direction and hold shape efficiently.
Strength	Muscular Power.
Posture	The way the body is held.
Extension	The lengthening of muscles or limbs.
Coordination	The ability to move 2 or more body parts at the same time efficiently.
Flexibility	The range of movement at a joint.
Mobility	The ability to move fluently from movement to movement.

KEY VOCABULARY: EXPRESSIVE SKILLS

Expressive Skills are aspects that contribute to performance artistry and that engage the audience.

TOP TIP: We use FAT FROGS POUNCE MASSIVELY SIDEWAYS SOUTH to help us remember these skills.

FFPMSS	
Facial Expressions	The use of the face to show mood, character or feeling.
Focus	The use of the eyes to enhance performance or interpretative qualities.
Projection	The energy the dancer uses to connect with and draw the audience in.
Musicality	The ability to make the unique qualities of the accompaniment evident in performance.
Sensitivity to Other Dancers	Awareness of and connection to other dancers. EG: Timing.
Spatial Awareness	Consciousness of the surrounding space and its effective use .

1. What is rhythmic content? Red Amber Green

Rhythmic content refers to the way rhythm—patterns of beats, accents, and timing—is expressed and incorporated into movement. It plays a critical role in shaping how dancers interact with music or sound, giving structure, energy, and emotional expression to their movements.

Examples of Rhythmic Content in Dance Styles:

- **Ballet:** Movements often follow classical, measured rhythms with fluid transitions.
- **Hip-Hop:** Strong emphasis on syncopation, beats, and polyrhythms, matching the energy of urban music.
- **Latin Dances (e.g., Salsa, Rumba):** Highly rhythmic with specific patterns like clave rhythm or syncopated beats.
- **Contemporary Dance:** Combines fluid rhythms with moments of stillness and dynamic contrast.

2. What is action content? Red Amber Green

Action content refers to the movement itself performed by the dancer. Action content is required in a motif as without it the dancers would not have anything to perform. A motif can be developed through action content through the following ways:

- Add an action
- Minus an action
- Repeat an action
- Reorder actions
- Change body parts

3. What is dynamic content? Red Amber Green

Dynamic content refers to how a movement is performed specifically focusing on speed, strength and flow.

Speed – the rate at which something moved
Strength – the level power behind the action performed
Flow – the state of changeability

4. What is spatial content? Red Amber Green

Space refers to where the movement is being performed:

Spatial Design – where you are in the space (centre stage, upstage right, downstage right etc)
Levels – where the movement is in relation to height (floor work, low level, mid-level, high level and in the air)
Direction – where are you facing (front/back/left/right/diagonal)?
Pathway – the path in which the movement follows – side to side, front to back, zig-zag and circular)

Size – how big or small the action is and how much space is being used – arm circle/shoulder circle

5. What is relationship content?	Red	Amber	Green

Relationship content refers to who the movement is performed with. If a dance is performed by a soloist, relationship content cannot be applied. If there are 2 or more dancers, it can be included in a performance. Relationship content includes:

Lead and Follow – following an responding to a dancer's actions
Complementary – similar movements
Contrast – movements with nothing in common
Formations – positioning of dancers in the space
Contact – use of physical touch
Mirroring – reflection
Action and Reaction – a physical response to an action
Accumulation – the gathering of movements and additional dancers
Counterpoint – phrases being performed simultaneously

HOME LEARNING TASKS	
Task Description	Done?
Dynamic content	
Action content	
Relationship content	
Rhythmic content	
Spatial content	
Evaluate the movement you have created this term and discuss how you have included elements of action content, spatial content and dynamic content	

Knowledge Organiser

Drama
Year 9
Term 3
2024/25

The Abbey School

Drama Year 9 Term 3
Understanding Drama – Staging and Positioning

Term Focus
You will learn how to:

- Develop your understanding of Theatre roles
- Create and perform your own performances whilst collaborating with others developing your teamwork, communication and problem-solving skills.
- Evaluate your own work in addition to the work of your peers.

Prior Learning Links

- Consolidates previously learned information and skills which underpin the curriculum. The level of experience in this subject will differ. This unit will allow all pupils to further develop a foundation knowledge of skills and techniques.

Future Learning Links

- Performance skills will continue to develop They are the foundation skills required for any performance.
- Pupils' command of vocabulary is the key to their learning and progress across the whole curriculum.
- Promotes confidence and resilience across the wider school.

KEY VOCABULARY – Stage Types

- **End on**
- **Proscenium Arch**
- **Thrust**
- **Traverse**
- **In the round**
- **Promenade**

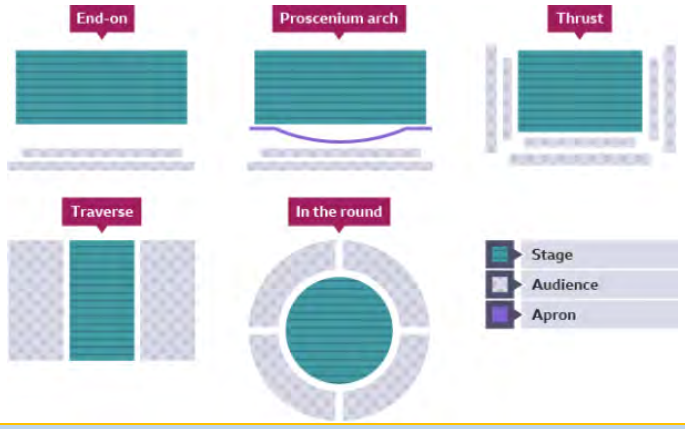
End on	**The audience is positioned at the front of the stage and the stage become like a 'picture frame'. Does not have an arch.**
Proscenium Arch	**The audience is positioned at the front of the stage and the stage become like a 'picture frame'. Sometimes the end extends forward, this is called an apron.**
Thrust	**The audience is on all three sides, this can be like a catwalk or an extended apron. A backdrop would need to be included in Thrust stage.**
Traverse	**With this stage type, the audience are sat either side of the stage, facing each other and the acting takes place in-between.**
In the round	**The audience are seated all around the stage. The stage itself can be round, square or rectangle. It's sometimes referred to as 'Arena' stage.**
Promenade	**The audience could be seated or stood in any position dependent on the performance. They follow the action as it takes place.**

1. What transferrable skills will you develop in Drama?	Red	Amber	Green

Drama is a subject that allows you to develop key skills that you can use in all areas of your life. These skills are what employers look for when you are applying for a job. You may not be someone who would like to be an Actor but all the skills you will develop in your lessons are important life skills for the future.

Teamwork	Each lesson you will work in groups to complete a performance task. You will need to work with your peers. You will need to contribute ideas as well as listen to others to create a performance to perform to the class.
Creativity	You will be required to think of imaginative ideas to create a performance which is exciting for the audience.
Problem Solving	When given a challenging task, you will need to work with your peers to overcome any issues you face. You will also need to navigate working with a range of different people with a variety of skillsets. You will need to problem solve in order to get the task completed.
Leadership	Leadership skills will be developed when devising your own performances. Being able to take lots of ideas and find a way to move forwards with the task will encourage you to take charge.
Confidence	Confidence will be developed in a variety of ways. You will be expected to contribute ideas in class discussions, group work and when evaluating each others work. You will be expected to perform to your peers every lesson in addition to working with a variety of different people. Confidence is a key skills which will be developed.
Resilience	You will be challenged outside of your comfort zone but being able to continue to push yourself every lesson will result in your resilience developing. Performing to an audience, working with others and speaking
Communication	You will be expected to be able to communicate politely with one another in group work and class discussions.

What are the main stage types Red Amber Green



Dramatic Devices Red Amber Green

Dramatic devices are linked abstract theatre. They would not be used in a naturalistic play.

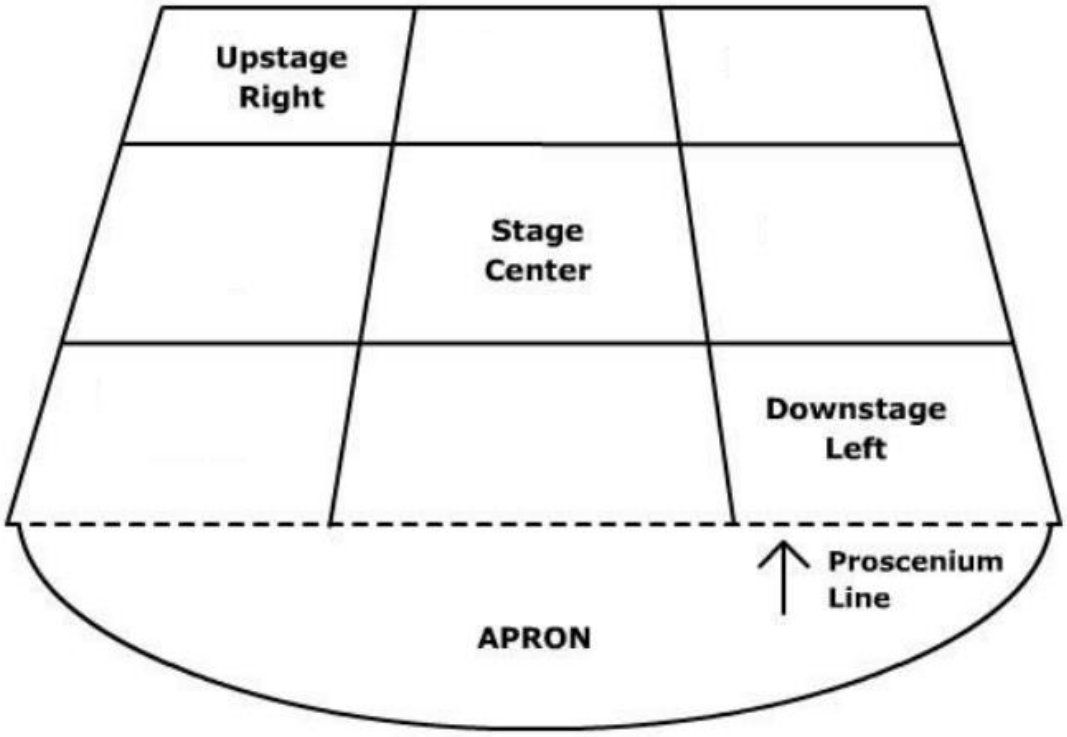
Slow- motion
Symbols
Pause
Placards
Thought track
Narration
Direct address
Choral speaking

Freeze – Frame
Flashback
Flash-forward
Mime
Masks
Music/Song
Monologue
Multi-role

Positioning Red Amber Green

All nine positions on stage are from the perspective of the performer. When a performer is standing in the middle of the stage, their position is referred to as **centre stage**. As the

performer looks out to the audience, the area on their right-hand side is called **stage right** and the area on the left is called **stage left**.



Complete the Vocal Skills table below

Vocal Skill	Definition
P	
P	
P	
P	
T	
E	
A	
V	

Complete the Performance Skills table below

Performance Skill	Definition
P	
P	
P	
B	
E	
D	
S	
L	
V	
G	
F	

Knowledge Organiser

Year 9 Geography

Term 3

2024/25

The Abbey School

Geography Year 9 Term 3 – Urban Change in the UK

London is a dynamic and diverse city that has undergone significant change over time. In this topic, you will explore how London has developed into a global hub, its cultural and economic significance, the factors influencing its growth, and the challenges it faces in becoming a sustainable city. You will also investigate the impact of events like the 2012 Olympics and learn how London can address issues of inequality and social deprivation to create a better future for its residents.

Prior Learning Links

- Term 3 Year 7 Stepping into Asia lays foundations for population growth and urbanisation.
- Year 7 Term 6 examines what a sustainable city is. Revisited in Year 8 Term 2, with the Economy, and where London is introduced.
- Finally in Term 4, with the consequences of climate change upon human settlement.

Future Learning Links

- River Thames runs through London from Term 2, and integral to the origins of the settlement.
- Examines urban change on a national (local for Abbey students) scale as accessible sense of place, before examining global urbanisation.

KEY WORDS

- **Urban Growth**: The increase in the number of people living in urban areas.
- **Ethnicity**: The shared cultural, linguistic, or ancestral heritage of a group of people.
- **Green Space**: Areas of natural land within an urban environment, such as parks or gardens.
- **Crossrail (London)**: A major rail project designed to improve transport across London.
- **Underground**: London's subway system, also known as the Tube, providing public transport across the city.
- **Population**: The number of people living in a particular area.
- **Deprivation**: A lack of access to essential resources or services, such as housing, education, or healthcare.
- **Inequalities**: Differences in access to resources or opportunities among different groups of people.
- **Olympics**: A global sports event that brought significant investment and regeneration to parts of London in 2012.
- **Sustainable**: Capable of being maintained over the long term without causing harm to the environment.
- **Renewable**: Energy or resources that can be replenished naturally, such as solar or wind power.
- **Social**: Relating to society and its organization.
- **Economic**: Relating to money, trade, and industry.
- **Environmental**: Relating to the natural world and the impact of human activity on it.

1. How is London important both nationally and internationally?

Red Amber Green

London is a major city that has developed over centuries to become a hub of economic, cultural, and political importance. Its location on the River Thames allowed it to thrive as a trading port, contributing to its growth as the UK's capital. Today, London is a leader on the global stage due to its financial services, diverse population, and historical significance.

- **Cultural importance**:
  - London is home to iconic landmarks like the Tower of London, Buckingham Palace, and the British Museum.
  - It is a centre for arts, music, and theatre, hosting the West End and globally renowned festivals.
  - The city's multicultural population enriches its food, fashion, and traditions.
- **Economic importance**:
  - London houses the London Stock Exchange and is a global financial hub.
  - It attracts businesses, creating job opportunities in finance, technology, and creative industries.
  - Tourists generate significant revenue for the city's economy.
- **Global connections**:
  - London hosts international events and serves as a hub for global transport through its airports and rail links.
  - Its role in international diplomacy and politics enhances its global profile.

2. Who is living in London and why?

Red Amber Green

London's population is one of the most diverse in the world, with a long history of migration that has shaped the city's identity. Its population has grown due to rural-to-urban migration and international migration.

- **Population growth**:
  - London's population has grown to over 9 million people.
  - Push factors like lack of jobs in rural areas and pull factors like better opportunities attract people to the city.
- **Demographics**:
  - The city is ethnically diverse, with over 300 languages spoken.
  - Migration has created areas like Chinatown and Brick Lane, famous for their cultural contributions.
- **Challenges**:
  - Rapid population growth increases demand for housing, schools, and healthcare.
  - Inequalities in access to resources are evident in some boroughs.

3. How have jobs changed in London?

Red Amber Green

London's employment landscape has evolved significantly over time. Historically, the city was an industrial powerhouse, but as deindustrialisation occurred in the late 20th century, jobs in manufacturing declined. London has since transitioned into a service-based economy, dominated by tertiary and quaternary sectors.

- **Deindustrialisation**:
  - The closure of docks and factories in the 1970s and 1980s reduced industrial jobs.
  - Automation and overseas competition also contributed to the decline of the secondary sector.
- **Rise of tertiary and quaternary jobs**:
  - Jobs in finance, technology, education, and healthcare now dominate the economy.

- Areas like Canary Wharf are home to global financial institutions, while tech startups thrive in East London.
- **Examples of jobs in London**:
  - Tertiary: Teachers, nurses, retail workers, and lawyers.
  - Quaternary: Data analysts, researchers, and software developers.
- **Future trends**:
  - Growth in green jobs to support renewable energy initiatives.
  - Potential emergence of a "fifth sector" focused on AI and advanced technology.

4. What is the best way to travel around London? Red Amber Green

London's transport network is one of the most extensive and complex in the world. With millions of daily commuters, the city offers a variety of travel options, each with its own advantages and challenges. Transport infrastructure in London has evolved to balance efficiency, accessibility, and environmental sustainability.

- **The Underground System**:
  - London's underground network, known as "The Tube," is the oldest metro system in the world, with over 270 stations.
  - Advantages: Fast, frequent services connecting key locations across the city.
  - Challenges: Overcrowding during peak hours and high maintenance costs.
- **Buses**:
  - London's iconic red double-decker buses provide an affordable way to travel.
  - Advantages: Extensive coverage and cost-effective fares.
  - Challenges: Traffic congestion often causes delays.
- **Cycling and bike rental schemes**:
  - Initiatives like Santander Cycles encourage cycling for short journeys.
  - Advantages: Eco-friendly, affordable, and ideal for avoiding traffic.
  - Challenges: Limited safety measures and weather dependency.
- **Taxis and ride-sharing**:
  - Traditional black cabs and modern ride-sharing apps like Uber offer convenient door-to-door travel.
  - Advantages: Reliable for quick, direct routes.
  - Challenges: Expensive compared to other modes of transport.
- **Trains**:
  - London is served by overground rail services and key hubs like Waterloo and King's Cross.
  - Advantages: Efficient for long-distance commuting and travel outside London.
  - Challenges: Expensive fares and potential delays.
- **Future developments**:
  - Crossrail (Elizabeth Line) will enhance east-west connectivity and reduce travel times.
  - Investment in electric buses and hydrogen-powered trains supports sustainability goals.

5. How green is London? Red Amber Green

London is often seen as a bustling urban centre, but it is also home to numerous green spaces that contribute to its environmental sustainability and quality of life. These areas play a vital role in improving air quality, supporting biodiversity, and offering recreational spaces for residents and visitors.

- **Overview of green spaces**:
  - London is one of the greenest major cities in the world, with around 47% of its area consisting of parks, gardens, and green belts.
  - Notable green spaces include Hyde Park, Hampstead Heath, and Richmond Park.
  - The "Green Belt" around London restricts urban sprawl and preserves natural landscapes.

- **Sustainability initiatives**:
  - The Mayor of London's plan includes increasing tree coverage and maintaining clean air zones to reduce pollution.
  - Green roofs and walls are being incorporated into new developments to support biodiversity.
- **Challenges and improvements**:
  - Urbanisation threatens green space as the demand for housing grows.
  - Initiatives like the National Park City campaign aim to increase public awareness and protect green areas.
  - Community-led projects encourage urban gardening and sustainable development.

6. What is social deprivation, and why is it an issue in London?

Red Amber Green

Social deprivation refers to the lack of access to basic resources and opportunities, such as housing, education, and healthcare. London faces significant social inequalities, often linked to the decline of certain industries and uneven economic development.

- **Social deprivation in London**:
  - Areas such as Tower Hamlets and Newham experience high levels of poverty, unemployment, and inadequate housing.
  - Factors contributing to deprivation include the collapse of manufacturing industries and rising living costs.
- **Inequalities in London**:
  - Income inequality is evident, with wealthy areas like Kensington contrasting sharply with poorer districts.
  - Access to education, healthcare, and public services varies greatly across boroughs.
- **Gentrification**:
  - Some deprived areas, like Hackney, have undergone gentrification.
  - Positive impacts: Improved infrastructure and services.
  - Negative impacts: Displacement of lower-income residents due to rising property prices.

7. How did the Olympics change London?

Red Amber Green

The 2012 London Olympics significantly transformed the city, particularly the East End. This event revitalised areas such as Stratford and left a lasting legacy of economic, social, and environmental change.

- **Preparations for the Olympics**:
  - The site in the Lower Lea Valley was transformed from derelict industrial land into the Olympic Park.
  - Infrastructure improvements included new transport links like the Stratford International station.
- **Impact of the Olympics**:
  - Economic: Creation of thousands of jobs during and after the event. Businesses in Stratford experienced growth.
  - Social: The Queen Elizabeth Olympic Park remains a hub for community activities and sports.
  - Environmental: Redevelopment included sustainable practices, such as water recycling and green spaces.
- **Criticism and challenges**:
  - Displacement of residents during construction.
  - Concerns about whether economic benefits were evenly distributed.

8. Can cities ever be sustainable?	Red	Amber	Green

Urban areas face significant challenges in achieving sustainability due to their large populations and environmental impact. However, cities like London are adopting innovative solutions to address these issues and ensure a better future.

- **Challenges to urban sustainability**:
  - High energy consumption and waste production.
  - Traffic congestion leading to air pollution.
  - Limited access to affordable housing in growing cities.
- **Potential solutions**:
  - Expanding public transport to reduce car dependency.
  - Investing in renewable energy sources like solar and wind power.
  - Promoting eco-friendly architecture, such as energy-efficient buildings.
- **Case studies and examples**:
  - London's Ultra Low Emission Zone (ULEZ) reduces air pollution by encouraging cleaner vehicles.
  - Initiatives like BedZED showcase sustainable urban living with reduced energy usage.

HOME LEARNING TASKS

Task Description	Done?
Keyword spelling/definition test.	
Worksheets from 'urban issues and challenges resources' work pack saved in folder.	
Design your own sustainable building, with annotations and predicted impact of waste/pollution reduction.	

Knowledge Organiser

Year 9
Health and Social Care

Term 3
2024/25

The Abbey School

Health and Social Care Year 9 Term 3

Term Focus – Introduction to Growth and Development Component 1

Prior Learning Links	Future Learning Links	IMAGE (please check copyright)
Key facts about puberty and the changing adolescent body, particularly from age 9 through to age 11, including physical and emotional changes. KS2 Curriculum topic Health and Wellbeing	Factors that affect growth and development	

KEY VOCABULARY

Life span-the length of time a person lives
Life stages- are distinct phases of life that each person passes through
Growth describes increased body size in terms of height and weight
Development- involves gaining new skills and abilities such as riding a bike
Milestones- are a significant change in development
Contentment – is an emotional state when infants and children feel happy in their environment and with the way they are being cared for

1. What is the difference between growth and development?	Red	Amber	Green

Growth does not happen smoothly. Infants are roughly half their adult height between the ages of two and three years old. Growth continues into adolescence when there are growth spurts. By early adulthood, people have reached their full height. Development continues throughout life and takes place in the following four areas:
Physical
Intellectual
Emotional
Social

2. What are the main life stages:	Red	Amber	Green

These are:
Infancy 0-2 years
Early childhood – 3-8 years
Adolescence 9-18 years
Early adulthood 19-45 years
Middle adulthood – 46-65 years
Later adulthood – 65+

3. How does development change throughout the life stages?	Red	Amber	Green

Physical development in infancy – time of rapid growth and development. At birth, infants have little control of their movement but by the age of 2 years are able to walk, run and climb
Physical development in adolescence – puberty
Physical development in early adulthood – reach peak of physical fitness, have reached full height, people are at most fertile
Physical development in middle and later adulthood – menopause occurs for women, the ageing proc

4. How does development change throughout the life stages?	Red	Amber	Green

Intellectual development in infancy – start to build connections in their brains
Early childhood – becoming more inquisitive so enjoy exploring objects and materials
Adolescence – being challenged and exposed to new ideas and experiences
Early and middle adulthood – careers are important
Later adulthood – speed of thinking and memory declines

5. How does development change throughout the life stages?	Red	Amber	Green

Emotional development in infancy – need consistency in care to feel safe and emotionally secure. Begin to form attachments.
Early childhood – more able to cope with feelings , beginning to develop self-image.

Adolescence – still dependent on parents/carers but enjoying more independence and freedom to make own decisions.
Early and middle adulthood – live independently and controlling own life style and environment
Later adulthood – may gradually become more dependent on others for care.

6. How does development change throughout the life stages?	Red	Amber	Green

Social development in infancy – starts with the formation of attachments with carers.
Early childhood – begin to extend social development skills as they begin to make their own friendships with other children and adults. They begin to share and cooperate with others.
Adolescence – become more independent and build more formal and informal relationships. Strongly influenced by peers.
Early adulthood – may have a family of their own , activity centred around family.
Middle adulthood – children may have left home. Expand social circle through hobbies or other activities.
Later adulthood – usually retired. More time to socialise with family and friends.

7. How can I show my understanding of what I have learnt?	Red	Amber	Green

Assessment lesson

8. How can I improve?	Red	Amber	Green

PIT lesson

	Red	Amber	Green

HOME LEARNING TASKS

Task Description	**Done?**
Find out about your development during infancy. And complete the Growth and development worksheet	
revision	

Knowledge Organiser

Year 9
Media
Term 3
2024/25

The Abbey School

Media Year 9 Term 3- Film Posters

Term Focus –

Prior Learning Links	Future Learning Links
• Year 9 term 1 Intro to media	• Year 9 Term 4- Practical Skills

KEY VOCABULARY

KEY WORDS/ SUBJECT TERMINOLOGY

Tagline
A short, memorable phrase that hints at the film's theme or tone, designed to grab attention and stick in the audience's mind.

Iconography
The visual images, symbols, or motifs used in a poster to convey the genre or themes of the film.

Typography
The style, arrangement, and appearance of the text on the poster, often used to reflect the film's tone or genre.

Color Palette
The range of colors used in the poster, chosen to evoke specific emotions or associations (e.g., dark tones for horror, bright colors for comedy).

Composition
The arrangement of visual elements (text, images, actors) on the poster to create balance, focus, and appeal.

Visual Hierarchy
The order in which the viewer's eye is drawn to different elements on the poster, often determined by size, color, and positioning.

Billing Block/Production credits
The small text at the bottom of the poster listing the key cast, crew, and production information.

Credits
A list of the people involved in the production of the film, often included in the billing block or highlighted for top contributors.

Star Power
The use of well-known actors or directors as a selling point on the poster to attract audiences.

Genre Indicators
Specific visual cues (such as imagery, typography, or colors) that suggest the film's genre (e.g., a glowing spaceship for sci-fi).

Focal Point
The main area of interest in the poster, such as the central image or a lead actor's face, designed to draw immediate attention.

Tagline Placement
Where the tagline is positioned on the poster to ensure it complements the visuals without overwhelming them.

Slogan
A recurring phrase used across a film's marketing campaign to create a unified promotional message.

Release Date
The date or timeframe when the film will be shown in theaters, often prominently displayed to create urgency.

Target Audience
The specific group of people the poster is designed to attract, based on age, interests, or preferences.

Mood/Tone
The emotional quality conveyed by the design elements, reflecting the feel of the film (e.g., suspenseful, romantic, comedic).

Cultural Codes
Symbols, colors, or imagery that have specific meanings for different cultural groups, used to appeal to or communicate with a global audience.

Product Placement
The inclusion of brand names or logos in the poster, either as a sponsorship or a plot-related element.

Director's Name
The director's name may be highlighted if they are a notable figure in the industry, serving as a draw for the audience.
Reviews and Quotes
Positive remarks or star ratings from critics, sometimes included to add credibility and excitement for the film.

1. What are the main film poster conventions? Red Amber Green

There are a number of different techniques/conventions that you should include when making a film poster:

- **Title**
- **Tagline**
- **Main image**
- **Stars**
- **Release date**
- **Production credits/Billing block**
- **Reviews**

Not all of these must be present but a lot would be

2. What is a genre? Red Amber Green

Genre is a way of categorising media products based on similar conventions.

For example:

In action films we might expect to see

1. Protagonist as a Hero

The central character is often a brave, resourceful hero with strong physical and mental capabilities, sometimes flawed but ultimately triumphant.

2. High-Stakes Conflict

The narrative usually revolves around a major threat or mission, such as saving the world, stopping a villain, or avenging a loss.

3. Intense Action Sequences

Action films include high-energy scenes like car chases, fights, explosions, and shootouts to create excitement and adrenaline.

4. Clear Villain/Antagonist

A recognizable, often larger-than-life villain or antagonist drives the conflict and provides a clear challenge for the hero.

5. Fast-Paced Editing

Quick cuts and dynamic camera movements are used to enhance the intensity and urgency of action scenes.

6. Weapons and Technology

Characters often rely on advanced weaponry, gadgets, or technology (e.g., guns, bombs, or futuristic tools) as a key element of the plot.

7. Dramatic Locations

Action films frequently include exotic, urban, or dangerous settings (e.g., skyscrapers, deserts, or battlefields) that add excitement and tension.

8. Physical Feats

Heroes and villains often perform incredible physical stunts, such as leaping between buildings, surviving crashes, or engaging in extreme combat.

9. Themes of Justice and Revenge

Many action films explore themes like justice, revenge, redemption, or the fight between good and evil.

10. One-Liners and Catchphrases

Memorable, often humorous lines delivered by the hero or villain, adding personality to the characters and creating iconic moments.

3. How can I use genre to make a media product?	**Red**	**Amber**	**Green**

You need to be considering the conventions that a fan of the genre would be expecting to see and make sure that some of them are evident on your product. In the case of a film poster there needs to be recognisable elements from the genre so that the person seeing it will instantly know what genre it is from.

4. What would we expect to see on a film poster? I.e. what are film poster conventions?	**Red**	**Amber**	**Green**

When we look at film posters there are 7 (seven) conventions that are often used.

- **1- the title of the film**
- **2- A large main image, often of the main character though not always**
- **3- A tagline- a catchy slogan linked to the film to intrigue the audience**
- **4- The release date of the film**
- **5- The production credits (the tiny writing at the bottom)**
- **6- The names of the biggest stars (actors)**
- **7- Quotes/ratings from positive reviews**

It is worth noting that all of these are not always present.
How many can you see on the poster to the left?

You can use the list above as tick list of what to include when you make a film poster yourself

5. How do I incorporate genre into the product conventions?

Red Amber Green

Have a look at the poster to the right- clearly for an action film!

How many of the action film conventions listed in section 2 can we see even just on the poster?

As well as this look at the 7 product conventions above.

Now look at how many have been adapted to fit into an action film style.

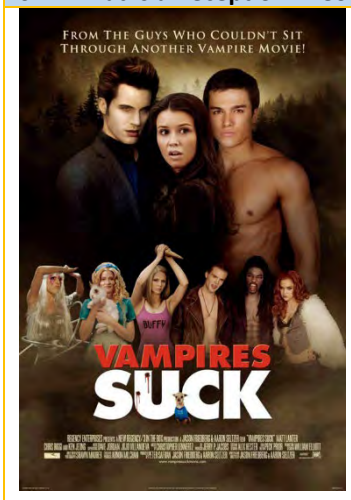
For example:

The main image- tough guys, looking strong, cool and heroic. Guns and explosions.
Title- bold and clear font
Tagline- suggests violence and death

This is what you must do when creating products linked to a specific genre. You must change or adapt the conventions so the genre is clear

6. What is a Reception Theory?

Red Amber Green



This is the media theory that tries to understand how and why audiences react differently to media products.

Look at the poster to the left:

Would you want to go and see this film?

If yes, why?

If maybe, why?

If no, why?

Reception theory tries to understand this.
It also asks why we might react differently, maybe to do with age, gender, ethnicity, location, social standing etc

7. What is a dominant reading?

Red Amber Green

When we react in the way that the Media producer wanted us to, then we have the dominant reading.

For example: the movie poster above. If we react by wanting to go and see the film then then is exactly what they wanted us to think.

They encode meaning in the poster by putting things in there that they think we would like/be interested in and if we decode them and like or are interested in them then we have the dominant reading.

8. What is a negotiated reading?

Red Amber Green

Sometimes we consume and media product and we might not like or agree with everything we see/hear but might like other parts and can still enjoy the product. This is the negotiated reading.

With a game like Grand Theft Auto, some people might think it is a bit over the top, too violent, don't like the bad language etc.

However, they still might enjoy the story, doing the missions or think it is just generally a bit of fun and it's just a game.

So whilst they are not decoding all the meanings in the way intended, they can still negotiate their way through enough.

9. What is denotation?

Red Amber Green

This one is quite straight forward-

This is the literal meaning of a 'sign' (a sign being something that has meaning)

For example- the sign opposite has a literal meaning of a heart

We know this as we have seen it before and we understand it.

10. What does connotation mean?

Red Amber Green

This one is slightly more complicated.

This time it refers to other hidden or deeper meanings of the sign.

So this time it might mean:

- Love
- Romance
- Passion
- Marriage

You could say- this heart has connotations of love.

11. What is Uses and Gratification Theory?

Red Amber Green

This theory is trying to understand why media audiences choose certain media products. It asks why we might watch and film, watch the news, listen to the radio or play a game.

It narrows it down to 4 reasons. These are referred to as the 4 needs as they are 'needs' we have that we are trying to 'gratify' or meet.

1. **<u>Personal Relationships</u>- we care about characters in films/tv/games and develop a pseudo relationship with them. Also we can talk about media products with our friends and families which help our real life relationships**
2. **<u>Information</u>- we need to know what is going on around us and the media helps us get this information**
3. **<u>Personal Identity</u>- the media helps us to shape who we are as individuals, through things like politics, fashion, role models etc**
4. **<u>Entertainment</u>- sometimes we get bored and the media helps us divert from our everyday lives into a different world**

Red	Amber	Green

HOME LEARNING TASKS	
Task Description	**Done?**
Watch a tv show or film, what genre was it? What do you think are some of the conventions of this genre?	
Keep a look out for a film poster, how many of the 7 conventions can you spot on it?	
Think about a media product you did not like, why do you think you did not like it? Write down why you rejected it	
Design a film poster for a western or fantasy film that contains all 7 product conventions	

Knowledge Organiser

Music
Year 9
Term 3
2024/25

The Abbey School

Music Year 9 Term 3
Popular Music

Term Focus

You will learn how to:

- develop your knowledge and understanding of music through performing
- perform a piece of popular music
- develop an understanding of popular music
- listen to and identify features of popular music

Prior Learning Links

- Year 7 Term 3&4 Keyboard Skills – students will have explored some four chord popular songs
- Year 8 Term 1&2 Ukulele Skills – students have learnt basic chords on the ukulele and performed popular songs
- Year 8 Term 5&6 – students have explored popular music structures and features and explored writing popular songs

Future Learning Links

- Component 1 – all students will perform two pieces of music, at least one must be as part of an ensemble
- Component 3 – students will be assessed through a written/listening examination that will assess their knowledge of AoS4: Popular Music

KEY VOCABULARY

KEY WORDS	KEY SUBJECT TERMINOLOGY
Solo: a song or piece of music performed by a single performer. This can be accompanied or unaccompanied	**Musical elements:** the building blocks of music that include dynamics, tempo, texture, timbre and pitch
Dynamics: the volume that notes should be played/sung	**Popular music:** music that is popular at a given time and appeals to a wide audience
Tempo: the speed or pace of the music	**Music technology:** the incorporation of technology, such as computers and software, to perform and create music. It could include DJ-ing and sequencing
Texture: how melody, harmony and rhythm are combined in music to create layers of sound	**Musical arrangement:** altering or adapting an existing piece of music through changing musical elements, structure or the instruments used
Timbre: the type of sound produced by an instrument or a voice	**Musical ensemble:** a group of people who perform instrumental or vocal music together
Pitch: how high or low a note sounds	**Musical accompaniment:** the music that plays in the background to support a melody
Structure: the order the different sections of a song or piece of music are played in (e.g. verse/chorus/intro)	**Technical control:** the ability to perform with secure instrumental/vocal technique, control of tuning and tone and projection
Harmony: more than one note/pitch is played or sung at the same time	**Musical expression:** a performance that shows good communication of the feeling of the piece of music and effective balance between performers
Unison: one sound. Two or more people play/sing the same pitch	**Stylistic awareness:** successfully include stylistic features relevant to the genre of music in a performance
Riff: a catchy, repetitive melody in pop music	**Pace and fluency:** a musical performance that is accurate and at an appropriate tempo

1. How did music technology influence poplar music? Red Amber Green

Many songs have relied heavily on **MUSIC TECHNOLOGY** to create and enhance the overall effect. In the 1990's **DIGITAL EFFECTS** were more available and these, along with music videos which were often as important as the music itself, meant solo artists could achieve different outcomes from each album/track and therefore 'reinvent' themselves and their music. The following digital effects are popular in music from solo artists from the 1990's to present day:

SAMPLING – sections or loops taken from other recordings.
DRUM LOOPS – electronically created using technology and then repeating it
REVERB – an effect whereby the sound produced by an amplifier or an amplified musical instrument is made to reverberate slightly.
ECHO – an effect where the original audio is followed closely by a delayed repeat, just like an echo.
PANNING – an effect used to artificially place sounds within a stereo mix, giving them a distant space or to create effects of sounds moving from left to right by allocating sounds or tracks to different channels on a mixing desk.
DISTORTION – a 'gritty' sound used with electric guitars.
OVERDUBBING – due to the advances in technology, it was possible to record many more instrumental and vocal parts, often resulting in complex and thick musical textures *e.g. Adele's "Someone Like You" is recorded with overdubbing – a separate track of her singing in harmony is added over the top)*

AUTO-TUNE – a device or facility for tuning something automatically, especially a computer program which enables the correction of an out-of-tune vocal performance.
FILTERS – *e.g., the 'telephone filter' in Christina Aguilera's "Genie in a Bottle" and effects and filters such as reverb, delay and pitch-bends are used in Lady GaGa's "Telephone".*
PHASING – an effect that combines an audio signal with a short delay to create phase differences producing a sweeping effect like a plane passing by.

2. What are the main features of Rock 'n' Roll? Red Amber Green

Rock 'n' roll is a genre of music that emerged in the 1950s, blending elements of rhythm and blues (R&B), country, gospel, and jazz. Its distinct sound and style are characterized by several key musical features:

1. Strong Backbeat

- The backbeat (emphasis on the second and fourth beats of a measure) is a defining feature of rock 'n' roll. This rhythmic drive, often played on the snare drum, gives the music its energetic and danceable feel.

2. 12-Bar Blues Structure

- Many early rock 'n' roll songs are based on the 12-bar blues chord progression, providing a familiar and repetitive harmonic structure.

3. Driving Rhythm

- The rhythm in rock 'n' roll is fast-paced and energetic, often driven by guitars, bass, and drums. The music typically has a straight 4/4 time signature.

4. Electric Guitar Prominence

- The electric guitar plays a central role in rock 'n' roll, often used for riff-based melodies, solos, and chordal accompaniment. Guitarists like Chuck Berry popularized the use of memorable guitar riffs.

5. Simple, Catchy Melodies

- Rock 'n' roll songs often have straightforward, singable melodies that are easy to remember. This simplicity contributed to their mass appeal.

6. Call-and-Response

- Borrowed from gospel and R&B traditions, many rock 'n' roll songs feature call-and-response patterns between the lead singer and the band or backup vocals.

7. Vocal Style

- The vocal delivery in rock 'n' roll is often raw, emotive, and expressive, incorporating techniques like shouting, belting, and playful phrasing.

8. Instrumentation

- A standard rock 'n' roll band typically includes electric guitar(s), bass guitar (often upright bass in early recordings), drums, and sometimes piano or saxophone.

9. Upbeat Tempo

- The tempo of rock 'n' roll songs is generally lively, contributing to its association with dancing and youthful exuberance.

10. Lyrics Focused on Youth Culture

- Themes in rock 'n' roll lyrics often include love, rebellion, cars, and teenage experiences, reflecting the concerns and aspirations of its young audience.

Examples of Classic Rock 'n' Roll Songs:

- "Johnny B. Goode" by Chuck Berry
- "Rock Around the Clock" by Bill Haley & His Comets
- "Tutti Frutti" by Little Richard
- "Hound Dog" by Elvis Presley

3. How can I develop my instrumental/vocal skills?	Red	Amber	Green

You may wish to begin by evaluating your skills from 1 (poor) to 5 (excellent) in the audit below:

Area	Skill	1	2	3	4	5
Techniques	• accuracy of pitch/intonation					
	• accuracy of rhythm and timing					
	• accuracy of expression and dynamics					
	• accuracy of phrasing					
	• range of notes (vocalists)					
	• breath control (vocalists)					
	• diction (vocalists)					
	• following an accompaniment					
	• learning new pieces					
	• projection					
	• musical interaction					
Interpretation	• accurate interpretation and reproduction of style					
	• awareness and communication with accompaniment in performance					
	• physical expression – body language, facial expressions					
	• communication with the audience in performance					
	• use of timing and rhythm for expression					
	• use of phrasing for expression					
	• use of dynamics for expression					
	• confidence					
	• stage presence					

Following your skills review, create some SMART targets to explain what you want to achieve with your performance skills:

S - Be **specific**. Describe and explain exactly what you want to achieve with your performance skills. Think about your technical vocabulary.
M - Make sure you can **measure** and track this target. How will you know that you are making progress?
A - Is this target **attainable** and realistic to achieve. Work towards something that is challenging but possible.
R - Is this a **relevant** target?
T - Check the **time frame** and set deadlines. Are you going to achieve this in the short or long term?

4. What does a successful practise session look like? Red Amber Green

Create a rehearsal schedule, including SMART targets. See the example below:

Instrument Rehearsal Plan

Musician's Name:
Instrument:
Date Range of Plan:

1. Goals and Objectives

Overall Goal:
What is the primary aim of this rehearsal period? (e.g., preparing for a performance, improving technical skills, mastering a particular piece)

2. Rehearsal Schedule

Date	Time	Focus Area	SMART Target	Notes
MM/DD	HH:MM	*E.g., Warm-up, scales*	*E.g., S: Practice C major scale. M: Play without mistakes for 3 minutes. A: Already know basics. R: Important for piece. T: Within this session.*	*Any additional notes*
MM/DD	HH:MM	*E.g., Piece practice*	*E.g., S: Master measures 20-40. M: Play at 80 bpm accurately. A: Challenging but manageable. R: Crucial for performance. T: By the end of the week.*	*Any additional notes*
MM/DD	HH:MM	*E.g., Technical exercises*	*E.g., S: Improve finger dexterity. M: Perform exercise without errors 5 times consecutively. A: Exercises are familiar. R: Enhances overall playing.*	*Any additional notes*
MM/DD	HH:MM	*E.g., Technical exercises*	*E.g., S: Improve finger dexterity. M: Perform exercise without errors 5 times consecutively. A: Exercises are familiar. R: Enhances overall playing.*	*Any additional notes*
MM/DD	HH:MM	*E.g., Repertoire review*	*E.g., S: Polish entire piece. M: Play through without stopping 3 times. A: Already learned notes. R: Ready for concert. T: By next rehearsal.*	*Any additional notes*

3. Warm-up Routine

Duration:
Exercises:

1. **Breathing exercises:** *E.g., Deep breathing for 2 minutes*
2. **Scales and arpeggios:** *E.g., Major and minor scales for 5 minutes*
3. **Technical drills:** *E.g., Finger exercises for 5 minutes*

5. How can I work successfully with other musicians? **Red** **Amber** **Green**

For your GCSE assessment, you will have to perform at least one piece of music as an ensemble. There must be between two and eight of you playing or singing, but your part cannot be doubled. You have to perform a significant part and your group cannot be conducted. You must think carefully about which musicians in the class will work well with you to create a balanced performance.

Here are some key strategies to help you and your ensemble succeed:

1. Clear Communication

- **Establish Roles:** Ensure everyone knows their role in the group, whether it's a lead player or accompanist
- **Regular Meetings:** Hold regular meetings to discuss goals, schedules, and any issues that arise.
- **Open Dialogue:** Foster an environment where members feel comfortable expressing ideas and concerns.

2. Set Clear Goals

- **Short-term Goals:** Set specific, achievable goals for each rehearsal, such as mastering a particular section of music.
- **Long-term Goals:** Have overarching objectives, such as preparing for a performance or recording a piece.

3. Effective Rehearsals

- **Structured Plan:** Have a clear rehearsal plan with allocated times for warm-ups, individual sections, and full run-throughs.
- **Punctuality:** Start and end rehearsals on time to show respect for everyone's schedule.
- **Focus on Problem Areas:** Identify and spend more time on challenging sections rather than just playing through the entire piece.

4. Develop Strong Musicianship

- **Individual Practice:** Ensure all members are practicing their parts individually outside of group rehearsals.
- **Technical Skills:** Work on improving individual technical skills and ensemble playing techniques, such as dynamics, timing, and articulation.

5. Regular Feedback

- **Constructive Criticism:** Give and receive feedback in a constructive and positive manner.
- **Self-Evaluation:** Encourage self-evaluation and group reflection after rehearsals and performances to identify areas for improvement.

6. Performance Preparation

- **Mock Performances:** Hold mock performances to simulate the conditions of the actual event and reduce performance anxiety.
- **Stage Presence:** Work on stage presence and audience interaction as part of your rehearsals.

6. How can I select appropriate repertoire for performance? Red Amber Green

The standard of pieces selected for performance should be broadly equivalent to grade 3 of the graded music examinations.

One of the pieces performed must be linked to specific aspects of musical content within **one** of the four areas of study. All students are required to perform one ensemble piece and when this is linked to area of study 2, Music for Ensemble, the piece must be related to one of the specific genres or styles covered in this area of study.

Area of study 1: Musical Forms and Devices Area of study 2: Music for Ensemble
Area of study 3: Film Music
Area of study 4: Popular Music

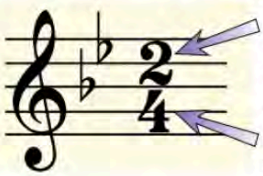
In **all** performances, learners will be expected to display:

- technical control
- expression and appropriate interpretation
- accuracy of rhythm and pitch
- appropriate pace and fluency
- effective use of dynamics
- stylistic awareness
- empathy (in ensemble playing).

7. What are time signatures in music? Red Amber Green

The **Time Signature** Shows **How Many** Beats are in a Bar

1) There's always a time signature at the beginning of a piece of music.
2) It goes to the right of the clef and the key signature.
3) It's written using two numbers.



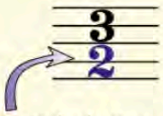
TOP NUMBER goes between the middle line and the top line

BOTTOM NUMBER goes between the middle line and the bottom line

The top number tells you how many beats there are in each bar, e.g. a '2' means two beats in a bar, a '3' means three beats in a bar and so on.

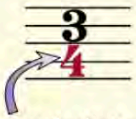
The bottom number tells you how long each beat is (see page 16 for the names of the different notes).

If you see a big 'C' in place of the time signature, it stands for 'common time', which means it's in $\frac{4}{4}$. If it's ¢, then it's 'cut common time' — $\frac{2}{2}$.



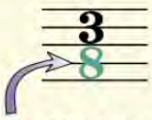
A 2 at the bottom means each beat is 1 minim long.

2 = 𝅗𝅥



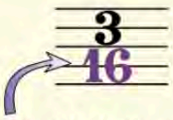
A 4 at the bottom means each beat is 1 crotchet long.

4 = ♩



An 8 at the bottom means each beat is 1 quaver long.

8 = ♪



A 16 at the bottom means each beat is 1 semiquaver long.

16 = 𝅘𝅥𝅯

8. What is tempo in music? Red Amber Green

Tempo is Italian for 'time'. These are the most common words you will come across:

Italian word	What it means	Beats per minute
lento	slow	45-60
adagio	bit faster than lento	66-76
andante	walking pace	76-108
moderato	moderate speed	108-120
allegretto	moderately fast	112-120
allegro	quick and lively	120-168
vivace	very lively — quicker than allegro	168-180
presto	really fast	180-200

These words tell you how to vary the speed:

Italian word	Abbreviation	What it means
accelerando	accel.	speeding up gradually
rallentando/ ritardando	rall./ rit.	slowing down gradually
allargando	allarg.	slowing down, getting a bit broader
rubato	rub.	can be flexible with pace of music
𝄐		pause — longer than a whole beat
a tempo		back to the original pace

9. What are dynamics in music? Red Amber Green

Dynamic markings tell you how loudly or quietly to play:

Symbol	Stands for	What it means
pp	pianissimo	very quiet
p	piano	quiet
mp	mezzopiano	fairly quiet
mf	mezzoforte	fairly loud
f	forte	loud
ff	fortissimo	very loud
	crescendo	getting louder
	diminuendo	getting quieter

10. What is articulation in music?

Red | Amber | Green

Articulation tells you how much to separate the notes:

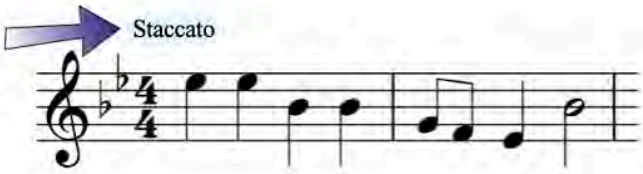
All the dotted notes are played slightly short.

All the notes below or above the slur are played smoothly, with no breaks between.

Tenuto marks (lines above or below a note) tell you that a note should be held for its full length, or even played slightly longer.

If the articulation goes all the way through a piece, there's an overall instruction at the beginning.

If this piece was marked legato you would have to play smoothly all the way through.



HOME LEARNING TASKS

Task Description	Done ?
Pop Music Workbook – Exercises 1 and 2	
Pop Music Workbook – Exercise 3	
Pop Music Workbook – Exercise 4	
Pop Music Workbook – Exercise 5	
Pop Music Workbook – Exercise 6	
Pop Music Workbook – Exercise 7	

Knowledge Organiser

Year 9 Photography

Term 3
2024/25

The Abbey School

Subject Photography Year 9 Term 3 – ‘Alphabet Project’

Term Focus – Implement prior camera knowledge and experimenting in response to their research. E.g. Fill the frame, shutter speeds, depth of field from Term 1.
To enable students to work from a set of objectives relating to the theme.

Encourage students to think and observe creatively and realise the intentions of the photograph.

To introduce students to basic tools in Photoshop, the industry standard for graphics editing, students are working towards a possible career in the creative industries.

To introduce planning, creating and reviewing work considering the theme. To encourage independence later on in the course.

Scaffolding the design process for proceeding coursework projects.

Terms 1&2- Introduction to Photography focusing on basic skills and formal elements including depth of field, shutter speeds and filling the frame. **These basic camera skills, the elements and principles of visual language will proceed to be built upon and interleaved through a series of projects. Scaffolding the design process for proceeding coursework projects.**

Future Learning Links

Build upon basic tools in Photoshop and implementing prior camera knowledge from Term’s 1 and 2. Developing further photo shop techniques and camera skills, experimenting in response to students’ research. E.g. abstraction, rotation, viewpoint, macro, blurring on purpose. To enable students to work from a set of objectives relating to the theme.

Students to think and observe creatively-pushing the boundaries of what you can do in photography e.g. the physical processes.

Learning to plan and review work to make creative decisions considering the characteristics of their photographer(s) research.

Scaffolding the design process for proceeding coursework projects.

KEY VOCABULARY	
KEY WORDS	**KEY SUBJECT TERMINOLOGY**
Observation **Composition** **Rule of Thirds** **Aperture** **Shutter speed**	**Observation-** *Going beyond merely looking at subjects to truly seeing and understanding them.* **Composition-** *How we lay the picture out and how we position subjects within the frame to get the most aesthetically pleasing results.* **Rule of Thirds-** *The rule of thirds in photography is a guideline that places the subject in the left or right third of an image, leaving the other two thirds more open.*

Focus **ISO** **Auto mode** **TV** **AV**	**Aperture-** *The aperture refers to the size of the (iris) hole within the lens.* **Shutter speed-***Shutter Speed controls motion blur* **Focus-** **ISO-** *Is the light sensitivity of the digital chip or film. The higher the ISO the more sensitive the chip becomes, meaning that you can take a photograph when there is less light. An ISO of 200 is the average daylight setting.* **Auto mode-** *in auto mode the camera will do all the work.* **TV-** *Shutter priority is where you have control over shutter speed with the main dial on your camera and then the camera chooses the appropriate aperture for the given scene your camera is pointing at.* **AV-** *Aperture priority is where you have control over the aperture with the main dial on your camera. The camera then chooses the appropriate shutter speed for that scene you are pointing the camera at.*

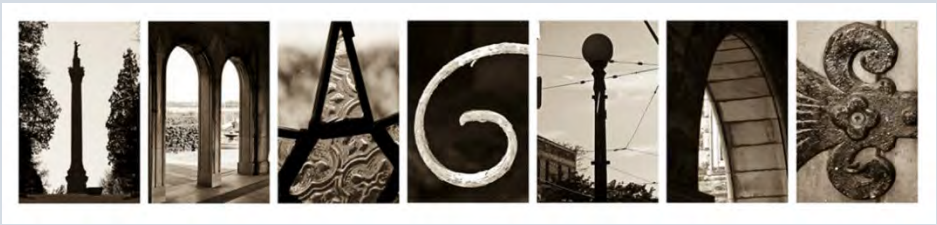
1. How do photographers use visual language in their work?

Red | Amber | Green

I will learn:

- How to identify and analyse the use of the elements and principles of visual language in the characteristics of Jennifer Blakeley and Shelley Davies.

Who is Jennifer Blakeley?
Jennifer Blakeley takes all different types of pictures but mostly of everyday objects such as doors, cutlery, flowers etc... She edits the images into collages that are black and white, that look like letters of the alphabet. She also usually takes photos of different shaped windows, monuments and babies commonly.



GET TO KNOW SHELLEY DAVIES
Canadian artist Shelley Davies creates paintings, collages and photographs that are bold, colour-infused and 3 dimensional.

A frequent contributor to Uppercase Magazine, she makes herself right at home with their ethos of blending art, design and typography.

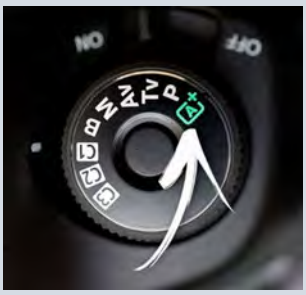
Creating work that acts as an object in space, as well as an image, is very much a part of her methodology, with the sculptural dimension a key ingredient in her a

2. How can we use the characteristics of photographers work to inspire our own ideas?

I will Learn:

- How by looking for letters, students will train their observation skills to seek unusual subjects.
- Gain a wider understanding of how successful photographs are composed.
- To use camera on auto mode, A.V. and T.V to show movement.
- How to fill a frame when taking a photograph.

In auto mode the camera will do all the work. It will choose the settings it thinks is right for that scene that is currently in the frame of the camera. If that scene gets darker, it will brighten up the frame by automatically changing any one, or all of your three principle settings, aperture, shutter speed and ISO. You only have to point the camera in the right direction and work on what is going to be in your photograph.



<u>Shutter Priority (S or Tv)</u>

Shutter priority is where you have control over shutter speed with the main dial on your camera and then the camera chooses the appropriate aperture for the given scene your camera is pointing at.

Shutter speed is the time that the shutter is open for. The longer the shutter speed, the more light will get into your camera.

Shutter speed also controls how much **motion blur** you have in your photographs. If you are shooting a moving object like a sports person, a bird or moving water, a longer shutter speed will blur this movement.

Shutter priority is great for sports and wildlife photography, where having the right shutter speed is imperative.

Aperture Priority (A, Av)

Aperture priority is where you have control over the aperture with the main dial on your camera. The camera then chooses the appropriate shutter speed for that scene you are pointing the camera at. If the brightness in your frame changes, the shutter speed will change to suit. The aperture will only ever change when you turn that dial.

The aperture refers to the size of the (iris) hole within the lens. Aperture is measured in **F-stops.** A low number like F1.8 or F2.1 means a wider aperture. F16 would be a smaller aperture. A wider aperture (a low F-stop) means less of the image is in focus. It also means a faster shutter speed can be used.

3. What is Light painting and how can we achieve it?

I will learn:

- Explore long exposure techniques to enable them to create unique effects that aren't possible at standard or high shutter speed.

- Make connections to the light painted letters of Jennifer Blakely and Marcus Byrne.

Light painting is a photographic style that uses long exposure times to capture moving images of lights. Captured as a stationary visual, the lights can be used to 'paint' vibrant and dynamic scenes that blur the boundaries between drawings and photographs.

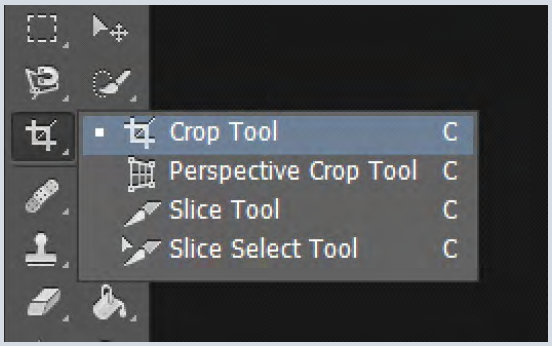
4. How do we edit photos on Photo Shop using crop, brightness, contrast and move tools?

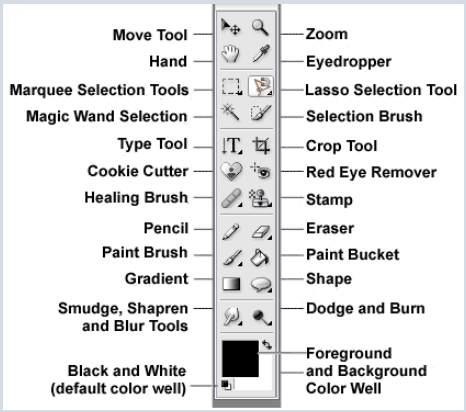
Red | Amber | Green

I will learn:

- Use basic Photoshop editing and enhancement tools (crop, brightness, contrast and move).

Crop
Edit
Brightness
Contrast
Copy
Paste
Repeat
Move





5. What is repetition and how can we use it to develop ideas further?

Red | Amber | Green

I will learn:

- To use repetition to develop ideas further.

Repetition in photography refers to the technique of integrating recurring elements, patterns, or themes in a composition to produce a sense of rhythm and balance in an image. This can involve the repeated use of lines, shapes, colours, textures, or other visual elements that can create a sense of consistency and uniformity.
E.g. A row of trees, a series of arches, a field of sunflowers, or even a group of people dressed similarly. By echoing these elements throughout the image, the photographer guides the viewer's eye across the photograph, establishing a visual rhythm.

Natural repetition

Deliberate Repetition

6. Why is it important to develop more than on idea?

Red	Amber	Green

I will learn:

- To create a contact sheet of all images for sketchbook
- To Annotate the different techniques explored in topics 4 and 5 making contextual links to the photographers investigated.
- How to use crop, brightness and contrast tools to select edit and arrange photos in different compositions (at least 3 versions)
- How to choose best one to present as A3 outcome.

Writing Help

ANALYSING OTHERS' WORK

Structure your response using the following headings:

FORM
What is going on in the art work/photography? Explain objectively and honestly (this is what you see)
Imagine you are trying to explain the art work to someone over the telephone and transcribe that message (write it down)

PROCESS
What has the artist used to make the artwork? Consider materials and media. If a photograph, what are the lighting considerations? Has it been presented in a special way i.e. as an installation?
What formal elements appear?
Are there any recognisable types of composition e.g. Rule of Thirds, Rule of Odds, Symmetry, Repetition?

CONTENT
Having researched further and understood the wider context, discuss the ideas behind the artwork and the intentions of the photographer to the best of your ability. Consider the mood of the work and how it has been achieved.
Do you recognise the associated genres?

CONTEXT- Understanding the wider context and underlying themes gleaned from research and used to inform your opinion

This could include- *Biographical information about the artist, Political events of the time e.g. Wars, Suffragettes*

Social & Cultural Norms e.g. fashion movements

Ideologies, Technology, comparing other artists from the time

Consider past work and common trends in career

Art movements such as Bauhaus or Futurism

How does the work fir in to the history of Art and Photography?

Quotes and key points by specialists and academics

RESEARCH- Research using a variety of secondary sources and collecting comments, quotes and discussion points

Books, Magazines, Periodicals, Newspapers, Galleries, Museums, Internet, Radio, TV/DVD

QUESTIONING- Start with writing down key words and simple questions to get initial primary response and raise further areas for research

What? The Artwork

Who? Subject Matter

Where? Location

When? Process

Why? Meaning

ANNOTATING YOUR OWN WORK

Think?

What is it that you have done?

e.g. ***This is a photograph of****…….(subject/object)* ***considering****…….(techniques such as frame, viewpoint, direct light, natural light, diffused, composition, cropping, macro, movement).*

Was there anything you felt that didn't work well?

Write a sentence describing what didn't work well and why.
I feel that*……* ***did not work well because****……. (is the photography in focus? Could the composition be improved? Cropped, should you have used a different viewpoints, lighting dull or not effective? More direct light)*

Evaluate what was successful? What is it that you liked about it and why?

*Use of colour-complementary, texture, line, detail, viewpoint lighting etc****. I felt that worked because I used……***

When annotating your work make sure you used photography keywords

CONNECTIVES- Connective help our writing to flow- Try using these connectives to improve your written work.

ADDITION
And
Also
In addition
Further
Furthermore
As well as
And then

COMPARISON
Similarly
In comparison
Otherwise
In contrast
Alternatively
Despite this

ILLUSTRATION
For example
For instance
In other words
To show that
Such as
As revealed by
Analysis shows

SUMMARY
In brief
On the whole
Summarising
Overall
To sum up
Evidently
In conclusion

OPINION
It would seem
It appears
Obviously
Possibly
It seems likely
Presumably
In conclusion

BALANCE & CONTRAST
However
Nevertheless
Alternatively
Yet
whereas

Task Description	Done?
Homework will be set every two weeks linking to the project theme Below are some additional tasks you can complete with or without a camera:	
Without a camera task- Look at the artist examples for Big Question no 1 choose your favourite and describe it using the analysing others work in the writing help section. **With a camera task-** Look for letters in the environment inspired by Jennifer Blakeley	
Without a camera task- label the different parts of the DSLR pictures below: LENS, LENS CAP, VIEWFINDER, FLASH, LENS RELEASE BUTTON, ISO, MODE DIAL, POWER SWITCH, SHUTTER BUTTON, LCD SCREEN, MEMORY CARD SLOT 	

READ ME

Light painting is a photographic style that uses long exposure times to capture moving images of lights. Captured as a stationary visual, the lights can be used to 'paint' vibrant and dynamic scenes that blur the boundaries between drawings and photographs.

COMPLETE ME

Light painting is a photographic style that uses long ……. times to capture moving images of lights. Captured as a stationary visual, the …… can be used to '……..' vibrant and dynamic scenes that ……. the boundaries between drawings and …….

Without a camera task- Use the worksheet below to help you plan a photo shoot linked to the theme alphabet

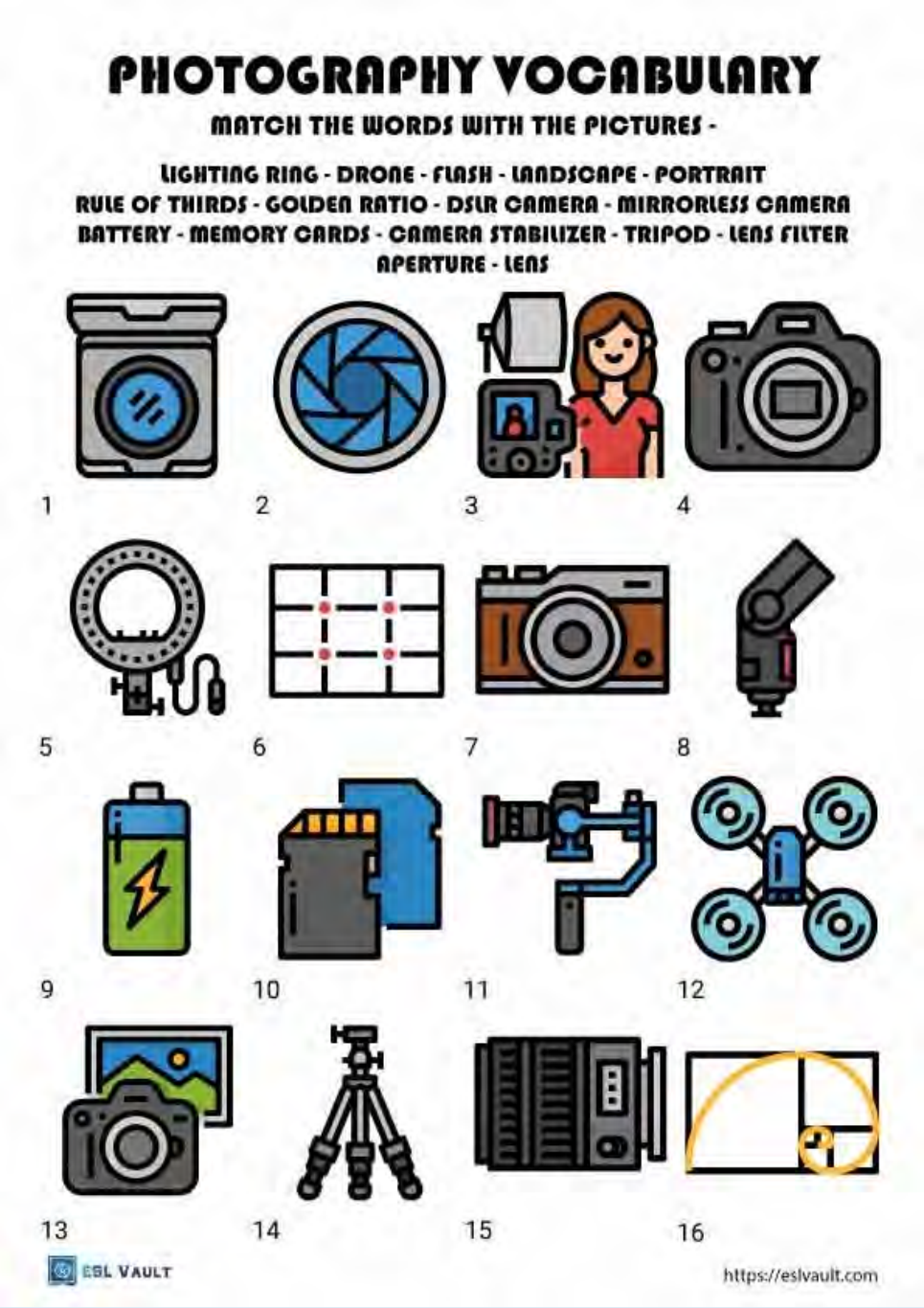
PHOTOSHOOT PLANNING SHEET

Pick your favorite idea from the ideation sheet and start to it out

What's Your Idea?

List Possible Locations	What Lighting Will You need?	List Model and Wardrobe Ideas
Do You Need Any Props?	What is Inspiring You To Do This?	Any Specific Themes or Colors to Use?

Without a camera task- complete the worksheet below…



Without a camera task- complete the worksheet below

photography

E	P	H	L	I	M	O	O	R	K	R	A	D	P
M	O	L	M	T	L	E	T	W	M	L	I	F	O
T	H	L	O	E	O	I	H	I	H	G	I	L	T
M	S	S	N	E	L	E	G	L	A	G	E	A	S
A	O	O	G	P	E	K	I	P	R	A	M	T	I
A	T	O	M	O	D	E	L	G	D	O	T	I	M
P	O	A	R	I	S	T	T	C	L	L	L	G	H
E	H	K	U	K	S	E	F	A	I	O	O	I	I
R	P	N	R	R	G	T	O	M	G	W	I	D	G
T	F	R	H	M	O	R	S	E	H	K	D	O	H
U	L	A	U	N	A	M	I	R	T	E	U	E	K
R	O	D	T	E	H	H	H	A	I	Y	T	O	E
E	S	O	L	A	T	K	D	I	N	T	S	H	Y
D	I	P	T	R	I	P	O	D	G	A	A	D	S

DIGITAL
HIGHKEY
LENS
STUDIO
ISO
MODEL
CAMERA
HARDLIGHT
LOWKEY
SOFTLIGHT
PHOTOSHOP
APERTURE
TRIPOD
MANUAL
FILM
DARKROOM
LIGHTING

Play this puzzle online at : https://thewordsearch.com/puzzle/232185/

Without a camera task- complete the worksheet below…

PHOTOGRAPHY - WORD SCRAMBLE GAME

Put the letters into the correct order.

PHOTO, IMAGE, CAMERA, LENS, FOCUS, MACRO, ZOOM, SHUTTER, TRIPOD, VIEW, FLASH, BACKGROUND, CONTRAST, CROP, CAPTURE, FILM, TONE, BRIGHTNESS

1. FMLI	.....
2. MAIGE	.....
3. TOPHO	.....
4. ATNRCTOS	.....
5. ESRHUTT	.....
6. MROCA	.....
7. SOCFU	.....
8. TNEO	.....
9. ETCRAPU	.....
10. RPCO	.....
11. SIEBSRHTGN	.....
12. DIRTPO	.....
13. IVEW	.....
14. BRNKCDUOAG	.....
15. SENL	.....
16. ZOOM	.....
17. HALFS	.....
18. RACEAM	.....

Without a camera task- Guess the image
With a camera task- take close-up photos of things like you see in the images
Kiwi, Car, Spaghetti, Snowflake, Sand, Butterfly, Tiger, Shell








Without a camera task- choose a photo from the KO and analyse it using the writing help	

Knowledge Organiser

Year 9
Sport Science

Term 3
2024/25

The Abbey School

Sport Science // Year 9 & 10 // Terms 1-6

Cambridge National Level 1 / 2 Sport Science
R181: Applying the principles of training: fitness and how it affects skill performance

Prior Learning Links

- Knowledge of basic components of fitness from Core PE.
- Some knowledge of basic fitness tests such as MSFT.
- Completed unit of work on "Fitness" in Years 7&8 in Core PE.

Future Learning Links

- Some links to questions in exam paper for R180.
- BTEC Level 3 Unit 2 – Fitness Training and Programming.

KEY VOCABULARY

KEY WORDS & TERMINOLOGY

Topic Area 1: Components of fitness applied in sport

Key Terms:

- ✓ **Strength** – the extent to which a muscle or muscle group can exert force to overcome a resistance, e.g in weightlifting
- ✓ **Power** – exerting muscular force (strength) with speed, e.g. 100m sprint
- ✓ **Agility** – the ability to change direction at speed while remaining in control of movement, e.g. sidestepping an opponent
- ✓ **Balance** – the ability to maintain the centre of mass over the base of support, e.g. standing on one leg
- ✓ **Flexibility** – the range of movement around a joint, e.g. performing the splits
- ✓ **Muscular endurance** – the ability of the muscles to repeatedly contract without fatiguing/tiring
- ✓ **Cardiovascular endurance** – the ability of the heart and lungs to meet the oxygen demands of the muscle over a prolonged period of time
- ✓ **Speed** – how fast an athlete covers a premeditated distance
- ✓ **Fatigue** – extreme tiredness from mental or physical exertion
- ✓ **Stamina** – the term used to describe the body's ability to sustain physical activity for a long time
- ✓ **Coordination** – the ability to use two or more body parts at the same time with efficiency
- ✓ **Reaction time** – how long it takes to respond to a stimulus
- ✓ **Pressurised drill** – an activity within a training session which has an added element of competition such as being timed or up against an opponent

Topic Area 2: Principles of training in sport

Key Terms:

- ✓ **Progression** – gradual increases or movements towards a goal
- ✓ **Overload** – doing more than what was done in a previous session to ensure continued results
- ✓ **Frequency** – how regularly an individual trains, i.e. times a person trains per day, week or month
- ✓ **Intensity** – how hard an individual works during a session
- ✓ **Time** – how long an individual exercises for
- ✓ **Type** – the method of training adopted by the participant, e.g. circuit training
- ✓ **Specificity** – training which improves a component of physical or skill-related fitness related to an individual's goal, sport or activity of choice
- ✓ **Reversibility** – the regression in physical fitness or ability after a prolonged period of inactivity
- ✓ **Specific** – how relevant goal is to the performer or their role in that sport
- ✓ **Measurable** – a goal in which can be in some way quantified and monitored to assess
- ✓ **Achievable** – a goal which is not impossible to meet
- ✓ **Realistic** – a goal which is within the capabilities of the performer
- ✓ **Time-bound** – a goal which is set a duration in which it is to be achieved

Topic Area 3: Organising and planning a fitness training programme

Key Terms:

- ✓ **Injury history** – whether an individual has had any physical niggles in the past which may affect the planning of a training programme.
- ✓ **Aims** – the ultimate goals that the training programme hopes to achieve
- ✓ **Objectives** – the measurable, intermediate steps that help and athlete check progress leading to the ultimate goal
- ✓ **Suitability** – whether or not a training programme is appropriate enough for an individual's needs
- ✓ **Adaptability** – the extent to which a programme can be manipulated in response to an unforeseen event or new demands
- ✓ **FITT** – an acronym for the principles of progressive overload which should be incorporated into any successful training programme (Frequency, Intensity, Time, Type)
- ✓ **Reflection** – coaches and athletes taking time out to check on strengths, weaknesses and progress – to help formulate future plans
- ✓ **Facilities** – the location or amenities needed to take part in sport or physical activity
- ✓ **Equipment** – the items or resources which are needed to perform a certain sport or physical activity
- ✓ **Risk assessment** – a pre-exercise safety measure carried out to identify hazards and arrange appropriate controls
- ✓ **Testing** – a way of evaluating a training programme by comparing a fitness component before and after the training block.
- ✓ **SMART goals** – the targets that an individual sets themselves for a fitness training programme which applies different principles ensuring its effectiveness

Topic Area 4: Evaluate own performance in planning and delivery of a fitness training programme

Key Terms:

- ✓ **Protocol** – the set of instructions involved in carrying out a fitness test
- ✓ **Sequence** – the order in which a series of tests are carried out
- ✓ **Validity** – whether a test actually measures the component of fitness that it intends to
- ✓ **Reliability** – the ability of a test to produce the same outcome if performed exactly the same
- ✓ **Practicality** – the feasibility of a test protocol or its ease of implementation with respect to time, equipment, space and individuals
- ✓ **Normative data** – the typical age and gender matched fitness test results of a larger population, used for comparative purposes
- ✓ **Average** – the mean value of a set of fitness results
- ✓ **Rating** – the descriptor given to a test result that helps categorise or group together sets of results
- ✓ **Gender** – whether an individual considers themselves as male, female or another identity will affect how they are scored in a fitness test
- ✓ **Age** – how old or young an individual is, which impacts their expected fitness test result
- ✓ **Standardisation** – an established set of procedures which are reproduced every time to ensure consistency in both inter and intra individual testing
- ✓ **Comparison** – analysing the results from two different individuals or groups and measuring them against each other
- ✓ **Accuracy** – the extent to which a test result is recorded with precision
- ✓ **Procedure** – the sequence of steps for carrying out a task
- ✓ **Units** – the quantity given for a particular measurement

1. How are components of fitness relevant to different sports? 2. Can you justify why different components of fitness are relevant for different sports?	Red Red	Amber Amber	Green Green

Components of Fitness

Think about which components of fitness are needed to complete the challenges set for the sports stars below

Owen Farrell (rugby union)

Challenge: To steal the ball and sidestep an opponent to score a try.

Component of fitness	Definition

Simone Biles (gymnastics)

Challenge: To execute the double layout floor exercise to a high standard.

Components of fitness	Definition

3. What fitness tests are used for each component of fitness? 4. Can you apply the components of fitness to a skilled performance?	Red Red	Amber Amber	Green Green

Fitness Tests

Fill in the missing appropriate fitness tests:

Component of Fitness	Appropriate fitness test
Agility	
Cardiovascular endurance	Multistage fitness test
Muscular endurance	Press up test
Speed	30m speed test
Strength	
Power	Standing long jump
Flexibility	
Balance	Stork stand test
Coordination	

5. What are the principles of training? Red Amber Green

Principles of Training

Fill in the blanks for the following definitions of the FITT principles:

- Fr_qu_e_cy – the number of times you train per week (how often)
- In_e_s_ty – how hard you train during each training session (how hard)
- _im_ – the length of each training session (how long)
- T_p_ – the method of training used during each training session (which training method)

6. What are SMART goals? Red Amber Green

SMART Goals

Match up the SMART principles below with their definitions

Specific	It should be possible to reach your goal.
Measurable	Goals should not be vague but should describe what you want to achieve in detail.
Achievable	Goals should be tracked in order to see your progress as you complete them.
Realistic	It should be clear when your goals should be achieved by.
Time-bound	A goal should be something that is possible given your individual circumstances, e.g. the amount of time you can dedicate to training, or the facilities and equipment available to you.

7. What are methods of training and their advantages/disadvantages? Red Amber Green

Methods of Training

Complete the table below to describe the characteristics of the exercises/training methods and the advantages and disadvantages of each.

Exercise/ training method	Aerobic, Anaerobic or both?	Advantages	Disadvantages
Walking around the room/hall/track for 1 minute			
jogging on the spot for 30 seconds			
Sprinting on the spot for 10 seconds			
Weaving in and out of 10ms of cones			
Sprinting to a cone 10m away and walking back			
Sprinting to a cone 10m and sprinting back			
Enacting a first and second tennis serve			
Performing four different static stretches for 10-12 seconds each			

8. What factors should you consider when designing a fitness training programme? | **Red** | **Amber** | **Green**

Designing a Fitness Programme

Circle the 5 most important factors to consider when designing a fitness training programme:

Method used	Current fitness levels	Safety/risk assessments
Duration	Previous injuries	Suitable activities
Name	Session aims	Application of SPOR
Age	Athlete goals	Progression
Aims	Equipment/ facilities needed	Objectives

9. How do you apply the principles of training to a fitness programme? | **Red** | **Amber** | **Green**

Principles of Training

Read what each athlete says below about their training and give them advice on how they could apply the most relevant principle of training to their situation

I have managed to stay fit and active over the years and continue to run recreationally, but I am frustrated by the fact that I can no longer run at the same pace I did when I was racing.

.....

.....

.....

.....

.....

I always lift the same weights at the gym as I'm comfortable with this but I don't seem to feel any fitter or stronger.

.....

.....

.....

.....

.....

10. How do you plan a fitness programme? 11. How do you record your results from a fitness training programme?	Red	Amber	Green

Planning a Fitness Programme

Think about the information that goes into a training programme. Fill out the worksheet below to begin the planning process.

Suitable warm-up and cool-down
(Think about the different components of warm-ups and cool-downs and how exercises may vary for different activities.)

Suitable main activities
(Can you think of different activity examples suitable to a range of different subjects?)

Coaching points (What instructions might coaches provide to improve the performance of different skills and techniques?)

Duration of plan (What factors would influence the optimum duration of the programme?)

Duration of sessions (What factors might influence the duration of a training session?)

Monitoring progression and adaptability
(How is progress monitored and how might a training session or mid-term testing result in adaptation of the programme?)

Equipment and facilities
(What different equipment and facilities are needed for different sports and activities?)

12. What are the strengths and areas for improvement for your fitness training programme?	Red	Amber	Green

Strengths and Areas for Improvement

It is important to evaluate the effectiveness of a fitness programme. Think about the strengths and weaknesses of your fitness programme. Things to consider are:

- ✓ The level of success based on whether or not the goals were met
- ✓ Whether the training methods were appropriate for the participant
- ✓ If the programme was tailored to the individual needs of the subject
- ✓ Whether the programme was fully adhered to (if not, why not?)

Strengths	Areas for improvement

HOME LEARNING TASKS

Task Description		Done?
1) Complete Checkpoint 1 & 2 on the EverLearner at a minimum grade of 70% *"Components of fitness applied to sport"*		
2) Complete Checkpoint 3 & 4 on the EverLearner at a minimum grade of 70% *"Applying the principles of training: fitness and how it affects skill performance"*		
3) Complete Checkpoint 5 on the EverLearner at a minimum grade of 70% *"Organising and planning a fitness training programme"*		
4) Complete Checkpoint 6 on the EverLearner at a minimum grade of 70% *"Evaluate own performance in planning and delivery of a fitness training programme"*		

Knowledge Organiser

Art
Year 9 (9C/pg1)
Term 3 2024/25

The Abbey School

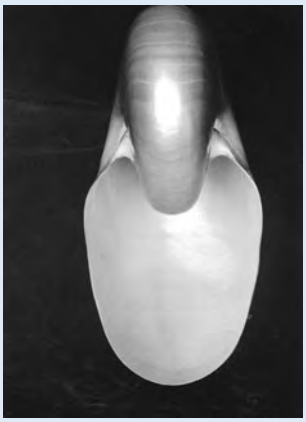
Subject Photography Year 9 (9C/pg1)
Term 3
'Abstract Project'

Term Focus – Build upon basic tools in Photoshop and implementing prior camera knowledge from Term's 1 and 2. Developing further photo shop techniques and camera skills, experimenting in response to students' research. E.g. abstraction, rotation, viewpoint, macro, blurring on purpose. To enable students to work from a set of objectives relating to the theme.

Students to think and observe creatively- pushing the boundaries of what you can do in photography e.g. the physical processes.

Learning to plan and review work to make creative decisions considering the characteristics of their photographer(s) research.

Scaffolding the design process for proceeding coursework projects.



Terms 1&2- Introduction to Photography focusing on basic skills and formal elements including depth of field, shutter speeds and filling the frame. **These basic camera skills, the elements and principles of visual language will proceed to be built upon and interleaved through a series of projects. Scaffolding the design process for proceeding coursework projects.**

Future Learning Links

Travelling Cars

Enable students to work from a set of objectives relating to a theme.
Students are to develop their confidence in using a camera. Creative aperture, techniques used by professionals to create a bokeh effect used in product , portrait photography. Students are implementing skills fromTerm 1. Students are implementing prior camera knowledge and experimenting in response to their research. E.g. viewpoints, creative aperture from topic 1. Students are to develop their photoshop skills using tilt-shift effect which is used in creative industries.

Scaffolding the design process for proceeding coursework projects.

KEY VOCABULARY	
KEY WORDS	**KEY SUBJECT TERMINOLOGY**
Observation **Composition** **Rule of Thirds** **Aperture**	**Observation-** *Going beyond merely looking at subjects to truly seeing and understanding them.* **Composition-** *How we lay the picture out and how we position subjects within the frame to get the most aesthetically pleasing results.* **Rule of Thirds-** *The rule of thirds in photography is a guideline that places the subject in the left or right third of an image, leaving the other two thirds more open.*

Shutter speed

Focus

ISO

Auto mode

TV

AV

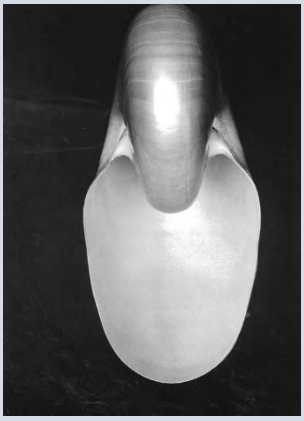
Manual

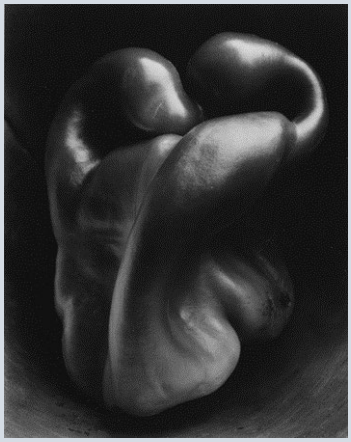
Abstract- Generally Abstract Photography deals with isolating a specific portion of an object or scene to see the details present out of context. This causes the viewer to make associations that they normally wouldn't, harnessing their imagination to think about the familiar in a new way.

Aperture- *The aperture refers to the size of the (iris) hole within the lens.*
Shutter speed-*Shutter Speed controls motion blur*
Focus-
ISO- *Is the light sensitivity of the digital chip or film. The higher the ISO the more sensitive the chip becomes, meaning that you can take a photograph when there is less light. An ISO of 200 is the average daylight setting.*
Auto mode- *in auto mode the camera will do all the work.*
TV- *Shutter priority is where you have control over shutter speed with the main dial on your camera and then the camera chooses the appropriate aperture for the given scene your camera is pointing at.*
AV- *Aperture priority is where you have control over the aperture with the main dial on your camera. The camera then chooses the appropriate shutter speed for that scene you are pointing the camera at.*
Manual Mode- *In Manuel Mode- you're in charge of adjusting aperture — one of photography's most important elements. It's the hole in the back of your lens that controls light and depth of field via f-numbers.*

1. How do photographers use visual language in their work? Red Amber Green

I will learn: How to identify and analyse the use of visual language in the work of Edward Weston.





E D W A R D W E S T O N

Edward Weston was an American photographer who was very focused on detail and the finer lines on an object. He was very much about capturing the essence of the object and really portraying that realistic feel through his images. A variety of subjects are displayed in his images, he tended not to focus on one type of thing, yet he always focused on the texture and surface of his subject. The texture would always be most prominent in his images. He has been previously regarded as one of the best American photographers of all time.

Another huge element that is very prevalent in Weston's work is his use of light. He used light to cast shadows on his subject as a way to extenuate the finer details and to really create contrast between the smooth and rough.
In Weston's photographs of vegetables he often captures them from angles that make them resemble something else, such as his cabbage photographs. He makes them look very pretty and moulded, perfectly shaped from the angle in which he captures them at, they are likely to not look like this in real life. Weston takes his photographs at such a good angle that he has the power to transform his subjects and make them appear as something else.

2. What is Studio Photography?

Red | Amber | Green

I will Learn:

- How to use lighting to create shadows: natural light, hard light, directional sunlight, backlighting and studio lighting
- How to make and use a photo Light Box
- How to use the camera in Manual Mode to achieve sharp well lit photographs

Studio photography is typically performed indoors, in a managed setting where the photographer has complete control over all of the elements that go into creating a photograph.

Studio photography is used to shoot a wide variety of subjects, including people, animals and wide variety of products, from automobiles to jewellery. A photography studio will usually start out as a blank space, meaning just an empty room. The photographer will then develop backdrops and decide what to include and exclude from the photo, such as costumes for models and props.

DIY Photo Light Box

What is Studio Photography? - SHOOTFACTORY

Best Camera Settings for Studio Flash Photography — Jana Kukebal Fashion Photographer

3. How can we use the characteristics of photographers work to inspire our own ideas?	**Red**	**Amber**	**Green**

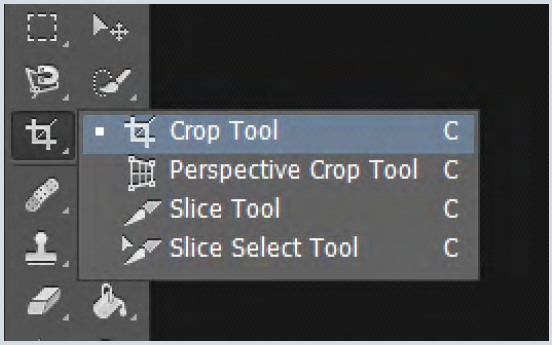
I will Learn:

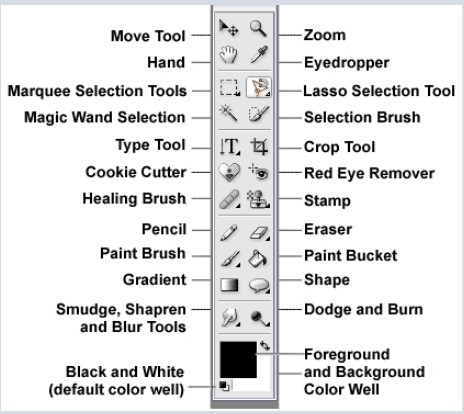
- To understand the term abstract
- Develop my observation skills by looking at a subject from different and interesting angles
- Photography natural forms inspired by Ed Weston

4. How do we edit photos on Photo Shop using crop, brightness, contrast and move tools?	**Red**	**Amber**	**Green**

I will learn:

- How to use layers in photo shop
- Image rotation, editing in black and white, Blur tool, brightness and contrast, blending modes.
- How to manipulate printed photographs using hand tools and techniques.
- Paper Surgery- this could include paper folding, cutting and collage techniques. Also using mixed media art materials e.g. drawing and painting on photographs.





Crop
Edit
Brightness
Contrast
Copy
Paste
Repeat
Move

5. Why do we need to annotate our work?

Red | Amber | Green

I will learn:

- How to critically review my work through annotation

Writing Help

ANALYSING OTHERS' WORK

Structure your response using the following headings:

FORM
What is going on in the art work/photography? Explain objectively and honestly (this is what you see)
Imagine you are trying to explain the art work to someone over the telephone and transcribe that message (write it down)

PROCESS
What has the artist used to make the artwork? Consider materials and media. If a photograph, what are the lighting considerations? Has it been presented in a special way i.e. as an installation?
What formal elements appear?
Are there any recognisable types of composition e.g. Rule of Thirds, Rule of Odds, Symmetry, Repetition?

CONTENT
Having researched further and understood the wider context, discuss the ideas behind the artwork and the intentions of the photographer to the best of your ability. Consider the mood of the work and how it has been achieved.
Do you recognise the associated genres?

CONTEXT- Understanding the wider context and underlying themes gleaned from research and used to inform your opinion

This could include- *Biographical information about the artist, Political events of the time e.g. Wars, Suffragettes*

Social & Cultural Norms e.g. fashion movements

Ideologies, Technology, comparing other artists from the time

Consider past work and common trends in career

Art movements such as Bauhaus or Futurism

How does the work fir in to the history of Art and Photography?

Quotes and key points by specialists and academics

RESEARCH- Research using a variety of secondary sources and collecting comments, quotes and discussion points

Books, Magazines, Periodicals, Newspapers, Galleries, Museums, Internet, Radio, TV/DVD

QUESTIONING- Start with writing down key words and simple questions to get initial primary response and raise further areas for research

What? The Artwork

Who? Subject Matter

Where? Location

When? Process

Why? Meaning

ANNOTATING YOUR OWN WORK

Think?

What is it that you have done?

e.g. ***This is a photograph of****…….(subject/object)* ***considering****…….(techniques such as frame, viewpoint, direct light, natural light, diffused, composition, cropping, macro, movement).*

Was there anything you felt that didn't work well?

Write a sentence describing what didn't work well and why.
I feel that*……* ***did not work well because****…….. (is the photography in focus? Could the composition be improved? Cropped, should you have used a different viewpoints, lighting dull or not effective? More direct light)*

Evaluate what was successful? What is it that you liked about it and why?

*Use of colour-complementary, texture, line, detail, viewpoint lighting etc****. I felt that worked because I used……***

When annotating your work make sure you used photography keywords

CONNECTIVES- Connective help our writing to flow- Try using these connectives to improve your written work.

ADDITION
And
Also
In addition
Further
Furthermore
As well as
And then

COMPARISON
Similarly
In comparison
Otherwise
In contrast
Alternatively
Despite this

ILLUSTRATION
For example
For instance
In other words
To show that
Such as
As revealed by
Analysis shows

OPINION
It would seem
It appears
Obviously
Possibly
It seems likely
Presumably
In conclusion

SUMMARY
In brief
On the whole
Summarising
Overall
To sum up
Evidently
In conclusion

BALANCE & CONTRAST
However
Nevertheless
Alternatively
Yet
whereas

Task Description	Done?
Homework will be set every two weeks linking to the project theme Below are some additional tasks you can complete with or without a camera:	
Without a camera task- Look at the artist examples for Big Question no 1 choose your favourite and describe it using the analysing others work in the writing help section. **With a camera task-** Photograph objects from unusual angles inspired by Ed Weston	
Without a camera task- label the different parts of the DSLR pictures below: LENS, LENS CAP, VIEWFINDER, FLASH, LENS RELEASE BUTTON, ISO, MODE DIAL, POWER SWITCH, SHUTTER BUTTON, LCD SCREEN, MEMORY CARD SLOT  	
Read the information about Ed Weston from Big Q no 1 and fill in the blanks…	

- Edward Weston was an American photographer who was very focused on .....and the finer lines on an object.
- He was very much about capturing the essence of the ..... and really portraying that realistic feel through his images.
- A variety of subjects are displayed in his images, he tended not to focus on one type of thing, yet he always focused on the ..... and surface of his subject.
- The texture would always be most prominent in his images. He has been previously regarded as one of the best ..... photographers of all time.
- Another huge element that is very prevalent in Weston's work is his use of light.
- He used.....to cast shadows on his subject as a way to extenuate the finer details and to really create contrast between the smooth and rough.
- In Weston's photographs of vegetables he often captures them from ..... that make them resemble something else, such as his cabbage photographs.

ANGLES TEXTURE OBJECT DETAIL AMERICAN LIGHT

READ ME

Studio photography is typically performed indoors, in a managed setting where the photographer has complete control over all of the elements that go into creating a photograph.

Studio photography is used to shoot a wide variety of subjects, including people, animals and wide variety of products, from automobiles to jewellery. A photography studio will usually start out as a blank space, meaning just an empty room. The photographer will then develop backdrops and decide what to include and exclude from the photo, such as costumes for models and props.

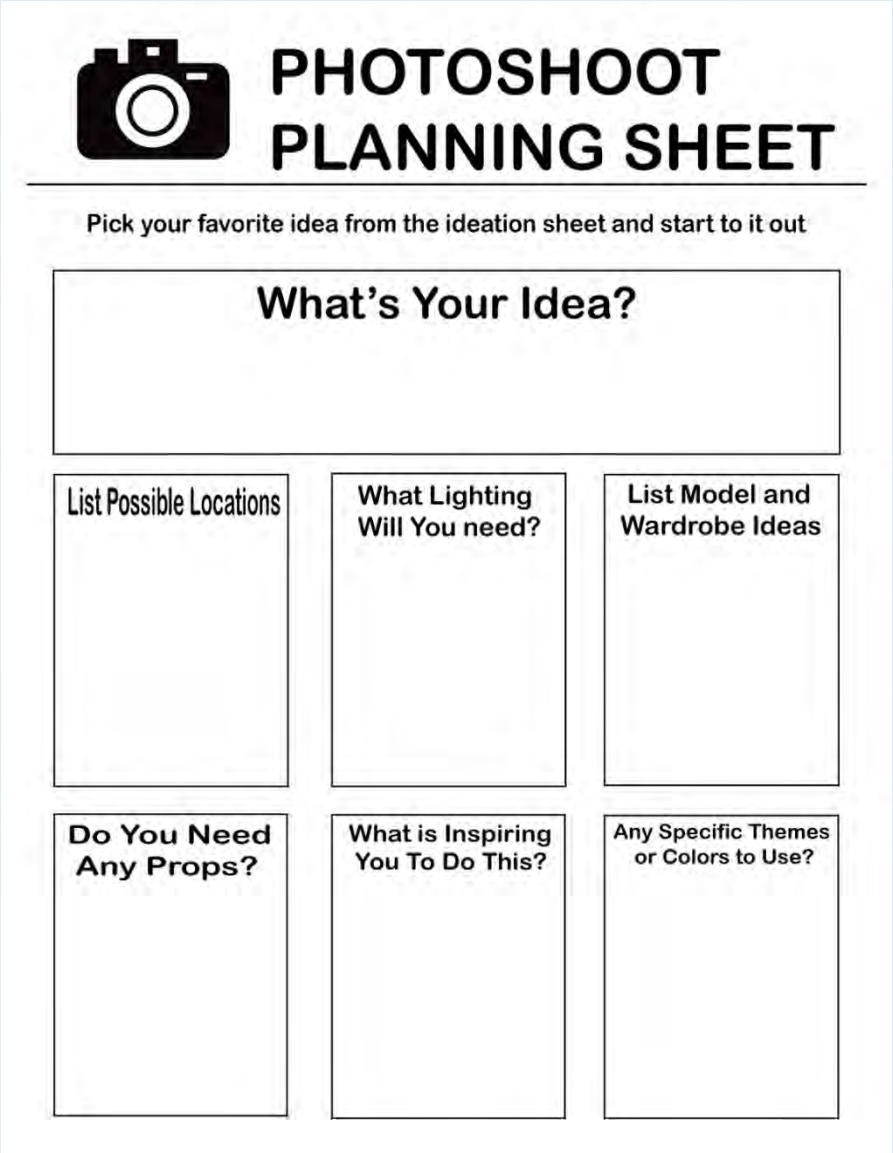
COMPLETE ME

Studio photography is typically performed ……., in a managed setting where the photographer has complete …….over all of the elements that go into creating a photograph.

Studio photography is used to shoot a wide variety of subjects, including …….., animals and wide variety of ……., from automobiles to jewellery. A photography studio will usually start out as a blank space, meaning just an empty ……. The photographer will then develop backdrops and decide what to

include and exclude from the photo, such as costumes for models and ……

Without a camera task- Use the worksheet below to help you plan a photo shoot of fruit and vegetables



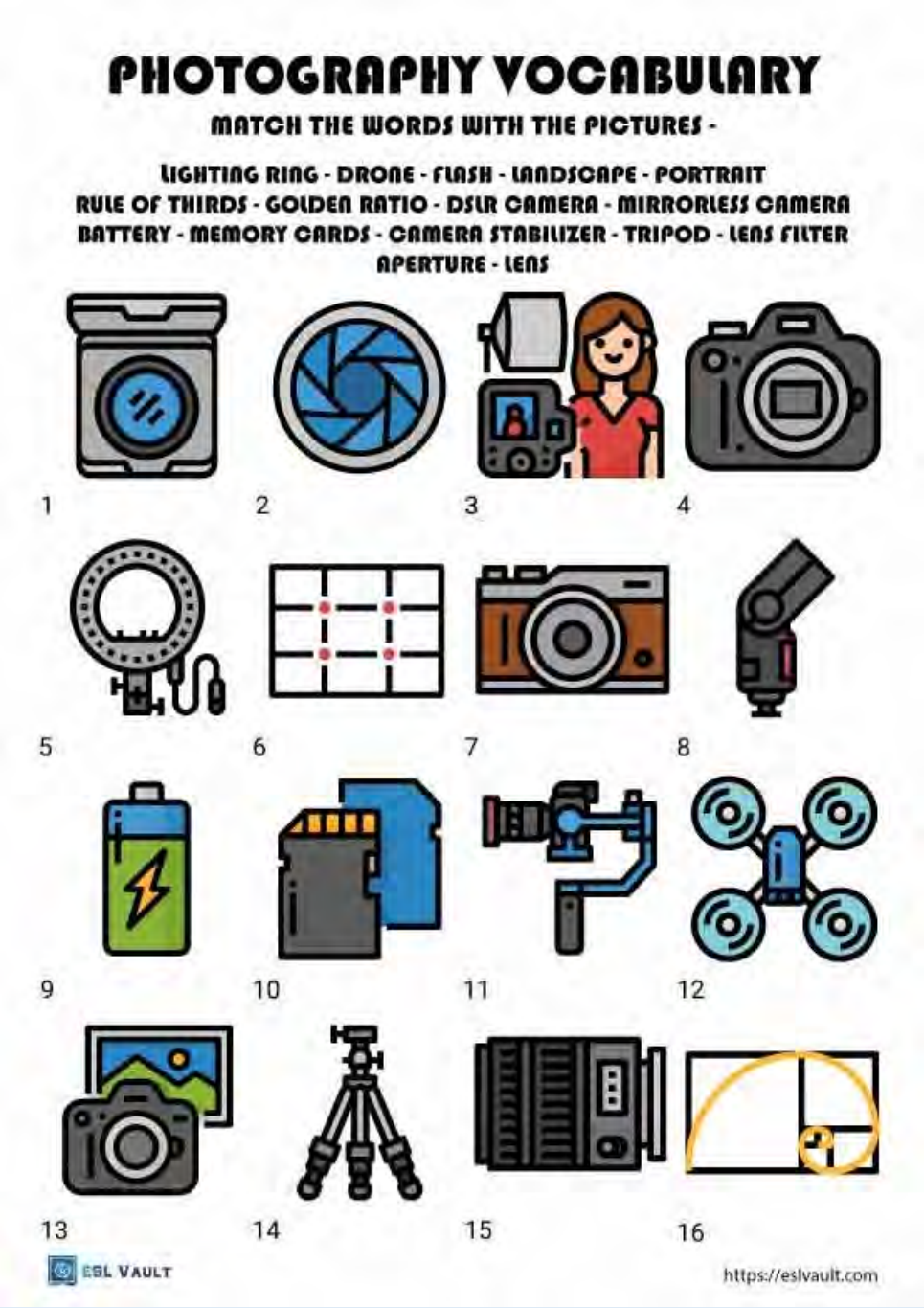
PHOTOSHOOT PLANNING SHEET

Pick your favorite idea from the ideation sheet and start to it out

What's Your Idea?

List Possible Locations	What Lighting Will You need?	List Model and Wardrobe Ideas
Do You Need Any Props?	What is Inspiring You To Do This?	Any Specific Themes or Colors to Use?

Without a camera task- complete the worksheet below…



Without a camera task- Sketch the Ed Weston pictures
As an extension find more examples of his work and draw those as well.

Without a camera task- complete the worksheet below

photography

E	P	H	L	I	M	O	O	R	K	R	A	D	P
M	O	L	M	T	L	E	T	W	M	L	I	F	O
T	H	L	O	E	O	I	H	I	H	G	I	L	T
M	S	S	N	E	L	E	G	L	A	G	E	A	S
A	O	O	G	P	E	K	I	P	R	A	M	T	I
A	T	O	M	O	D	E	L	G	D	O	T	I	M
P	O	A	R	I	S	T	T	C	L	L	L	G	H
E	H	K	U	K	S	E	F	A	I	O	O	I	I
R	P	N	R	R	G	T	O	M	G	W	I	D	G
T	F	R	H	M	O	R	S	E	H	K	D	O	H
U	L	A	U	N	A	M	I	R	T	E	U	E	K
R	O	D	T	E	H	H	H	A	I	Y	T	O	E
E	S	O	L	A	T	K	D	I	N	T	S	H	Y
D	I	P	T	R	I	P	O	D	G	A	A	D	S

DIGITAL
HIGHKEY
LENS
STUDIO
ISO
MODEL
CAMERA
HARDLIGHT
LOWKEY
SOFTLIGHT
PHOTOSHOP
APERTURE
TRIPOD
MANUAL
FILM
DARKROOM
LIGHTING

Play this puzzle online at : https://thewordsearch.com/puzzle/232185/

Without a camera task- complete the worksheet below…

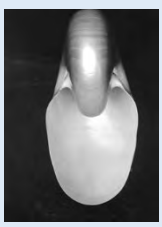
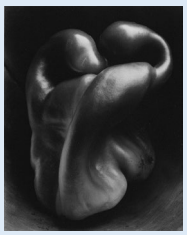
PHOTOGRAPHY - WORD SCRAMBLE GAME

Put the letters into the correct order.

PHOTO, IMAGE, CAMERA, LENS, FOCUS, MACRO, ZOOM, SHUTTER, TRIPOD, VIEW, FLASH, BACKGROUND, CONTRAST, CROP, CAPTURE, FILM, TONE, BRIGHTNESS

1. FMLI	.....
2. MAIGE	.....
3. TOPHO	.....
4. ATNRCTOS	.....
5. ESRHUTT	.....
6. MROCA	.....
7. SOCFU	.....
8. TNEO	.....
9. ETCRAPU	.....
10. RPCO	.....
11. SIEBSRHTGN	.....
12. DIRTPO	.....
13. IVEW	.....
14. BRNKCDUOAG	.....
15. SENL	.....
16. ZOOM	.....
17. HALFS	.....
18. RACEAM	.....

Without a camera task- Guess the image
With a camera task- take close-up photos of things like you see in the images
Mushroom, Shell, Cabbage leaf, Pineapple leaves, Pepper


Without a camera task- choose a photo from the KO and analyse it using the writing help

Knowledge Organiser

Year 9 French

Term 3

2024/25

The Abbey School

French Year 9 Term 3 – My town

Term Focus – This term introduces you to talking about where you live. You will be able to:

- Talk about where you live
- Give your opinion about where you prefer living
- Talk about what you did in your town in the past
- Talk about what you would change in your town using the conditional
- Say where you would like to live in the future

Prior Learning Links

- Where I live (Year 7)
- Conditional tense (Year 8 T1 Year 9)
- Giving opinions (Year 7, 8 & T1 Year 9)
- Past tense (Year 7, 8 & T1 Year 9)
- Comparatives (Year 8)

Future Learning Links

- Environmental issues topic
- Holidays topic
- Giving complex opinions
- Conditional tense

Image: Flaticon.com

1. How do I talk about where I live?

Red | Amber | Green

Où habites-tu? (Where do you live?)

J'habite dans (I live in)	**une ville** (a town) **une grande ville** (a big town/ a city)	**qui est** (which is)	**dans le centre** (in the centre) **dans le nord** (in the north) **dans le sud** (in the south)	**dans l'est** (in the east) **dans l'ouest** (in the west)	**du pays** (of the country) **de la région** (of the region) **près de la capitale** (close to the capital)

J'y habite depuis (I have lived there for)	**un an** (one year) **deux ans** (two years)	**cinq ans** (five years) **dix ans** (ten years)	**toujours** (forever)

C'est (It's)	**une ville moderne** (a modern town) **une ville industrielle** (an industrial town)	**une des plus grandes villes** (one of the biggest towns) **un bel endoit** (a nice place)	**avec de belles maisons** (with pretty houses) **avec de maisons traditionelles** (a nice place) **avec de nombreux vieux bâtiments** (with lots of old buildings)	**avec peu de magasins** (with few shops) **avec beaucoup de magasins** (with lots of shops)

2. How do I talk about my town?

Red | Amber | Green

C'est comment, ta ville? (What's your town like?)

J'adore y habiter (I love living there) **J'aime y habiter** (I like living there) **Je n'aime pas y habiter**	**car** (because)	**il y a** (there is/are) **il n'y a pas de** (there isn't/aren't)	**beaucoup de magasins** (lots of shops) **une bibliothèque** (a library) **un centre de loisirs**	**un hôtel** (a hotel) **un parc** (a park) **une poste**

(I don't like living there) **Je déteste y habiter** (I hate living there)			(a leisure centre) **une gare** (a train station)	(a post office) **une piscine** (a swimming pool)

Remember, when using il n'y a pas de you must get rid of the un or une.

3. What are the disadvantages of my town? **Red** **Amber** **Green**

Quels sont les inconvénients de ta ville? (What are the disadvantages of your town?)

À mon avis (In my opinion) **Je dirais que** (I would say that)	**dans ma ville** (in my town)	**il n'y a rien pour les jeunes** (there is nothing for young people) **il y a trop de bruit** (there is too much noise)	**et ce n'est jamais** (and it's never)	**propre** (clean) **tranquille** (quiet)

En plus (In addition)	**il n'y a pas de** (there isn't) **il n'y a plus de** (there is no longer)	**boulangerie** (bakery) **cinéma** (cinema) **musée** (museum) **magasin** (shop) **parc** (park) **pharmacie** (pharmacy) **théâtre** (theatre) **centre commercial** (shopping centre)	**et** (and)	**il n'y a personne de mon âge** (there is nobody my age) **il n'y a aucun espace vert** (there are no green spaces) **il n'y a que quelques petits magasins** (there are only a few small shops)

4. How do I use trop and trop de **Red** **Amber** **Green**

trop is used in front of an adjective.
trop de is used in front of a noun.

E.g

C'est **trop** tranquille → it's **too** quiet
Il y a **trop de** pollution → there's **too much** pollution

5. How do I form the comparative? **Red** **Amber** **Green**

To say that something is **more than** or **less than**, use the following structures around the adjective:

Ma grande ville My city	**est** is	**plus** more	**tranquille** quiet	**que** than	**ta région** your region
Ma ville My town	**est** is	**moins** less	**tranquille** quiet	**que** than	**ta région** your region

Irregulars	**mieux** (better)	Ma région est mieux que ta région (My area is better than your region)	**pire** (worse)	Ma région est pire que ta région (My area is worse than your area)

6. What are an adjective and a noun? Red Amber Green

Definition: An **adjective** is a type of word that **describes** a noun.
E.g., *amusant, tranquille, propre, bruyant, génial, heureux.*

Definition: A **noun** is a type of word that **identifies a person, place, thing or idea**.
E.g., *ville, région, pollution, musée, capitale, pizza.*

7. What WOW phrases can I use to introduce my opinions? Red Amber Green

Your opinion		Someone else's opinion	
Je diaris que (I would say that)	**Selon moi** (According to me)	**Mon ami dit que** (My friend say that)	**Mes parents disent que** (My parents say that)

8. What did you do in your town in the past? Red Amber Green

Qu'est-ce que tu as fait le weekend dernier dans ta ville? (What did you do last week in your town?)

La semaine dernière (Last week) **Le weekend dernier** (Last weekend)	**je suis allé(e)** (I went) **on est allés** (we went)	**au parc** (to the park) **au centre commercial** (to the shopping centre) **au stade** (to the stadium)	**au théâtre** (to the theater) **au marché** (to the market) **au château** (to the castle)	**aux magasins** (to the shops) **à la plage** (to the beach) **au cinéma** (to the cinema)	**avec ma famille** (whit my family) **avec mes amis** (with my friends) **en ville** (in town)

D'abord, (Firstly)	**on a loué des vélos** (we rented some bikes) **on a acheté des vêtements** (we bought some clothes) **on a visité le musée** (visited the museum)	**et après** (and afterwards) **et plus tard** (and later)	**on a mangé dans un restaurant** (we ate in a restaurant) **on a vu un film** (we watched a film) **on a joué au foot** (we went to a concert)

9. What WOW phrase can I use to talk about the future? Red Amber Green

Si j'avais le choix, je voudrais	Si j'étais riche, je voudrais
If I had the choice, I would like	If I were rich, I would like

10. Where would you like to live in the future? Red Amber Green

Où voudrais-tu habiter dans le futur? (Where would you like to live in the future?)

Si j'avais le choix (If I had the choice)	**je voudrais habiter** (I would like to live) **j'aimerais habiter** (I would like to live) **j'habiterais**	**dans** (in)	**un bel appartement tout neuf** (a beautiful, brand new appartment) **un ancien château** (an old castle) **une grande maison moderne**	**à la montagne** (in the mountains) **à la campagne** (in the country) **au bord de la mer**

Si j'étais riche (If I were rich)	(I would live)		(a big modern house) **un châlet traditional** (a traditional chalet)	(by the sea)

11. How do you talk about your ideal house?

Red | Amber | Green

Comment serait ta maison idéale? (What would your ideal house be like?)			
Si j'avais le choix (If I had the choice) **Si j'étais riche** (If I were rich)	**j'aurais** (I would have)	**une maison** (a house)	**avec quatre étages** (with four floors) **avec plusieurs étages** (with several floors)

Au sous-sol (In the basement) **Au rez-de-chaussée** (On the ground floor) **Au troisième étage** (On the third floor)	**il y aurait** (there would be)	**un bon accès pour les personnes handicapées** (good access for disabled people) **ma propre chambre** (my own bedroom) **de grandes fenêtres pour profiter de la lumière** (big windows to make the most of the natural light) **de nombreuses pièces** (lots of rooms) **beaucoup d'espace** (lots of space)	**un ascenseur au lieu d'un escalier** (a lift instead of a staircase) **un joli jardin plein de fleurs** (a pretty garden full of flowers) **de bon voisins** (good neighbours) **une télévision à grand écran** (a large screen tv) **un cinéma privé** (a private cinema) **un sauna dehors** (a sauna outside)

12. What is the conditional tense?

Red | Amber | Green

The conditional tense is used to say what you "would" do. It is conditional because it depends on something else happening. E.g. If I were rich, I would buy a fast car.

To form the conditional tense in French, you will need to follow the following steps:

1. Find the infinitive of your verb
2. Decide who is doing the action
3. Add the ending that matches the person to your infinitive

e.g. I will play = Je + jouer + ais = je jouerais

Je	**ais**
Tu	**ais**
Il / elle / on	**ait**
Nous	**ions**
Vous	**iez**
Ils / elles	**aient**

HOME LEARNING TASKS

Task Description	Done?
Can you write a short paragraph describing where you live?	
Can you write a short paragraph about your town?	
Can you write a short paragraph talking about the disadvantages of your town?	
Can you write a short paragraph talking about where you would like to live in the future?	
Can you use the sentence builders above to write sentences answering the questions? Can you improve these by adding conjunctions and intensifiers?	
Practise the vocabulary in your knowledge organiser by using the look, cover, write, check method.	
Go to www.sentencebuilders.com and practise this term's vocabulary.	

Knowledge Organiser

Year 9 Spanish

Term 3

2024/25

The Abbey School

Spanish Year 9 Term 3 – My town

Term Focus – This term introduces you to talking about where you live. You will be able to:

- Talk about where you live
- Give your opinion about where you prefer living
- Talk about what you did in your town in the past
- Talk about what you would change in your town using the conditional
- Say where you would like to live in the future

Prior Learning Links

- Where I live (Year 7)
- Conditional tense (Year 8 T1 Year 9)
- Giving opinions (Year 7, 8 & T1 Year 9)
- Past tense (Year 7, 8 & T1 Year 9)
- Comparatives (Year 8)

Future Learning Links

- Environmental issues topic
- Holidays topic
- Giving complex opinions
- Using *ser* and *estar*
- Conditional tense

1. How do I talk about where I live?

Red | Amber | Green

¿Dónde vives? (Where do you live?)

Vivo en (I live in)	**un pueblo** (a town/a vilage) **una ciudad** (a big town/ a city)	**que está** (that is – located)	**en el centro** (in the centre) **en el norte** (in the north) **en el sur** (in the south)	**en el este** (in the east) **en el oeste** (in the west)	**del país** (of the country) **de la región** (of the region)

En mi zona (In my area)	**hay** (there is/ there are) **tenemos** (we have)	**mucho campo** (lot's of countryside) **muchos lagos** (lots of lakes)	**unos bosques** (some forests) **un río** (a river) **unas playas** (some beaches)	**y un paisaje** (and a … landscape)	**espectacular** (spectacular) **variado** (varied)	**bonito** (pretty) **industrial** (industrial)
Mi pueblo (My town)	**es** (is)	**pequeño** (small)	**grande** (big)	**histórico** (historic)	**agradable** (nice)	
	está (is)	**limpio** (clean)		**sucio** (dirty)		

2. How do you use the verb "to be" ("ser" or "estar")?

Red | Amber | Green

- When **describing** (you area, personality, appearance…) you will use **ser**
- When you are reefing to **temporary states** (how it is in that moment) you will use **estar**
- When you want to say **where** something is **located** you will use **estar**

Infitive: **to be = ser** or **estar**

Describing		Temporary states		Location
Soy bajo (I am short)	**Es alto** (He is tall)	**Estoy cansado** (I am tired *now*)	**Está feliz** (He is happy *now*)	**Estoy en casa** (I am at home)
Soy hablador (I am chatty)	**Es tranquilo** (It is quiet)	**Estoy enfermo** (I am ill)	**Está sucio** (It is dirty *now*)	**Está en la costa** (It is on the coast)

3. Do you prefer living in the city or in the countryside? Red Amber Green

¿Dónde prefieres vivir? (Where do you prefer to live?)

Personalmente (Personally) **Diría que** (I would say that)	**prefiero** (I prefer)	**vivir** (living)	**en el campo** (in the countryside) **en la ciudad** (in the city)	**porque** (because) **aunque** (although)	**es más tranquilo** (it is quieter) **es más multicultural** (is more multicultural) **está más sucio** (it is cleaner)

Lo bueno de (The good thing about) Lo mejor de (The best thing about) Lo positive de (the positive thing about) Lo malo de (The bad thing about) Lo peor de (The worst thing about) Lo negativo de (The negative of)	vivir en la ciudad (living in the city) vivir en el campo (living in the countryside)	es que (is that)	tiene (it has) hay (there is/ there are)	tanta polución (lots of pollution) / poca polución (little pollution) tanta gente (so many people) / poca gente (few people) tanto tráfico (so much traffic) / poco tráfico (little traffic)	
	mi barrio (my neighbourhood) mi zona (my area) mi ciudad (my city)			más posibilidades de trabajo (more job opportunities) mucho que hacer (lots to do) muchos espacios verdes (lots of green áreas)	
				la gente no se conoce (people don't know each other) el transporte es mejor (transport is better)	

4. How do I use tan and tanto/a? Red Amber Green

Tan is used in front of an adjective.
Tanto/a(s) is used in front of a noun. They need to agree in feminine/masculine and singular/plural with the noun.

Tan (so)		Tanto	Tanta	Tantos	Tantas
Tan (so)	**divertido** (amusing/fun) **aburrida** (boring)	**Tanto ruido** (so much noise)	**Tanta gente** (so many people)	**Tantos coches** (so many cars)	**Tantas casas** (so many houses)

5. How do I form the comparative? Red Amber Green

To say that something is **more than** or **less than**, use the following structures around the adjective:

Mi ciudad My city	**es** is	**más** more	**divertida** amusing	**que** **than**	**tu zona** your area
Mi pueblo My town	**es** is	**menos** less	**tranquilo** quiet	**que** than	**tu zona** your area

Irregulars	**mejor** (better)	Mi ciudad es **mejor que** tu pueblo (My city is better tan your town)	**peor** (worse)	Mi zona es **peor que** tu ciudad (My area is worse tan you city)	

6. What are an adjective and a noun? Red Amber Green

Definition: An **adjective** is a type of word that **describes** a noun.
E.g., *divertido, aburrido, interesante, grande, pequeño, alto, baj, tranquilo, ruidoso, histórico, feliz.*

Definition: A **noun** is a type of word that **identifies a person, place, thing or idea**.
E.g., *ciudad, capo, zona, barrio, pueblo, selva, río, montaña, casa, coche, gente, tráfico, ruido.*

7. What WOW phrases can I use to introduce my opinions? Red Amber Green

You opinion		Someone else's opinion	
Diría que (I would say that)	**Desde mi punto de vista** (From y point of view)	**Mi amigo dice que** (My friend say that)	**Mis padres dicen que** (My parents say that)

8. What did you do in your town in the past? Red Amber Green

¿Qué hiciste la semana pasada en tu ciudad? (What did you do last week in your town?)

La semana pasada (Last week) **El fin de semana pasado** (Last weekend)	**fui** (I went) **fuimos** (we went)	**al parque** (to the park) **al centro comercial** (to the shopping centre) **al estadio** (to the stadium)	**al teatro** (to the theater) **al mercado** (to the museum) **al castillo** (to the castle)	**a la tienda** (to the shop) **a la playa** (to the beach) **a la plaza** (to the main square)	**con mi familia** (whit my family) **con mis amigos** (with my friends) **en el centro** (in the town centre)

Primero, (Firstly)	**alquilamos unas bicis** (we rented some bikes) **compramos ropa** (we bought some clothes) **visitamos el museo** (visited the museum)	**y después** (and afterwards) **y más tarde** (and later)	**comimos en un restaurante** (we ate in a restaurant) **cimos una película** (we watched a film) **fuimos a un concierto** (we went to a concert)

9. How do you form the preterite tense? Red Amber Green

Verbs in the preterite tenses refer to **completed actions** in the **past.**

Subject		-ar	-er -ir
I	Yo	-é escuch**é**	-í com**í** decid**í**
You	Tú	-aste escuch**aste**	-iste com**iste** decid**iste**
He She	Él Ella	-ó escuch**ó**	-ió com**ió** decid**ió**
We	Nosotros Nosotras	-amos escuch**amos**	-imos com**í** decid**í**
You (pl)	Vosotros Vosotras	-ásteis escuch**ásteis**	-isteis com**isteis** decd**isteis**
They	Ellos	-aron	-ieron

Steps:

Step 1: Find the infinitive

Step 2: Remove the –AR -ER -IR

Step 3: Add the endings from the correct

Irregular verbs:

Ir (to go)**: fui** (I went) **fuimos** (we went)

Hacer (to do): **hice** (I did) **hicimos** (we did)

Tener (to have): **tuve** (I had) **tuvimos** (we had)

Estar (to be -location): **estuve** (I was)

	Ellas	escuch**aron**	com**ieron**	decid**ieron**

10. How do you talk about what you would change in your area?

Red Amber Green

¿Cómo cambiarías tu pueblo? (How would you change in your town?)			
Si pudiera elegir (If I could choose)	**mejoraría** (I would improve) **cambiaría** (Iwould change)	**la red de transporte** (the transport nexwork) **el hospital** (the hospital)	**las carreteras** (the roads) **los parques** (the parks)
Su fuera posible (If it were posible)	**construiría** (I would build)	**un cine nuevo** (a new cinema)	**una piscina** (a swimming pool)
	pondría* (I would put)	**más zonas verdes** (more green areas)	**más restaurantes** (more restaurants)

11. What is the conditional tense?

Red Amber Green

Subject (Who)		Endings
I	Yo	-ía
You	Tú	-ías
He /She	Él /Ella	-ía
We	Nosotros/as	-íamos
You (pl)	Vosotros/as	-íais
They	Ellos/as	-ián

Irregulars:
poner (top ut) → **pondría** (I would put)
tener (to have) → **tendría** (I would have)

The conditional tense is one of the easiest to form in Spanish. Follow these steps:

1. Take your **infinitive** verb
2. Decide **who** is doing the action
3. **Add the ending** which matches the person

All endings are the same, regardless of whether the verb is an -AR, -ER or -IR verb!

The conditional tense is used to describe what someone **would do** or what **would happen** in the future. It can also be used to express ambitions and intentions. The most common verb in the conditional tense is **me gustaría → I would like.**

The conditional tense is a good way to show off in writing and speaking and will help you to maximise your grades.

12. How do you talk about where you would like to live in the future?

Red Amber Green

¿Dónde te gustaría vivir en el futuro? (Where would you like to live in the future?)			
En el futuro (In the future) **Cuando sea mayor,** (When I am older)	**me gustaría vivir** (I would like to live)	**en una ciudad** (in a city) **en un pueblo** (in a town)	**cercano/a al mar** (close to the see) **tranquilo** (quiet)
		en el campo (in the countryside) **en la montaña** (in the mountains)	**en el extranjero** (abroad)

Mi ciudad (My city)	**tendría*** (would have)	**muchas zonas verdes** (lots of green spaces) **mucho que hacer** (lots to do)	**tantas tiendas** (so many shops) **tantos restaurantes** (so many restaurants)	**poco tráfico** (little traffic) **poca polución** (little pollution)

HOME LEARNING TASKS	
Task Description	**Done?**
Can you write a short paragraph describing where you live?	
Can you write sentences using “estar” and “ser” correctly?	
Can you write a short paragraph saying if you prefer living in the city or in the countryside?	
Can you write a short paragraph using opinion with “lo” about where you live?	
Can you write a short paragraph talking about how you would change your area?	
Can you write a short paragraph talking about where you would like to live in the future?	
Can you use the sentence builders above to write sentences answering the questions? Can you improve these by adding conjunctions and intensifiers?	
Practise the vocabulary in your knowledge organiser by using the look, cover, write, check method.	
Go to www.sentencebuilders.com and practise this term’s vocabulary.	

Knowledge Organiser

History
Year 9
Term 3
2024/25

The Abbey School

History Year 9 Term 3 Part 1 – 18th-19th Century Medicine

In this unit on 'Medical Change in 18th-19th Century Europe & England,' you will explore the evolution of medical practices, key figures, and public health reforms that shaped modern healthcare. You will examine significant advancements in understanding disease causation, the development of vaccination, and the impact of sanitation on public health. Through analyzing historical events and contributions from individuals like Edward Jenner and John Snow, you will enhance your critical thinking, research, and analytical skills. By evaluating the social and economic factors influencing medical advancements, you will gain a deeper understanding of how historical context informs contemporary health practices and policies.

Prior Learning Links

- Year 8 Term 1 – Industrial Revolution in Britain provides contextual understanding behind the politics and society of this period

Future Learning Links

- Revision of content in Year 11 upon completion of the course

GCSE Pod – Scan me!

KEY VOCABULARY

Historical Skills Vocabulary

Cause – the reason for something happening
Change – when things are different to how they were before
Consequence – the result of something happening
Continuity – the opposite of change; when something stays the same or continues
Difference – the ways in which things are different to one another
Factor – something that can affect, or determine an event or outcome
Inference - a conclusion drawn about something using the information you already have about it
Rate of change – the pace at which change occurs; e.g. very quickly or slowly
Reliability – the degree to which something can be trusted or relied upon as accurate
Significance – the importance of something
Similarity – the quality of being similar, or the same
Trend – when there are a number of similar and related changes continuing in the same direction over a period of time
Turning point – a significant change happens – something that is different from what has happened before and which will affect the future

Medicine Through Time: 18th-19th Century Vocabulary

1. **Adaptation**: The process of changing to suit new conditions or environments.
2. **Catalyst**: Something that causes or speeds up significant change or action.
3. **Contribute**: To help bring about a result or provide part of the necessary work or ideas.
4. **Emerge**: To become apparent or prominent, often after being hidden or unknown.
5. **Exploit**: To make full use of and derive benefit from something.
6. **Impact**: The strong effect or influence something has on a situation or person.
7. **Implement**: To put a decision or plan into effect.
8. **Innovative**: Featuring new methods or ideas; advanced and original.
9. **Revolutionary**: Involving or causing a complete or dramatic change.
10. **Widespread**: Found or distributed over a large area or among many people.

Essential Medical Vocabulary

Anatomy – The study of the structure of the bodies of people or animals
Care – to provide help and support for someone who is unwell
Diagnosis – the act of identifying what is wrong with someone who is ill
Disease – an illness which affects people, spread by bacteria or infection
Prevention - to prevent something, is to ensure that it does not happen
Public Health – the health of the general population, and the activities and services that are designed to improve or protect this
Surgery – a medical treatment in which someone's body is cut open so that a doctor can repair, remove, or replace a diseased or damaged part
Treatment – medical attention given to a sick or injured person or animal

18th-19th Century Medicine Glossary

1. **Anaesthetics**: Substances used to induce insensitivity to pain during surgical procedures.
2. **Antiseptics**: Chemical substances that prevent infection by inhibiting the growth of microorganisms.
3. **Bacteriology**: The study of bacteria, which played a crucial role in understanding infectious diseases.

4. **Broad Street Pump**: A famous water pump in London that was linked to a cholera outbreak, leading to important public health reforms.
5. **Cholera**: A severe bacterial disease that causes severe diarrhoea and dehydration, leading to high mortality rates.
6. **Edward Jenner**: An English physician known for developing the smallpox vaccine, the first successful vaccination.
7. **Edwin Chadwick**: British social reformer, known for his Report on the Sanitary Condition of the Labouring Population of Great Britain (1842)
8. **Germ Theory**: The scientific theory that microorganisms are the cause of many diseases, proposed by Louis Pasteur and Robert Koch.
9. **Hospital Reform**: Changes made to improve conditions, care, and treatments in hospitals during the 18th and 19th centuries.
10. **Inoculation**: The introduction of a vaccine into the body to produce immunity to a specific disease.
11. **John Snow**: A British physician who played a key role in the understanding of cholera transmission and advocated for improved sanitation.
12. **Koch's Postulates**: A series of criteria established by Robert Koch to identify the specific causative agents of diseases.
13. **Laissez-Faire**: A policy which is based on the idea that governments and the law should not interfere with business, finance, or the conditions of people's working lives.
14. **Louis Pasteur**: A French chemist known for his discoveries of vaccination, microbial fermentation, and pasteurization.
15. **Medical Licensing**: The process of regulating who can practice medicine, which evolved significantly during this period.
16. **Microbiology**: The branch of science that deals with microorganisms, including bacteria, viruses, and fungi.
17. **Miasma Theory**: The belief that diseases were caused by "bad air" or miasmas, which was prevalent before germ theory.
18. **Nightingale**, **Florence**: A pioneering nurse known for her work in nursing reform and the establishment of modern nursing practices.
19. **Nightingale Pledge**: An ethical code for nurses, developed by Florence Nightingale, emphasizing patient care and professionalism.
20. **Pasteurization**: A process of heating liquids to kill bacteria and pathogens, developed by Louis Pasteur.
21. **Public Health Act** (**1875**): A law aimed at improving sanitation and health conditions in urban areas across England.
22. **Sanitation**: Measures taken to promote health through cleanliness, especially in relation to water and waste disposal.
23. **Surgery**: A branch of medicine that involves the treatment of injuries or diseases through operative procedures.
24. **Vaccination**: The administration of a vaccine to stimulate an individual's immune system against disease.
25. **Victorian Era**: The period of Queen Victoria's reign (1837-1901), marked by significant social, economic, and medical changes.

1. How did ideas about the causes of disease evolve during the 18th and 19th centuries?	**Red**	**Amber**	**Green**
Are you able to explain the main theories of disease causation during this period? **Can you compare the miasma theory and germ theory?** **How did key individuals contribute to these evolving ideas?**			
2. What were the major advancements in surgical practices during this time?	**Red**	**Amber**	**Green**
Can you identify key developments in anaesthetics and antiseptics? **Are you able to discuss the impact of these advancements on surgical outcomes?** **How did public perception of surgery change as a result of these improvements?**			
3. In what ways did Edward Jenner's work influence public health?	**Red**	**Amber**	**Green**
Are you able to describe the process of vaccination that Jenner developed? **Can you explain the significance of Jenner's findings in the context of public health?** **How did Jenner's work pave the way for future vaccination efforts?**			
4. What role did government play in public health reforms in the 19th century?	**Red**	**Amber**	**Green**
Are you able to identify key public health acts and their impacts?			

Can you discuss the significance of government involvement in health care during this period? **How did social conditions influence government responses to public health crises?**			
5. How did John Snow's approach to cholera differ from previous methods of disease control?	**Red**	**Amber**	**Green**
Can you summarize the key findings of Snow's investigation of the cholera outbreak? **Are you able to explain how Snow's work contributed to modern epidemiology?** **How did Snow's recommendations lead to changes in public health practices?**			
6. What were the social and economic factors that influenced medical advancements?	**Red**	**Amber**	**Green**
Can you discuss the relationship between industrialization and public health? **Are you able to identify key social movements that impacted medical reforms?** **How did class disparities affect access to medical care and innovations?**			
7. What were the key features of hospital care in the 18th and 19th centuries?	**Red**	**Amber**	**Green**
Can you compare the conditions in hospitals before and after reform efforts? **Are you able to identify key figures, such as Florence Nightingale, and their contributions to hospital care?** **How did changing attitudes towards nursing and patient care affect hospital practices?**			
8. How did the understanding of infection and its prevention change during this period?	**Red**	**Amber**	**Green**
Are you able to explain the importance of Koch's Postulates in identifying infectious diseases? **Can you discuss how the development of antiseptics transformed surgical practices?** **How did public health initiatives address the issue of infection?**			
9. What challenges did medical practitioners face in combating diseases like cholera and smallpox?	**Red**	**Amber**	**Green**
Can you identify the main obstacles to effective disease prevention and treatment? **Are you able to discuss the societal responses to epidemics and pandemics during this time?** **How did advancements in science and technology help overcome these challenges?**			
10. In what ways did vaccination become a crucial tool for public health?	**Red**	**Amber**	**Green**
Are you able to describe the historical context of vaccination efforts during the 18th and 19th centuries? **Can you discuss the public's response to vaccination campaigns?** **How did vaccination programs contribute to the eradication of diseases like smallpox?**			
11. What impact did the scientific community have on medical practices in this era?	**Red**	**Amber**	**Green**
Can you identify key scientific figures and their contributions to medical knowledge? **Are you able to explain the significance of peer-reviewed research in advancing medical understanding?** **How did collaboration among scientists and physicians enhance medical practices?**			
12. How did the changes in medical practices during this period shape modern medicine?	**Red**	**Amber**	**Green**
Can you summarize the long-term effects of 18th and 19th-century medical advancements on today's healthcare? **Are you able to discuss how historical events continue to influence contemporary public health policies?** **How do the lessons learned from this era inform current approaches to disease prevention and treatment?**			

HOME LEARNING TASKS	
Task Description	**Done?**
Use 'Look, Cover, Write, Check' to learn the 18th-19th Century Vocabulary	
Complete GCSE Pod Tasks 1-4 using the QR code at the top of the page	
Explain how **spontaneous generation** was a different theory of disease to: **the four humours, miasma**	
Create a timeline charting the key medical developments of the 18th-19th century. You must include the following: John Snow & the Broad Street Pump, Louis Pasteur's Germ Theory, Robert Koch's work on Bacteriology, Florence Nightingale & the Crimean War, James Simpson & Chloroform, Joseph Lister & Carbolic Acid, Edward Jenner & Vaccinations, Public Health Acts	
Exam Style Question: Explain why understanding about the causes and outbreak of disease improved in the 18th-19th Century (12 marks)	
Exam Style Question: 'Edward Jenner was the most significant actor in improving methods to prevent disease in the 18th-19th century.' How far do you agree with this statement? (16 marks)	

History Year 9 Term 3 – Medicine 20th Century-Present

In this unit, you will explore major advancements in medical knowledge, treatments, and healthcare systems from 1900 to today. You will learn about ground-breaking discoveries, such as antibiotics and DNA, and examine the impact of technology, public health initiatives, and the establishment of the NHS on modern healthcare. Case studies will highlight the roles of key individuals and the fight against diseases like lung cancer.

Prior Learning Links

- Year 9 Term 1-3 Understanding of Medicine through time; Medieval – 18th-19th Century
- Year 8 Term 3 – First World War

Future Learning Links

- Link to Year 11 Revision

GCSE Pod – Scan me!

KEY VOCABULARY

Historical Skills Vocabulary

Cause – the reason for something happening
Change – when things are different to how they were before
Consequence – the result of something happening
Continuity – the opposite of change; when something stays the same or continues
Difference – the ways in which things are different to one another
Factor – something that can affect, or determine an event or outcome
Inference - a conclusion drawn about something using the information you already have about it
Rate of change – the pace at which change occurs; e.g. very quickly or slowly
Reliability – the degree to which something can be trusted or relied upon as accurate
Significance – the importance of something
Similarity – the quality of being similar, or the same
Trend – when there are a number of similar and related changes continuing in the same direction over a period of time
Turning point – a significant change happens – something that is different from what has happened before and which will affect the future

Medicine Through Time: 20th Century – Present Vocabulary

Advancement - Progress or improvement, especially in technology, science, or health.
Collaboration - The act of working with others to achieve a shared goal; relevant in discussing partnerships in medical research.
Diagnosis - The identification of a disease or condition based on signs, symptoms, and tests.
Efficiency - The ability to achieve maximum productivity with minimal wasted effort or resources, important in healthcare systems.
Implementation - The process of putting a plan or decision into effect; often used regarding new health policies or treatments.
Innovation - The introduction of new methods, ideas, or products that improve upon existing ones, relevant in medical advancements.
Intervention - Actions taken to improve a health outcome or address a problem, often used in discussing treatments and government campaigns.
Significance - The importance of something, especially in terms of its effect or impact, useful in analysing historical contributions.
Sustainability - The ability to maintain or continue something over time, especially concerning healthcare practices.
Transformation - A significant change in form or nature, applicable to shifts in medical care or healthcare policies.

Essential Medical Vocabulary

Anatomy – The study of the structure of the bodies of people or animals
Care – to provide help and support for someone who is unwell
Diagnosis – the act of identifying what is wrong with someone who is ill
Disease – an illness which affects people, spread by bacteria or infection
Prevention - to prevent something, is to ensure that it does not happen
Public Health – the health of the general population, and the activities and services that are designed to improve or protect this
Surgery – a medical treatment in which someone's body is cut open so that a doctor can repair, remove, or replace a diseased or damaged part
Treatment – medical attention given to a sick or injured person or animal

Medicine Through Time: 20th Century-Present Glossary

1. **Alexander Fleming** - Scientist who discovered penicillin in 1928, marking a breakthrough in antibiotics.

2. **Antibiotics** - Medications that destroy or inhibit the growth of bacteria, revolutionizing infection treatment.
3. **Blood Transfusion** - The process of transferring blood into a patient, widely used after advances in blood typing.
4. **Blood Tests** - Diagnostic tools that analyze blood samples to identify diseases, infections, and overall health.
5. **Crick and Watson** - Scientists who discovered the double-helix structure of DNA in 1953, foundational for genetic research.
6. **DNA** - Genetic material in cells; understanding DNA led to advances in diagnosing and treating genetic conditions.
7. **Drug Resistance** - When bacteria become resistant to antibiotics, posing challenges for modern medicine.
8. **Electrocardiogram (ECG)** - A medical test that records the heart's electrical activity, crucial for heart health monitoring.
9. **Ernest Chain** - Scientist who helped mass-produce penicillin, making it accessible for widespread use.
10. **Florey and Chain** - Scientists who, along with Fleming, developed penicillin for large-scale medical use during WWII.
11. **Genetic Engineering** - The manipulation of DNA to alter genes, advancing medical treatments and research.
12. **Genome Project** - An international research project that mapped human DNA, enhancing our understanding of genetics.
13. **High-Tech Surgery** - Advanced surgical methods using technology like robotics and lasers for precision.
14. **Lifestyle Factors** - Elements such as diet, exercise, and smoking that impact health and are studied in medical research.
15. **Magic Bullet** - A term for drugs that target specific disease-causing agents without harming the body, such as Salvarsan.
16. **Mass Vaccination** - Government-led programs to vaccinate large populations, reducing the spread of infectious diseases.
17. **MRI (Magnetic Resonance Imaging)** - A scanning technique providing detailed images of internal organs, aiding diagnosis.
18. **National Health Service (NHS)** - The publicly funded healthcare system in the UK, established in 1948 for universal care.
19. **Penicillin** - The first antibiotic, discovered by Fleming, pivotal in treating bacterial infections.
20. **Public Health Act 1946** - Legislation that established the NHS, transforming healthcare access and quality in Britain.
21. **Radiotherapy** - A cancer treatment using targeted radiation, part of modern high-tech medical care.
22. **Salvarsan 606** - The first "magic bullet" drug to treat syphilis, discovered by Paul Ehrlich, pioneering targeted treatments.
23. **Screening Programs** - Initiatives to detect diseases early, improving outcomes in illnesses like cancer.
24. **Ultrasound** - Imaging technology using sound waves, widely used for diagnostic purposes, including in pregnancy.
25. **X-Rays** - A technology that uses radiation to view inside the body, significantly aiding in diagnosis and treatment planning.

1. How has scientific understanding of disease causation changed since 1900?	**Red**	**Amber**	**Green**
Are you able to explain the role of genetics and lifestyle factors in modern health? **Can you describe how scientific discoveries have influenced our understanding of disease causes?** **Are you able to discuss key developments in medical research since 1900?**			
2. What impact did the discovery of DNA have on medicine?	**Red**	**Amber**	**Green**
Can you explain how DNA discovery changed genetic research and diagnostics? **Are you able to identify the contributions of Crick and Watson to medical science?** **Can you discuss how genetic research affects modern treatments?**			
3. How did the development of antibiotics revolutionize healthcare?	**Red**	**Amber**	**Green**
Are you able to describe Alexander Fleming's discovery of penicillin? **Can you explain the significance of Florey and Chain's contributions to antibiotic production?** **Are you able to assess the impact of antibiotics on infection treatment?**			
4. In what ways have advances in technology changed medical diagnostics?	**Red**	**Amber**	**Green**
Can you explain the role of blood tests, X-rays, and MRIs in modern diagnostics? **Are you able to describe how improved diagnostic tools have influenced patient care?**			

Can you identify the main technological advances in diagnostic medicine since 1900?			
5. How has medical treatment evolved in the 20th and 21st centuries?	**Red**	**Amber**	**Green**
Are you able to identify key treatments developed since 1900, like "magic bullets"? **Can you discuss the impact of new treatments on patient recovery and quality of life?** **Are you able to explain the importance of targeted treatments in modern medicine?**			
6. What role did the NHS play in changing access to healthcare in Britain?	**Red**	**Amber**	**Green**
Can you describe the founding purpose of the NHS in 1948? **Are you able to discuss how the NHS improved healthcare access for the population?** **Can you explain how the NHS influenced medical treatment and prevention in Britain?**			
7. How did mass vaccinations and public health campaigns improve public health?	**Red**	**Amber**	**Green**
Are you able to discuss the purpose and impact of government vaccination programs? **Can you identify examples of successful public health campaigns and their effects?** **Are you able to explain how vaccination programs helped prevent widespread disease?**			
8. What are the main lifestyle factors affecting health in the modern era?	**Red**	**Amber**	**Green**
Can you list key lifestyle factors that influence health, like diet, exercise, and smoking? **Are you able to discuss how science links lifestyle choices to health outcomes?** **Can you explain the role of government campaigns in promoting healthier lifestyles?**			
9. How have cancer diagnosis and treatments evolved over time?	**Red**	**Amber**	**Green**
Are you able to describe advancements in cancer treatment, like radiotherapy? **Can you explain how technological advances have improved cancer diagnosis?** **Are you able to discuss the impact of early screening programs on cancer outcomes?**			
10. What challenges has drug resistance posed to modern medicine?	**Red**	**Amber**	**Green**
Can you explain what drug resistance is and why it is concerning? **Are you able to discuss examples of drug-resistant infections and their impacts?** **Can you identify how medicine is addressing the challenge of drug resistance?**			
11. How has public perception of health and healthcare changed since 1900?	**Red**	**Amber**	**Green**
Are you able to explain how health priorities have shifted over time? **Can you discuss the influence of the NHS and medical advancements on public trust?** **Are you able to identify how public health campaigns have influenced health behaviors?**			
12. What role have key individuals played in shaping modern medicine?	**Red**	**Amber**	**Green**
Can you identify major contributions from figures like Fleming, Florey, and Chain? **Are you able to describe how individuals have influenced medical advancements?** **Can you explain the lasting impacts of these individuals on healthcare today?**			

HOME LEARNING TASKS	
Task Description	**Done?**
Use 'Look, Cover, Write, Check' to learn the 20th Century Vocabulary	
Complete GCSE Pod Tasks 1-4 using the QR code at the top of the page	
Explain how the understanding of **lifestyle** and **genetic** factors developed upon ideas such as Germ Theory and Bacteriology	
Create a timeline of the key medical developments of the 20th century: Crick, Watson & Franklin's development of the model DNA; Magic Bullets; Fleming, Florey, Chain and the development of Penicillin; Development of the NHS	
Exam style question: Explain one way in which the diagnosis and treatment of disease was different in the period 1700-1900 and the 20th Century.	
Exam style question: Explain how prevention of disease changed in the 20th Century.	
Exam style question: 'The development of the NHS was the biggest turning point in medical care and treatment in the 20th Century' How far do you agree?	