THE ABBEY SCHOOL
A BUSINESS & ENTERPRISE ACADEMY

Knowledge Organiser

Year 10

Term 2

CONTENTS

English (Term 2)
A Christmas Carol by Charles Dickens

A Christmas Carol was written by Charles Dickens in 1843

BIG QUESTIONS

13. **What is the significance of Tiny Tim?**
14. **Why does the Ghost of Christmas Present take Scrooge to the party?**
15. **How do Ignorance and Want present the problems in society?**
16. **How is the Ghost of Christmas Yet to Come presented to us?**
17. **How has the tone of the novella shifted with the Ghost of Christmas Yet to Come?**
18. **How does Dickens build tension through the events the Ghost of Christmas Yet to Come shows Scrooge?**
19. **How does Dickens change the Cratchits to alter Scrooge?**
20. **How is the end of Stave Four effective?**
21. **Is Scrooge's change admirable or self-serving?**
22. **What becomes of Scrooge?**
23. **How does Dickens present the change in Scrooge's character?**
24. **How does Dickens present the importance of family?**

Context

Class Divides – Despite industrial changes altering the social landscape, there were still relatively distinct social classes in operation: the nobility, upper class, the middle class, and the working class. Life was terrible for the poorest; lack of money resulted in a negligible food supply. For some working families, money was so tight that they required their children to work in order to survive.

Health and Medicine –Healthcare was more of a luxury at the time, and medicine was nowhere near as advanced today. Many diseases were rife, and childbirth and poverty were very real dangers to people living in the era. As a result, a middle class person may expect to live to 45 at the time, whereas a working class person would have been lucky to have lived half that time. In A Christmas Carol, the restrictions in healthcare are evident in Tiny Tim's continued suffering.

Christmas– We now associate Christmas as being a time of seasonal goodwill, love and friendship. However, before the Victorian era, when writers such as Dickens spread these messages through their novels, there was no Santa Claus, Christmas cards, and no holidays from work! Christmas Day was a far more low-key affair. Writers such as Dickens encouraged middle-class families to share their wealth and act selflessly.

Plot

Stave 3 - The bell strikes one, and Scrooge is awake again. At quarter past one, he finds the Ghost of Christmas Present waiting for him. He is a majestic jolly giant, and sits on a mountain of food. The spirit takes Scrooge to the bustling streets on Christmas morning, where passers-by joyfully greet each other. The spirit then takes Scrooge to the home of Bob Cratchit, where the family savour the Christmas that they can afford. Their visibly-ill son, Tiny Tim, is cheery despite his ailments. Scrooge begs to know whether he will survive. They also visit Fred's Christmas party, which Scrooge enjoys. Eventually, Scrooge is brought to a vast expanse, where two sickly children, 'Want' and 'Ignorance' emerge. When Scrooge asks if there is anything that can be done, the spirit mocks his prior selfishness.

Stave 4 - Scrooge is approached by a hooded phantom. The spirit is silent, and Scrooge is terrified by him. Scrooge pleads with him to provide his next lesson. The ghost takes him to the stock exchange, where men discuss the accounts of a rich man, a dingy pawn shop, where the rich man's stolen goods are being sold, and the Cratchit household, where the family struggles with the death of Tiny Tim. Scrooge is then taken to a freshly dug grave in a graveyard. The gravestone reveals that it is his own grave. Appalled, Scrooge begs with the spirit to give him another chance to show that he has learnt his lesson. The phantom begins to tremble and disappears, and once again Scrooge finds himself in the relative safety of his own bed.

Stave 5 - Scrooge realises that he has been returned to Christmas morning, and is utterly overjoyed. He pays the first boy that he meets a huge sum to deliver a great big turkey to Bob Cratchit's household. He bumps into the gentlemen collecting for charity, apologises for his prior behaviour, and promises to donate lots of money to the poor. He attends Fred's party and is so happy and kind that the other guests can barely believe his behaviour. The next morning, he pretends to scold Bob Cratchit for arriving late, before promising to give him a large raise and to care for his family. As time passes by, he stays true to his word – he helps the Cratchits and becomes like a second father to Tiny Tim, who does not die. Scrooge brings Christmas cheer to every day, and shrugs off the doubts that others have about his changed behaviour. The narrator concludes by suggesting that Scrooge's changed attitude and behaviour should be shared by everyone.

Key Quotations

Stave 3: 'there sat a jolly Giant, glorious to see, who bore a glowing torch, in shape not unlike Plenty's horn, and held it up, high up, to shed its light on Scrooge' 'free as its genial face, its sparkling eye, its open hand, its cheery voice, its unconstrained demeanour, and its joyful air' "if you have aught to teach me, let me profit by it" 'his threadbare clothes darned up and brushed, to look seasonable' 'Alas for Tiny Tim, he bore a little crutch, and had his limbs supported by an iron frame' "he hoped the people saw him in the church, because he was a cripple, and it might be pleasant to them to remember upon Christmas Day, who made lame beggars walk, and blind men see" 'Such a bustle ensued that you might have thought a goose the rarest of all birds; a feathered phenomenon' 'Mrs Cratchit entered -- flushed, but smiling proudly -- with the pudding, like a speckled cannon-ball' "I see a vacant seat […] in the poor chimney-corner, and a crutch without an owner, carefully preserved. If these shadows remain unaltered by the Future, the child will die" "If he be like to die, he had better do it, and decrease the surplus population" 'the ghost grew older, clearly older' 'From the foldings of its robe, it brought two children; wretched, abject, frightful, hideous, miserable' "This boy is Ignorance. This girl is Want."

Stave 4: 'The Phantom slowly, gravely, silently approached. When it came, Scrooge bent down upon his knee; for in the very air through which this Spirit moved it seemed to scatter gloom and mystery' 'Scrooge feared the silent shape so much that his legs trembled beneath him' "Spirit…I see, I see. The case of this unhappy man might be my own. My life tends that way, now" ' Bob held his withered little hand in his, as if he loved the child, and wished to keep him by his side, and dreaded that he might be taken from him' ' Still the Ghost pointed downward to the grave by which it stood' "Spirit!" he cried, tight clutching at its robe, "hear me. I am not the man I was" "I will honour Christmas in my heart, and try to keep it all the year. I will live in the Past, the Present, and the Future"

Stave 5: "I am as giddy as a schoolboy" "Not a farthing less. A great many back payments are included in it" "Let him in! It is a mercy he didn't shake his arm off." 'Scrooge was better than his word. He did it all, and infinitely more; and to Tiny Tim, who did not die, he was a second father'

Key Vocabulary (concepts/themes)

Transformation – Physical transformations are evident throughout A Christmas Carol, as objects, settings, and characters appear and vanish under the manipulation of the ghosts. Spiritual transformations take place too, as the reader witnesses a lonely boy's transformation into an embittered old man, and the efforts made to transform his character to reconnect with those around him.

Time – Time is stretched by the ghosts – the events that Scrooge experiences appear to have taken days, and yet all takes place in the space of one night. A race against time is also taking place, as the spirits work to prevent Scrooge (and in turn, Tiny Tim) from experiencing their fateful demise. The reader is taught to value the time that we have, and use it to spread happiness to others.

Five Staves – The story is set out in five Staves – a structure that mimics musical organization – the opening sets the scene, the middle is the turning point, and the last stave concludes.

The Number 3 – Scrooge is visited by 3 ghosts of Christmas: Past, Present, and Yet to Come. This is a common feature in magical fairy stories: e.g. 3 wishes, 3 choices etc. This adds to the mystical feel of the novella

Homework Links

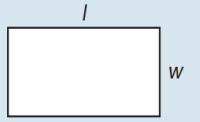
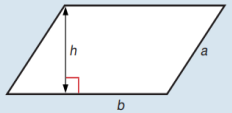
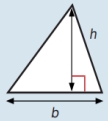
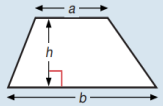
Your homework this term will be creative writing, based loosely around the novella.

Check out BBC Bitesize for writing skills to help you with this: https://www.bbc.co.uk/bitesize/topics/zpyg6fr

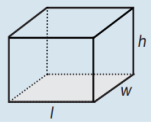
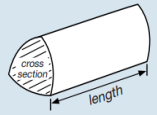
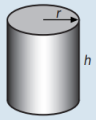
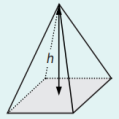
Subject: Mathematics
Topic: Recall Knowledge

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 = $\frac{1}{2}(a + b)h$	

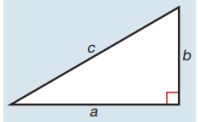
Volumes

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

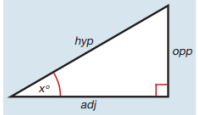
Pythagoras' Theorem

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



Trigonometric ratios (*new to F*)

$\sin x^o = \frac{\text{opp}}{\text{hyp}}$, $\cos x^o = \frac{\text{adj}}{\text{hyp}}$, $\tan x^o = \frac{\text{opp}}{\text{adj}}$



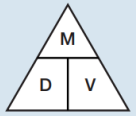
Compound measures

Speed

$\text{speed} = \frac{\text{distance}}{\text{time}}$

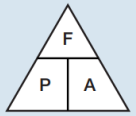
Density

$\text{density} = \frac{\text{mass}}{\text{volume}}$



Pressure

$\text{pressure} = \frac{\text{force}}{\text{area}}$

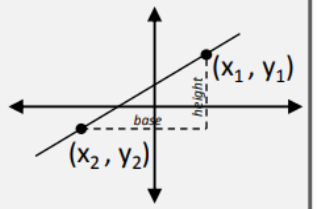


Gradient of a Line

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

or

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



Midpoint of two points

between (x_1 , y_1) and (x_2 , y_2)

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

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 ± means + for growth and – for decay

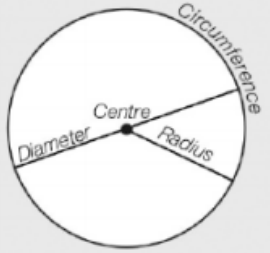
Literacy In Maths	Command Words
Evaluate …	Work out and write your answer
Work out …	Working out is required
Calculate …	Working out is required. A calculator may be needed.
Solve …	Work out the values
Prove …	All working must be shown in steps to link reasons and values.
Expand…	Multiply out of the 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

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

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

Subject: Mathematics
Topic: Ch 9 Equations and Inequalities

Year / Group: 10H
Term: 2

BIG QUESTIONS

What does it mean to 'solve a quadratic'?

How do we use algebraic manipulation to solve simultaneous equations?

How does solving inequalities differ from solving equations?

Sparx Maths

U960, U601, U665, U397, U589, U509, U337

Solving Quadratics

We can solve quadratic equations in 4 different ways:

$$ax^2 + bx + c = 0$$

Factorising – put into brackets first

Quadratic formula

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Completing the square

$$\left(x + \frac{b}{2}\right)^2 + c - \left(\frac{b}{2}\right)^2 = 0$$

Graphically

Factorising:

$$x^2 + 7x + 10 = 0$$

$$(x + 2)(x + 5) = 0$$

$$Either: \quad x + 2 = 0$$

$$x = -2$$

$$Or: \quad x + 5 = 0$$

$$x = -5$$

Quadratic formula – give your answer to 2 decimal places:

$$x^2 + 4x - 2 = 0$$

$$x = \frac{-4 \pm \sqrt{4^2 - 4(1)(-2)}}{2(1)}$$

$$x = \frac{-4 \pm \sqrt{16 + 8}}{2}$$

$$x = 0.45 \quad Or: \quad x = -4.45$$

Completing the square – leave your answer in root form:

$$x^2 + 6x + 5 = 0$$

$$\left(x + \frac{6}{2}\right)^2 + 5 - \left(\frac{6}{2}\right)^2 = 0$$

$$(x + 3)^2 + 5 - 3^2 = 0$$

$$(x + 3)^2 - 4 = 0$$

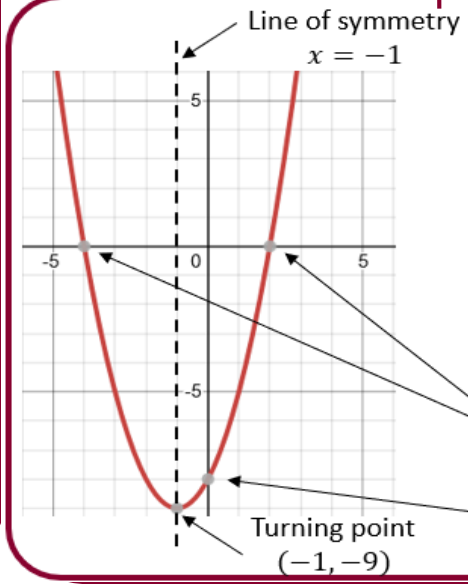
$$Either: \quad x = \sqrt{4} - 3$$

$$Or: \quad x = -\sqrt{4} - 3$$

You can choose any method of solving as long as it is possible – unless specifically asked to use a particular method.

Graphically

$$y = x^2 + 2x - 8$$



A quadratic equation can be solved from its graph.
The roots of the graph tell us the possible solutions for the equation.
There can be 1 root, 2 roots or no roots for a quadratic equation. This is dependant on how many times the graph crosses the x axis.

Roots $x = -4$
$x = 2$

y intercept $= -8$

Inequalities

Inequalities show the **range** of numbers that satisfy a rule.

$x < 2$ means x is less than 2
$x \leq 2$ means x is less than or equal to 2

$x > 2$ means x is greater than 2
$x \geq 2$ means x is greater than or equal to 2

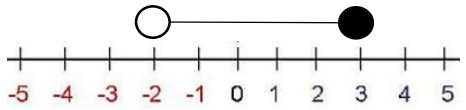
a) State the values of n that satisfy:

$$-2 < n \leq 3$$

Cannot be equal to 2 Can be equal to 3

-1, 0, 1, 2, 3

b) Show this inequality on a number line:

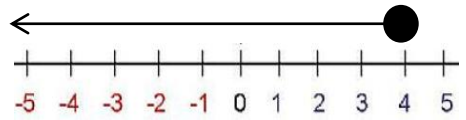


On a **number line** we use circles to highlight the key values:

○ is used for less/greater than
● is used for less/greater than or equal to

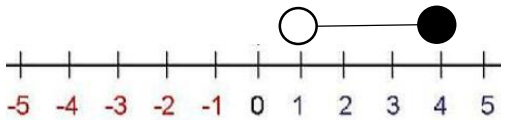
Solve this inequality and represent your answer on a **number line:**

$5x - 6 \leq 14$
+6 +6
$5x \leq 20$
÷5 ÷5
$x \leq 4$



Solve this inequality and represent your answer on a **number line:**

$4 < 3x + 1 \leq 13$
-1 -1
$3 < 3x \leq 12$
÷3 ÷3
$1 < x \leq 4$



Simultaneous Equations

Simultaneous equations are when **more than one equation** are given, which involve **more than one variable**. The variables have the **same value** in each equation.

We need to have the same co-efficient for one variable in order to eliminate it and solve.

Two linear equations:

$$3x + 2y = 18$$
$$3x - y = 9 \quad \times 2$$
$$3x + 2y = 18$$
$$6x - 2y = 18 \quad +$$
$$9x = 36$$
$$x = 4$$

SSS – Same Sign Subtract
DSA – Different Sign Add

Substitute in $x = 4$ into an original equation

$$3x + 2y = 18$$
$$(3 \times 4) + 2y = 18$$
$$12 + 2y = 18$$
$$2y = 6$$
$$y = 3$$

One linear and one quadratic equation:

$$x^2 + y^2 = 17$$
$$y = x - 3$$

Substitute $y = x - 3$ into y in the quadratic equation.

$$x^2 + (x-3)^2 = 17$$
$$x^2 + x^2 - 6x + 9 - 17 = 0$$
$$2x^2 - 6x - 8 = 0$$

Solve by factorising or using the quadratic formula.

$$x = 4 \text{ or } x = -1$$

Substitute the x values into the linear equation to find the corresponding y values.

$When\ x = 4, \quad y = 4 - 3 = 1$
$When\ x = -1, \quad y = -1 - 3 = -4$

Homework Links

Sparx Maths

MathsGenie.co.uk/GCSE

Corbettmaths.com/contents

bbc.co.uk/bitesize/subjects

Key Vocabulary

Solving

Quadratic

Formula

Root

Inequality

Completing the square

Simultaneous

Variable

Subject: Mathematics
Topic: Ch9 – Linear Graphs

Year / Group: 10F
Term: 2

BIG QUESTIONS

How do you plot, use and interpret a linear graph?

How can we represent real life in a graph?

Sparx Maths

U789, U933, U848, U403, U462, U638

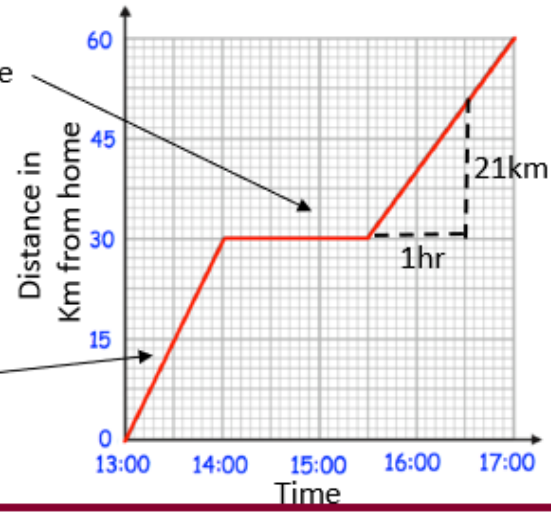
Real Life Graphs

Key Terms:

Axes: A fixed reference line on a grid to help show the position of coordinates.
Convert: Change a value or expression from one form to another.
Equation: A mathematical statement containing an equals sign.
Gradient: How steep a line is at any point.
Midpoint: The point halfway along a line or between two coordinates.
Conversion graph: A graph which converts between two variables.
Distance-time graph: A graph that shows a journey and the relationship between the distance reached in a given time.
Real - life graph: This is a graph that represents a situation that we would see in real life.
Intercept: Where two graphs cross.
y-intercept: Where a graph crosses the y-axis.
Gradient: The rate of change of one variable with respect to another. This can be seen by the steepness.
Stationary: A person/vehicle is not moving.

Horizontal sections are where the object is stationary

Diagonal lines show the object moving away from home or moving closer to home



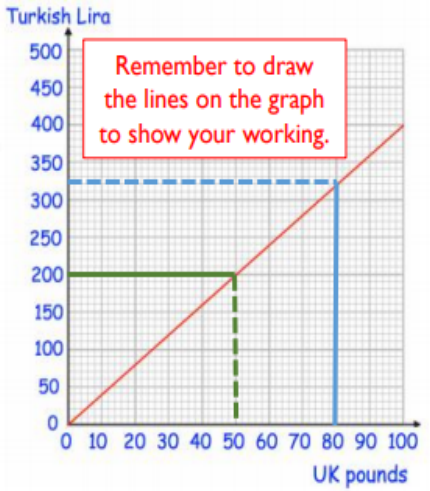
$$Speed = \frac{distance}{time}$$

$$Speed = \frac{21}{1}$$

$$Speed = 21km/h$$

What you need to know:

Conversion graphs



Change £80 into Turkish lira

1) Start at 80 on the horizontal axes as this for pounds and go up vertically until you reach the line
2) From the line, read horizontally until you get to the axis showing lira

Change 600 Turkish lira to pounds

As this value is not shown by the graph, we have to use a value that is to help.

1) Start at 200 on the vertical axes and go across horizontally until you reach the line. From the line, read vertically until you get to the axes.
2) 200 lira = £50
   600 lira = £150

Gradient: This is the steepness of the line. The highest the number the steeper the line. We use the formula before to calculate it:

$$Gradient = \frac{difference\ in\ y}{difference\ in\ x}$$

(3, 4) and (5, 10)

$$Gradient = \frac{10-4}{5-3} = \frac{6}{2} = 3$$

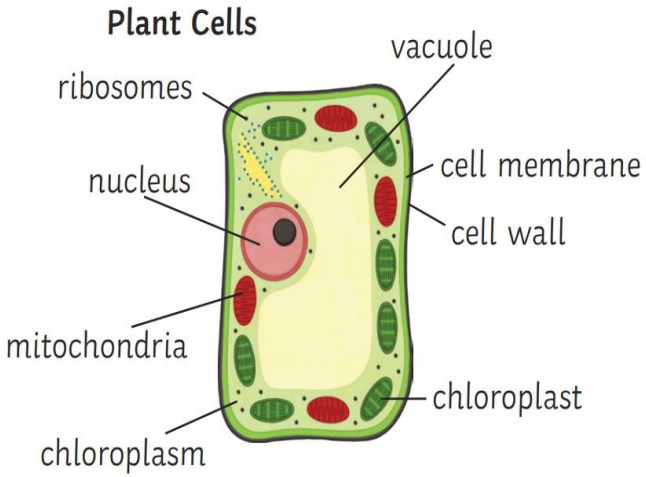
Subtract the two y values.

Subtract the two x values.

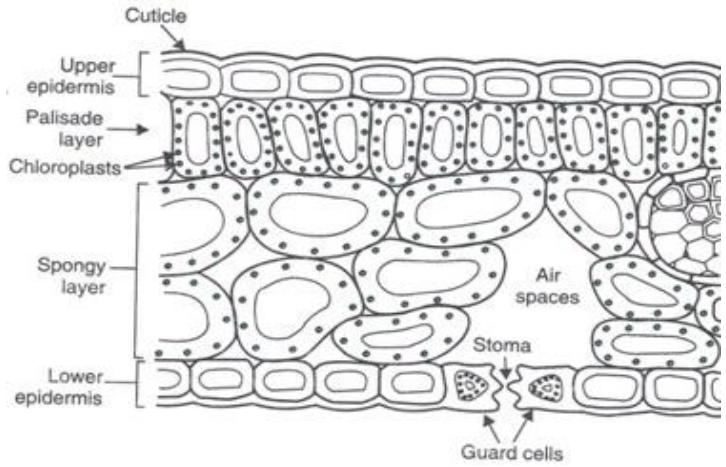
Gradient = 3

Biology – B4: Bioenergetics Knowledge Organiser

A) Plant cell and leaf structure



Leaf structure

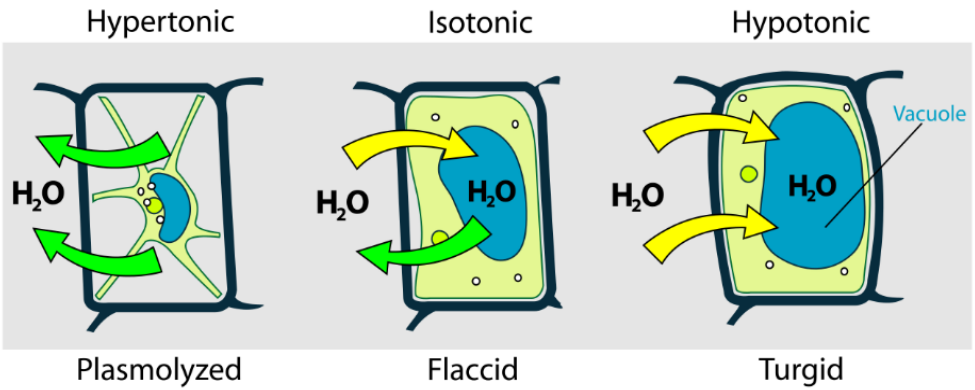


Key term/question	Definition/answer
1. Nucleus	Contains DNA that controls cellular activity
2. Cytoplasm	Site of chemical reactions
3. Cell membrane	Semi-permeable and controls what enters and exits the cell
4. Mitochondria	Site of aerobic respiration which releases energy for the cell
5. Ribosomes	Site of protein synthesis
6. Cell wall	Supports and strengthens the cell
7. Vacuole	Contains cell sap to keep the cell turgid
8. Chloroplasts	Site of photosynthesis
9. Flagellum on algae	Tail like structure which helps algae move to light
10. Function of epidermal tissue	Waxy cuticle to prevent **water loss** by **evaporation**
11. Function of upper epidermis tissue	**Transparent** to let light pass through
12. Function of palisade mesophyll tissue	Contains **many chloroplasts** for **photosynthesis**
13. Function of spongy mesophyll tissue	Contains air spaces to allow gases to diffuse in and out of cells
14. Guard cells	Controls the opening and closing of the stomata
15. Stomata	Holes underneath the leaf which allow carbon dioxide to diffuse **in** and oxygen to diffuse **out**

B) Photosynthesis

Key term/question	Definition/answer
16. Photosynthesis	Plants using light energy to convert carbon dioxide and water into glucose and oxygen
17. Word equation for photosynthesis	Light Carbon dioxide + water ---------> glucose + oxygen
18. Symbol for glucose	$C_6H_{12}O_6$
19. What type of reaction is photosynthesis?	Endothermic (energy is transferred **from the environment** to the chloroplasts by light)
20. Uses of glucose by plants (3)	**1.** Respiration **2.** Makes cellulose **3.** makes amino acids for protein synthesis
21. Glucose + Nitrate ions =	Amino acids
22. What plants convert glucose into for storage (2)	**1.** Starch **2.** Lipids
23. Why does glucose need to be stored as starch?	Glucose is **soluble** and starch is **insoluble**
24. Osmosis	Movement of **water** from a **high concentration** to **low concentration** across a semi-permeable membrane.
25. Turgid	Water enters the cell and cell becomes swollen

Movement of water across the cell membrane



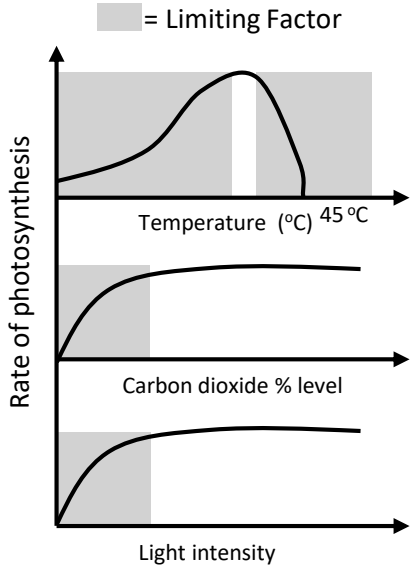
Biology 4: Required practical 5 – Investigating the Rate of Photosynthesis

Method for investigating the rate of photosynthesis

1. Secure a boiling tube to a clamp and add sodium hydrogen carbonate solution.
2. Add to the boiling tube a piece of pond weed.
3. Using a meter ruler, place the boiling tube 10 cm away from a lamp.
4. Turn on lamp and wait 5 minutes to allow the pond weed to start photosynthesising.
5. Using the stopwatch count how many oxygen bubbles are produced in 60 seconds.
6. Repeat the count two more time and calculate the mean.
7. Repeat steps 1 to 6 by moving the boiling tube further away from the lamp by 10 cm each time until reaching a distance of 60 cm.

Key term/question	Definition/answer
26. What plant is used when investigating the rate of photosynthesis?	Pondweed
27. What is the independent variable when investigating the rate of photosynthesis?	Light intensity
28. What is the Dependent variable when investigating the rate of photosynthesis?	The number of bubbles in 60 seconds
29. What are the control variables when investigating the rate of photosynthesis? (4)	**1**. Carbon dioxide concentration **2.** Temperature **3.** Light colour **4.** Same type of pondweed
30. What happens as light intensity increases?	The number of bubbles will increase.
31. Why is sodium hydrogen carbonate solution added to the boiling tube?	To control the concentration of carbon dioxide
32. Why is an LED bulb used?	Releases very little heat energy
33. How to improve the experiment	Use a gas syringe to collect the volume of gas produced
34. Rate of photosynthesis =	Number of bubbles ÷ time

C) Limiting factors of photosynthesis



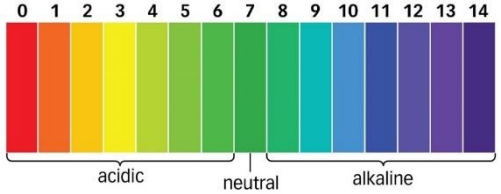
Photosynthesis is controlled by an enzyme. As the temperature increases so does the rate of photosynthesis, up until a certain point. If the temperature gets too high, then the enzyme will be denatured and the rate of reaction will decrease.

As carbon dioxide concentration increases so does the rate of photosynthesis, until temperature or light intensity becomes the limiting factor (when the graph curve flattens)

As light intensity increases so does the rate of photosynthesis, until carbon dioxide or temperature becomes the limiting factor (when the graph curve flattens).

HIGHER TIER Key term/question	Definition/answer
35. Inverse square law	As the distance *increases*, light intensity *decreases*
36. What is the relationship between distance and light intensity?	Inversely proportional
37. Proportional symbol	∝
38. Inverse square law equation	Light intensity = ∝ 1 ÷ distance^2
39. How is temperature controlled in greenhouses?	Greenhouses help traps the sun's radiation as heat inside the greenhouse
40. How is carbon dioxide controlled in greenhouses?	Paraffin heaters are used because when paraffin combusts carbon dioxide is made as a by-product
41. How is light controlled in greenhouse	Artificial lighting ensures that plants can photosynthesise even during cloudy days or during the night
42. How do greenhouses improve the general health of plants?	Encloses the plant to keep the plants free from pests and diseases
43. Why do farmers use fertilisers?	Provides the plants with minerals needed for healthy growth
44. How do farmers make a profit when greenhouse costs money?	The farmer supplies the optimum level of heat, light, carbon dioxide and fertilsers to rapidly increase crop yield

Chemistry 4 (C2): Chemical Changes Knowledge Organiser

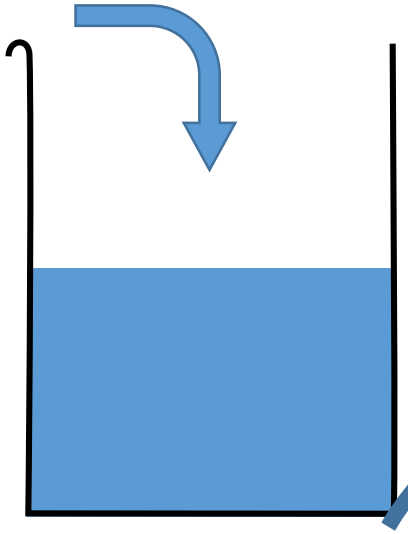


A) ACIDS AND ALKALIS Key term/question	Definition/answer
1. pH scale	From 0 to 14. Tells you how acidic or alkaline a solution is.
2. Acid pH range	Less than 7 (0 to 6)
3. Alkaline pH range	More than 7 (8 to 14)
4. Neutral pH	7
5. Ways of testing the pH of a substance. (2)	1. Use universal indicator 2. Use pH meter and probe
6. Neutralisation reaction	Acid + Alkali → Salt + Water
7. Ion	An atom that has lost or gained electrons to become a charged particle.
8. Ions released from acids	H^+
9. Ions released from alkalis	OH^-
10. Neutralisation reaction (ions)	$H^+ + OH^- \rightarrow H_2O$
11. Solid symbol	$XX_{(s)}$
12. Liquid symbol	$XX_{(l)}$
13. Gas symbol	$XX_{(g)}$
14. Aqueous (in solution symbol)	$XX_{(aq)}$
HIGHER TIER Key term/question	Definition/answer
16. Strong acid	H^+ ions completely ionise
17. Weak acid	H^+ ions partially ionise
18. ⇌	Reversible reaction
19. Concentration of an acid	Number of dissolved acid molecules in a certain volume of water

B) REACTIONS OF ACIDS Key term/question	Definition/answer
20. **M**etal + **A**cid →	**S**alt + **H**ydrogen
21. Metal oxide/hydroxide + Acid →	Salt + Water
22. Metal **carbon**ate + acid →	Salt + Water + **Carbon** dioxide
23. *(Metal +)* Hydrochloric acid (HCl)	*Metal* chloride
24. *(Metal +)* Sulfuric acid (H_2SO_4)	*Metal* sulphate
25. *(Metal +)* Nitric acid (HNO_3)	*Metal* nitrate
C) REACTIVITY OF METALS	
26. Reactivity series	List of metals ranked in order of their reactivity
27. Oxidation	The gain of oxygen by an element or compound
28. Oxidation example: $2Mg + O_2$ →	2MgO
29. Reduction	The loss of oxygen from a compound
30. Reduction example: 2CuO + C →	$Cu + CO_2$
31. OIL RIG	Oxidation Is Loss (of electrons) Reduction Is Gain (of electrons)
32. Ore	Rocks that contain naturally occurring metals or metal compounds
D) ELECTROLYSIS	
33. Electrolysis	Ionic substances are decomposed (broken down) into simpler substances when an electric current is passed through them.
34. Electrode	Solid, conducts electricity and is submerged in electrolyte
35. Negative electrode	Cathode
36. Positive electrode	Anode
37. Negative ions move to the _____	Anode
38. Positive ions move to the _____	Cathode
39. PANIC	Positive Anode Negative is Cathode
40. Electrolyte	Liquid which conducts electricity
41. Why is the electrolyte molten or a dissolved ionic substance?	Contains delocalised (free) ions which can conduct electricity
42. Method of extracting for metals less reactive than carbon	Reduction using carbon
43. Method of extracting for metals more reactive than carbon	Electrolysis
44. Limitation of electrolysis	Expensive
45. Main ore of aluminium	Bauxite
46. What is aluminium oxide dissolved in during electrolysis?	Molten cryolite
47. Why is aluminium oxide dissolved in molten cryolite?	To reduce the melting point and make it cheaper

Investigating Electrolysis Required Practical

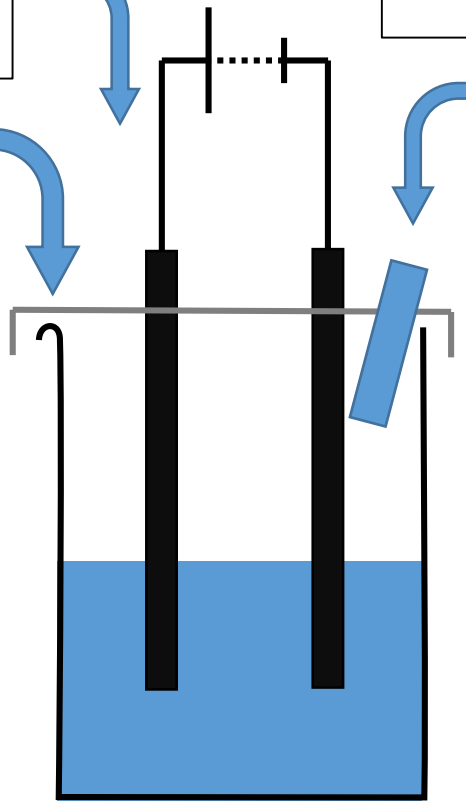
❶ Add 50.0 cm^3 electrolyte solution into beaker ❑



❷ Place on Petri dish lid ❑

❸ Insert Electrodes into solution ❑

❹ Attach Power pack set at 4V. Leave for 5 minutes ❑ ❑ ❑ ❑



❼ Gas test:
Chlorine bleaches damp litmus white. ❑
Hydrogen makes a squeaky pop with a lit splint. ❑
Oxygen will relight a glowing splint. ❑

❻ Observe negative electrode and record ❑

❺ Observe positive electrode and record ❑

Physics 5: Forces Knowledge Organiser

A) Contact and Non-contact forces

Key term/question	Definition/answer
1. Force (2)	**1.** Push or pull that causes a change in speed, direction or shape. **2.** All forces come in pairs and are either contact or non-contact forces.
2. Unit of measure for force	Newtons (N)
3. Vector	Has magnitude (size) and direction. (Can be drawn as an arrow →)
4. Scalar	Has magnitude (size) but **NO** direction
5. Vector quantities examples	Force, velocity, momentum
6. Scalar quantities examples	Mass, time, speed, temperature, energy
7. Velocity	The speed and direction of an object
8. Contact forces	Objects have to be touching for the force to act
9. Contact forces examples (4)	**1.** Friction **2.** Air resistance **3.** Tension **4.** Normal contact
10. Non-contact force	Forces that act without needing to touch
11. Non-contact forces examples	**1.** Magnetic force **2.** Electrostatic force **3.** Gravitational

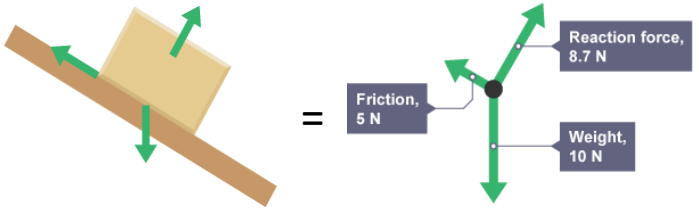
B) Weight, Mass and Gravity

Key term/question	Definition/answer
12. Gravity	A natural phenomenon by which all things with mass or energy (e.g. planets, stars, galaxies) are attracted to one another.
14. Gravitational field strength	Gives a measure of how much force an object will experience. Measured in N/kg
15. Gravitational field strength on Earth	9.8 N/kg (This will be given in exams and may be 10N/kg)
16. Weight	Is the force acting on an object due to gravity. Measured in N using a **newton meter**.
17. Mass	The amount of matter (stuff) in an object.
18. Unit of measurement for weight	Newtons (N)
19. Unit of measurement for mass	Kilograms (kg)
18. Weight equation	Weight (N) = mass (kg) x gravitational field strength (N/kg) | **W = mg**
19. Relationship between weight and mass?	Directly proportional
20. Centre of mass	The point at which the whole mass is concentrated

C) Resultant Forces

Key term/question	Definition/answer
21. Resultant forces (2)	**1.** The force you have if you replaced all the forces on an object with one single force. **2.** If it is zero, forces are balanced
22. Equilibrium	When the resultant force on an object equals 0
23. Example to calculate a resultant force	 Resultant force = 50 N – 30 N Resultant = 20 N forwards

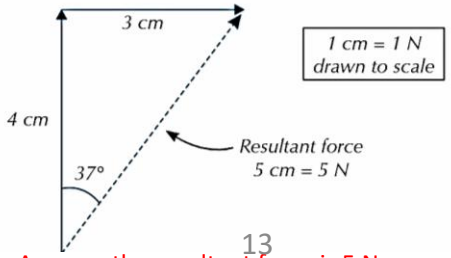
HIGHER TIER

24. Free body diagram (2)	**1.** Each force is represented by an arrow. The **length of the arrow** shows the **relative magnitude** and the **direction of the arrow** shows the **direction of forces.** **2.** Object represented as a dot on centre of mass.
25. Example of free body diagram	
26. Scale drawings	If resultant forces are **not parallel**, can be used to find the resultant force acting on an object

Scale drawing worked example

A women on an electric bicycle has a driving force of 4 N north, but the wind produces a force of 3 N east. Find the magnitude and direction of the resultant force.

1. Choose a scale to draw the forces acting tip-to-tail.
2. Draw the resultant from the tail to the first arrow to the tip of the last arrow.
3. Use a ruler to measure the length and the scale to find the force.
4. Use a protractor to measure the direction as a bearing.



Answer: the resultant force is 5 N on a bearing of 37°

Physics 5: Forces Knowledge Organiser

C) Resultant Forces

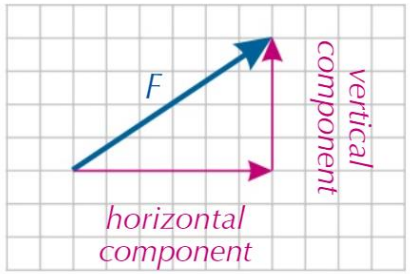
Key term/question	Definition/answer
	HIGHER TIER
27. Resolving forces	Some forces are at angles. The forces can be split into two components acting at right angles to each other.

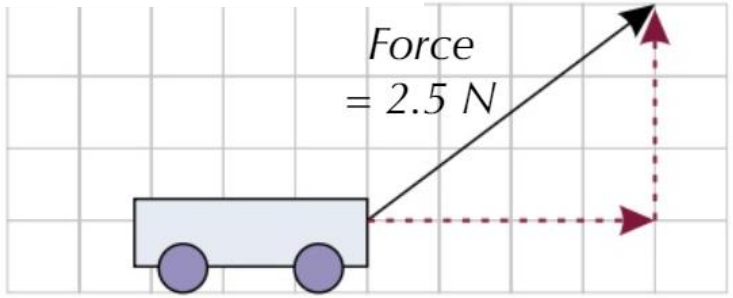
Resolving force worked example

The scale diagram shows a toy car being pulled along horizontally by a string. The tension in the string has a magnitude of 2.5 N. Resolve the tension to find the magnitude of this force acting in the direction of the car's motion.

1. Draw the force to scale.
2. Add the horizontal and vertical component.
3. Measure the length of the arrow for the force to be resolved. (It's measured at 2.5 cm, so 1 cm = 1N)
4. The car is moving horizontally so measure the length of the horizontal component. (it's measured at 2 cm), so the magnitude of the force acting in the direction of the car's motion = 2N.

Answer: magnitude of the force acting in the direction of the car's motion = 2N.





D) Work Done

Key term/question	Definition/answer
28. Work done	The energy transferred when a force moves an object through a distance
29. Work done equation	Work done (J) = force (N) x Distance (m) | **W = Fs**
30. 1 Joule in newton-metres	1 newton metre (Nm)
31. What does work done against frictional forces cause?	A rise in temperature of the object

E) Forces and motion - speed and velocity

Key term/question	Definition/answer
32. Distance	How far an object moves (scalar quantity)
33. Displacement	Measures distance and direction in a straight line from objects starting point to finishing point (vector quantity)
34. Speed	How fast an object is travelling with no regard to direction.
35. Typical walking speed	1.5 m/s
36. Typical running speed	3 m/s
37. Typical cycling speed	6 m/s
38. Typical car speed	25 m/s
39. Typical train speed	55 m/s
40. Typical plane speed	250 m/s
41. Speed of sound in air	330 m/s
42. Velocity	How fast you are travelling and in which direction
43. Speed equation	Distance travelled (m) = speed (m/s) x time (s) | **s = vt**
44. HIGHER TIER What happens to the velocity of an object moving at a constant speed in a circle?	Velocity is always changing as direction is always changing

E) Forces and motion - acceleration

Key term/question	Definition/answer
45. Acceleration	A measure of how quickly velocity is changing
46. Acceleration equation	Acceleration (m/s^2) = change in velocity (m/s) ÷ time taken (s) **$a = \Delta v \div t$**
47. Uniform acceleration	An object travelling at a constant acceleration
48. Uniform acceleration equation	Final velocity^2 (m/s) – initial velocity^2 (m/s) = 2 × acceleration (m/s^2) × displacement (m) **$v^2 - u^2 = 2as$**

History – Year 10 Term 2
Weimar and Nazi Germany, 1918–39, Topic Hitler's Rise to Power and the Creation of a Dictatorship

BIG QUESTIONS

Hitler's Rise to Power and the creation of a dictatorship

Hitler's early years – How was a Monster made?

What happened when Hitler tried to seize power in 1923

How did the Nazi party change after the Munich Putsch?1924-28

What happened when Wall Street crashed?

Why did people support Hitler?

How was Hitler able to become chancellor?

Who started the Reichstag Fire and how did it benefit Hitler?

How did Hitler become dictator in Germany?

How did the Nazis use terror and the legal system to maintain control in Germany?

SUMMARY OF THE PERIOD

After the failed Munich Putsch of 1923 the Nazi party changed and Hitler decided that power needed to be acquired democratically. The Nazis remained in relative obscurity until the Wall Street Crash of 1929 which led to mass unemployment as part of the Great Depression. Many Germans turned to political extremes as the moderate centrist Weimar parties seemed unable to do anything to resolve the situation. By 1932 Hitler was leader of Germany's largest political party and following the political deal between von Papen and Hindenburg, Hitler was granted the title of chancellor of Germany in January 1933. By August 1934 Hitler managed to turn the constitutional position of chancellor into a dictator's role by capitalising on the Reichstag Fire to gain emergence powers, which helped him subsequently pass the Enabling Act, which allowed him to pass any laws he wanted without them being voted on in the Reichstag. He used this to ban other political parties and trade unions and when Hindenburg died in August 1934 he took the role of president as well as chancellor and became Fuhrer of Germany. A dictatorship had been established.

Key events and dates:

14th February 1926: Bamberg conference – Nazi party became more nationalist than socialist
29th October 1929: Wall Street Crash
31st July 1932: Nazis largest party in the Reichstag
30th January 1933: Hitler appointed Chancellor
27th February 1933: Reichstag Fire rips through the Reichstag building and Dutch Communist Van der Lubbe is arrested and executed for starting it.
28th February 1933: Reichstag Fire decree The Nazis use the fire to pass a decree banning the Communist Party and suspending some civil liberties.
23rd March 1933: The Enabling Act passes the Reichstag. The Enabling Act gives Hitler complete authority in Germany.
1st April 1933: Boycott of Jewish shops and businesses. The Nazis organise a boycott of Jewish shops and businesses. The SA are used to intimidate customers.
26th April 1933: Establishment of the Gestapo The official secret police of Nazi Germany is created by Hermann Göring.
20th July 1933: Concordat with the Catholic Church. The Nazis and Catholic Church sign an agreement to leave each other alone.
30th June 1934: Night of the Long Knives. Hitler removes enemies of the party through a purge of critics. Victims include Ernst Röhm (the Head of the SA) and other leading Nazis.
2nd August 1934: Death of President Hindenburg
Hindenburg dies of Lung Cancer. Hitler proclaims the merging of the roles of Chancellor and President. Hitler is undisputed ruler of Germany.

Key Vocabulary

Hitler's Rise to Power (Chancellorship) 1923-1933

Article 48: constitutional device allowing the president of Germany to pass laws at times of crisis

Nationalism: political view in which all policies are organised to make the nation stronger and more independent

Socialism: Political view that stresses that a country's land, businesses and wealth should belong to the workers

Putsch: Seizure of power/coup d'etat

Real Wages: Measure which reflects the buying power of wages rather than their stated monetary value

Chancellor: German head of government in his role as leader of the largest political party

Reichstag: German parliament

SA: Paramilitary Stormtroopers under the command of Ernst Rohm

Propaganda: Use of media to control public attitudes

25 Point programme: political manifesto of the Nazi party

Wall Street Crash: Stock market crash in 1929 in America which lead to the Great Depression

Hitler's Rise to Dictatorship - January 1933-August 1934

Dictator: ruler with absolute control

Enabling Act: Law passed by the Nazis in March 1933 allowing Hitler to pass laws without the approval of the Reichstag

Police State: use of terror and police/troops to scare population into obedience

Trade Union: organizations formed by workers from related fields that work for the common interest of its members e.g on pay and working condition. Banned by Hitler in May 1933

Night of the Long Knives: 30 June 1934 – Senior SA members including Rohm arrested and shot

Fuhrer: Supreme ruler of Germany – Hitler declared himself this following the Death of Hindenburg

Oath of Loyalty: All army soldiers were forced to swear loyalty and obedience to Hitler

Links to support your understanding of the topic

https://www.bbc.co.uk/bitesize/guides/z3bp82p/revision/1 (a number of pages summarizing all key information for the Nazis' rise to power)
https://www.bbc.co.uk/bitesize/guides/zsvhk7h/revision/1 (a number of pages summarizing all key information for the creation of the dictatorship)
https://www.youtube.com/watch?v=a2YEUhHFMHY (good summary of the rise of the Nazis from 1923-1929)

Term 2 - homework

Week 2 – Revise for Term 1 Week 3 assessment

Week 5/6 – Complete the two 4 mark interpretation questions below

(b) Study Interpretations 1 and 2. They give different views about the effects of the reasons people supported the Nazis in the period 1929-32.What is the main difference between these views? Explain your answer, using details from both interpretations.(4)

The main difference between the two interpretations is that…

Interpretation one states … which suggests…

Whereas Interpretation two states … which suggests …

(c) Suggest one reason why Interpretations 1 and 2 give different views about the reasons people supported the Nazis in the period 1929-32. You may use Sources B and C to help explain your answer.(4)

A reason that the Interpretations may differ is because they have been influenced by different sources.

For example the historian in Interpretation 1 whose view is … may have been more influenced by source … which shows/states…

On the other hand the historian in Interpretation 2 whose view is … may have been more influenced by source … which shows/states…

Source B - From 'A Fairytale of Christmas', a short story written in 1931, by Rudolf Leonhard, a member of the Communist Party (KPD). Leonhard was writing about the unemployed in Germany

No one knew how many of them there were. They completely filled the streets...They stood or lay in the streets as if they had taken root there. The streets were grey, their faces were grey, and even the hair on their heads and the stubble on the cheeks of the youngest there was grey with dust and their adversity.

Source C - Adapted from a diary of Luise Solmitz, 23 March 1923. A schoolteacher, Solmitz was writing about attending a meeting in Hamburg at which Hitler spoke.

There stood Hitler in a simple black coat, looking over the crowd of 120,000 people of all classes and ages...a forest of swastika flags unfurled, the joy of this moment showed itself in a roaring salute...The crowd looked up to Hitler with touching faith, as their helper, their savior, their *deliverer from unbearable distress...He is the rescuer of the scholar, the farmer, the workers and the unemployed.*

Interpretation 1 ***From a history textbook, GCSE Modern World History, B.Walsh, published in 1996.***

The Nazis won increased support after 1929 due to Hitler. He was their greatest campaigning asset. He was a powerful speaker and was years ahead of his time as a communicator. He travelled by plane on a hectic tour of rallies all over Germany. Je appeared as a dynamic man of the moment, the leader of a modern party with modern ideas. At the same time, he was able to appear to be the man of the people, someone who knew and understood the people and their problems. Nazi support rocketed.

Interpretation 2 ***From a history textbook, Modern World History, T. Hewitt, J. McCabe and A. Mendum, published in 1999.***

The Depression was the main reason for increased support for the Nazis. The government was taken by surprise at the speed and extent of the Depression. It also had very few answers as how to deal with it. The Depression brought out all the weaknesses of the Weimar Republic, which seemed to be incapable of doing anything to end it. Is is not promising to do something. In particular, they began to look to and support the Nazis.

Geography
Cold environments

Year: 10
Term: 2

BIG QUESTIONS

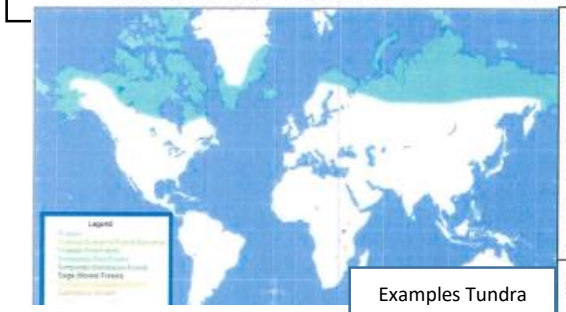
1. How cold are polar and tundra areas?
2. Why are cold environments so fragile?
3. How do plants adapt to cold environments?
4. How do animals and humans live in such extreme cold?
5. How does tourism provide opportunities for Svalbard?
6. Should we be drilling Alaska for oil?
7. What challenges do humans continue to face living in cold environments?
8. Should cold environments just be left alone?

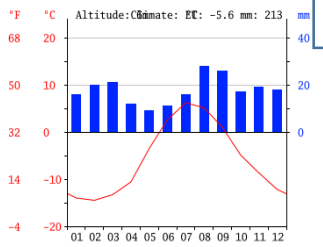
Homework…

Svalbard - Cold environment Flashcards | Quizlet

Svalbard Case Study - Internet Geography

Map of tundra and polar areas





Examples Tundra
- Svalbard
- Alaska

Cold environments – tundra and polar

Climate:
Polar areas are very cold, temperatures are never normally above 10 degrees. Winters are normally below -40 degrees and can reach -90 degrees
Tundra areas are also cold – temperatures in the warmest month are a maximum of only 10 degrees and winters can reach around -50 degrees
Rainfall (and snowfall) is low – no more than 100mm a year in polar areas and 380mm or less in tundra areas (mainly in the summer)
There are clearly defined seasons – cold summers and even colder winters

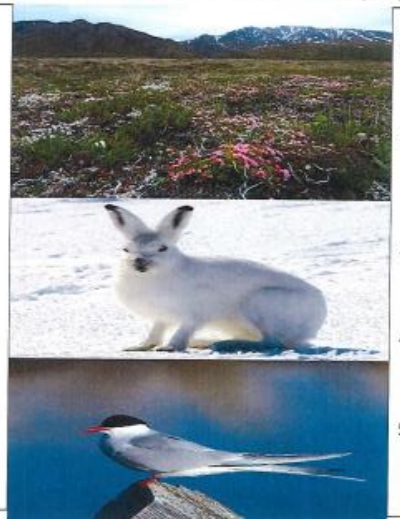
Animals:
There are relatively few different species of animals compared with other ecosystems
Polar bears, penguins and marine mammals like whales, seals and walrus are examples of animals found in polar regions
Lemmings, Arctic hares, wolves and reindeer are all animals that live in tundra areas

Soil:
Polar environments are covered by ice sheets, so there is no soil exposed and few plants and animals
Soil in tundra environments is thin and acidic and not very fertile
There is normally a layer of permanently frozen ground called permafrost beneath the thin soil – the permafrost layer contains large amounts of trapped greenhouse gas

People:
Polar environments are almost uninhabited. A few scientists live on Antarctica for short periods. Some indigenous people live in Arctic regions
Tundra environments are home to many people including indigenous peoples, and oil and gas workers in larger towns

Plants and animals have adapted to the cold, dry climate

Plants:
1. Most plants become dormant (stop trying to grow) to survive the cold, dark winters.
2. Plants are small and round-shaped to provide protection from the wind.
3. Most plants have shallow roots because of the layer of permafrost beneath the soil layer.
4. Leaves are generally small to limit the amount of moisture lost through transpiration.
5. The warmer, wetter summer is very short, so most plants have adapted to a growing season of just 50-60 days.
6. Many plants use underground runners or bulbs instead of seeds to reproduce because the growing season is so short.



Animals:
1. They are well-insulated – they might have a thick fur coat like polar bears or a layer of blubber like seals. This reduces the amount of energy they have to use to keep warm.
2. Some animals hibernate to conserve energy and survive the winter, e.g. Arctic ground squirrels hibernate for 7-8 months of the year and can survive even if their body temperature drops below freezing.
3. Animals that don't hibernate have adapted to survive on the limited food sources available in winter. Reindeer have adapted to eat lichens in winter.
4. Many birds migrate to warmer area during winter – Arctic terns live in the Arctic during the northern hemisphere summer then fly to the Antarctic for the southern hemisphere summer.
5. Many animals have white coats in winter for camouflage – this helps predators sneak up on prey, and prey to hide in the snow. Arctic hares are white so they are harder for predators to spot in the snow.

Cold environments are fragile, interdependent ecosystems with low biodiversity:

The biotic (living) components (plants, animals and people) and the abiotic (non-living) components (climate, soils, permafrost are closely related- if one of them changes, the others are affected.

Interdependence

- Plants gain their nutrients from the soil and provide nutrients to the animals that eat them. In turn, animals spread seeds through their dung, helping the plants to reproduce.
- Herbivores such as reindeer that rely on mosses to survive must migrate to areas where plants are able to grow, in order to find food. Carnivores like wolves must follow the herbivores.
- Changes in parts of the ecosystem, such as vehicles damaging plant cover, can have knock-on effects on the whole ecosystem. For example, permafrost can melt which leads to flooding and prevents plants from growing. It also releases trapped greenhouse gases such as carbon dioxide and methane and contributes to global warming, further threatening cold environments.

Technology can provide environmentally friendly solutions to some of the challenges of developing cold environments. These includes examples such as the use of insulated pipes to transport water to people's house and waste from them.

Arguments in favour	Arguments against
• Wilderness areas are fragile and are easily damaged by economic activities.	• Cold environments are rich in resources, such as oil, precious minerals, fish and timber.
• Untouched natural environments form important outdoor laboratories for scientific research.	• Over 4 million people already live in the Arctic in balance with the environment.
• Rare plants and animals will be protected.	• Technology now allows cold environments to be exploited with less impact.

E *Should cold environments be protected as wilderness areas?*

Svalbard is very remote and can only be reached by plane or ship. There is one international airport, at Longyearben, with flights from Norway and Russia. There is a very limited road network (about 50km) mostly around Longyearben. Transport is mainly by snowmobiles.

Construction and services

People involved in construction (roads, buildings, harbour extension) have to cope with very challenging weather conditions (extreme cold and winter darkness). Buildings are very well insulated. The frozen ground (permafrost) provides firm foundations but care must be taken to prevent thawing and subsistence. Gravel roads, raised above the ground surface (to prevent heat transfer), are relatively cheap to maintain. Domestic services (water sanitation) are raised off the ground in insulated pipes so they can be serviced and to prevent possible melting of permafrost.

Facebook Data Centre

Tourism

Tourism in Svalbard has grown in recent years as people seek to explore extreme natural environments.

In 2011, 70 000 people visited Longyearben and 30 000 of these were cruise passengers.

The harbour at Longyearben was enlarged to allow for more cruise ships.

Tourism provides around 300 jobs for locals.

Most tourists come from Norway and most visit as part of organised tours.

Tourists come to explore the extreme environment and see glaciers, wildlife, especially polar bears. Adventure tourism is becoming more popular with activities such as hiking, kayaking and snow mobile safaris.

In the winter, tourists visit to see the Northern Lights.

Trans-Alaskan Pipeline

International Agreements

Environmental Impacts of Development in Cold Environments - oil spills

Oil is in high demand and is a source of energy countries are keen to exploit. An oil spill is the worst environmental disaster for cold environments. The damage to the rivers and other natural ecosystems from oil spills is long lasting. Trees are killed, risk of fire, death of river wildlife, habitats on land near the river will become polluted and the vegetation may never recover.

Key vocabulary

Biodiversity – the variety of plant and animal life in a particular habitat.
Fragile environment – a delicate and precious part of our world.
Polar – situated near to the earth's poles, reaching -40 degrees in winter.
Tundra – a vast, flat, treeless Arctic region of Europe, Asia and North America in which the subsoil is permanently frozen.
Wilderness area – an area of land undisturbed by human activity or development.
Permafrost – permanently frozen ground.
Thermal Growing Season – the portion of the year in which local conditions permit normal plant growth.
Adapt – a change to fit certain conditions.
Interdependence – the dependence of two or more species upon each other, and the environment.
Development – the process of change and growth to improve quality of life.
Infrastructure – the basic facilities and structures that help a government and community run.
Mineral extraction – the removal from the earth materials with industrial value.
Mitigation – the action to reduce the severity or seriousness of something.
International Agreement – legal binding arrangement made between countries.
Conservation – the protection, preservation and management of something.

Art
Topic: Structures

Year: 10
Term: 2

BIG QUESTIONS

How can the study of other artists help you find your own direction in the development of ideas?

Describe the process of development in artists' work.

Compare similarities and differences in artists' work.

Explain why primary sources are the richest form of research.

How can Secondary sources enrich the development of ideas?

List different ways of recording your observations of the subject matter.

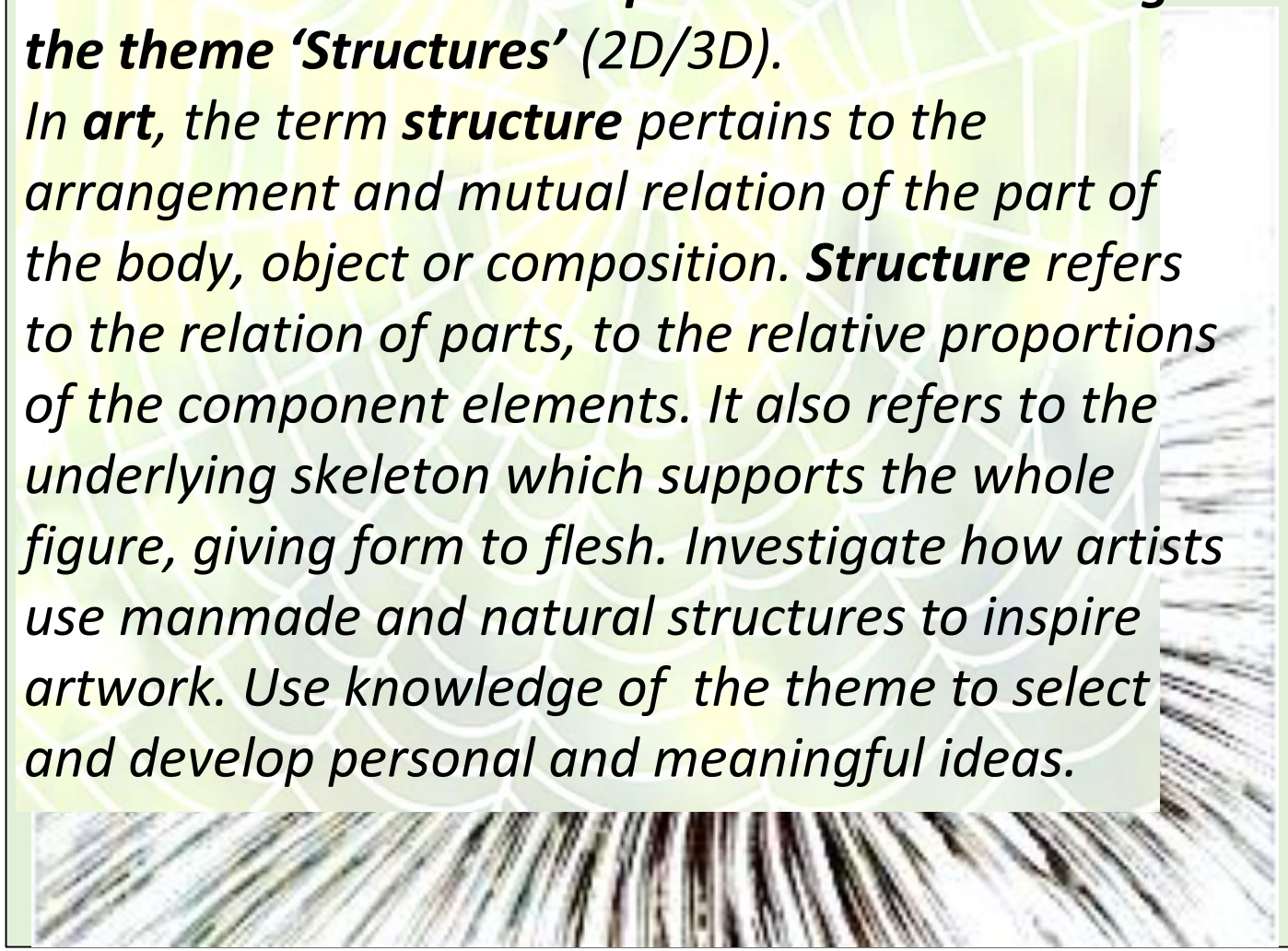
Why should you plan a wide range of ideas before selecting a final one?

How can the refining process help you to fully realise intentions?

Overarching Big Question

Select and hone skills acquired in Year 9 through the theme 'Structures' *(2D/3D).*

*In **art**, the term **structure** pertains to the arrangement and mutual relation of the part of the body, object or composition. **Structure** refers to the relation of parts, to the relative proportions of the component elements. It also refers to the underlying skeleton which supports the whole figure, giving form to flesh. Investigate how artists use manmade and natural structures to inspire artwork. Use knowledge of the theme to select and develop personal and meaningful ideas.*

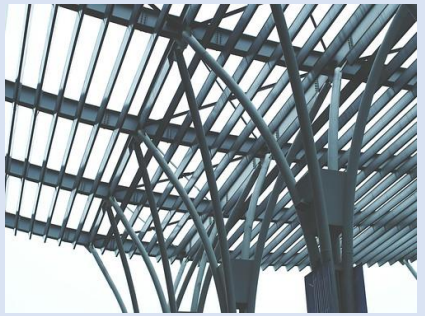


Key Skills

RECORD	DEVELOP
I will learn to record... • **images and information appropriate to a given theme** • **using wet and dry media** • **using drawing and photography** • **building on my knowledge and understanding of how artists use materials and imagery to create meaningful work** • **ideas for a work of art specialising in 2D or 3D**	**I will learn how to develop...** • **my observation skills using a range of media, techniques and processes.** • **my knowledge and understanding of 2D/3D styles and techniques** • **my drawing and planning skills** • **ideas in response to a given theme, linking to artists work.** • **my higher order thinking skills**
REFINE I will learn how to... • select and experiment with a range of 2D/3D media and techniques • select ideas to adapt and improve e.g. adjustments to size, colour and composition. • develop a piece of work from one media into another	EVALUATE I will learn how to... • analyse and reflect on the development of my own work, through annotation making connections to artists and suggesting ways I could I improve. • evaluate artists using analytical writing skills and forming opinions
PRESENT OUTCOUMES I will learn how to... Produce one or more finished outcomes in 2D or 3D	

Homework Links

Tasks linked to the theme 'Structures' (2 hours per two-week cycle)



Key Vocabulary

Shape/Form/Scale/ Texture/Tone/Colour/ Composition/Primary Source/Secondary Source

I will be expected to recall keywords learned in previous projects and use them in the appropriate context.

EVALUATING ARTISTS' WORK

1. Describe the piece of art you are looking at
2. What is the name of the artist or type of art?
3. What art movement or culture does the art link to?
4. Research and list 5 or more things about the artist or culture?
5. What important things have happened in the country that the art comes from?
6. What has influenced the art E.g. other artists, people, personal experiences, society, culture, politics, gender, colour, pattern, movement, religion, travel, places, objects etc.
7. Describe the materials used to make the art
8. How has the art been produced?
9. What is being communicated through the art?
10. Which of these words best describes the mood of the picture? EMOTIONAL/POWERFUL/BUSY/SLOW/PEACEFUL/WARM/COLD/HAPPY/SAD/CALM/INTENSE/SCARY can you think of any other words?
11. What do you like or dislike about the picture? Explain your reasons…

ANNOTATING YOUR OWN WORK

- In this artwork I was trying to…
- The artist/culture that has influenced my work is…
- The source I have used is…
- I found the source I used at…
- In this artwork I used the technique of...
- The media I have used is...
- I like/dislike this piece because...
- My idea links to the theme because…
- I can improve this piece by…
- I could develop this work further by...

Annotate means to explain your own creations
Artist evaluation is when you write about the artist
Project evaluation is written about the whole project at the end

END OF PROJECT EVALUATION

1. Describe each stage of the project from start to finish
2. What media did you use to produce your work? E.g. Paint/Pencil/Clay etc.
3. Describe how you used different techniques in your project? E.g. painting/drawing/modelling with clay etc.
4. Which artist's culture have you looked at?
5. Write down 2 or more similarities between your work and the artist's work.
6. Which piece of your work best shows the Artist's style or the influence of another culture and why?
7. Describe some of your own ideas…
8. Have you used a primary or a secondary source?
9. Have you included the secondary source in your work? Where did you find it?
10. Imagine your final piece was displayed in a public place.... Describe the effect looking at your work might have on people and society. E.g. relax them, make them feel sad, curious, happy, angry, thoughtful, surprised, confused, nostalgic etc. explain why e.g. because of your use of colour, images, content, arrangement? etc.
11. Explain any other influences on your work e.g. personalities *(including your own)*, places, memories, objects, politics, events, activities, religion, fact, fiction etc.
12. Describe how your work links to the project theme?
13. Explain what you have done well…
14. Explain how you could improve…
15. What would you do differently, if you were to repeat any part of this project?

Cambridge National Level 1 / 2 Sport Science
Unit: R180: Reducing the risk of sports injuries and dealing with common medical conditions

Years: 9, 10, 11
Terms: 1-6

Big Questions

1) How do different extrinsic factors influence the risk and severity of injury?
2) How do different intrinsic factors influence the risk and severity of injury?
3) What are the key components of a warm up?
4) What are the physiological and psychological benefits of a warm up?
5) What are the key components and physiological benefits of a cool down?
6) What are the types and causes of acute injuries?
7) What are the types and causes of chronic injuries?
8) How can you reduce the risk and severity of an injury or medical condition?
9) What are common responses and treatments to medical conditions?
10) What are the common causes, symptoms and treatments of medical conditions?

Topic Area 1: Different factors which influence the risk and severity of injury

Key Terms:

- ✓ **Extrinsic factors** – where the factor or risk of injury comes from outside the body
- ✓ **Intrinsic factors** – where the factor or risk of injury comes from within the body
- ✓ **Contact sports** – sports where physical contact between performers is an accepted part of play
- ✓ **Non-contact sports** – sports where participants compete alternately, or are physically separated, or the rules detail no contact.
- ✓ **Hypothermia** – a dangerous drop in body temperature below 35°C.
- ✓ **Veterans** – performers above a certain age that is specific to the sport.
- ✓ **Psychological factors** – mental factors that affect a performer.
- ✓ **Motivation** – the drive to do something.
- ✓ **Arousal** – level of activation or excitement.
- ✓ **Anxiety** – negative emotional state due to nervousness.
- ✓ **Stress** – the feelings we get when we find it difficult to cope with the demands placed on us.
- ✓ **Confidence** – belief in your own ability to master a situation.
- ✓ **Aggression** – Intention to cause harm.
- ✓ **Mental rehearsal** – going over a skill in the mind before performance.

Topic Area 2: Warm up and cool down routines

Key Terms:

- ✓ **Warm up** - exercises to prepare the body for exercise so that the chances of injury or ill effects are reduced.
- ✓ **Dynamic stretches** – active stretching exercises.
- ✓ **Adrenaline** - hormone that prepares the body for exercise.
- ✓ Lactic Acid - waste product of anaerobic exercise; it causes fatigue.
- ✓ **Anaerobic** – without oxygen; oxygen is not used to produce energy during high-intensity, short-duration anaerobic exercise.
- ✓ **Cool down** - easy exercise done after a more intense activity to allow the body to gradually move to a resting condition.
- ✓ **Maintenance stretches** - stretches designed to just maintain flexibility.
- ✓ **Static stretches** – stretches where the stretched position is held for many seconds in an attempt to improve flexibility.
- ✓ **Proprioceptive neuromuscular facilitation (PNF)** - advanced form of flexibility training, involving both the stretching and contracting of the muscles being targeted.
- ✓ **Delayed onset muscle soreness** – muscle pain that starts a day or two after an exercise workout.

Topic Area 3: Different types and causes of sports injuries

Key Terms:

- ✓ **Acute injuries** – injuries caused by impacts or collisions.
- ✓ **Chronic injuries** - injuries caused by continuous stress.
- ✓ **Soft tissue injuries** - injuries to muscles, tendons or ligaments.
- ✓ **Hard tissue injuries** – injuries to part of the skeletal system, such as fractures or dislocations.
- ✓ **Strains** - injuries to muscles.
- ✓ **Sprains** - injuries to ligaments.
- ✓ **Ligaments** - tissue that connects bone to bone and strengthens joints.
- ✓ **Abrasion** - surface damage to the skin; grazes.
- ✓ **Cut** - skin wound where the tissues of the skin become separated.
- ✓ **Laceration** - a torn or jagged wound caused by a sharp object.
- ✓ **Contusion** - bruise caused by blood leaking into the surrounding area.
- ✓ **Blister** - bubble on the skin caused by friction.
- ✓ **Fracture** - partial or complete break in a bone.
- ✓ **Dislocation** - when a bone is dislodged from its position in a joint.
- ✓ **Concussion** - head injury in which the brain is shaken inside the skull.
- ✓ **Tendonitis** - inflammation of the tendons.
- ✓ **Epicondylitis** - inflammation of an epicondyle of a bone.
- ✓ **Stress fracture** – tiny cracks in a bone caused by repetitive force, often from overuse.

Cambridge National Level 1 / 2 Sport Science
Unit: R180: Reducing the risk of sports injuries and dealing with common medical conditions

Years: 9, 10, 11
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Topic Area 4: Reducing risk, treatment and rehabilitation of sports injuries and medical conditions

Key Terms:

- ✓ **Hazard** - something that can cause harm.
- ✓ **Risk** - the likelihood of danger.
- ✓ **Risk assessment** – careful examination of what, in relation to a sports activity, could cause harm to people.
- ✓ **Electrocardiogram (ECG)** - technology used to detect the rhythm and electrical activity within the heart.
- ✓ **Emergency action plan (EAP)** - written document identifying what action to take in the event of an emergency at a sporting event.
- ✓ **SALTAPS** - acronym for see, ask, look, touch, active, passive, strength.
- ✓ **DRABC** - acronym for danger, response, airway, breathing and circulation.
- ✓ **Recovery position** – position for an unconscious person that keeps their airway clear and open.
- ✓ **PRICE** - acronym for protection, rest, ice, compression, elevation.
- ✓ **Ultrasound** - use of high frequency sound waves to diagnose and treat injuries.
- ✓ **Electrotherapy** - use of electrical energy to treat injuries.
- ✓ **Hydrotherapy** - use of water to improve blood circulation, relieve pain and relax muscles.
- ✓ **Cryotherapy** - use of cold temperatures to treat injuries.
- ✓ **Contrast therapy** – use of quickly changing temperatures from hot to cold and back again to treat injuries.
- ✓ **Analgesics** – medication used to relieve pain.
- ✓ **Cast** - hard fibreglass or plaster casing designed to prevent broken bones from moving.
- ✓ **Splint** - plastic or fibreglass support for a limb injury.
- ✓ **Sling** - support, usually of folded cloth, designed to immobilise and rest the arm.

Topic Area 5: Causes, symptoms and treatment of medical conditions

Key Terms:

- ✓ **Asthma** - a condition in which the airways narrow and swell, which can make breathing difficult.
- ✓ **Inhaler** - device that allows medicine to be breathed in.
- ✓ **Nebuliser** - machine that allows medicine to be breathed in.
- ✓ **Glucose** - simple sugar found in blood used as an energy source.
- ✓ **Insulin** - a hormone that lowers blood glucose levels.
- ✓ **Diabetes** - condition in which blood sugar levels are not regulated by the body effectively.
- ✓ **Ketones** – chemicals produced by the liver during fat breakdown.
- ✓ **Diabetic ketoacidosis (DKA)** - a condition caused by excess ketones in the blood.
- ✓ **Insulin-dependent** - another name for Type 1 diabetes.
- ✓ **Insulin-resistant** – another name for Type 2 diabetes.
- ✓ **Hypoglycaemia** - low blood sugar level.
- ✓ **Hyperglycaemia** – high blood sugar level.
- ✓ **Epilepsy** – abnormal brain activity that causes recurring seizures.
- ✓ Seizures - bursts of electrical activity that temporarily affect how the brain works.
- ✓ **Triggers** - things that make epileptic seizures more likely.
- ✓ **Fatigue** - a feeling of overwhelming tiredness.
- ✓ **Anti-epileptic drugs (AEDs)** - medicine taken to help control seizures.
- ✓ **Ketogenic diet** - a diet high in fats and low in carbohydrates and proteins.
- ✓ **Sudden cardiac arrest (SCA)** - a condition in which the heart suddenly and unexpectedly stops beating.
- ✓ **Commotio cordis** – a sudden trauma, such as a blow to the chest directly over the heart at certain points in the heartbeat cycle, that can cause sudden cardiac arrest.
- ✓ **Electrolytes** – minerals found in blood, urine and sweat that carry an electric charge when dissolved in water.

Cambridge National Level 1 / 2 Sport Science
Unit: R181: Applying the principles of training: fitness and how it affects skill performance

Years: 9, 10, 11
Terms: 1-6

Big Questions

1) How are components of fitness relevant to different sports?
2) Can you justify why different components of fitness are relevant for different sports?
3) What fitness tests are used for each component of fitness?
4) Can you apply the components of fitness to a skilled performance?
5) What are the principles of training?
6) What are SMART goals?
7) What are methods of training and their advantages/ disadvantages?
8) What factors should you consider when designing a fitness training programme?
9) How do you apply the principles of training to a fitness training programme?
10) How do you plan a fitness training programme?
11) How do you record your results from a fitness training programme?
12) What are the strengths and areas for improvement for your fitness training programme?

Topic Area 1: Components of fitness applied in sport

Key Terms:

- ✓ **Cardiovascular endurance** - the ability of the heart and lungs to get oxygen to the working muscles for use by the body.
- ✓ **Muscular endurance** - the ability of a muscle to sustain repeated contractions.
- ✓ **Aerobic** - with oxygen; oxygen is used to produce energy during low intensity, long-duration aerobic exercise.
- ✓ **Speed** - the maximum rate at which an individual is able to perform a movement.
- ✓ **Strength** - the extent to which a muscle or muscle group can contract against resistance.
- ✓ **Power** - the exertion of rapid muscular strength; it can be remembered as strength × speed.
- ✓ **Agility** - the ability to move and change direction quickly while maintaining control.
- ✓ **Balance** - the ability to maintain a position; this involves maintaining the centre of mass over the base of support.
- ✓ **Flexibility** - the range of movement possible at a joint.
- ✓ **Co-ordination** - the ability to use two or more body parts together (simultaneously) smoothly and efficiently.
- ✓ **Reaction time** - the time taken from the onset of a stimulus to the start of the reactive movement.
- ✓ **Maximum oxygen uptake (VO2 Max)** – maximum volume of oxygen that can be consumed per minute / unit of time.
- ✓ **Protocol** - the accepted or established procedure for conducting a test.
- ✓ **Validity** - refers to how well a fitness test measures the component of fitness that it aims to test.
- ✓ **Reliability** - a fitness test is reliable if it can be repeated and gives similar results each time.
- ✓ **Maximal tests** – fitness tests that require maximal effort in order to produce a valid, comparable result.
- ✓ **Sub-maximal tests** - fitness tests that do not require maximal exertion.
- ✓ **PAR-Q** - physical activity readiness questionnaire.

Topic Area 2: Principles of training in sport

Key Terms:

- ✓ **SPOR** - principles of training: specificity, progression, overload and reversibility.
- ✓ **Specificity** - making training specific to the movements, skills and muscles that are used in the activity.
- ✓ **Progression** – gradually making training harder as it becomes too easy.
- ✓ **Overload** - working harder than normal.
- ✓ **Reversibility** – 'use it or lose it'. If you stop training, you will lose fitness.
- ✓ **FITT** - principles of overload: frequency, intensity, time and type.
- ✓ **SMART** - principles of goal setting: specific, measurable, achievable, realistic and time bound.
- ✓ **Continuous training** - any activity or exercise that can be continuously repeated without suffering undue fatigue.
- ✓ **Aerobic training zone** – the optimal zone of training to make aerobic gains in the body to improve cardiovascular endurance and stamina.
- ✓ **Fartlek training** - 'speed play', which generally involves running, combining continuous and interval training with varying speed and intensity.
- ✓ **Interval training** – any training that involves periods of work and rest.
- ✓ **Circuit training** - a series of exercises performed at work stations with periods of work and rest.
- ✓ **Plyometric training** - repeated exercises such as bounding, hopping or jumping over hurdles, which are designed to create fast, powerful movements.
- ✓ **Eccentric contraction** - when a muscle contracts and lengthens.
- ✓ **Concentric contraction** - when a muscle contracts and shortens in length.
- ✓ **Resistance training** - training that involves working against some kind of force that 'resists' the movement.
- ✓ **Hypertrophy** - an increase in muscle size as a result of training.
- ✓ **High-intensity interval training (HIIT)** – training that involves periods of very high-intensity work and rest.

Cambridge National Level 1 / 2 Sport Science
Unit: R181: Applying the principles of training: fitness and how it affects skill performance

Years: 9, 10, 11
Terms: 1-6

Big Questions

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Topic Area 3: Organising and planning a fitness training programme

Key Terms:

- ✓ **One rep max** – the maximum weight that can be lifted once (one repetition).
- ✓ **Adaptability** - flexibility to adapt a programme if, for any reason, the session being performed cannot be followed precisely.
- ✓ **Objective measures** – facts that provide figures/ numbers, which can allow a performer to monitor improvement.

Figure 2.36 One rep max refers to the maximum weight that can be lifted once

Target area	Suitable activity
Cardiovascular endurance/ stamina	**Specific exercises:** any aerobic activity, for example cycling, swimming, jogging, walking, rowing **Overload intensity:** 60–80 per cent of maximum heart rate (220 – age) **Time:** 20 minutes or more of activity, three to four times per week
Muscular strength	**Specific exercises:** use of high resistance, for example weights, resistance machines, body weight **Overload intensity:** 70 per cent or more of one rep max (maximum lift); three sets of six to eight repetitions **Time:** 30 minutes or more
Muscular endurance	**Specific exercises:** use of low resistance, for example weights, resistance machines, body weight **Overload intensity:** less than 70 per cent of one rep max (maximum lift); three to four sets of 10–15 repetitions **Time:** 30 minutes or more
Agility	**Specific exercises:** shuttles or circuits that involve speed work while changing direction, for example sprinting round cones, ladder running **Overload intensity:** work : rest ratio of 1 : 3 (30 seconds work with 90 seconds rest between different exercises) **Time:** 30 minute sessions, two or three times per week
Speed	**Specific exercises:** use speed ladders, sprints, interval sprints **Overload intensity:** work : rest ratio of 1 : 3 (30 seconds work with 90 seconds rest between different exercises) **Time:** 30 minutes or more
Power	**Specific exercises:** interval training – high-intensity, short sharp activities; acceleration sprint training; plyometric training, for example box jumping and hurdle jumps **Overload intensity:** for example, box jumps with three to six sets of 8–15 repetitions, depending upon the stress of the exercise being done; sprints with a work : rest ratio of 1 : 3 (30 seconds work with 90 seconds rest between sprints) **Time:** 30 minutes or more
Balance, flexibility, co-ordination or reaction time	**Specific exercises:** use of predesigned circuit to include flexibility stretches, co-ordination drills or balancing exercises **Overload intensity:** two to three sets of 12 reps with 30-second recovery intervals **Time:** 30 minutes or more

Topic Area 4: Evaluate own performance in planning and delivery of a fitness training programme

Figure 2.38 Stretching forms a vital part of warm up and cool down routines

Cambridge National Level 1 / 2 Sport Science
Unit: R182: The body's response to physical activity and how technology informs this

Years: 9, 10, 11
Terms: 1-6

Big Questions

1) What is the function and role of the cardio-respiratory system?
2) How is technology used to inform us about the cardio-respiratory system?
3) What are the components and role of the musculo-skeletal system?
4) How is technology used to inform us about the musculo-skeletal system?
5) What are the short-term effects of exercise on the cardio-respiratory system?
6) What are the short-term effects of exercise on the musculo-skeletal system?
7) What are the long-term effects of exercise on the cardio-respiratory system?
8) What are the long-term effects of exercise on the musculo-skeletal system?

Topic Area 1: The cardio-respiratory system and how the use of technology supports different types of sports and their intensities

Key Terms:

- ✓ **Atria** - upper chambers of the heart that collect blood from veins.
- ✓ **Ventricles** – lower chambers of the heart that pump blood out through arteries.
- ✓ **Valves** - prevent the backflow of blood.
- ✓ **Deoxygenated** – venous blood (in veins) that does not carry oxygen.
- ✓ **Oxygenated** - arterial blood (in arteries) that carries oxygen.
- ✓ **Arteries** - blood vessels that mainly carry oxygenated blood away from the heart.
- ✓ **Capillaries** - tiny, thin walled blood vessels that join arteries (which carry blood away from the heart) and veins (which carry blood back to the heart).
- ✓ **Alveoli** - tiny air sacs in the lungs.
- ✓ **Veins** - blood vessels that mainly carry deoxygenated blood back to the heart.
- ✓ **Trachea** - tube connecting the mouth and nose to the lungs.
- ✓ **Lungs** - large spongy organs in chest; used for gas exchange.
- ✓ **Bronchi** - airways that lead from the trachea into the lungs.
- ✓ **Bronchioles** - air passages inside the lungs that connect the bronchi to the alveoli.
- ✓ **Diaphragm** - dome-shaped muscle causing inhalation and exhalation.
- ✓ **Radial pulse** - heart rate that can be felt at the wrist.
- ✓ **Carotid pulse** - heart rate that can be felt at the neck.
- ✓ **Vasoconstriction** – reduction in the diameter of a blood vessel to reduce blood flow through that vessel.
- ✓ **Vasodilation** - widening in the diameter of a blood vessel to increase blood flow through that vessel.
- ✓ **Cardiac output** – the volume of blood that the heart is able to pump out in one minute.
- ✓ **Stroke volume** – the volume of blood that leaves the heart during each contraction.

Topic Area 2: The musculo-skeletal system and how the use of technology supports different types of sports and their movements

Key Terms:

- ✓ **Clavicle** - the collarbone.
- ✓ **Scapula** - the shoulder blade.
- ✓ **Humerus** - bone in the upper arm.
- ✓ **Radius** - bone of the forearm; attaches to the thumb side of the wrist.
- ✓ **Ulna** - bone of the forearm; forms the point of the elbow.
- ✓ **Cranium** - skull bone, which surrounds the brain.
- ✓ **Ribs** - bones surrounding the heart and lungs, forming the chest cavity.
- ✓ **Sternum** - flat bone at the front of the chest, sometimes called the breastbone.
- ✓ **Vertebrae** - many single bones joined together to form the backbone.
- ✓ **Femur** - long bone of the thigh or upper leg, which extends from the hip to the knee.
- ✓ **Tibia** - the shin bone; forms knee joint with the femur.
- ✓ **Fibula** - bone in the lower leg that forms the ankle.
- ✓ **Patella** - the kneecap; covers the knee joint.
- ✓ **Deltoids** - muscles on shoulder joint that move the upper arm.
- ✓ **Trapezius** - muscle at the top of the back that moves the scapula and head.
- ✓ **Latissimus dorsi** – muscle at the side of back that moves the upper arm.
- ✓ **Pectorals** - muscles in the chest that move the upper arm.
- ✓ **Biceps** - muscles at the front of the upper arm.
- ✓ **Triceps** - muscles at the back of the upper arm.
- ✓ **Abdominals** – stomach muscles that protect internal organs.
- ✓ **Gluteals** - buttock muscles, which are used when running.
- ✓ **Hamstrings** - muscles at the back of the upper leg.
- ✓ **Quadriceps** - muscles at the front of the upper leg.
- ✓ **Gastrocnemius** - one of the calf muscles; used in walking.
- ✓ **Soleus** - one of the calf muscles; used in walking.

Cambridge National Level 1 / 2 Sport Science
Unit: R182: The body's response to physical activity and how technology informs this

Years: 9, 10, 11
Terms: 1-6

Big Questions

1) What is the function and role of the cardio-respiratory system?
2) How is technology used to inform us about the cardio-respiratory system?
3) What are the components and role of the musculo-skeletal system?
4) How is technology used to inform us about the musculo-skeletal system?
5) What are the short-term effects of exercise on the cardio-respiratory system?
6) What are the short-term effects of exercise on the musculo-skeletal system?
7) What are the long-term effects of exercise on the cardio-respiratory system?
8) What are the long-term effects of exercise on the musculo-skeletal system?

Key Terms (continued Topic 1):

- ✓ **Systolic blood pressure** - blood pressure when the heart is contracting.
- ✓ **Diastolic blood pressure** - blood pressure when the heart is relaxed.
- ✓ **Inhalation** - breathing in.
- ✓ **Exhalation** - breathing out.
- ✓ **Intercostal muscles** - muscles located between the ribs.
- ✓ **Diffusion** - the movement of a gas from an area of high concentration to an area of low concentration.
- ✓ **Wearable technology** - technology worn on the body during exercise to provide data.
- ✓ **Laboratory-based technology** - the use of technology inside a laboratory to provide data.
- ✓ **Field-based technology** - technology that can be used to provide data outside of a laboratory in the setting where sports take place, for example a football pitch.
- ✓ **Spirometer** - machine that produces a spirometry trace of breathing volumes.
- ✓ **Vital capacity** – amount of air expelled from your lungs when you take a deep breath and then exhale fully.
- ✓ **Pulse oximeter** – device used to measure how efficiently oxygen is being carried to the extremities by the heart (blood oxygen level).

Figure 3.10 Smartwatch

Topic Area 3: Short-term effects of exercise on the cardio-respiratory and musculo-skeletal systems

Key Terms:

- ✓ **Anticipatory rise** – slight increase in heart rate before exercise.
- ✓ **ROM** - range of movement.

Key Terms (continued Topic 2):

- ✓ **Synovial joint** - a freely moveable joint.
- ✓ **Ball and socket joint** - ball shaped end of bone fits into the socket of another, for example the hip.
- ✓ **Hinge joint** - end of bone fits against another bone allowing movement in only one direction, for example the knee.
- ✓ **Gliding joint** - one bone can slide over another, for example the carpals in the wrist.
- ✓ **Pivot joint** - rounded end of one bone fits into a ring formed by the other bone, for example the vertebrae of the neck, which allow head rotation.

Topic Area 4: Long-term effects of exercise on the cardio-respiratory and musculo-skeletal systems

Key Terms:

- ✓ **Fast twitch fibres** – muscle fibres that contract quickly and/or with high force; used during high-intensity work.
- ✓ **Slow twitch fibres** – muscle fibres that contract with a low force but do not fatigue quickly.
- ✓ **Bradycardia** – decrease in the resting heart rate because of training.
- ✓ **Goniometer** - device used to measure flexibility (range of movement at a joint).
- ✓ **Lung capacity** - the amount of air the lungs can hold.
- ✓ **Tidal volume** - the amount of air breathed in and out at rest.
- ✓ **Bone density** - the amount of bone mineral in bone tissue.
- ✓ **Capillarisation** – an increase in the number of capillaries as a result of endurance training.
- ✓ **Heart disease** - when the heart's blood supply is blocked or interrupted by a build-up of fatty substances in the coronary arteries that supply the heart with blood.
- ✓ **Heart attack** – medical emergency in which the supply of blood to the heart is suddenly blocked.

Religion Year: 10
Peace + conflict Term: 2

Big Questions

1. Is it acceptable to use violence?
2. Should we forgive others?
3. Are there any universal laws?

Is nuclear war acceptable?

Buddhists believe in prevention and solving a conflict (a pacifist approach.) However, out of compassion, right speech and right action injustice must be challenged. This is important because war doesn't always bring peace and in the modern world there is the threat of nuclear war/terrorism.

Already at its first meeting ever in 1948, the World Council of Churches (WCC) proclaimed that nuclear weapons are "a *sin against God and a degradation of man*". - However, Christian believe that violence is acceptable in war when it follows the laws set out in the just war theory.

"Even if thieves carve you limb from limb with a double-handed saw, if you make your mind hostile you are not following my teachings". *Majjhima-Nikkaya 1:28-20 – Buddhism.*

What is the Just War theory?

The **Just War theory** was first developed by **St Thomas Aquinas**. Aquinas was one of the most influential **theologians** of the last 1,000 years. The theory set out conditions against which to judge whether or not a war should be waged (**jus ad bellum**) and if it could be justified, and how it should be waged (**jus in bello**).

Aquinas's conditions for a Just War – jus ad bellum

1. The war must have a just cause – e.g against invasion, or for self-defence - and not to acquire wealth or power.
2. The war must be declared and controlled by a proper authority, e.g the state or ruler.
3. The war must be fought to promote good or avoid evil, with the aim of restoring peace and justice after the war is over.

Later conditions developed by other Christians - jus in bello

1. The war must be a last resort when all peaceful solutions have been tried and failed, e.g negotiation.
2. The war should be fought with 'proportionality', with just enough force to achieve victory and only against legitimate targets, i.e civilians should be protected.
3. The good which is achieved by the war must be greater than the evil which led to the war.

Ahimsa is the principle of 'non-harm'. Most Buddhists try to practice ahimsa in their everyday lives and believe that it is wrong to show violence at any time. This means that it is possible that a Buddhist may therefore refuse to fight under any circumstances. Some Buddhists are **pacifists**, even when it comes to self-defence.

How do Buddhists help victims of war?

Buddhists may help refugees and victims of war in the following ways:

1. providing food and shelter for those who are displaced (forced to leave their home)
2. arranging or providing medical care for the sick and injured
3. setting up schools
4. creating a safe house for street children
5. educating villagers to protect them from human trafficking

The Tibetan Buddhist Charitable Aid is a recognised charity which has helped improve the lives of the children of Tibet. The charity has helped child **refugees** in Nepal by building a Tibetan Youth Centre. The centre relies on volunteers who offer mental health counselling, practical training for job skills and employment counselling.

Desmond Dost (1919-2006)

Desmond Dost was an American Christian. He believed strongly in the 10 commandments. He fought in the army in WW2 without ever using a weapon. He saved 50-100 people. He believed that God protected him. Despite the danger he was in he would not ever kill because the 10 commandments state "thou shall not kill".

Key words:

Retaliation – to pay back for harmful action

Terrorism – use of violence and threats to intimidate, especially for political purposes to create a state of fear in a population.

Violence – causing harm to someone.

War – armed conflict between two or more sides.

Weapons of mass destruction – weapons which cause uncontrollable and untold damage – for example, nuclear weapons.

Nuclear weapons – a weapon of mass destruction.

Drama **Year: KS4** **Topic: HTS Unit 3** **Term: 2**

Big Questions

- **Where was HTS originally performed?**
- **What is Verbatim Theatre?**
- **What style of performance is HTS Original performance?**
- **What is anorexia?**
- **What are the 4 main types of stage?**
- **What are some appropriate rehearsal techniques for HTS**
- **How should I plan my time in the exam?**

GCSE DRAMA COMPONENT 3 KNOWLEDGE ORGANISER Hard to Swallow was originally performed by the Oaklands Youth Theatre at the Edinburgh Festival August

1988.

Mark Wheeller's play uses the words from Catherine's diaries and also of those most closely involved and affected. This is known as Verbatim Theatre.
The play has 31 characters in all: 6 female, 3 male and 22 characters of either sex.
The main characters are:
Catherine Dunbar
John Dunbar (Catherine's father), **Maureen Dunbar** (Catherine's mother) **Simon Dunbar** (Catherine's older brother) **Anna Dunbar** (Catherine's younger sister).

Hard To Swallow by Mark Wheeller

Written in 1989
Main Themes- High expectations, family, anorexia, Death, loss
Unit 3 Interpreting Theatre:
Worth 40% of overall grade

Structure & Style: It is based on the true story of a girl called Catherine Dunbar who suffered from Anorexia. The play was adapted from the book 'Catherine' by Maureen Dunbar. It is a mix of Abstract stylised scenes and naturalistic scenes and the stage directions will clearly state the intended style for each scene. There are stylised and physical theatre scenes. The play is teaching the audience about anorexia.

What is Anorexia Nervosa?

Anorexia nervosa – often simply called anorexia – is a serious medical and mental health condition that can be life-threatening without treatment.
Some of the more common anorexia symptoms include:

- **An obsessive fear of weight gain**
- **Refusal to maintain a healthy body weight**
- **Distorted body image**
- **Restricting caloric intake**
- **Purging calories consumed**

Anorexia nervosa is the most deadly mental illness, with a higher mortality (death) rate than any other mental illness. Due to this complexity, this condition requires comprehensive anorexia treatment from an experienced, multidisciplinary approach to include medical and psychiatric stabilization, nutritional intervention and psychological support.

Anorexia and co-occuring issues

Anorexia often occurs alongside other mental illnesses, including:

- **Depression**
- **Anxiety disorders**
- **Mood disorders**
- **Personality disorders**
- **Obsessive compulsive disorders**
- **Substance abuse**

Rehearsal techniques:

Hot seating – answering questions in character Improvisation – making up a new scene, but playing your character in the play.

Conscience alley – The cast makes two lines and one actor walks down the middle, listening to advice.

Character-based drama game – e.g. park bench Thought tracking – saying what your character would be thinking at any moment.

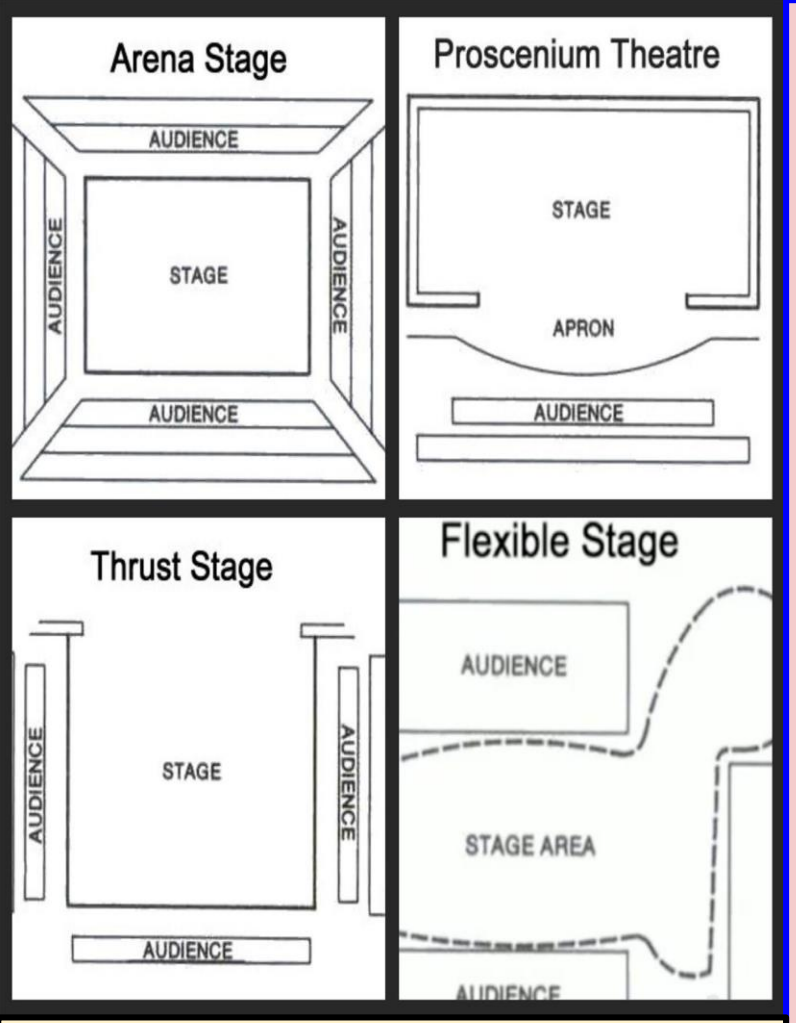
A vocal or physical warm up – to prepare the actor for the scene

Role on the wall – a drawn

Always read the stage directions for the scene you are writing about. Most of the information and even ideas on character or staging will be in the stage directions

Stages
Proscenium
Arch/Endon
Traverse
Thrust
In the round

Original staging conditions -
Downstage left was the meal table with cutlery and white plates and 5 chairs Downstage right was Catherine's bedroom desk At the back across the middle was a raised area Catherine's face was painted white to show the difference after she was sent home from school. It was usually performed end on.



Timing breakdown for exam questions

10 min read of script and questions
2 marks = 2 mins 3 marks = 4 mins 4 marks = 5 mins 6 marks = 9 mins 15 marks = 18 mins

Key Terminology

Costume
colour, fabric, time-period, texture, style, fit, worn, torn, material

Words to describe movement
defined, fluid, erratic, smooth, open, closed, naturalistic, non naturalistic, graceful, exaggerated, mimed, energetic. refined

Words to describe voice
tone, pitch, pace, pause, accent, inflection, volume, emphasis, intonation, articulation, projection

Lighting
angle, position, intensity, coloured - gel, profile spot, gobo, floodlight, shadow, up-lighting.

Sound and Music
tempo, pitch, tone, rhythm, atmosphere, volume

Dance
Infra

Year: 10
Term: 2

BIG QUESTIONS

How does the lighting contribute to the audience's understanding of the choreographic intent of Infra?

How does the costume contribute to the audience's understanding of the choreographic intent of Infra?

How does the set design contribute to the audience's understanding of the choreographic intent of Infra?

How does the music contribute to the audience's understanding of the choreographic intent of Infra?

How does the choreographic approach support our understanding of Infra?

How does the aural setting support our understanding of Infra?

How does the choreographic content support our understanding of Infra?

How does the structure support our understanding of Infra?

How does the dance style support our understanding of Infra?

Why has the choreographer made the decisions regarding each component? What is the impact of that decision?

Choreographer: Wayne McGregor
Performed by: The Royal Ballet
Performance: Originally performed on 13 November 2008 at The Royal Opera House, London
Dancers: 12 – 6 male, 6 female / brief appearance of a crowd
Duration: 28 minutes
Dance Styles: Contemporary Ballet
McGregor's dance style is distinctive for its speed and energy and for the dynamic, angular, sinuous and hyperextended movements that push dancers to physical extremes.
Structure: solos, duets and ensembles with many arresting moments, for instance 6 couples dance duets in six squares of light and a crowd surges across the stage, unaware of one woman's private grief.

Choreographic Intent:

- Human relationships
- Seeing below the surface of things

Infra is about seeing below the surface of things. Quite literally in this case, below Julian Opie's design. You can see people, walking in the street. Infra is about people and the choreography has found a pedestrian language which is recognizably human. When you look at a body on stage, you have some understanding of what that body is doing. The piece is about inferences. It infers particular types of relationships and therefore the emotional content implies itself. One of McGregor's choreographic aims is to help the audience's eye in watching a complex structure. But in Infra, McGregor has purposefully left open the full visual field to let the audience make their own selections.

Choreographic Approach:

- Showing a phrase and dancers adapt or copy
- Task setting
- Teaching movement to selected dancers

McGregor uses three methods to generate movement vocabulary for the piece: 1. SHOW a phrase to the whole or part of the cast – dancers watch and either recreate the phrase exactly or create a version. 2. MAKE a phrase on a target dancer or dancers – others watch and copy or develop. 3. TASK – set a choreographic task for dancers to complete or pose a choreographic problem for dancers to solve. Typically the task or problem involves imagery as a stimulus for creating movement. The movement vocabulary is then structured into longer "sentences" and "paragraphs". Finally he works musically with the structure and pieces it all together like a jigsaw.

Stimulus:

- 'Infra' means below in Latin
- Life beneath the surface of a city
- The Waste Land poem: TS Eliot
- The London Bombings

Lighting:

- Different lighting for each section
  1: white wash with blurred edged, mid intensity, downstage. Upstage in darkness**. 2:** white wash opens out upstage **3:** green wash in ellipse shape upstage: blurred edges **4:** 6 rectangles of white light in a line on the floor **5**: orange/amber wash downstage with blurred edges. **6**: paler amber/yellow wash across full stage **7:** low intensity blue sidelights then white sidelights only for crowd **8**: white follow spot, stage in darkness
- Lighting design by Lucy Carter
- The lighting, which relates closely to the structure, lights the width of the stage and often focuses downstage.
- Occasionally dancers are lit by shafts of light and at one point 6 rectangles of light frame 6 duets
- Colours are used to highlight different sections

Staging and Set:

- Black box set
- Large LED screen hung upstage. White figures walk across screen
- Performance environment: proscenium arch
- No props
- No set
- Emptiness of stage creates large stage space
- Complements lighting, music and costume

Number of Dancers:

12: 6 male, 6 female + crowd in Section 7

Costume:

- 10 out of 12 dancers wear tight black lycra shorts and a variety of different tops; vests, long sleeved, t shirt, thin straps
- All tops are grey, black and white, however, 1 is flesh coloured
- Pointe shoes (females) and ballet shoes (males)
- 2 dancers different: Female – black mini skirt and white crop top / Male – long black trousers and bare chest
- Costume shows stimulus - Colour palette is urban, supporting the city idea stated in the stimuli.

Aural Setting:

- Soundscape fused with violin and piano
- Morse code, radio static, muffled speech, train whistles
- Violin/piano: brisk melodies often with rapid notes that run along
- Section 5 male solo is different: thundering, booming sounds with rumbling effects
- Contrast in Section 7 (trio). Soft and sorrowful piano melody

Homework Links

VLE – video links

https://www.roh.org.uk/productions/infra-by-wayne-mcgregor

Key Vocabulary

Costume

Lighting

Set design / Physical Setting

Accompaniment

Choreographic intent

Choreographic approach

Stimulus

Artistic intention

Contribution

Enhances

Highlights

Dance
Dance Technique – Skills for Performance

Year: 10
Term: 2

BIG QUESTIONS

Can you identify and offer specific movement examples of the 5 basic body actions?

How do expressive skills contribute to the overall performance of a piece of dance?

How do physical skills contribute to the overall performance of a piece of dance?

What is the difference between mental skills for process and mental skills for performance?

How might a dancer improve their expressive skills?

How can a physical skill be improved over time?

Physical Skills: aspects enabling effective performance

Posture – The way the body is held
Alignment – Correct placement of body parts in relation to each other
Balance - A steady or held position achieved by an even distribution of weight
Coordination – The efficient combination of body parts
Control – The ability to start and stop movement, change direction and hold a shape efficiently
Flexibility - The range of movement in the joints (involving muscles, tendons and ligaments)
Mobility – The range of movement in a joint; the ability to move fluently from action to action
Stamina – Ability to maintain physical and mental energy over periods of time
Extension – Lengthening of one or more muscles or limbs
Isolation: an independent movement of part of the body

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

Projection – The energy the dancer uses to connect with and draw the audience in
Focus – The use of the eyes to enhance performance or interpretative qualities
Spatial awareness – Consciousness of the surrounding space and its effective use
Facial expressions – use of the face to show mood, character or feeling
Phrasing – The way in which the energy is distributed in the execution of a movement phrase
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

Mental Skills: skills in preparation for a performance

Systematic repetition – repeating something in an ordered way

Mental rehearsal – thinking through or visualising the dance

Rehearsal discipline – attributes and skills required for refining a performance – effective use of a rehearsal and time

Planning of rehearsal – organisation of when to go over material

Response to feedback – implementing changes and making improvements based on feedback/opinion given to you

Capacity to improve – willing to make changes and better, relearn, implement or adapt to make something better

Mental Skills: skills needed during a performance

Movement memory – the automatic recall of learned movement material without conscious thought

Commitment – dedication to a performance

Concentration – the power to focus all of one's attention

Confidence – the feeling or belief that one can have in one's performance or work

Technical Skills: the accuracy of content

- **Action Content**; 5BBA, use of different body parts
- **Spatial Content;** size, direction, level, pathway
- **Dynamic Content**; flow, speed, force
- **Relationship Content;** lead and follow, mirroring, action and reaction, accumulation, complement and contrast, counterpoint, contact, formations
- **Timing Content**
- **Rhythmic Content**

The Five Basic Body Actions: 5BBA
Jump, Turn, Travel, Stillness and Gesture

Can you define each of the 5 basic body actions?

What is the overall impact of technical skills in a performance?

What is the acronym to remember physical skills/expressive skills/technical skills and mental skills?

Homework Links

https://www.aqa.org.uk/resources/dance/gcse/dance/teach/subject-specific-vocabulary

Key Vocabulary

You must be able to identify and define ALL vocabulary listed.

You must be able to distinguish what category each skill falls under

EG: strength is a physical skill NOT a mental skill

Dance
Choreography- Developing a motif through technical skills

Year: 10
Term: 2

BIG QUESTIONS

How can a motif be developed through action content?

How can a motif be developed through spatial content?

How can a motif be developed through dynamic content?

How can a motif be developed through relationship content?

Can you identify and define each content category?

What is action content?

What is dynamic content?

What is relationship content?

What is spatial content?

What is rhythmic content?

Technical Skills: These include accuracy of action, timing, dynamic, rhythmic and spatial content and the reproduction of movement in a stylistically accurate way.
There are 6 technical skills. Each category is followed by the word 'content'.

1. **Action content**
2. **Dynamic content**
3. **Spatial content**
4. **Relationship content**
5. **Timing content**
6. **Rhythmic content**

Action Content: the movement

A range of action content must be used in your practical work.

You must show variation of the 5 Basic Body Actions; travel, turn, gesture, stillness and jump

You may choose to develop a motif through action content using the checklist below.

- Adding an action to a phrase
- Taking an action away
- Repeating an action
- Performing an action on a different body part
- Re-order motif

Example:

Motif = jump, turn, seat roll, reach arms to ceiling, fall
Motif developed = jump, jump, seat roll, reach arms to ceiling, fall handstand (jump repeated, turn taken away, new action added)

Dynamic Content: how an action is performed

A range of dynamic ontent must be used in your practical work.

Fast/slow – **speed**
Sudden/sustained – **execution**
Acceleration/deceleration – **tempo**
Strong/light – **force**
Direct/indirect – **route**
Flowing/abrupt - **flow**

A range of dynamics must be included in your practical work. When describing a movement always refer to a dynamic.

Example:

- jump slowly
- abruptly turn to face the front and then reach your arms out to the sides in a strong motion

Rhythmic Content: repeated patterns of sounds or movements

A range of rhythmic content must be used in your practical work.

Relationship Content: with who the action is performed

A range of relationship content must be used in your practical work.

Mirroring – reflecting the actions of another dancer as if there is a mirror line
Example: dancer 1 extends right arm whilst leaning to the right but dancer 2 extends left arm to the left

Action and reaction – a dancer responds to the action of another dancer's action
Example: dancer 1 elbows to left, dancer 2 falls to floor after dancer 1 has performed their action

Accumulation – the movements are added to existing movements in a successive manner
Example: A, AB, ABC = jump, jump + turn, jump + turn + slide

Complementary – perform actions or shapes that are similar but not exactly the same as another dancer's actions
Example: dancer 1 performs seat roll whilst dancer two performs an elevated turn

Contrast – movements or shapes that have nothing in common
Example: fast dynamics of sharp elevated actions vs slow fluid arm gestures

Counterpoint – when dancers perform different phrases simultaneously
Example: floor phrase in one place vs elevation

Contact – a moment of physical contact which could be in the form of a counterbalance, touch or lift
Example: fan lift, hand on shoulder, and sacrifice lift

Formations – where the dancers stand in the space
Example: zig zag, circular, vertical line, diagonal line, horizontal line, cluster, sporadic

Spatial Content: where an action is performed

A range of spatial content must be used in your practical work.

Pathways; circular, linear, diagonal, zig – zag

Levels; floor work, mid-level, standing, elevation

Direction; left, right, front, back, diagonal front, diagonal back

Size of movement; small, medium and large

Spatial design; upstage, centre stage, downstage, stage right, stage left

You may choose to develop a motif through spatial content using the checklist above.

Example:
Change of levels
Version 1: Reach right arm to ceiling, left arm up to ceiling whilst jumping in the air.
Version 2: The dancer could kneel and perform the same arm actions.

Timing Content: The use of time or counts when matching movements to sound and/or other dancers

A range of timing content must be used in your practical work.

Homework Links

https://www.aqa.org.uk/resources/dance/gcse/dance/teach/subject-specific-vocabulary

Key Vocabulary

You must be able to identify and define ALL vocabulary listed. You MUST be ale to give movement examples of each skill listed.

BIG QUESTIONS

- Can you list the internal stakeholders of a business?
- Can you list the external stakeholders of a business?
- How is the local community impacted if a business is performing well?
- Can you explain why different stakeholders have different interests in the business?

Stakeholder	Internal or external	Effects
Owners	Internal	See profit as their main aim so will want to run the business cost effectively
Employees	Internal	Employees want to be treated well and receive a fair wage. Without this they could go on strike
Customers	External	Customers want to receive a good service and pay a fair price. Without this they could go to competitors
Suppliers	External	Suppliers want to be paid on time. Delayed payments could mean the supplier refuses orders
Government	External	The government wants businesses to succeed however an increase in income tax means less money for customers
Local community	External	The local community will want jobs in their area however they could protest against a new business development

Internal stakeholders
People with an interest in and who work in the business
External stakeholders
People with an interest in but who are outside of the business

Different stakeholders may want different things from a business, which means that there could be conflict between them. Overcoming a conflict will often require negotiation and willingness to compromise

Which stakeholder type has the most influence on the activities and objectives of a business?

Business
Business Growth

Year 10
Term: 2

BIG QUESTIONS

- Can you explain how different businesses might grow in different ways?
- Can you list different types of organic and external growth?
- Can you explain how a business can increase market share?
- Which do you think is the riskiest type of business growth?
- Why do mergers sometimes not work?

Organic growth
Internal growth using own resources i.e. opening more shops
Merger
Two or more businesses agreeing to join together
Takeover
One business takes control of another
Horizontal growth
Two businesses in the same production sector joining together
Vertical growth
Two businesses in different production sectors joining together

Horizontal – 2 businesses that join from the same industry but do not need to be identical. The bigger business will control more of the market. Discounts could be more likely from suppliers as its likely more goods will be purchased. Difficulties could be how the business is controlled and whether that is effective. Sometimes it's easier to control 2 small businesses rather than one large business.

Vertical – merge with (or takeover) a business that supplies it with goods (backwards vertical growth) or with a business that it supplies (forwards vertical growth). A shop selling wooden furniture may merge with the manufacturer of the furniture

Diversification – no real connection with the other business. For example, a furniture maker taking over a pizza delivery shop. Benefit is spreading the risk at the same time as growing. The risk is spread because if people stop buying furniture from them they have the back up of their other business in a different industry. Any business relying on a single product or service is at increased risk.

Homework: Using the information about Pets at Home, explain how the business has grown organically. You must include key information from the case study and write in full sentences

Business Studies
GCSE

Year 10 & 11
Term: Whole Year

BIG QUESTIONS

- How do I answer the 9 mark GCSE question?

THINK DACE!

Definition

Application

Counter-argument

Evaluation

Definition - Is there a term in the question that can be defined? (if no, do not force a definition, go straight into Application.)

Example – Analyse the effectiveness of a partnership as a form of business ownership?
'A partnership is when two or more people come together to start a business……'

Application
- Apply your understanding/knowledge
- Link the answer to the case study **(A02)**
- What are the **advantages**?
- Make sure to **explain** all knowledge applied

***Example** – One advantage of a business taking the form of a partnership would be…….This is an advantage because……*

Counter-argument *(A03a)*
- Are there **disadvantages**?
- Link answer to counteract the advantages. **(A02)**
- No disadvantages? *What would happen to the business without it*?

***Example** – However, a disadvantage of this business ownership would be…….This is a disadvantage because……*

Evaluation *(A03b)* - Summarise the advantages against the disadvantages! State your opinion, make sure you explain why you have come to this decision? Relate back to the business and the effects it would have.

Example – *In conclusion, I think a partnership is an effective form of ownership because…*

Big Question – How do I achieve A02 (application) marks?

A number of questions in the exam will ask you a direct question about a particular business from the case study. You need to make sure that you always APPLY your knowledge to that particular business in your answer. This will allow you to achieve an additional AO2 mark (APP) every time.

Here's an example….

Question - Analyse one way in which Redrow Homes could use Group Activities when selecting new apprentices? (3 marks)

Answer 1 - Redrow Homes could use group activities as it would allow them to see how well potential apprentices work together on a task. ✓ This will highlight if they have good communication skills. ✓ (Only 2 marks have been awarded here as the answer was not applied specifically to the business).

Answer 2 - Redrow Homes can assign a task where all the applicants work together ✓ to solve a problem relating to a scenario on a building site. ✓ This allows the interviewers to observe candidates' interpersonal skills ✓ (3 marks have been awarded as the answer is applied to Redrow Homes and a scenario using a building site).

Don't forget the TESCO TEST!

Remember that the application mark (A02) is more than just writing the name of the business. If you can put TESCO in your answer and it still makes sense, you have not specifically applied it to the business from the case study.

****Answer 2 would not make sense if you replaced Redrow Homes with Tesco. This is because the answer specifically talks about a building site. Application mark secured!*** ✓

ICT
Interface design principles and project planning techniques

Year:10
Term: 2

BIG QUESTIONS

1. What is a methodology and how can this be used when planning a project?
2. What are the main tools used when project planning? What is the most useful for your project?
3. What is contingency planning and why is this useful?
4. What is the purpose of a storyboard?
5. Why should a product be tested by more than one person?

Project Management Methodologies

A guideline for managing a project through planning, design & implementation.

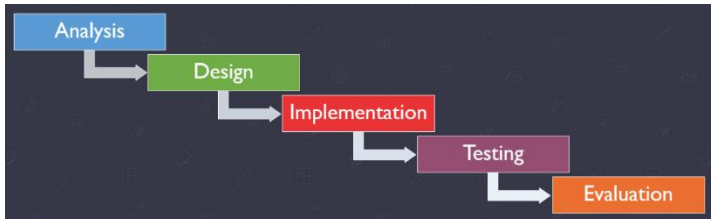
Implementing a project can be a large task and it can be easy to lose our way.

We need a dependable structure for running a project & achieving our goals.

A project management methodology gives us structure, defining the process.

There are different methodologies, such as Waterfall & Agile methodologies.

Waterfall



A process that follows distinct stages one after the other until the project is complete.

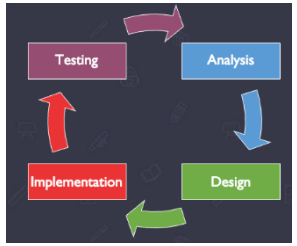
Once a stage is complete, we cannot return to it. It must be correct first time.

Best used for projects were requirements are very well known & unlikely to change.

Its simplicity makes it easily repeatable.

It's inflexibility makes it impractical for many projects.

Agile



Initially the overall goals of the project are identified from the client.

The team will complete a process of planning, executing & evaluating repeatedly.

At the end of each complete process, the client feeds back to refine the system.

It is good for projects with poorly defined requirements due to its flexibility.

PROJECT PLANNING TOOLS

Managing a large project can be complicated.

We need to break this down into a list of small tasks.

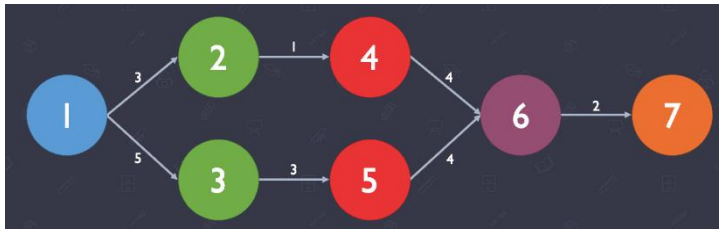
This allows us to easily monitor progress.

The simplest method of this is a numbered list of tasks.

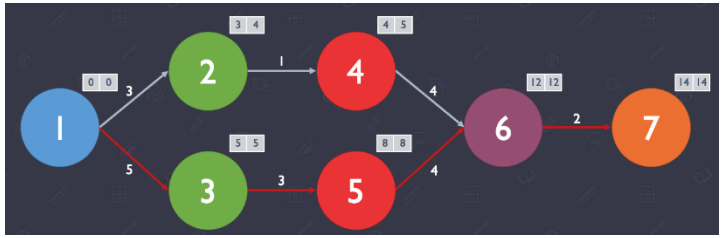
1. Interview client about her goals.
2. Research assets to be used in interface.
3. Produce a moodboard for the interface.
4. Create storyboard for interface screen design.

Task No.	Task Name	1	2	3	4	5	6	7	8	9
1	Identify Requirements									
2	Identify Constraints & Risks									
3	Design UI									
4	Develop UI									

Gantt Chart



PERT Chart



Critical Path Diagram

Homework Links

Links in Teams

Homework 1: Recreate a Gantt chart for your project in Excel using the plan given.

Homework 2: Research the Terms Constraints and Risks.

Create a mind map for each of the Constraints and risks in your project and justify your choices.

Homework 3: Create a single screen storyboard for a new running app. It must include: A map of the journey, time taken, distance travelled, speed, calories.

Include a button to go back and some quick links at the bottom to the other pages.

Key Vocabulary

Methodologies:

Waterfall

Iterative

Gantt Chart

PERT chart

Mood board

Aims and objectives

SMART aims

Time scales

Constraints

Specifications

Media: Analysing Media Texts

Year 10 Term 2

Big Questions

What is a genre?
What is a sub-genre?
What is a hybrid genre?
How does genre use codes and conventions?
How does genre link to magazines?
What does narrative mean?
What does linear and non-linear narrative mean?
What are common narrative structures?
What are enigma codes and action codes?
What is intertextuality?
How do we see narrative in magazines?
Why do different audiences react differently to media texts?
What is representation?
What are some of the key terms?
What does mediation of content mean?
Why does it matter?
What techniques do media producers use to encode meaning?

Genre
Media texts are grouped together based on similar characteristics. This is probably most easily seen with moving image texts, such as film.

Sub-genres
Werewolf films are a sub-genre of horror. This means they are a recognisable type of horror film.

Hybrid Genres
Hybrid genres are where two, or more, genres are joined together. In the example below the film uses the conventions of horror and of comedy to create a Horror/Comedy film.

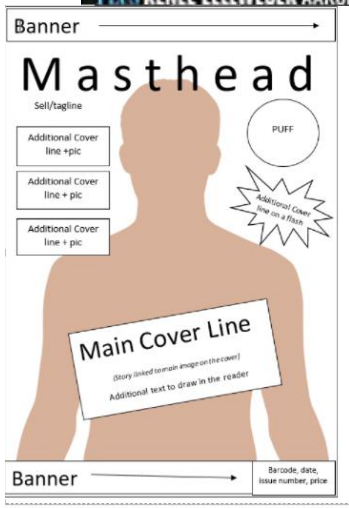
Narrative- all media products tell a story, even magazines!

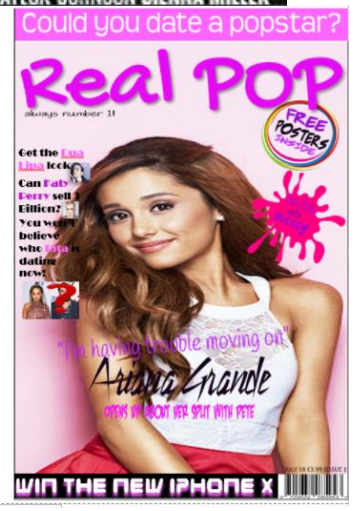
An **enigma code** is something in a media product that makes the audience question the story. The opposite to this are action codes, these are elements of the narrative that move the story on (basically when something happens).

Intertextuality- Some media products remind you of others, this is intertextuality!

Audiences can read a text different ways:
Preferred- How they want you to see it
Negotiated- Putting your own thoughts in
Oppositional- Taking it the opposite way it was intended

Representation is the way people, places or ideas are presented in the media- all representations are constructed by the media





MFL – French **Year: 10**

Mod 4 – De la ville à la campagne – *How do I talk about my local area?* **Term: 2**

BIG QUESTIONS

1) **Où habites-tu?**
   Where do you live?

2) **Qu'est-ce qu'on peut faire à…?**
   What can you do in…?

3) **Qu'est-ce que tu penses de ta ville?**
   What do you think about your town?

4) **Qu'est-ce qu'il y a dans ta ville?**
   What is in your town?

5) **Pour aller au / à la…?**
   How do you get to the…?

6) **Qu'est-ce qu'il y a dans ta région?**
   What is in your region?

7) **Quelle est ta région préférée?**
   What is your favourite region?

Qu'est-ce qu'on peut faire?	What can you do?		
On peut …	*You can …*	faire des promenades	*go for walks*
aller à un match de foot	*go to a football match*	faire les magasins	*go shopping*
aller au cinéma	*go to the cinema*	se baigner dans la mer	*swim/bathe in the sea*
faire du cheval	*go horse-riding*	se détendre sur la plage	*relax on the beach*
faire du ski	*go skiing*	visiter le château	*visit the castle*
faire du snowboard	*go snowboarding*	visiter les musées	*visit the museums*

Dans ma ville/mon village	In my town/village		
Dans ma ville/mon village, il y a …	*In my town/village there is/are …*	un supermarché	*a supermarket*
un bureau de poste/une poste	*a post office*	une bibliothèque	*a library*
un centre de loisirs	*a leisure centre*	une église	*a church*
un château	*a castle*	une gare (SNCF)	*a (railway) station*
un marché	*a market*	une mosquée	*a mosque*
un musée	*a museum*	des hôtels	*some hotels*
un parc/jardin public	*a park*	des restaurants	*some restaurants*
un stade	*a stadium*	Il n'y a pas de …	*There isn't a/aren't any …*

Les directions	Directions		
Où est le/la/l' …? / Où sont les …?	*Where is the …? / Where are the …?*	Traverse/Traversez le pont/la place.	*Cross the bridge/square.*
Pour aller au/à la/à l'/aux …?	*How do I get to the …?*	Descends/Descendez la rue.	*Go down the street.*
Va/Allez tout droit.	*Go straight on.*	C'est près/loin?	*Is it near/far?*
Tourne/Tournez à gauche/droite.	*Turn left/right.*	C'est tout près/assez loin.	*It's very near/quite far.*
Prends/Prenez la première/ deuxième/troisième rue à gauche/droite.	*Take the first/second/third street on the left/right.*		

Qu'est-ce qu'il y a dans ta région?	What is there in your region?		
Dans ma région, il y a …	*In my region there is/are …*	En Bretagne, il y a …	*In Brittany there is/are …*
un lac	*a lake*	un beau château	*a beautiful castle*
un port de pêche	*a fishing port*	une belle cathédrale	*a beautiful cathedral*
une rivière/un fleuve	*a river*	des villes historiques	*historical towns*
des champs	*fields*	de vieilles maisons	*old houses*
des collines	*hills*	de vieux bâtiments	*old buildings*
des fermes	*farms*	On peut …	*You can …*
des forêts	*forests*	faire de la voile	*go sailing*
des stations de ski	*ski resorts*	faire des randonnées à vélo	*go for bike rides*
des vignobles	*vineyards*		

Le meilleur …	The best …		
le meilleur climat	*the best climate*	la plus haute tour	*the highest tower*
la meilleure équipe de football	*the best football team*	le musée le plus populaire	*the most popular museum*
le plus beau paysage	*the most beautiful countryside*	la région la plus historique	*the most historical region*
les plus belles plages	*the most beautiful beaches*	les stations de ski les plus populaires	*the most popular ski resorts*
le plus long fleuve	*the longest river*		
la plus longue piste de ski	*the longest ski slope*	les monuments les plus célèbres	*the most famous monuments*

MFL – French **Year: 10**

Mod 4 – De la ville à la campagne – *How do I talk about my local area?* **Term: 2**

BIG QUESTIONS

1. **Quels sont les avantages de ta région?**
   What are the advantages of your region?
2. **Quels sont les inconvénients?**
   What are the disadvantages?
3. **Ta ville a changé?**
   Has your town changed?
4. **PAST: C'était comment avant?**
   What was it like before?
5. **FUTURE: Qu'est-ce que tu voudrais faire à…?**
   What would you like to do in…?
6. **C'est combien, l'entrée?**
   How much is entry?
7. **Quel temps fait-il?**
   What is the weather like?
8. **FUTURE: Qu'est-ce que tu vas faire si…?**
   What are you going to do if…?

Les renseignements touristiques / *Tourist information*

(Le château) est ouvert quels jours de la semaine?	*On which days is (the castle) open?*	Avez-vous un dépliant/un plan de la ville?	*Do you have a leaflet/a map of the town?*
C'est ouvert (tous les jours/tous les jours sauf le dimanche).	*It's open (every day/every day except Sundays).*	Où est-ce qu'on peut acheter des billets?	*Where can we buy tickets?*
Quels sont les horaires d'ouverture?	*What are the opening hours?*	la durée	*duration*
C'est ouvert de (9h) à (17h).	*It's open from (9 a.m.) until (5 p.m.).*	les tarifs	*prices*
C'est combien, l'entrée?	*How much is the entrance fee?*	gratuit	*free*
Ça coûte … pour les adultes et … pour les enfants.	*It costs … for adults and … for children.*	accessible aux personnes handicapées	*accessible to disabled people*
Est-ce qu'il y a un restaurant ou une cafétéria?	*Is there a restaurant or a cafeteria?*	les chiens sont acceptés	*dogs are welcome*

Le temps/La météo / *The weather/ The weather forecast*

Quel temps fait-il?	*What is the weather like?*	Il y a du vent.	*It's windy.*
Il fait beau.	*The weather is good.*	Il y a un orage.	*There's a storm.*
Il fait mauvais.	*The weather is bad.*	Il pleut.	*It's raining.*
Il fait chaud.	*It's hot.*	Il neige.	*It's snowing.*
Il fait froid.	*It's cold.*	près de la Manche	*near the Channel*
Il y a du soleil.	*It's sunny.*	sur la côte atlantique	*on the Atlantic coast*
Il y a du brouillard.	*It's foggy.*	sur la côte méditerranéenne	*on the Mediterranean coast*

Les projets / *Plans*

aujourd'hui	*today*	aller à la piscine (en plein air)	*go to the (open-air) swimming pool*
demain	*tomorrow*		
après-demain	*the day after tomorrow*	faire un barbecue	*have a barbecue*
ce week-end	*this weekend*	faire un pique-nique	*have a picnic*
cette semaine	*this week*	faire de la luge	*go tobogganing*
S'il fait beau/mauvais (etc.), on va …	*If the weather's good/bad (etc.), we're going to …*	rester à la maison	*stay at home*
		regarder la télé	*watch TV*
aller à la pêche	*go fishing*		

Ville de rêve ou ville de cauchemar? / *Dream town or nightmare town?*

C'est …	*It's …*	trop de bruit	*too much noise*
très animé	*very lively*	toujours des déchets par terre	*always rubbish on the ground*
trop tranquille	*too quiet*	Il n'y a rien pour les jeunes.	*There is nothing for young people.*
sale	*dirty*	Il n'y a pas grand-chose à faire.	*There is not much to do.*
pollué	*polluted*	Il n'y a pas de zone piétonne.	*There is no pedestrian precinct.*
triste	*sad*	Il n'y a plus de cinéma.	*There is no longer a cinema.*
Ce n'est jamais propre.	*It's never clean.*	Le cinéma est fermé.	*The cinema is closed (down).*
Il y a …	*There is/are …*	un club pour les jeunes	*a youth club*
de bons transports en commun	*good public transport*	les poubelles	*bins*
seulement des maisons et une église	*only houses and a church*	en banlieue	*in the suburbs*
trop de circulation	*too much traffic*	le quartier	*neighbourhood, district, part of town*

MFL – Spanish **Year: 10**

Mod 4 – Intereses e influencias – *How do I talk about interests and influences?* **Term: 1**

BIG QUESTIONS

1) **¿Qué haces en tus ratos libros?**
   Wha do you do in our free time?

2) **¿Qué haces con tu dinero?**
   What do you do with your money?

3) **¿Qué deportes haces?**
   What sports do you do?

4) **¿Qué sueles hacer?**
   What do you normally do?

5) **¿Quién es tu cantante favorito?**
   Who is our favourite Singer?

6) **¿Tocas un instrumento?**
   Do you play an instrument?

7) **PAST: ¿Qué deportes hacías?**
   What sports did you used to do?

8) **¿Eres aficionado/a de un equipo?**
   Are you a fan of a team?

Ir al cine, al teatro, etc.	Going to the cinema, theatre, etc.		
¿Tienes ganas de ir…	*Do you fancy going…*	Es una película / obra de…	*It's a… film / play.*
a un festival / a un espectáculo de…?	*to a festival / to a… show?*	¿Cuánto cuesta?	*How much does it cost?*
		Son… euros.	*It's… euros.*
al cine / al teatro / al circo?	*to the cinema / theatre / circus?*	¿A qué hora empieza / termina?	*What time does it start / finish?*
esta tarde?	*this afternoon / evening?*	Empieza / Termina a las…	*It starts / finishes at…*
esta noche?	*tonight?*	Dos entradas para…, por favor.	*Two tickets for…, please.*
mañana / el viernes?	*tomorrow / on Friday?*	Para la sesión de las…	*For the… showing / performance.*
¿Qué ponen?	*What's on?*	No quedan entradas.	*There are no tickets left.*

Los modelos a seguir	Role models		
Mi modelo a seguir es…	*My role model is…*	Es…	*He/She is…*
Admiro a… porque…	*I admire… because…*	No es ni… ni…	*He/She is neither… nor…*
ayuda a organizaciones benéficas	*he/she helps charities*	ambicioso/a / egoísta	*ambitious / selfish*
		famoso/a / fuerte	*famous / strong*
lucha por / contra…	*he/she fights for / against…*	generoso/a / optimista	*generous / optimistic*
la pobreza / los derechos humanos	*poverty / human rights*	rico/a / simpático/a	*rich / nice*
		trabajador(a) / valiente	*hardworking / brave*
tiene mucho talento / éxito	*he/she is very talented / successful*	Ha batido muchos récords.	*He/she has beaten lots of records.*
tiene mucha determinación	*he/she has a lot of determination*	Ha ganado muchos premios.	*He/she has won lots of prizes / awards.*
trabaja en defensa de los animales	*he/she works in defence of animals*	Ha hablado abiertamente de…	*He/she has spoken openly about…*
		Ha hecho varias películas.	*He/she has made several films.*
usa su fama para ayudar a otros	*he/she uses his/her fame to help others*	Ha recaudado más de…	*He/she has raised more than…*
		Ha sufrido varias enfermedades.	*He/she has suffered several illnesses.*
		Ha superado sus problemas.	*He/she has overcome his/her problems.*

El deporte	Sport		
Antes era…	*Before I used to be…*	atletismo / ciclismo	*athletics / cycling*
Ahora soy…	*Now I am…*	equitación / escalada	*horseriding / climbing*
(bastante / muy) deportista	*(quite / very) sporty*	gimnasia / judo	*gymnastics / judo*
miembro de un club / un equipo	*a member of a club / a team*	kárate / natación	*karate / swimming*
aficionado/a de…	*a fan of…*	patinaje sobre hielo	*ice skating*
un(a) fanático/a de…	*a… fanatic*	piragüismo	*canoeing*
Juego al…	*I play…*	Ya no (juego)…	*(I) no longer (play)…*
Jugué al…	*I played…*	Entreno	*I train*
Jugaba al…	*I used to play…*	Ayer / Esta mañana…	*Yesterday / This morning…*
baloncesto / balonmano	*basketball / handball*	La temporada pasada…	*Last season…*
críquet / fútbol	*cricket / football*	jugué un partido	*I played a match*
hockey / ping-pong	*hockey / table tennis*	marqué un gol	*I scored a goal*
rugby / tenis / voleibol	*rugby / tennis / volleyball*	gané / ganamos el campeonato	*I / we won the championship*
Hago…	*I do…*	Mi jugador(a) favorito/a es…	*My favourite player is…*
Hice…	*I did…*	Lo mejor fue cuando…	*The best thing was when…*
Hacía…	*I used to do…*	batió el récord	*he/she beat the record*
		ganó / marcó…	*he/she won / scored…*

MFL – Spanish **Year: 10**

Mod 4 – Intereses e influencias – *How do I talk about interests and influences?* **Term: 1**

BIG QUESTIONS

1. **¿Eres teleadicto?**
   Are you a big fan of TV?
2. **¿Te gusta las películas extranjeras?**
   Do you like foreign films?
3. **PAST: ¿Has visto el nuevo…?**
   Have you seen the new…?
4. **¿Cómo es?**
   How is it?
5. **¿Cómo prefieres ver las películas?**
   How do you prefer to watch films?
6. **¿Tienes ganas de ir…?**
   Do you fancy going to…?
7. **¿Quién es tu modelo a seguir?**
   Who is your role model?
8. **PAST: ¿Qué hizo?**
   What did he/she do?

La tele	TV	Me gustan las comedias	I like comedies
(No) soy teleadicto/a	I'm (not) a TV addict	No me gustan las noticias	I don't like the news
Veo la tele… horas al día	I watch TV… hours a day	Es / Son…	It is / They are…
Mi programa favorito es…	My favourite programme is…	aburrido/a(s)	boring
un concurso	a game/quiz show	adictivo/a(s)	addictive
un programa de deporte	a sports programme	divertido/a(s)	fun
un reality	a reality TV show	entretenido/a(s)	entertaining
un documental	a documentary	tonto/a(s)	silly
una telenovela	a soap	informativo/a(s)	informative
una comedia	a comedy	emocionante(s)	exciting
una serie policíaca	a crime series	interesante(s)	interesting

Las películas	Films		
una película de amor	a love film	una película de animación	an animated film
una película de terror	a horror film	una película de ciencia ficción	a sci-fi film
una película de acción	an action film	una película de fantasía	a fantasy film
una película de aventuras	an adventure film	una película extranjera	a foreign film

Nacionalidades	Nationalities		
americano/a	American	español(a)	Spanish
británico/a	British	francés / francesa	French
griego/a	Greek	galés / galesa	Welsh
italiano/a	Italian	inglés / inglesa	English
mexicano/a	Mexican	irlandés / irlandesa	Irish
alemán / alemana	German	japonés / japonesa	Japanese

Temas del momento	Trending topics		
He compartido…	I have shared…	Cuenta la historia de…	It tells the story of…
He comprado…	I have bought…	Combina el misterio con la acción.	It combines mystery with action.
He descargado…	I have downloaded…	El final / La banda sonora…	The ending / The soundtrack…
He gastado…	I have spent…	es bueno/a / malo/a	is good / bad
He hecho…	I have done…	es feliz / triste / raro/a	is happy / sad / strange
He jugado…	I have played…	Los actores / Los gráficos	The actors / The graphics…
He leído…	I have read…	Los efectos especiales…	The special effects…
He perdido…	I have lost…	Los personajes…	The characters…
He subido…	I have uploaded…	Las animaciones / canciones	The animations / songs
He visto…	I have seen / watched…	son…	are…
el nuevo álbum / libro de…	the new… album / book	buenos/as / estupendos/as	good / brilliant
la nueva canción / película de…	the new… song / film	decepcionantes	disappointing
¿Qué música has escuchado…	What music have you listened to…	guapos/as / interesantes	good looking / interesting
esta semana / este mes / este año?	this week / this month / this year?	irritantes / impresionantes	irritating / impressive
		locos/as / originales	mad / original

¿En el cine o en casa?	At the cinema or at home?		
Prefiero ir al cine porque…	I prefer going to the cinema because…	los otros espectadores me molestan.	the other spectators annoy me.
Prefiero ver las pelis en casa porque…	I prefer watching films at home because…	las entradas son caras.	the tickets are expensive.
el ambiente es mejor.	the atmosphere is better.	las palomitas están ricas.	the popcorn is tasty.
la imagen es mejor en la gran pantalla.	the picture is better on the big screen.	hay demasiadas personas.	there are too many people.
los asientos no son cómodos.	the seats aren't comfortable.	me encanta ver los tráilers para las nuevas pelis.	I love watching the trailers for the new films.
		(No) estoy de acuerdo.	I (don't) agree.

BIG QUESTIONS

- How do factors affect our growth and development?
- What do I need to do to ensure all Pass, Merit and Distinction criteria is met?
- What is a life event?

Life Stages

Infancy	0-2 years	A rapid increase in PIES growth and development occurs at this stage but individuals are dependent on carers.
Early childhood	3-8 years	Physical skills rapidly develop and are mastered and children become more independent.
Adolescence	9-18 years	Huge physical and emotional changes occur in this life stage as individuals begin puberty and start to form a wide range of relationships.
Early adulthood	19-45 years	Peak physical maturity occurs here. This life stage often has a number of major life events, such as marriage and children.
Middle adulthood	46-65 years	Usually in this life stage adults change emotionally and socially due to the ageing process beginning.
Later adulthood	65+ years	All types of development can decline in this life stage (e.g. reduction of social circles and cognitive ability) as people become physically weaker

Health and Social Care **Year 10**

Component 1 Human Lifespan Development **Term: 1**

BIG QUESTIONS

- **How do factors affect our growth and development?**
- **What do I need to do to ensure all Pass, Merit and Distinction criteria is met?**
- **What is a life event?**

Types of development

Physical – Changes to the body such as growth and puberty. Gross motor skills using the large muscles of the body and fine motor skills using the small muscles of the body.

Intellectual – The development of cognitive ability, including abstract thinking, problem solving, memory and language skills – e.g. remembering how to spell.

Emotional – Developing and coping with feelings about ourselves and towards others. E.g. improving self-confidence.

Social – The ability to form friendships and relationships and learn to be independent. E.g. making friends at school.

Factors affecting development

Physical – illness, inherited diseases and conditions that can affect development.

Lifestyle – Choices by an individual which can affect growth and development. E.g. smoking

Emotional – Learning how to cope with feelings and deal with relationships. E.g. grief when someone dies

Social – Experiences a person has with other people and the supportive and unsupportive relationships they have with them.

Cultural – Experiences a person has with groups of people, community groups or in social settings.

Environmental – The location, conditions, housing, pollution, environment and amount of space a person lives in.

Economic – Economic factors affect the amount of money or income a person has. E.g. employment salary, benefits.

Health and Wellbeing Life Events

Accident/injury –an accident is an unexpected event that can lead to an injury.
Physical illness – a disease or illness that physically affects the body.
Mental health and wellbeing – keeping the brain and mind functioning normally so a person can complete daily tasks.
Emotional health and wellbeing – forming attachments and feeling secure and content.

Life Circumstances Life Events

Moving house, school or job – a change of location or employment.
Exclusion from education – being removed from school.
Redundancy – let go by employer.
Imprisonment – sent to prison.
Changes to standard of living – an increase or decrease in the level of income and luxuries.
Retirement – finish working altogether.

Relationship Changes Life Events

New relationships – making new friends or romantic partnerships.
Marriage/civil partnership – legally getting married to someone else.
Divorce/separation – a permanent end to a relationship.
Parenthood – becoming a mother or father.
Bereavement – the feelings of grief when someone close to you dies.

Types of Support

Emotional support – providing love and care to people, especially when they are upset.
Information, advice, endorsed apps – providing information, help and guidance.
Practical help – helping people with childcare, cleaning, financially

Homework Links

https://www.simonweston.com/

https://www.youtube.com/watch?v=XjaArHGF7mw

https://www.youtube.com/watch?v=nx71vp3ceaw

https://www.youtube.com/watch?v=Qx1ymZFg1gA

Key Words-

Life events- are expected or unexpected events that can affect development

Expected- is a belief that something is likely to happen

Unexpected- long-or short-term changes that is not thought likely to happen

Bereavement- is the process of coming to terms with the death of someone close

Physical events- make changes to your body, physical health or mobility

Relationship changes- impact on informal and intimate relationships

Life circumstances- impacts on day-to-day life and the choices you make

Adapt-is to adjust to new conditions or circumstances

Respite care- involves temporary care of an individual with ill health to provide relief for their parents or carers

Professional-describes a member of a profession who is trained and skilled in their area of work

Child Development
COMPONENT 2: Learning through play

Year: 10
Term: 2

BIG QUESTIONS

To Understand the way that children learn through play

- ✓ What are the stages of children's play
- ✓ What are the types of play
- ✓ How can children's learning be supported through play?

Learning aim A: Understand how children play RECAPPING

Learners must understand that children at different ages and stages of development have different play needs.

A1 Stages of children's play

- Unoccupied play, birth–3 months: movements with arms, legs, hands, feet etc., learning how their bodies move.
- Solitary play, birth–2 years: a child plays alone, not yet interested in playing with others.
- Spectator/onlooker play, 2 years: a child watches other children play but does not play with them.
- Parallel play, 2+ years: a child plays alongside or near others but does not play with them.
- Associative play, 3–4 years: a child starts to interact with others during play but there is not a large amount of interaction at this stage; a child might be doing an activity related to the children around him, but might not actually be interacting with another child.
- Co-operative play, 4+ years: a child interacts fully with others and has interest in both the activity and other children involved, they create their own rules

A2 Types of play

Learners must understand the different types of children's play that can be offered.

- Locomotor play – any type of physical activity using gross motor skills – enjoying movement for movement's sake.
- Creative play – freedom to explore resources, altering something and making something new, trying out new ideas.
- Sensory play – using the senses to explore, to discover the texture and function of things.
- Imaginative play – when children pretend in some way, act out their experiences or things they have heard about/seen, role play, small world play.
- Symbolic play – using objects, actions or ideas to represent other objects, actions, or ideas.
- Technological/investigative – use of IT equipment, maths equipment, science equipment.
- Construction – using resources to build or join things, to create something new.

Learning Aim- B: Understand how children's learning can be supported through play

Learners will consider how learning through play can occur during planned activities in the following environments: at home, in day nurseries, school nurseries, preschools, reception school classes, community-based groups, after-school clubs. Learners will need to consider and plan play opportunities and activities for individual children and small groups of children.

B1 Physical play

Learning through physical play:

- spatial awareness – eye coordination, foot and leg coordination, hand-eye coordination
- activities to stay healthy
- how to take care of yourself and self-care
- gross motor skills – body management, strength, bodily coordination
- fine motor control – accuracy and manipulation of objects.

Activities and resources for physical play and learning:

- role play of home-life situations
- food preparation, snack times, handwashing
- bat and ball games
- tricycles, bicycles, sit-and-ride toys
- climbing frames, swings, slides
- creative activities – crayons, pens, paint brushes, paper, scissors, plastic needles, threads, beads playdough, sand and water activities
- construction toys
- baby gyms, push along toys, rattles

Homework

1.1. Design a game the will help a child to grow and learn.

Homework Links

Research from the following websites-

- ✓ www.education.gov.uk
- ✓ http://www.nicurriculum.org.uk/docs/foundation_stage/learning_through_play_ey.pdf
- ✓ https://www.legofoundation.com/en/learn-how/knowledge-base/what-we-mean-by-learning-through-play/
- ✓ https://www.familylives.org.uk/advice/early-years-development/learning-and-play/why-play-matters//

Key Terms LA-A

Social Skills-used when interacting with each other

Unoccupied play- a child does not interact with others and makes movements with their body

Solitary play- playing alone

Spectator/onlooker play- watching others play but not playing with them

Parallel play- playing along side of others but not playing with them

Associative play- sharing resources but playing alone

Cooperative play- when children are playing together

Repetition- repeating something

Enhance- increase or improve something

Independent learning skills- being able to think, problem solve and act without an adult helping.

Motivating- a reason to do something

Food Preparation and Nutrition
Food Nutrition and Health

Year 10
Term 2

BIG QUESTIONS

- What is a diet related illness?
- How can we avoid developing a diet related illness?
- What are the main causes of diet related illness?
- What are raising agents and how do raising agents work?
- What are the 4 types of raising agents?
- Why are raising agents used?

Students will learn the importance of good diet in relation to health.

We will investigate illnesses, their dietary causes and how to avoid these issues throughout the life stages

Food groups from the Eatwell Guide will assist in the understanding of healthy, balanced diets and nutritional needs of different person groups.

Food science investigations in relation to raising agents will be part of students learning.

Life stages

Young children

- **Protein** for **growth** and **development**
- Given **small, attractive** portions of food.
- Introduce **new foods** gradually.
- **Avoid fatty** and **sugary** food.
- **Calcium and vitamin D** for **teeth** and **bones**

Adulthood

- Well balanced diet following the **Eatwell guide**
- **Nutrients are especially important**.
- **Calcium** help keep bones and teeth strong, preventing Osteoporosis.
- **Vitamin D** helps the body to absorb calcium and helps the immune system

Toddlers

Eatwell guide doesn't apply.
High **calcium**
Small meals
Variety of different foods

Elderly

- **Vitamins A, C & E** (the antioxidant vitamins)
- **Protein** to **help repair worn out body cells**
- **Calcium** help keep **bones** and **teeth strong**, **preventing Osteoporosis**.
- **Vitamin D** helps the body to absorb
- **Calcium** and helps the **immune system**
- Iron to help the **red blood cells**
- **Vitamin C** helps prevent **iron deficiency anaemia**
- **Sodium** (salt) can cause **high blood pressure** if too much is eaten.
- **Vitamin B12**. to help prevent **memory loss.**
- **Fibre**. To prevent constipation and bowel cancer

Teenagers

- **Protein** for **growth** and **development**
- Risk **of obesity** and poor skin- eat 5 a day to help Good supply of **iron** (especially for girls).
- Lots of **starchy carbohydrates** for energy.
- **Fibre**. To keep the digestive system working.
- Choose low saturated fat.
- **Calcium** help keep bones and teeth strong, preventing Osteoporosis.
- **Vitamin D** helps the body to absorb calcium and helps the immune system.
- **Iron** to prevent iron deficiency, anaemia, and keep the red blood cells healthy. Teenage girls need iron due to menstruation.
- **Vitamin C**. helps the body absorb Iron.
- **Vitamin A**. for good eye sight. Boys need more due their bigger build
- **B group vitamins**. To release energy from carbohydrates. Boys need more as they are generally more active and bigger.

Homework Links

Illuminate.digital /aqafood/

User name; SABBEYSCHOOL3

Pass word; Sme138RZ3

Food a fact of life (web site)

BBC Bite size

Key Vocabulary

Research

Life stage

Dietary requirements

Task analysis

: The relationship between diet and health

Foods high in fat, salt and sugar
- These foods are not needed in the diet and should therefore not be eaten very often.
- If you eat these foods and drinks you should eat them in very small quantities.
- Food and drinks which contain a lot of fat and sugar are high in energy.
- You should check the food labels and choose foods which are low in fat, sugar, and salt.

Hydration
- Water, coffee, tea, lower fat milk, and sugar free-drinks all contribute to meeting your needs of six to eight glasses of fluid every day.
- Sugary drinks should be avoided and these should be swapped for sugar-free and non-added-sugar varieties.
- Fruit juice and smoothies do count, but they are also counted as **free-sugars**. You should not have more than 150ml of these a day.
- Alcohol also contains a lot of **calories** and adults should not consume more than 14

Food Labelling
- Labels often show the nutritional information per serving.
- They also show the contribution the food makes to the daily amounts required.
- The use of colour helps you to easily see whether they are high in **saturated fats**, sugar and salt.

Each grilled burger (94g) contains

Energy	Fat	Saturates	Sugars	Salt
924kJ 220 kcal	13g	5.9g	0.8g	0.7g
11%	19%	30%	<1%	12%

of an adult's reference intake

Typical values (as sold) per 100g: Energy 966kJ / 230kcal

Cutting down on saturated fat
Reducing the amount of saturated fat eaten can:
- Reduce the risk of heart disease.
- Lower blood cholesterol.

Cutting down on sugar
Reducing the amount of sugar can reduce the risk of:
- Obesity
- Tooth decay.

When sugar is added to a product or a dish to make them sweeter or more **palatable** it is called free sugar. No more than five per cent of the sugar we eat should come from free sugars.

Age	Recommended maximum free sugars intake	Sugar cubes
4-6 years	No more than 19g/day	5 cubes
7-10 years	No more than 24g/day	6 cubes
From 11 years, including adults.	No more than 30g/day	7 cubes.

- Remember, sugary drinks are not needed and we should change these to water, **low fat** milk or sugar-free drinks.
- Although ingredients lists are required by law on food products, it is sometimes difficult to spot the difference between a free sugar and a **not free sugar.**

Free sugars		Not free sugars
• Cane sugar • Honey • Brown sugar • Dextrose • **Fructose**	• **Sucrose** • Maltose • Fruit juice concentrate • Corn syrup • Molasses	Sugars found naturally in food: • In fresh, dried or frozen fruits and vegetables. • In milk, cheese and natural yogurt.

Cutting down on salt
Reducing the amount of salt can:
- Reduce blood pressure
- Reduce the risk of heart disease
- Reduce the risk of a stroke.

Adults should have no more than six grams salt per day and children should have less.
Remember, salt is added to many foods that you buy, so you need to check the labels carefully.

How much food do I need?
- Everyone needs different amounts of energy to maintain a healthy body weight.
- The amount of energy we need depends on many different factors.
- If we do not use all the energy we consume it will be stored as fat.

The government's guidelines for a healthy diet

The government recommendations are to use the Eatwell Guide as a model for healthy eating.
The government has also produced other guidance linked to healthy eating, including:
- **Eight tips for healthy eating**
- **5 a day campaign.**

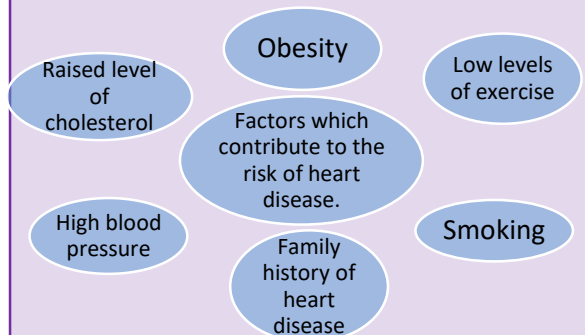
Application of the eight tips for healthy eating
The eight tips for healthy eating are clearly linked to the Eatwell Guide:
1. Base your meals on starchy foods.
2. Eat lot of fruit and vegetables.
3. Eat more fish - aim for two portions a week and one of these should be oily.
4. Cut down on saturated fats and sugars.
5. Eat less salt – adults should eat no more than six grams per day.
6. Get active and try to maintain a healthy weight,
7. Don't get thirsty– drink plenty of water.
8. Don't skip breakfast.

5 a day
This campaign:
- Encourage us to eat at least five portions of fruit and vegetables a day.
- Ensure a variety of vitamins, **minerals,** trace elements and fibre are in the diet.
- Promotes the inclusion of **antioxidants** and plant chemicals needed for good health.

Major diet-related health issues caused by a poor diet and lifestyle.

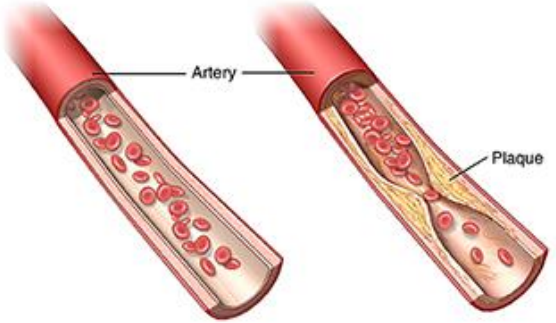
There are a number of disease and conditions caused by having a poor diet and lifestyle.

Obesity
The number of people who are overweight or obese in the UK is increasing.
The main cause of being overweight is eating more food than the body requires, so that excess energy is store as fat. Being overweight is unhealthy because it put a strain on the organs of the body. It can cause:
- Heart disease
- High blood pressure
- **Diabetes**
- Osteoarthritis
- Varicose veins
- Breathlessness
- Chest infections
- Unhappiness
- Low self-esteem
- May lead to depression.



The relationship between diet and health

Cardiovascular disease
Cardiovascular disease is a term used to describe all different types of diseases of the heart and circulatory system.
Blood flow to the heart, brain or body is reduced because of a blood clot or narrowing of the arteries.
Coronary heart disease is one of the main types of cardiovascular disease.



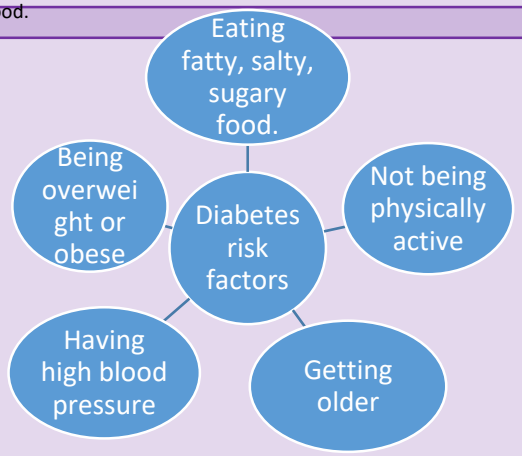
Coronary heart disease
In the UK, coronary heart disease (CHD) is a major health problem and one of the main causes of death.
- CHD is linked to the amount of fat in the diet.
- A diet high in **saturated fat** is also likely to be high in cholesterol.
- Cholesterol is a substance made in the liver and carried in the bloodstream. It can build up and be deposited with other material as 'plaque' on the walls of the arteries.
- Blocked arteries can cause a person to heart attack which, if severe, can cause death.

High blood pressure
To reduce the risk of high blood pressure you should follow the advice given in the Eatwell Guide:
- Eat at least five portions of fruit and vegetables a day
- Eat a varied diet
- Reduce your fat intake
- Eat more **starchy carbohydrates.**
- Consume mono and **polyunsaturated fats**
- Reduce your salt intake
- Eat at least two portions of fish a week.

Diabetes
Diabetes is a medical condition where the glucose in the bloodstream is not balanced correctly.
- Glucose is carried in the blood to all body cells to supply them with energy.
- Insulin, a hormone produced by the pancreas, controls the amount of glucose in the bloodstream and stops it getting too high.

There are two types of diabetes:
- Type 1 - this is usually diagnosed in children and is caused by the pancreas not producing enough insulin.
- Type 2 diabetes – this is usually diagnosed in older people, although there are younger people being diagnosed with this due to a poor diet.

- Meals for diabetes should follow the guidance in the Eatwell Guide and include high-fibre, starchy carbohydrate foods such as potatoes, rice and pasta, but should be low in sugar and sweet food.



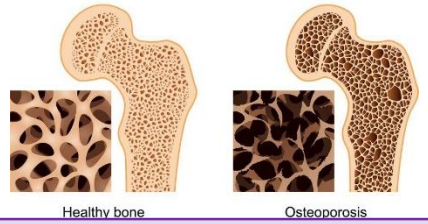
Diverticulitis
- **Diverticulitis** is a condition which affects the large intestine. It is often linked to having a diet which low in fibre (**non-starch polysaccharide** or **NSP**)
- The lining of the bowel becomes inflamed, infected and damaged.

Symptoms of **diverticular disease** include pain and discomfort in the abdomen and feeling bloating.

Bone Health (osteoporosis)
- Healthy bones do not break easily.
- Calcium and other minerals are gradually added to bones to strengthen them.
- Our bones are at their strongest between the ages of 20 and 35, when our peaks bone mass is reached.
- If we do not achieve peak bone mass then we are more likely to get **osteoporosis**. The bones start to lose minerals the bones brittle and break.

You will increase your likelihood of osteoporosis:
- If other people in your family suffer from broken bones – genes.
- If you take some medication.
- If you smoke.
- If you have low body weight.
- If you have had broken bones before.
- If you are a women.
- If you consume a lot of alcohol.
- As you get older – your bones weaken.

Osteoporosis



Dental Health
- To maintain healthy teeth you need to have a balanced diet based on the Eatwell Guide.
- Tooth decay is caused when the **bacteria** in your mouth (plaque) feed on the sucrose to produce an **acid**. The acid then causes small holes in your teeth (dental caries)
- Sugar found naturally in fruit and vegetables are not as harmful, as they are less likely to lead to tooth decay and are easier for the body to absorb.

Anaemia
Anaemia, caused by a lack of **iron** in the diet, is one of the most common nutritional problems worldwide.
- we need iron it forms haemoglobin, which gives blood its blood its red colour and carries oxygen around the body to the cells.
- Teenage girls and women must make sure they have enough iron in their diet to cope with menstruation.
- Pregnant women need a good supply of iron to support the baby's blood supply.
- Symptoms of anaemia are tiredness and lack of energy.
- Good sources of iron are found in liver and kidneys, re meat, oily fish and leafy green vegetables.
- In the UK, some food are **fortified** with iron, e.g. breakfast cereals and flour.
- Vegetarians need to ensure that they get an adequate supply of iron from bread, pulses and vegetables.

Test yourself

State which two sections of the Eatwell Guide are the largest. [2 marks]

_____

_____

Explain why the Eatwell Guide is useful for consumer. [4 marks]

_____

_____

_____

_____

Name two foods which are found in the oils and spreads section of the Eatwell Guide. [2 marks]

_____

_____

Give two examples of not free sugars. [2 marks]

_____

_____

Give two examples of free sugars. [2 marks]

_____

_____

Give four of the eight tips for healthy eating. [4 marks]

_____

_____

_____

_____

Explain why we are encouraged to eat at least five portions of fruit and vegetables. [4 marks]

_____

_____

_____

_____

State two causes of heart disease. [2 marks]

_____

_____

State three changes that a person with heart disease should make to their diet. [3 marks]

_____

_____

_____

Explain the difference between type 1 and type 2 diabetes. [2 marks]

_____

_____

_____

_____

Name two symptoms of diverticulitis. [2 marks]

_____

_____

State three factors which could increase your risk of osteomalacia. [3 marks]

_____

_____

_____

Explain how tooth decay is caused. [2 marks]

_____

_____

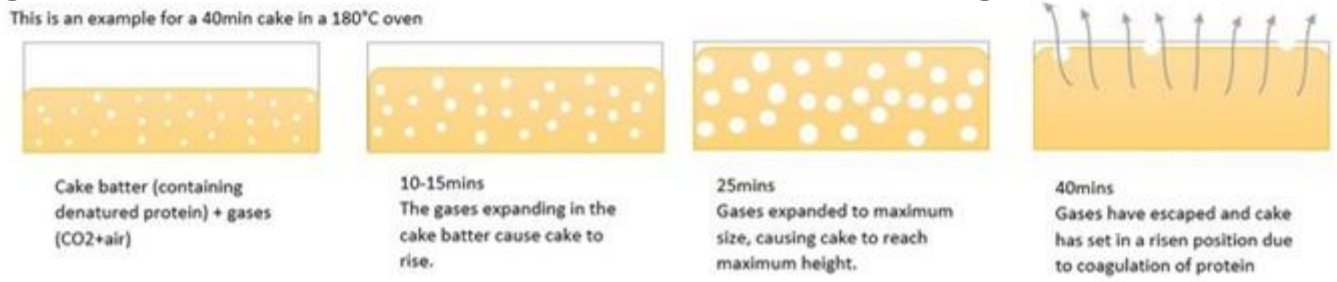
Name two groups of people most at risk of suffering from anaemia. [2 marks]

_____

_____

How do raising agents work?

1. The action of moisture, heat or acidity (or all 3) triggers a reaction with the specific raising agent to produce gas.
2. Gas expands when heated.
3. Gas becomes trapped as it bubbles through the mixture.
4. When heated the bubbles form a firm structure containing tiny holes left by the expanded gas.
5. This gives products like cake a sponge like texture.



Subject: 3D AD
Topic: Grayson Perry Breakfast bowl and spoon

Year: 10
Term: 2

BIG QUESTIONS

Describe the process of development in artists work.

Explain why primary sources are the richest form of research.

How can Secondary sources enrich the development of 3D ideas?

Show different ways of recording your observations

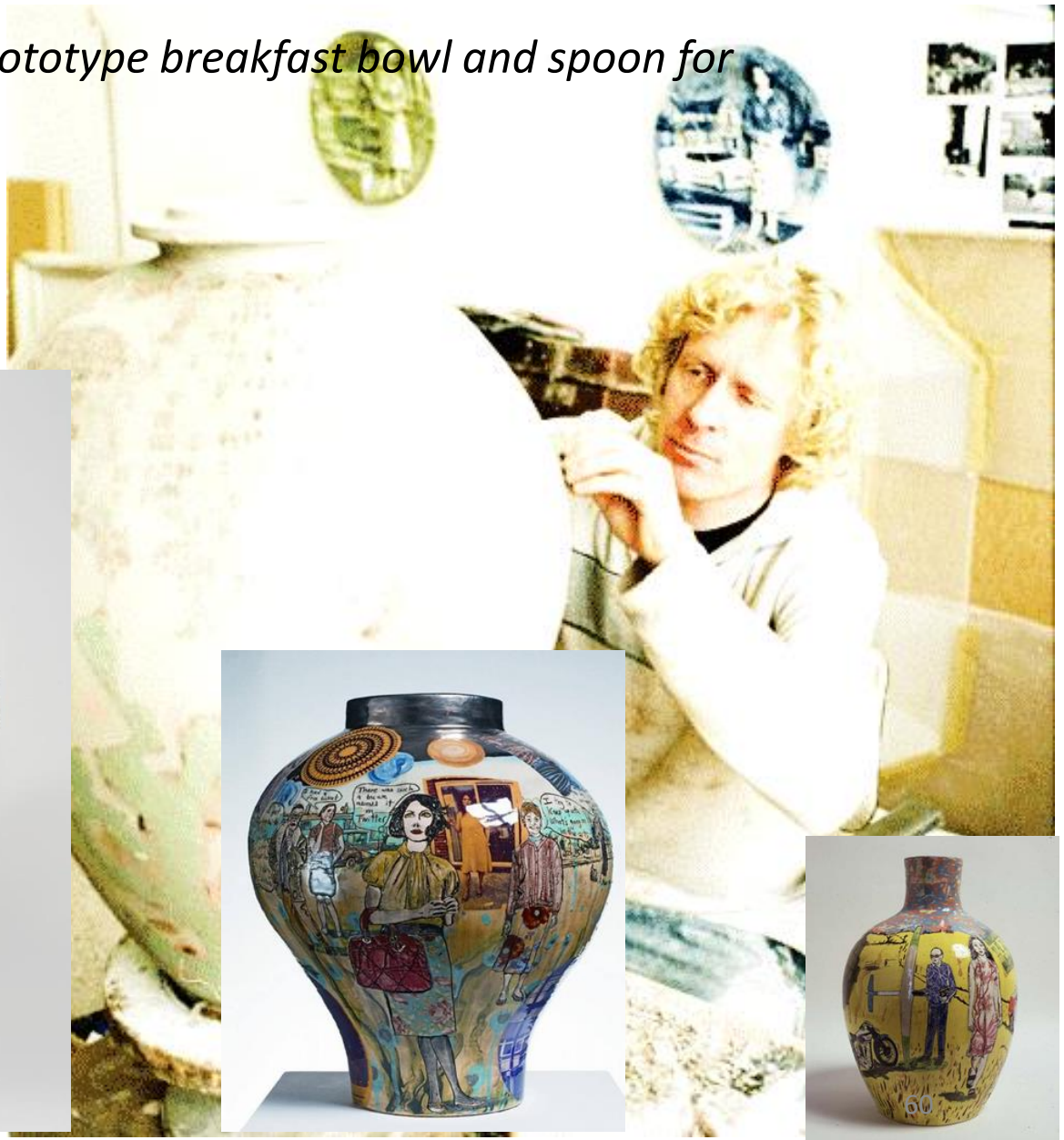
Why should you plan a wide range of ideas before selecting a final one?

How can the refining process help you to fully realise intentions?

Why is it important to evaluate?

What is a prototype?

Client Brief- *Design and make a prototype breakfast bowl and spoon for the artist themed café*



Key Skills

RECORD	DEVELOP
I will learn to record... • **images and information appropriate for the bowl theme** • **using 2D & 3D media** • **using drawing and photography** • **building on my knowledge and understanding of how artists/designers use materials and imagery to create meaningful work** • **ideas for a bowl inspired by Grayson Perry**	**I will learn how to develop...** • **my observation skills using a range of media, techniques and processes.** • **my knowledge and understanding of 3D styles and techniques** • **my drawing and planning skills** • **ideas in response to a given theme, linking to artists work.** • **my higher order thinking skills**
REFINE I will learn how to... • select and experiment with a range of 3D media and techniques • select ideas to adapt and improve e.g. adjustments to size, colour and composition. • develop a piece of work from one media into another	EVALUATE I will learn how to... • analyse and reflect on the development of my own work, through annotation making connections to artists and suggesting ways I could I improve. • evaluate artists using analytical writing skills and forming opinions
PRESENT OUTCOUMES I will learn how to... Produce one or more finished outcomes in 3D	

Homework Links

Tasks linked to the theme 'Bowls' (2 hours per cycle)

Key Vocabulary

Shape/Clay/Form/Coil/ Slab/Slip/Join/Texture/ Relief/Papier-mâché/Primary Source/Secondary Source/Composition/ Personality/Prototype

I will be expected to recall keywords learned in previous projects and use them in the appropriate context.

EVALUATING ARTISTS'/DESIGNERS' WORK

1. Describe the piece of art/design you are looking at
2. What is the name of the artist/designer or type of art/design?
3. What part of the world does the art/design come from?
4. Research and list 5 or more things about the artist/designer?
5. Describe the materials used to make the art/design
6. How has the artist/designer made the work?
7. What is being communicated through the art/design?
8. Which of these words best describes the mood of the picture/artefact? EMOTIONAL/POWERFUL/HUMEROUS/USEFUL/SERIOUS/BUSY/SLOW/PEACEFUL/WARM/COLD/HAPPY/SAD/CALM/INTENSE/ SCARY can you think of any other words?
9. What do you like or dislike about the picture/artefact? Explain your reasons…

ANNOTATING YOUR OWN WORK

- In this piece of work I was trying to…
- The artist/designer that has influenced my work is…
- In my work I used the technique of...
- The source I have used is…
- The media I have used is...
- I like this piece because...
- My idea links to the brief because…
- I can improve this piece by…
- Next, I'm going to……

Annotate means to explain your own creations
Artist evaluation is when you write about the artist
Project evaluation is written about the whole project at the end

END OF PROJECT EVALUATION

1. Describe each stage of the project from start to finish
2. What media/materials did you use to produce your work? E.g. Paint/Pencil/Clay etc.
3. Describe how you used different techniques in your project? E.g. painting/drawing/modelling with clay etc.
4. Which artist/designer/culture have you looked at?
5. Write down two or more similarities between your work and the artist/designers' work.
6. Which piece of your work best shows the Artist/Designers' style or the influence of another culture and why?
7. Describe some of your own ideas…
8. Have you used a primary or a secondary source?
9. Have you included the secondary source in your work? Where did you find it?
10. Imagine if your final piece was displayed in a public place.... Describe the effect looking at your work might have on people and society. E.g. relax them, make them feel sad, curious, happy, angry, thoughtful, surprised, confused, nostalgic etc. explain why e.g. because of your use of colour, images, content, arrangement? etc.
11. Explain any other influences on your work e.g. personalities *(including your own)*, places, memories, objects, politics, events, activities, religion, fact, fiction etc.
12. Describe how your work links to the project brief?
13. Explain what you have done well…
14. Explain how you could improve…
15. What would you do differently, if you were to repeat any part of this project

PSHE
WPD

Year: 10
Term: 2

Personal Social Health Education

WIDER PERSONAL DEVELOPMENT

Big Questions **PSHE**

Can I recognise my own values and see how these influence my decisions, goals and behaviours?

Why is it important to stay safe?

What makes 'good sex' and is it best to wait for someone you care about?

What do we need to know about unplanned pregnancies and miscarriages?

What is 'Revenge Porn? Social media, image sharing and the law.

What is consent?

What makes a good relationship?

WPD

What is sentencing and how does it work?

What influences sentences?

Who is involved in the legal process?

House news/competitions:

House Christmas craft competition
Create at least one craft item that is in the colour of your house. This could be any craft that is not perishable such as knitting/crochet, sewing, clay, origami, jewellery, items made from wood/plastic, Christmas cards, soap, candles and so on. The item must be fit for sale as all items will be sold to raise money for charity. The house that produces the most items for sale will win and receive house points. The best craft item produced will win that student additional house points and a prize. Deadline for submissions (to Mirs Green please) is Monday 5th December. The craft sale will be in the last week of term. More details to follow by student email this term!

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Relationships & RSE
Healthy Relationships

- Personal values and behaviours
- Staying safe
- Expectations and realities
- Myths
- Pleasure
- Challenges in a relationship
- Pregnancy options
- Revenge Porn
- Contraception choices

Wider Personal Development
Rule of Law

- Protected Characteristics
- Sentencing, influences and who is involved in the legal process
- Deciding on final sentences
- Types of sentences
- Criminal Court in the UK
- Magistrates Court UK
- Crown Court UK
- What is a jury?
- You be the judge: Possession of Drugs with intent to supply

Careers Employability Skills Builder:
Team work
Industry Focus – Public Sector

- Contributing to group decision making
- Encouraging others to engage and communicate
- Improving the team including avoiding conflict
- Resolving conflict in a team
- Public services

Careers:

Employability Focus during form time – Teamwork

Careers Event – Industry Specific Careers Event

CONSENT

Define:
Sexual Consent
The giving of permission by a person to engage in any form of sexual activity including penetrative and oral sex.

Define:
Affirmative Consent
Consent is only given when a person agrees verbally to engage in sexual activities including penetrative and oral sex.

Define:
Coercion
The action or practice of persuading someone to do something they wouldn't normally do or something they don't want to do by using force or threats.

Define:
A person who is a minor
A person who is under the age of 18 and legally considered a child.

Consent is:

1	**Freely given.** It's not okay to pressure, trick, or threaten someone into saying yes.
2	**Reversible.** It's okay to say yes and then change your mind — at any time!
3	**Informed.** You can only consent to something if you have all the facts.
4	**Enthusiastic.** You should do stuff you WANT to do, not things people expect you to do. If someone doesn't seem enthusiastic stop and check in.
5	**Specific.** Saying yes to one thing (like going to the bedroom to make out) doesn't mean you're saying yes to other things (like having sex).

When can consent not be given?

1	**When a person is drunk or high**, to the point that they are unable to speak or look after themselves.
2	**Asleep or Passed Out** – if they are not conscious they are unable to agree to any sexual activity. If someone passes out whilst engaging in sexual activity – STOP!
3	**They are Underage –** Legally a person under the age of 16 cannot give consent to any sexual activity.
4	**Mental disability or learning difficulties** which mean they are unable to fully understand what they are consenting to.

What does the Law say?

Act	Definition	Consequence
Rape	A rape is when a person uses their penis without consent to penetrate the vagina, mouth, or anus of another person.	**Rape** is punished by a maximum of fifteen years' in prison. **Aggravated Rape** is punished by a maximum of twenty years' in prison Both offences would result in placement on the sex offenders register.
Sexual Assault	Sexual assault is when a person is coerced or physically forced to engage against their will, or when a person, touches another person sexually without their consent. Touching can be done with any part of the body or with an object.	Up to 10 years in prison and placement on the sex offenders register
Sex Between Minors	When both parties involved the sexual activity are under 16 but have consented to the activity.	Technically the law is that **if two** 13 – 15 year old's engage in consensual sexual activity and each knows that the other is under 16, they will both be guilty of an offence carrying a maximum penalty of five years' imprisonment, however it is unlikely the CPS will prosecute. If one party is under 13 and the other under 18 it is statutory Rape which is punishable by Life imprisonment, but the average is 6-7 years when prosecuted.

Who Can you turn to for help and Support

Parents or trusted family members	The Police / Community support officers
School Safe Guarding Team or any member of staff.	
NSPCC	Helpline: 0808 800 5000 (24 hours, every day) nspcc.org.uk
Childline	Helpline: 0800 1111(24 hours, every day) https://www.childline.org.uk
Rape Crisis	Helpline: 0808 802 9999 (12-2:30 and 7-9:30) rapecrisis.org.uk
Survivors UK – Male Rape and Sexual Abuse Support	survivorsuk.org