THE ABBEY SCHOOL
A BUSINESS & ENTERPRISE ACADEMY

Knowledge Organiser

Year 10

Term 1

CONTENTS

English (Term 1)
A Christmas Carol by Charles Dickens

A Christmas Carol was written by Charles Dickens in 1843

BIG QUESTIONS

1. **What was life like in London in the 19th century?**
2. **How is Scrooge introduced at the start of the novella?**
3. **How is Fred's character different to Scrooge?**
4. **How does Scrooge present some of the problems with the upper class?**
5. **Why does Marley's ghost appear to Scrooge?**
6. **How is the Ghost of Christmas Past presented?**
7. **What is significant about the memories the Ghost of Christmas Past shows Scrooge?**
8. **Why does Dickens include Belle?**
9. **Which of the events Scrooge is shown makes you feel the most sympathy for him?**
10. **How is the Ghost of Christmas Present introduced to us?**
11. **What is significant about the scenes the Ghost of Christmas Present passes?**
12. **How are the Cratchits presented?**

Context

Charles Dickens – Charles Dickens was born in 1812 and spent the first years of his life in Kent, England. At 9, he moved to London. At 12, his father was sent to debtors' prison for racking up huge debts, and Dickens was given a painful job labelling bottles near the prison. He found this period in his life hellish. Many of his works are about social hardships and inequalities.

The Victorian Era – The Victorian era describes the period in which Queen Victoria sat on the English throne – between 1837 and 1901 (most of Dickens' life). Whilst this was a time of industrial revolution, it was also an extremely harsh time to live, and the differences between the lives of the richest and the poorest were exacerbated. The Victorian era was a period of great change. In this time, the population of England doubled – from 16.8 million 1851 to over 30 million in 1901.

Workhouses – A workhouse was a place where a person went if they could not afford to financially support themselves and their families. Men, women and children (mostly orphans) lived and worked in the workhouses, which were very crowded – making living conditions unhealthy and unpleasant. People slept in dormitories, where disease was easily spread. In A Christmas Carol, Scrooge voices his support for workhouses.

Plot

Stave 1 - On a foggy Christmas Eve, Scrooge is working in his counting house with his clerk, Bob Cratchit. Scrooge's cheerful nephew, Fred, enters, inviting Scrooge to Christmas party, but he declines. After he leaves, two gentlemen enter, asking if Scrooge is willing to make a charitable donation to the poor. Scrooge again declines. He begrudgingly gives Bob Cratchit the day off. Scrooge follows his usual routine on the way home. At home, he sees the ghost of his old business partner (Jacob Marley) in the knocker. Marley is in chains as punishment for his selfishness and greed when living. He says that he seeks to save Scrooge from the same fate, and so Scrooge will be visited by 3 ghosts.

Stave 2 - Scrooge is confused to wake at midnight, as it was after 2am when he went to sleep. At one o 'clock, Scrooge is visited by a strange child-like figure – The Ghost of Christmas Past. The ghost takes Scrooge back to where he was raised – Scrooge is touched by memories of his childhood. He sees himself as a schoolboy spending Christmas alone, being visited by his sister, being at a party held by his old boss, Fezziwig, and with his old partner Belle, who is ending their engagement due to his greed. He sees Belle in a more modern time, with her husband, discussing how Scrooge is now 'quite alone in the world.' Scrooge is upset by the visions and begs with the ghost to take him back home.

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.

Key Quotations

Stave 1: 'as solitary as an oyster' 'as hard and sharp as flint' 'squeezing, wrenching, grasping, covetous old sinner' 'tight-fisted hand at the grindstone' 'no warmth could warm, no wintry weather chill' "I have always thought of Christmas as a good time, a kind, forgiving, charitable, pleasant time" "Don't be angry Uncle. Merry Christmas!" 'Are there no prisons? Are there no workhouses?' 'decrease the surplus population' ' Old Marley was as dead as a door-nail' "I wear the chain I forged in life…I made it link by link, yard by yard, and of my own free will I wore it" 'The chain was made up of cash boxes, ledgers, heavy purses' "Mankind was my business! […] The deals of my trade were but a drop in the comprehensive ocean of my business"

Stave 2: 'like a child: yet not so like a child as like an old man' ' from the crown of its head there sprung a bright clear jet of light' " would you so soon put out, with worldly hands, the light I give. Is it not enough that you are one of those whose passions made this cap," "Rise. And walk with me." 'a solitary boy neglected by his friends' 'lonely boy sitting by a feeble fire' "Why, it's old Fezziwig! Bless his heart; it's Fezziwig alive again!" "The happiness he gives, is quite as great as if it cost a fortune" "Our contract is an old one" "Another idol has displaced me" "A golden one" "I have seen your nobler aspirations fall off, until the master passion, Gain engrosses you" "Leave me! Take me back. Haunt me no longer!"

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."

Key Vocabulary (concepts/themes)

Greed and Selfishness – Characters such as Scrooge represent the selfish middle classes, who sought to amass, rather than share their wealth. Jacob Marley demonstrates the burden that such a selfish life will inevitably bring. Through these characters and the events of the novel, Dickens criticises how wealth had become associated with the root of happiness, at the expense of close relationships and goodwill.

Divisions– Divisions are evident throughout the novel, as those with power and money seek simply to exert and recycle their advantages over those without (rather than aiding them). The book shines a light on the plight faced by poor families such as the Cratchits, which demonises the negative attitudes towards the poor held by the rich.

Homework Links

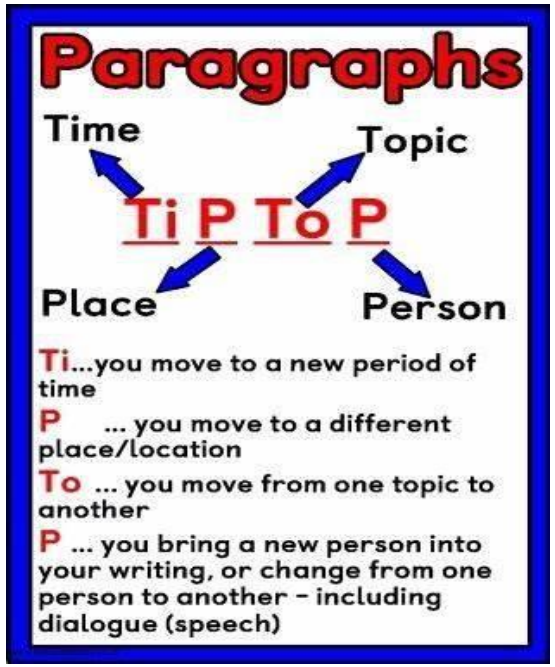
Your homework this term will be creative writing, based loosely around the novella.

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

Literacy

Sentence Structures

1. Independent Clause: A clause that can stand alone as a sentence. E.g. The cat sat on the mat. Contains a subject and a verb.
2. Subordinate Clause: A clause that depends on an independent clause to make sense. E.g. Without turning around, the cat sat on the mat.
3. Simple Sentence: Contains just one clause (subject + verb) E.g. Tom went to the shops.
4. Compound Sentence: Independent Clause + Conjunction (FANBOYS) + Independent Clause (For, And, Nor, But, Yet, So) E.g. Tom went to the shops and he bought some bread.
5. Complex Sentence: Contains one main clause and one or more subordinate clause/s. E.g. Although it looked difficult, they still pushed on with the challenge.
6. Exclamatory: A sentence that shows great emotions. E.g. I am appalled by your behaviour!
7. Imperative: A sentence that gives commands. E.g. Get out!
8. Interrogative: A sentence that asks a question (not rhetorical questions). E.g. How much is that dress in the window?
9. Declarative: A sentence that makes a declaration. E.g. She sells sea-shells.



Sentence Openers

Opener	Definition	Examples
Prepositional Phrase	describes relationship between nouns	under beside
Words Ending in -ly	adverbs that modify nouns	happily angrily
Action Words Ending in -ed -ing	verbs with an -ed or an -ing at the end	played playing
Words Describing 'What Happened'	words that add meaning to sentence	when as if
Very Short Sentences	sentences with only 2-5 words	We jumped! It was scary.
Transitional Words	tell time, sequence, cause/effect, closing	immediately since

Homophones: words that sound the same but have different meanings

1. Their - means it belongs to them.

E.g. I ate their sweets.

2. They're - short for they are.

E.g. They are going to be cross.

3. There - refers to a place.

E. g. I'm going to hide over there.

4. Your – refers to something that belongs to you.

E.g. Your bag.

5. You're – contraction of 'you are.'

E.g. You're going to win.

Punctuation

- **Full stop:** remember to use a full stop at the end of every sentence.
- **Capital Letters** : make sure every name of something has a capital letter. *E.g. California has a capital letter. Also, make sure every new sentence starts with a capital letter.*
- **Apostrophes**: you can use apostrophes to connect certain words together. *E.g. It is = It's OR to express belonging or property = John's phone*
- **Exclamation mark:** used to end a sentence to show a strong feeling of emotion like surprise, anger, or shock. *E.g. I'm so frightened!*
- **Ellipses:** used to show an omission of words, a pause in thought or to create suspense. *E.g. Suddenly, there it was … his worst nightmare.*
- **Colon:** used to precede lists or explanations. *E.g. I went to the store and bought a lot of fruit: peaches, apples, oranges and pears. Sarah wrote a story: The Hungry Fish.*
- **Semi Colon:** used to join two related independent clauses. E.g. We made too many mistakes; we lost the game. Also, **use a semi-colon instead of a comma, usually in a list.** ***E.g. You will need many backpacking items: a sleeping bag; torch ; tent ; and pillow.***
- **Hyphens:** you can use hyphens for a number of reasons.

- To separate sentences with added information e.g. *I enjoy English – as well as Maths.*
- To indicate periods of time. E.g. *2000-2006.*
- To form hyphenated words. *E.g. self-respect.*
- To create emphasis. E.g. *Mum loves seafood – she absolutely adores seafood*.

- **Brackets:** use brackets to indicate added information. The sentence should still make sense when removed. E.g. I did my homework, (it took me twenty minutes) and brought it in early.

The 7 Main Commas Rules

1.) Use a comma before a conjunction, (and, but, nor, yet, or, so), to connect two independent clauses.
E.g. I had an English test last night, so I revised.

2.) Use a comma to set off an opening phrase.
E.g. *As such, I feel there is much I can learn.*

3.) Use a comma when using quotes to separate the quote from the rest of the sentence.
E.g. *Like Bob Johnson said, "It's a great day for hockey".*

4.) Use a comma to separate subordinate adjectives. If an *and* or a *but* can be put between the adjectives, a comma probably belongs there.
E.g. *As such, I feel there is much I can learn.*

5.) Use a comma to separate three or more things in a series.
E.g. *Of Charles Dickens' novels, I have read "A Christmas Carol", "Oliver Twist", and "Great Expectations".*

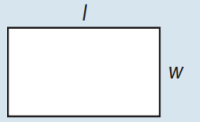
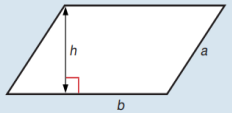
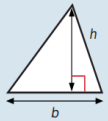
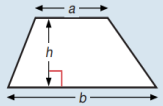
6.) Use a comma with phrases that present a contrast.
E.g. *Learning about Hemmingway can be highly advantageous for students, not only in their secondary school studies, but also in their future careers.*

7.) Use a comma to set off a parenthetical element (added information that can be taken out without changing the meaning of the sentence).
E.g. *Now, many years after their time, we as a country are faced at the starting ground where these men once were.*

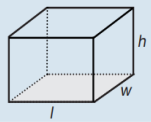
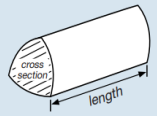
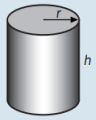
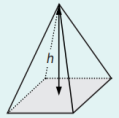
Subject: Mathematics
Topic: Recall Knowledge

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

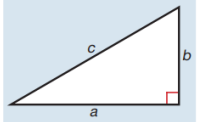
Volumes

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

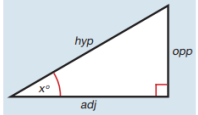
Pythagoras' Theorem

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



Trigonometric ratios (*new to F*)

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



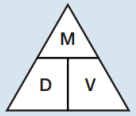
Compound measures

Speed

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

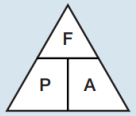
Density

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



Pressure

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

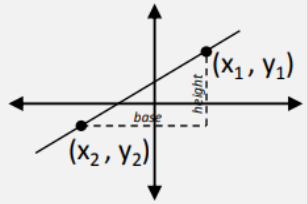


Gradient of a Line

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

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

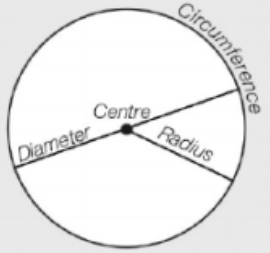
Literacy In Maths	Command Words
Evaluate …	Work out and write your answer
Work out …	Working out is required
Calculate …	Working out is required. A calculator may be needed.
Solve …	Work out the values
Prove …	All working must be shown in steps to link reasons and values.
Expand…	Multiply out of the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

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

Length of an Arc

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

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: Ch7H and 8F- Area and Volume

Year / Group: 10
Term: 1

BIG QUESTIONS

What are the area formulae that you need to know?

How does calculating the surface area and volume of a prism relate to your area knowledge?

How do the properties of circles help us measure objects with curved surfaces? – H only

Sparx Maths

U993, U226, U786, U929, U604, U950, U221, U373, U464, U915, U116, U523

Area and Volume

The **area** of a 2D shape is the space inside -measured in units squared e.g. cm^2

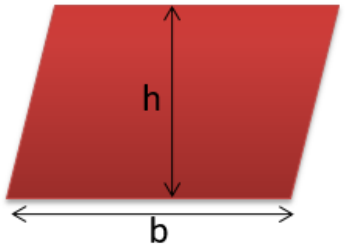
The **perimeter** is the distance around the edge of the shape - measured in units of length cm, m

A **compound shape** is a shape made up of others joined together.

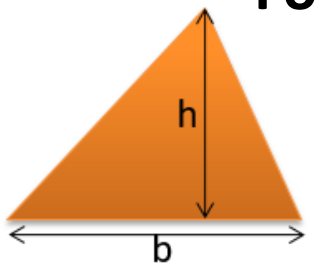
The **volume** of an object is the amount of space that it occupies. It is measured in units cubed e.g. cm^3.

The **surface area** of an object is the sum of all of its faces - measured in units squared e.g. cm^2.

Formulae

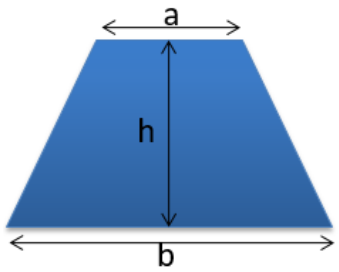


$A = b \times h$



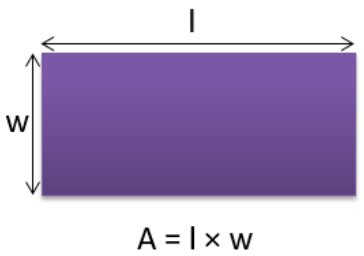
$A = \frac{1}{2}(b \times h)$

$A = \frac{b \times h}{2}$



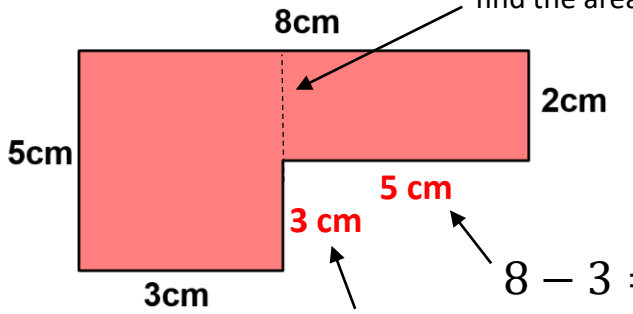
$A = \frac{1}{2}(a + b)h$

$\boldsymbol{A = \frac{(a+b) \times h}{2}}$



$A = l \times w$

Split the shape into shapes that you can find the area of



$8 - 3 = 5cm$

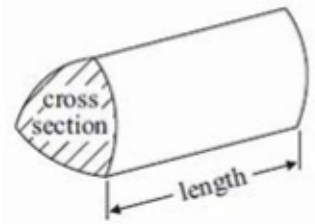
$5 - 2 = 3cm$

$Area = (5 \times 3) + (2 \times 5) \quad = 25cm^2$

$Perimeter = 3 + 5 + 8 + 2 + 5 + 3$
$= 26cm$

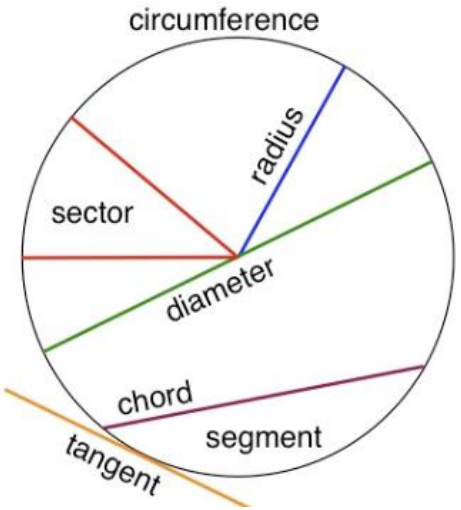
$Prism\ volume = \begin{matrix} area\ of \\ cross\ section \end{matrix} \times length$

A **prism** is a 3D shape which has a continuous cross-section.



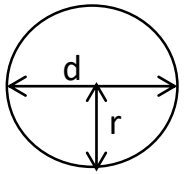
Circles

Parts of a circle



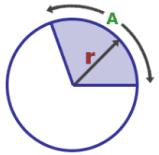
Circumference $= \pi \times d$

Area $= \pi r^2$



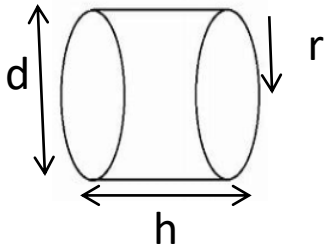
Arc length $= \frac{\theta}{360} \pi d$

Area of a sector $= \frac{\theta}{360} \pi r^2$



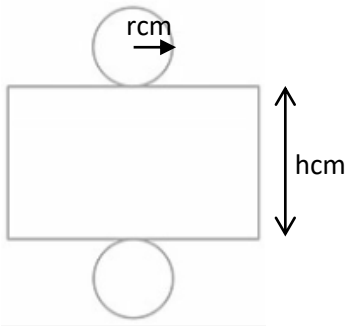
Cylinders – H only

A **cylinder** is a **prism** with the cross section of a circle.



The **volume** of a cylinder is calculated by $\pi r^2 h$ and is the space inside the 3D shape

The **surface area** of a cylinder is calculated by $2\pi r^2 + \pi dh$ and is the total of the areas of all the faces on the shape.

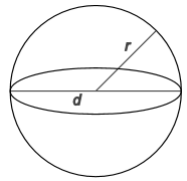


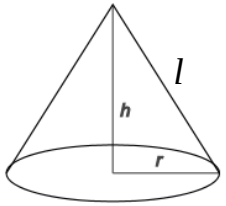
Spheres and Pyramids – H only

In your exam you will be **given** the following formulae to use:

$$Volume\ of\ a\ sphere = \frac{4}{3}\pi r^3$$

$$Surface\ area\ of\ a\ sphere = 4\pi r^2$$



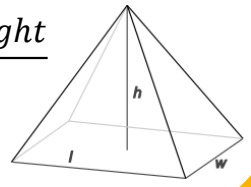


$$Volume\ of\ a\ cone = \frac{\pi r^2 h}{3}$$

$$Surface\ area\ of\ a\ cone = \pi r^2 + \pi r l$$

In your exam you will **need to know** the following formulae:

$$Volume\ of\ a\ pyramid = \frac{base\ area \times height}{3}$$



Bounds

The boundaries of a number derive from **rounding**.

E.g. State the boundaries of 360 when it has been rounded to 2 SF:

$$355 \leq x < 365$$

E.g. State the boundaries of 4.5 when it has been rounded to 2 DP:

$$4.45 \leq x < 4.55$$

These boundaries can also be called the **error interval** of a number.

Homework Links

Sparx Maths

MathsGenie.co.uk/ GCSE

Corbettmaths.com /contents

bbc.co.uk/bitesize/ subjects

Key Vocabulary

Area

Radius

Circumference

Sector

Volume

Surface Area

Perimeter

Compound

Perpendicular

Sector

Biology – B3: Infection and Response Knowledge Organiser

A) Communicable disease

Key term/question	Definition/answer
1. Pathogen	Microorganisms that cause disease
2. The main pathogens (4)	**1.** Bacteria **2.** Viruses **3.** Fungi **4.** Protists
3. Communicable disease	Infectious diseases that can spread between individuals
4. Eukaryotic cell	Cells with DNA contained inside a nucleus
5. Prokaryotic cell	Cells with a single strand of DNA floating free in cytoplasm
6. Eukaryotic pathogenic cells	Fungi and protist
7. Prokaryotic pathogenic cells	Bacteria
8. Why are viruses **not** classed as **living**?	Viruses are **not cells** and **CAN ONLY** replicate once inside a host's cell
9. How do pathogens spread? (3)	**1.** Drinking contaminated water **2**. Inhaling pathogens carried in the air **3**. Touching contaminated surfaces

B) Bacterial diseases

Key term/question	Definition/answer
10. How does bacteria cause disease?	Produces **toxins** which damages cells and tissues
11. Bacteria diseases (2)	**1.** Salmonella (causes food poisoning) **2.** Gonorrhoea (sexually transmitted disease)
12. Symptoms of salmonella (4)	**2.** Fever **2.** Abdominal Cramp **3.** Vomiting **4.** Diarrhoea
13. Transmission of salmonella	Ingesting contaminated food
14. Controlling the spread of salmonella (3)	**1.** Vaccinate poultry **2.** Prepare food in hygienic conditions **3.** Cook food thoroughly
15. Symptoms of gonorrhoea (2)	**1.** Green discharge from penis or vagina **2.** Painful to urinate
16. Transmission of gonorrhoea	Having unprotected sex
17. Controlling the spread of gonorrhoea (2)	**1.** Use a condom during sex **2.** Treat with antibiotics

C) Viral diseases

Key term/question	Definition/answer
18. How do viruses cause disease? (2)	**1.** Replicates its DNA inside the **hosts** cells **2.** cells burst open releasing the new viruses
19. Viral diseases (3)	**1.** Measles **2**. HIV **3**. Tobacco mosaic (plants only)
20. Symptoms of measles (2)	**1.** Fever **2.** Red skin rash
21. Transmission of measles	Inhaling droplets from an infected person's sneeze or cough
22. Controlling the spread of measles	Vaccinating children
23. Symptoms of HIV	Flu-like
24. Harmful effect of HIV on immune system	Attacks and damages white blood cells
25. Transmission of HIV (2)	**1.** By sexual contact **2.** Exchange of body fluids (e.g. sharing needles)
26. Treatment for HIV	Taking **antiretroviral** drugs
27. How does tobacco mosaic disease damage the plant?	Causes **discolouration** to leaves, which limits the plants' ability to **photosynthesis** and so **reduces growth**

D) Fungal diseases

Key term/question	Definition/answer
28. Fungal disease	Rose black spot (plants only)
29. Symptoms of rose black spot	**Purple** or **black spots** found on leaves of plants
30. Transmission of rose black spot	**Fungal Spores** carried by wind or water
31. Controlling the spread of rose black spot (2)	**1.** Removing infected leaves **2.** Spraying with **fungicide**

E) Protist diseases

Key term/question	Definition/answer
32. Protist disease	Malaria
33. Symptoms of malaria	Recurrent fever
34. Transmission of malaria	Mosquitoes pick up the protist when feeding on infected organisms
35. Controlling the spread of malaria (3)	**1.** Prevent mosquitoes breeding **2.** Using insect repellent **3.** Sleeping under a mosquito net
36. Vector	An agent (e.g. mosquito) that transmits a pathogen without getting the disease itself

Biology – B3: Infection and Response Knowledge Organiser

F) Body defences against disease

Key term/question	Definition/answer
37. What are the bodies non-specific defences? (4)	1. The skin acts as a barrier 2. Nose, trachea and bronchi are lined with **mucus to trap pathogens** 3. Trachea and bronchi are lined with **cilia** which wafts mucus up to the throat to be swallowed 4. The stomach produces **hydrochloric acid** which **kills pathogens**
38. How do the white blood cells defend against pathogens? (3)	**1.** Phagocytosis **2.** Producing antibodies **3.** Producing antitoxins
39. Phagocytosis	White blood cells **engulf** and **digest** pathogens
40. How do antibodies recognise pathogens as foreign to the body? (2)	**1.** Pathogens have antigens on their surface **2.** White blood cells recognise the antigens as foreign which triggers antibody production
41. How do antibodies protect us from pathogens?	Antibodies lock onto invading pathogens so that white blood cells can destroy them
42. How do antitoxins protect us from bacteria infections?	Neutralises toxins produced by bacteria

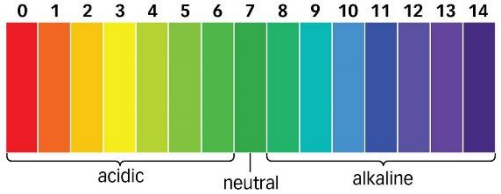
G) Medical defences against disease

Key term/question	Definition/answer
43. What are vaccinations?	Injecting small amounts of **dead** or **inactive** pathogens to stimulate antibody production
44. How do vaccinations protect us against pathogens?	If infected with live pathogen, white blood cells **rapidly produce antibodies** to prevent infection
45. Pros of vaccinations (2)	**1.** Reduces the spread of many infectious diseases **2.** Prevent larges outbreaks of disease known as **epidemics**
46. Cons of vaccinations (2)	**1.** They don't always work **2.** A tiny number of people have an adverse reaction (e.g. seizure)
47. Painkillers	Drugs used to **treat** the **symptoms** of disease but do **not kill** pathogens
48. Antibiotics	Drugs that **ONLY kill bacteria**
49. Antibiotic resistance	Bacteria can mutate causing them to become **resistant** to an antibiotic
50. Origin of the heart drug digitalis	Foxglove plant
51. Origin of the painkiller aspirin	Willow tree
52. Origin of the antibiotic penicillin	*Penicillium* mould

H) Drug tests

Key term/question	Definition/answer
53. Why are drugs tested?	Drugs are tested for **toxicity, efficacy and dose**
54. Toxicity	How harmful the drug is
55. Efficacy	Whether the drug works and produces the desired effect
56. Optimal dose	The most suitable concentration with the fewest side effects
57. Side effects	Symptoms that the drug causes which are not beneficial to the patient
58. Preclinical trials	Drugs are tested on human cells and tissues in the lab before tested on live animals (e.g. mice)
59. Clinical trials	Drug passes the test on animals → tested on healthy human volunteers → then tested on those with the illness
60. Placebos	A substance that looks like the drug being tested but does not do anything
61. Blind trial	The **patient** does **not** know whether they are getting the drug or the placebo
62. Double blind trial	**Both** the **patient** and the **doctor** does not know if the patient is getting the drug or the placebo
63. Peer review	Other scientists check the results of an experiment before they are published
64. Where do scientists publish their results?	In a scientific **journal**

Chemistry 4 (C2): Chemical Changes Knowledge Organiser



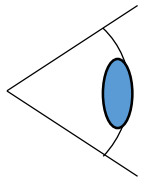
A) ACIDS AND ALKALIS Key term/question	Definition/answer
1. pH scale	From 0 to 14. Tells you how acidic or alkaline a solution is.
2. Acid pH range	Less than 7 (0 to 6)
3. Alkaline pH range	More than 7 (8 to 14)
4. Neutral pH	7
5. Ways of testing the pH of a substance. (2)	1. Use universal indicator 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

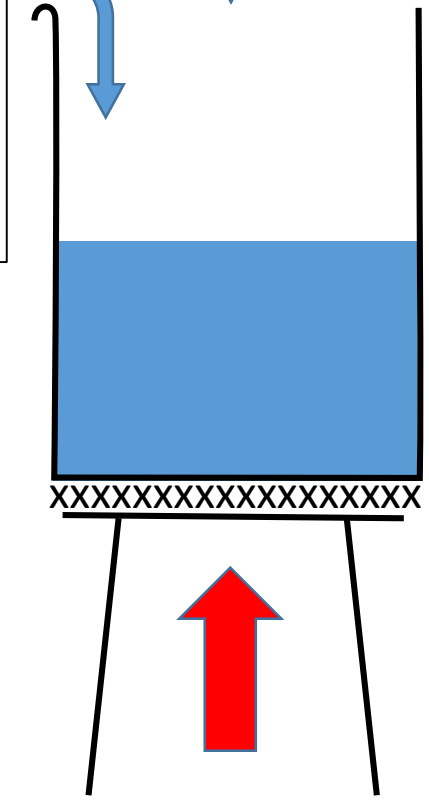
B) REACTIONS OF ACIDS Key term/question	Definition/answer
20. **M**etal + **A**cid →	**S**alt + **H**ydrogen
21. Metal oxide/hydroxide + Acid →	Salt + Water
22. Metal **carbon**ate + acid →	Salt + Water + **Carbon** dioxide
23. *(Metal +)* Hydrochloric acid (HCl)	*Metal* chloride
24. *(Metal +)* Sulfuric 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

Making Soluble Salts Required Practical

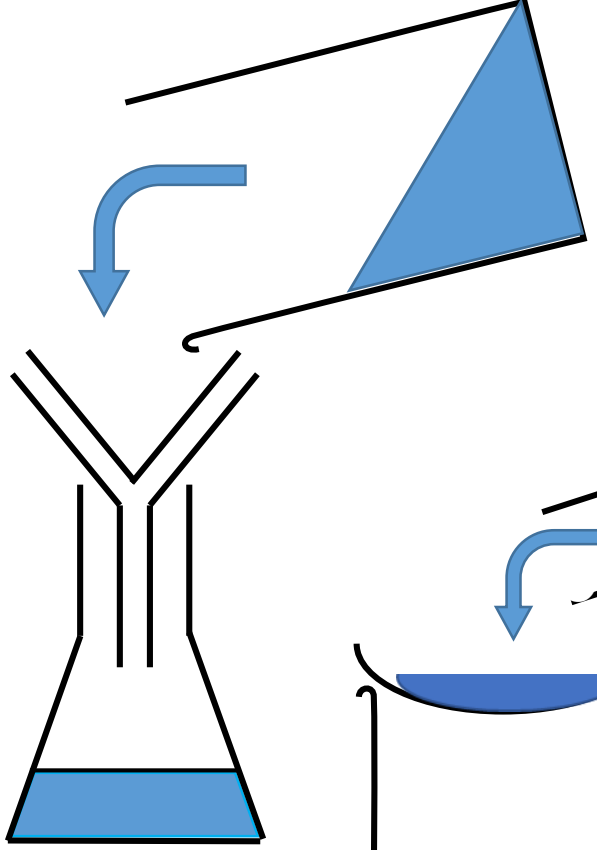
❷ Add 2.0g of metal oxide in excess. This means solid unreacted copper oxide will remain. ❑

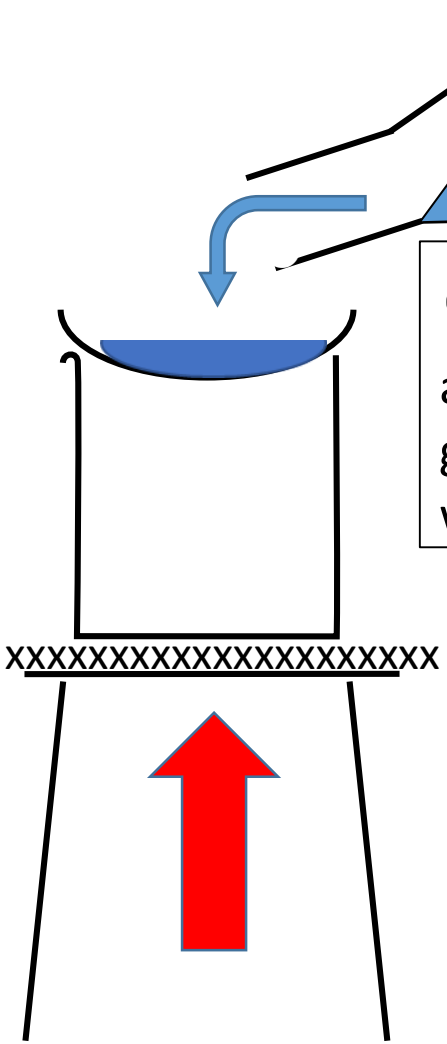
❶ Pour 15cm^3 acid in beaker and gently warm using a Bunsen burner ❑





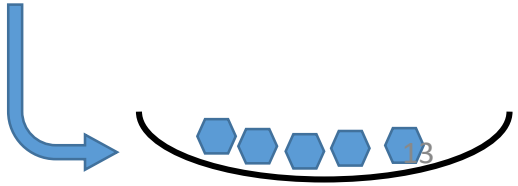
❸ Filter the (excess) unreacted copper oxide to get the salt solution. ❑





❹ Pour the salt solution into an evaporating basin. Heat gently to evaporate some water. DO NOT BOIL DRY ❑

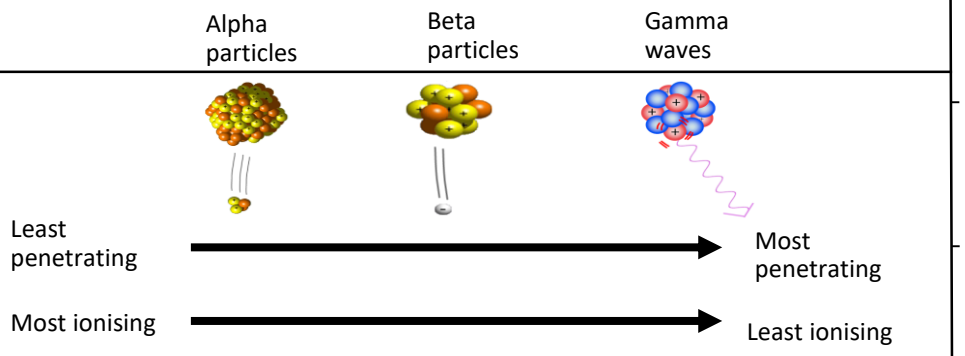
❺ Leave the solution to crystallise. Scrap the crystals onto filter paper and gently pat dry. ❑



P4 - Atomic structure

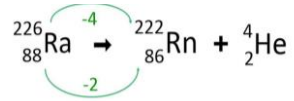
Key term/question	Definition/answer
1. What are the three subatomic particles?	Protons, neutrons and electrons
2. Which subatomic particles are found in the nucleus?	Protons and neutrons
3. Which subatomic particle orbits the nucleus?	Electrons
4. The mass number is …	number of protons and neutrons.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

3. Radioactive Decay

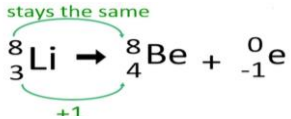


4. Nuclear equations

Alpha decay



Beta decay

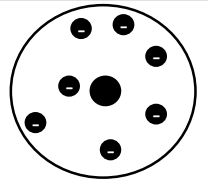
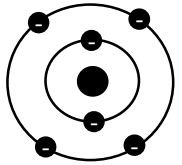
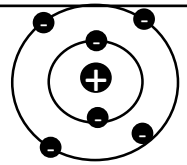
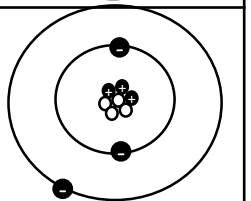


Gamma decay

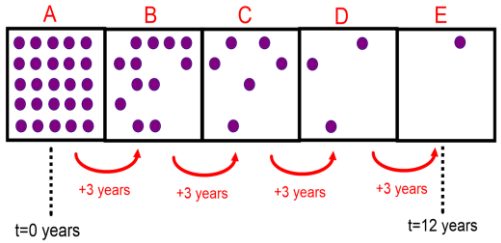
1. Subatomic particle properties

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

2. Timeline of the atom

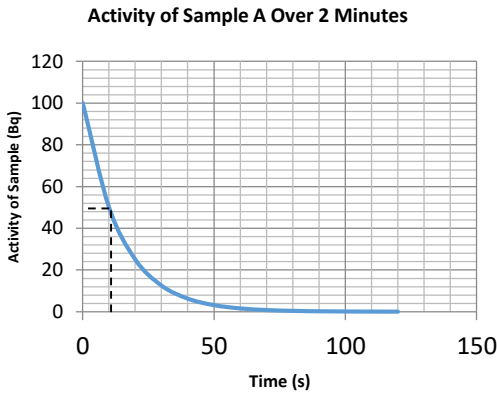
Date	Model of the atom	Diagram
1805	Indivisible spheres	
1897	Plum pudding model	
1909	Nuclear model following Rutherford's experiment	
1913	Bohr model	
1919	Bohr model with protons in the nucleus	
1932	Bohr with neutrons and protons in the nucleus	

5. Half-life



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

Calculating half-life from a graph.



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

Subject: History – Year 10 Term 1
Topic: Anglo-Saxon and Norman England Topic 3 – Norman England

Key vocabulary OF Norman England

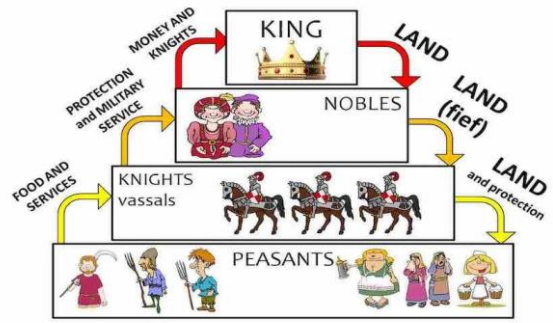
Feudal system: The system of land offered in return for rent and loyalty in Norman England
Hierarchy - a system in which members of an organization or society are ranked according to relative status or authority.
Fief: Land held by a vassal in return for service to a lord. Also called a 'feud' (i.e. feudalism)
Knight service: The duty to provide a mounted knight to the king in exchange for a grant of land. The vassal had to ensure he had the right armour, weapons and equipment to carry out their service.
Homage: To demonstrate allegiance to another person publically
Tenants-in-chief: The large landowners of Norman England who held their land directly from the king (known as Earls in Anglo-Saxon England)
Forfeiture: To lose something as punishment for committing a crime or bad action.
Vassal: Someone who held their land in return for services to their Norman lord.
Regents: Someone appointed to act for a king or queen when they are underage, unable to rule because of illness or out of the country
Demesne: The land that the king or a tenant keep for his own use rather than granting it as a fief to an under-tenant. It is pronounced 'de-mean'.
Forest laws: New laws introduced by William to protect animals and vegetation. Not always a forest but all 'green areas' belonging to the king.
Domesday book: A survey ordered by William to investigate the landholdings of each shire: who held what land, what taxes they owed the king, and whether they could pay anymore.
Aristocracy: The people in society who are seen as being important because of their wealth and power, which they have often inherited from their parents and ancestors.

Exam Style Practise Questions

Give two key features of the Feudal System. (4 marks)

Give two key features of the role of a tenant-in-chief. (4 marks)

Give two key features of the social structure in Norman England. (4 marks)



Feudal Pyramid of Power

A summary of key social changes

Group	Anglo-Saxon England	Norman England
Slaves	About 10% of the population. Owned nothing; treated as property.	Normans thought slavery was wrong and sometimes freed slaves.
Peasants	About 80% of the population. Most peasants owed labour service to their lord, but some were 'free men' who could, if they wanted, take their labour to another lord.	Feudalism reduced the number of free peasants and tied everyone closer to complete dependency on their lord. Demands for more revenue from lords put more pressure on peasants.
Warriors	The thegns in Anglo-Saxon England: around 5–6,000. They owned five hides of land or more, as did the local lords. They owed military service in return for land.	The thegns were destroyed as a class and replaced by the vassals of the tenants-in-chief: often knights owing knight-service, who were often also lords of small manors.
Aristocrats	The great earls were serious challengers to the king in wealth and power, with thousands of thegns loyal to them and huge revenues from their extensive landholdings. They were the king's military leaders and swore loyalty to him.	Normans replaced Anglo-Saxons as earls, earldoms were made smaller and earls became tenants-in-chief like barons, bishops and abbots. All paid homage to the king in return for land and forfeited their lands if they failed the king.

Key Individuals Norman England

William the Conqueror – The victor of the Battle of Hastings and William I of England.

Archbishop Stigand – The Anglo-Saxon Archbishop that retained his position until 1070

Archbishop Lanfranc – A loyal follower of William, a Norman replacement for Stigand

Odo of Bayeux – Williams half brother who acted as his regent when William was in Normandy

William FitzOsbern – William's best friend and loyal follower, also acting as regent in his absence. His son however, would rebel against William in 1075 after failing to inherit his fathers lands and power.

Robert Curthose – William's eldest don who was set to inherit Normandy after William's death. A tempestuous relationship with his father resulting in Robert rebelling against his father in 1087.

William Rufus – William's second son who was set to inherit England following his death. Successfully triumphed against Robert and Odo who attempted to take the kingdom from him.

Key dates in Norman England

1070 – Stigand was replaced by Lanfranc as the Archbishop of Canterbury.

1076 – William fought with his son Robert during a rebellion in Rouen, France.

1080 – William restored Robert as his chosen heir for Normandy

1082 – William imprisons his brother Odo

1086 – Domesday Book is published

1087 – Death of William I

1088 – Odo leads a rebellion against William II (Rufus) with his brother Robert Curthose

Homework:

Week 2 – Revise for the Week 3 Assessment

Week 3 – Exam Style Question:

1. Describe two features the revolt of the Earls in 1075. **(4 marks)**

2. There was more continuity than change in the Norman colonisation of Anglo-Saxon economy and society?

Can you give examples of ways in which life stayed the same and examples of how life changed under the Normans? Did life get better or worse – explain your opinion.

Homework Links

https://www.bbc.co.uk/bitesize/guides/zdvdmp3/revision/1 **(**Feudal System & Domesday Book**)**
https://www.bbc.co.uk/bitesize/guides/zgvjnbk/revision/2 **(**Normanisation of the Church)
https://www.bbc.co.uk/bitesize/guides/zxgwp39/revision/2 (Normanisation overview)
https://www.bbc.co.uk/bitesize/guides/zc8pcwx/revision/5 (The reign of William Rufus & Odo's rebellion)

Subject: History – Year 10 Term 1
Topic: Weimar and Nazi Germany, 1918–39, Topic 1: The Weimar Republic 1918-1929

BIG QUESTIONS

The Weimar Republic 1918-1929

1 What was the Impact of WW1 on Germany?

2 What were the key terms of the Treaty of Versailles?

3 What was the impact of the Treaty of Versailles?

4 How strong was the Weimar constitution?

5 Who were the Spartacists and Wolfgang Kapp and what threat did they pose?

6 What was the Crisis of 1923?

7 How did the Weimar Republic Recover?

8 How did society change during the 1920s?

SUMMARY OF THE PERIOD

The 1920s was a lean period for the Nazis where they struggled to get much support, partly due to the Golden Years following Hyperinflation in 1923 where Weimar Germany was rebuilding. The Nazis failed to get support when they tried to take over in 1923's Munich Putsch and Hitler spent some time in jail. During the Golden Years of Weimar Germany the economy was booming and there was an explosion of creativity in culture and the arts. During this period from 1924-1929 the moderate centrist parties were popular and the general prosperity leading many to forget/forgive the government for the armistice, signing the treaty and the early chaos of the Weimar Republic. This meant there was limited support for extremist parties between 1924 and 1929.

Key events and dates

9th November 1918: Kaiser Wilhelm II abdicates his throne
11th November 1918: The Armistice is signed
5th-12th January 1919: The Spartacist Uprising. The Spartacist League hold an uprising in Berlin. Leaders include Karl Liebknecht and Rosa Luxemburg. The Freikorps suppress the rebellion.
February-June 1919: Weimar National Assembly established. The first Assembly of the Weimar Republic is established and drafts the Constitution. Friedrich Ebert is elected President.
28th June 1919: Germany signs the Treaty of Versailles. Germany signs the Treaty of Versailles - the peace treaty that ends the First World War.
11th August 1919: The Weimar Constitution is signed. The Constitution is signed and introduces much greater democracy.
13th March 1920: The Kapp Putsch. A revolt in Berlin led by Wolfgang Kapp supported by the Freikorps. A strike ends it
11th January 1923: Occupation of the Ruhr. French and Belgian troops occupy the Ruhr industrial region as Germany had stopped paying reparations.
1923: Hyperinflation begins. Prices begin to rise rapidly made worse by the printing of money to pay striking workers in the Ruhr. The Reichsmark becomes worthless.
13th August 1923: Stresemann becomes Chancellor and Foreign Minister. Gustav Stresemann becomes Chancellor and Foreign Minister.
8th November 1923: The Munich Putsch. The Nazis attempt a failed putsch in Munich. Hitler is sent to Landsberg prison for his role in it.
August 1924: The Dawes Plan. The agreement helps Germany with its reparations.
18th July 1925: Mein Kampf published. Mein Kampf, Hitler's book is published with his ideas for Germany.
16th October 1925: The Locarno Pact. Germany agrees to the border set out in the Treaty of Versailles.
14th February 1926: The Bamberg Conference. Hitler meets with leading Nazis to reorganize the party and cement his authority.
8th September 1926: Germany joins the League of Nations. Germany is admitted to the League of Nations. **27th August 1928:** Kellogg-Briand Pact agreed. The Kellogg-Briand Pact binds nations into an agreement not to use war as a method of solving disputes.
31st August 1929: Young Plan agreed. The Young Plan significantly reduces German reparations and gives Germany longer to pay them.
3rd October 1929: Gustav Stresemann dies. Former Chancellor and Foreign Minister who helped the Weimar Republic recover, dies of a stroke.

Big Question Links	Key information	Specific detail
1 What was the Impact of WW1 on Germany? 4 How strong was the Weimar constitution?	The legacy of the First World War. The abdication of the Kaiser, the armistice and revolution, 1918–19. The setting up of the Weimar Republic. The strengths and weaknesses of the new Constitution.	The political turmoil facing Germany at the immediate end of the First World War. How the chaos of the mutinies and revolts of 'the German revolution' led to the Kaiser's abdication, Ebert's signing of the armistice and the setting up of a democratic government. The establishment of democratic government. The Constitution's key strengths and weaknesses, for example the extent of the franchise, the system of checks and balances, the system of proportional representation used and the provision of Article 48.
3 What was the impact of the Treaty of Versailles? 5 Who were the Spartacists and Wolfgang Kapp and what threat did they pose? 6 What was the Crisis of 1923?	Reasons for the early unpopularity of the Republic, including the 'stab in the back' theory and the key terms of the Treaty of Versailles. Challenges to the Republic from Left and Right: Spartacists, Freikorps, the Kapp Putsch. The challenges of 1923: hyperinflation; the reasons for, and effects of, the French occupation of the Ruhr.	The reasons for resentment of the Treaty of Versailles, for example opposition particularly from the right wing who felt the Weimar government had betrayed Germany. The impact of key terms of the Treaty including territorial terms meaning loss of territory, military terms meaning reductions in armed forces, reparations and economic impact, and War Guilt, on the popularity of the Republic. The range of political opposition to the Republic from both left wing and right-wing, including the left-wing Spartacists' communist uprising and the right-wing Kapp Putsch and role of the Freikorps. The impact of reparations payments by 1923, leading both to the French occupation of the Ruhr and to hyperinflation. The consequences of hyperinflation for various groups in society. The reasons for the occupation of the Ruhr and its consequences, for example political reaction in the form of passive resistance and the economic consequence of worsening inflation.
7 How did the Weimar Republic Recover?	Reasons for economic recovery, including the work of Stresemann, the Rentenmark, the Dawes and Young Plans and American loans and investment. The impact on domestic policies of Stresemann's achievements abroad: the Locarno Pact, joining the League of Nations and the Kellogg-Briand Pact.	Stresemann's actions contributing to Germany's economic development during the so-called 'Golden Years', for example introducing the Rentenmark to tackle hyperinflation, and the Dawes Plan to deal with reparations, as well as the availability of US loans. The effects of Stresemann's work on improving Germany's international relations, including the Locarno Pact (1925) agreeing borders and paving the way for Germany to join the League of Nations in 1926, and the Kellogg-Briand Pact. The resulting decrease in political opposition to the Weimar government and reduced support for political extremism.
8 How did society change during the 1920s?	Changes in the standard of living, including wages, housing, unemployment insurance. Changes in the position of women in work, politics and leisure. Cultural changes: developments in architecture, art and the cinema.	The ways in which the standard of living changed, including wage increases in real terms for many workers, policies to tackle housing shortages with many new houses built, legislation to provide benefits for the unemployed. The ways in which the position of German women changed in the 1920s with growing participation in employment, politics – including the right to vote – and freedom in leisure activities. Cultural experimentation and innovation in Weimar Germany. Developments in art and architecture, for example Bauhaus, and developments in cinema, for example expressionism. This might include the work of individuals, for example Paul Klee, Otto Dix and Marlene Dietrich

Key Vocabulary

General Terms

1. **Weimar Republic:** This was the name given to Germany after the Kaiser abdicated in November 1918. At first, the country's survival looked unlikely but under Gustav Stresemann, there was some stability.
2. **Abdication:** When a monarch leaves the throne
3. **Kaiser**: King/Emperor
4. **Armistice**: agreement to end a war
5. **Constitution:** The set of rules laying out how a country is run
6. **Republic:** A country without a king or queen
7. **Reichstag:** German Parliament

Problems for the Weimar Republic 1918-1923

1. **Dolchstoss:** German term for the Stab in the Back Theory
2. **Stab in the Back Theory:** Myth started by Hindenburg that Germany wasn't losing WW1 and the politicians that signed the armistice in 1918 were actually 'stabbing Germany in the back'
3. **Article 48**: a constitutional mechanism allowing a president to create laws in times of crisis
4. **November Criminals:** Critical term given to the politicians who signed the armistice
5. **Treaty of Versailles**: The detailed peace terms forced on Germany in 1919, decided by the Big Three
6. **Coalition:** A government of more than two political parties necessitated by 1 party not having enough seats to form a majority
7. **Diktat**: something which is forced on someone e.g. Treaty of Versailles on Germany
8. **Proportional Representation:** Voting system in the Weimar Republic which lead frequently to unstable coalition governments
9. **Spartacist Revolt:** Left Wing uprising against the government which forced the government to flee to the small town of Weimar – hence Weimar Republic
10. **Kapp Putsch:** Attempted seizure of power by Wolfgang Kapp and supported by the Freikorps in 1920
11. **Hyperinflation:** The rapid devaluation of a currency as happened in Weimar Germany following the French Invasion of the Ruhr in 1923

Recovery under Stresemann 1923-1929

1. **Rentenmark:** German currency introduced in 1923 to solve hyperinflation
2. **Dawes Plan:** A 1924 package of loans from the USA to Germany
3. **Young Plan**: A 1929 agreement lowering Germany's reparations and giving it longer to pay
4. **Locarno Pact:** An agreement on borders signed by Britain, France, Italy and Belgium signed in 1925
5. **Kellogg-Briand Pact:** 65 counties including Germany agreed to resolve conflict peacefully in 1928
6. **Golden Age of Weimar/Golden Twenties:** Period of economic recovery, cultural development and relative political stability in the mid 1920s for which Stresemann and the American loans are often credited

Homework and Exam style questions

Term 1 - homework

Week 2 – Revise for Term 1 Week 3 assessment

Week 5/6 – Complete the 4 mark inference question opposite and be ready to discuss in class

1) Give **two** things that you can infer about the Kapp Putsch of 1920.

Source A *The government's appeal to the workers against Kapp, 1920*

'Workers, comrades! The military *Putsch* is under way. We refuse to bow to pressure, Use every means to prevent the return of bloody reaction. Strike, stop working, strangle this military dictatorship, fight! Not a hand must move, not a single worker must help the military dictatorship! General strike all along the line! Workers, unite!'

What I can infer

……

……

Details in the source that tell me this:

……

……

What I can infer

……

……

Details in the source that tell me this:

……

……

Extension homework: Exam Style Question:

Explain why there were economic problems in the Weimar Republic from 1919-1923. You may use the following in your answer:

- Reparations
- The Ruhr

You **must** also use information of your own. (12 marks)

Links to support your understanding of the topic

https://www.bbc.co.uk/bitesize/guides/z9y64j6/revision/1 (excellent revision resource with multiple pages all covering the key aspects of Weimar Germany between 1918 and 1928)
https://www.youtube.com/watch?v=Br-QxsOJ-Jg (Andrew Marr explains the early part of Hitler's rise to power)
https://www.youtube.com/watch?v=OMrhwr3V7-0 (Good summary of the weaknesses of the Weimar Republic)

Geography
Cold environments

Year: 10
Term: 1

BIG QUESTIONS

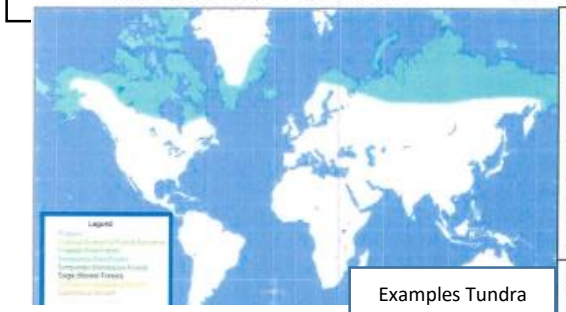
1. How cold are polar and tundra areas?
2. Why are cold environments so fragile?
3. How do plants adapt to cold environments?
4. How do animals and humans live in such extreme cold?
5. How does tourism provide opportunities for Svalbard?
6. Should we be drilling Alaska for oil?
7. What challenges do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

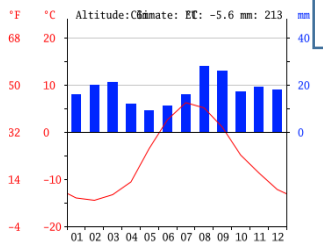
Homework…

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

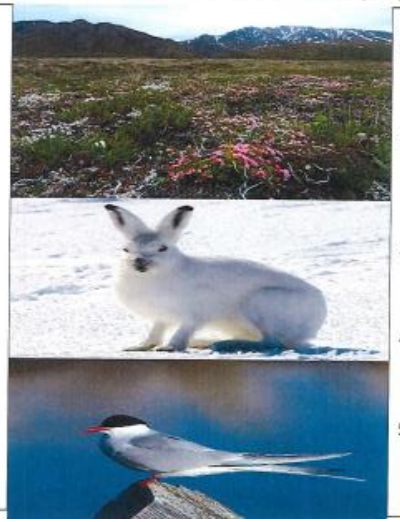
Animals:
There are relatively few different species of animals compared with other ecosystems
Polar bears, penguins and marine mammals like whales, seals and walrus are examples of animals found in polar regions
Lemmings, Arctic hares, wolves and reindeer are all animals that live in tundra areas

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
Structures

Year: 10
Term: 1

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.

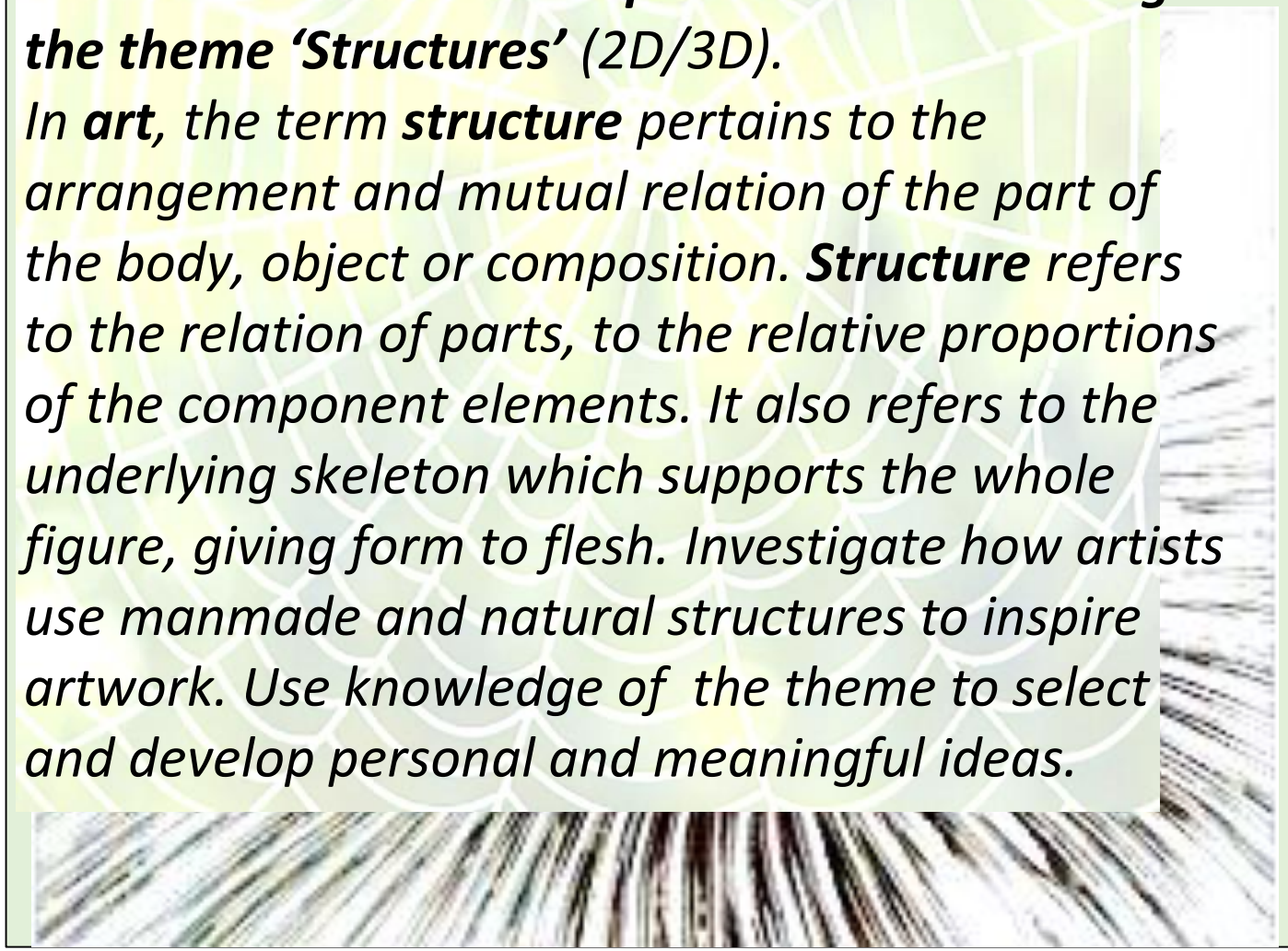
Why should you plan a wide range of ideas before selecting a final one?

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.*

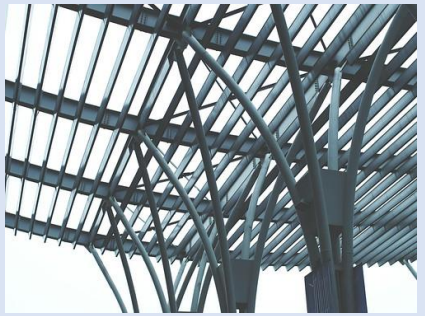


Key Skills

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?

Subject:	Cambridge National Level 1 / 2 Sport Science	Years: 9, 10, 11
Unit:	R180: Reducing the risk of sports injuries and dealing with common medical conditions	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.

Subject:	Cambridge National Level 1 / 2 Sport Science	Years: 9, 10, 11
Unit:	R180: Reducing the risk of sports injuries and dealing with common medical conditions	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 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.

Subject:	Cambridge National Level 1 / 2 Sport Science	Years: 9, 10, 11
Unit:	R181: Applying the principles of training: fitness and how it affects skill performance	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.

Subject:	Cambridge National Level 1 / 2 Sport Science	Years: 9, 10, 11
Unit:	R181: Applying the principles of training: fitness and how it affects skill performance	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?
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12) What are the strengths and areas for improvement for your fitness training programme?

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

Subject:	Cambridge National Level 1 / 2 Sport Science	Years: 9, 10, 11
Unit:	R182: The body's response to physical activity and how technology informs this	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.

Subject:	Cambridge National Level 1 / 2 Sport Science	Years: 9, 10, 11
Unit:	R182: The body's response to physical activity and how technology informs this	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?
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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: 1

Big Questions

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

What is protest?

Protest is when you argue against something. Among the techniques of non-violent protest are:
•peaceful demonstrations
•sit-ins
•picketing
•holding vigils
•fasting and hunger strikes
•strikes
•blockades
•civil disobedience

Christians believe you should protect others but only through peaceful not violent means.

Blessed are the peacemakers, for they shall be called the children of God.
Matthew 5:9

Put your sword back in its place ... for all who draw the sword will die by the sword.
Matthew 26:52

Is war accepted in Christianity?

The **Bible** does not give Christians a clear answer about whether war is permitted or not, but it has a lot to say about **justice**, the **sanctity of life**, the importance of resolving conflict and working for peace.
Most Christians believe that war should be avoided if possible and should only be undertaken if all efforts to resolve an issue by peaceful means have failed. Many Christians see war as the result of a failure to live by God's standards.

"Hatred will not cease by hatred, but by love alone. This is the ancient law.“(Dalai Lama Buddhism)

"In killing I would be betraying and abandoning the very teachings I would be seeking to preserve. So it would be better to let him kill me and remain true to the spirit of the Dharma.“ (Thich Nhat Hanh Buddhism)

Love your enemies and pray for those who persecute you. (Matthew 5:44)

What are the 5 precepts?

1. No killing (including animals)
2. No stealing
3. No lying
4. No sexual misconduct
5. No taking of intoxicants (drugs or alcohol)

Is war accepted in Buddhism?

Non-violence is at the heart of Buddhist thinking and behaviour. The first of the five precepts that all Buddhists should follow is "Avoid killing or harming any living thing."
Buddhism is essentially a peaceful tradition. Nothing in Buddhist scripture gives any support to the use of violence as a way to resolve conflict.

10 Commandments (Christianity)

1. I am the Lord thy God: thou shalt not have strange Gods before me
2. Thou shall not take the name of the Lord thy God in vain
3. Remember to keep holy the Lord's Day
4. Honour thy father and thy mother
5. Thou shalt not kill
6. Thou shalt not commit adultery
7. Thou shalt not steal
8. Thou shalt not bear false witness against thy neighbour
9. Thou shalt not covet thy neighbour's wife
10. Thou shalt not covet thy neighbour's goods

Key words:

Civil war – armed conflict between factions within the same country.

Conflict – disagreement which escalates

Conscientious objector – a person who refuses to do something, fight in war, because of their conscience

Forgiveness –willingness to not blame the person any more for wrongs they have done.

Holy war – rules around fighting a war acceptable to Islam.

Justice – making things fair again.

Just war – rules around fighting a war acceptable to Christianity and Sikhism.

Pacifism – belief that all violence is wrong

Peace – the opposite of war

Protect – voicing disagreement with something

Reconciliation – making up between two groups after a disagreement.

Drama
Unit 3 Interpreting a Text

Year: 10
Term: 1

Big Questions

You will now have your scripted extracts for your upcoming exam performance. You must ensure that you have prepared in the following ways:

Have you learnt your lines?

Have you planned your use of physical performance skills?

Have you planned your use of vocal skills?

Have you shown a clear character and thought process consistently throughout the two extracts?

Have you used rehearsal techniques to develop your role?

Are you attending extra rehearsals and implementing feedback?

Rehearsal Techniques
Once your group has explored the script, you need to focus on developing your characterisation.
There are several rehearsal techniques you can use to explore your character:

Hot Seating
a strategy in which a character or characters, played by the teacher or a student, are interviewed by the rest of the group. ... Before engaging in this strategy, prepare the person or people who will be in the **hot** seat to successfully take on their role.

Given Circumstances
This technique refers to the "who, where, what, when, why, and how" of the characters: Who are you? (Name, age, gender, nationality, physical health, mental health, etc. List as much information down as possible!

Storytelling/questioning
Ask a member of the group to stop your character during a scene and ask how you are feeling at this moment. This can help you consider how you can show this clearly to an audience, using your knowledge of skills

'Say It Again'
This technique focuses on vocal skills. For key lines of dialogue, the actor playing the role must speak a line, the other group members will say 'Say it again' then the actor will say it in a different way, changing the way vocal skills are used. This is a good way of planning how to say specific lines!

Physical Performance Skills	Vocal Performance Skills
Facial Expressions	Pitch
Eye Contact	Pace
Gestures	Pause
Planned Movement	Emphasis
Levels	Projection
Space	Accent
Body Language	Intonation

KEY WORDS
Characterisation
Thought Process
Interaction
Reaction
Motivation
Relationships
Subtext
Personality
Situation
Communication

Production Elements
Consider how the following production elements could enhance your performance:
Lighting – create an atmosphere during key moments
Music – Atmosphere can also be created by music and sound
Costume – This can communicate meaning to an audience clearly
Set – Where does the scene take place? Set can communicate this to an audience
Style – Abstract? Naturalistic? Minimalist?

Subject: Drama **Year: KS4** **Topic: HTS Unit 3** **Term:1**

Big Questions

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

GCSE DRAMA COMPONENT 3
Hard to Swallow was originally performed by the Oaklands Youth Theatre Group at the Edinburgh Festival in 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 – oftentimes 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 makestwo lines and one actor walks down the middle, listening to advice.

Character-based drama game – e.g. park bench Thought tracking – saying whatyour 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 outline of your character, filled in with information

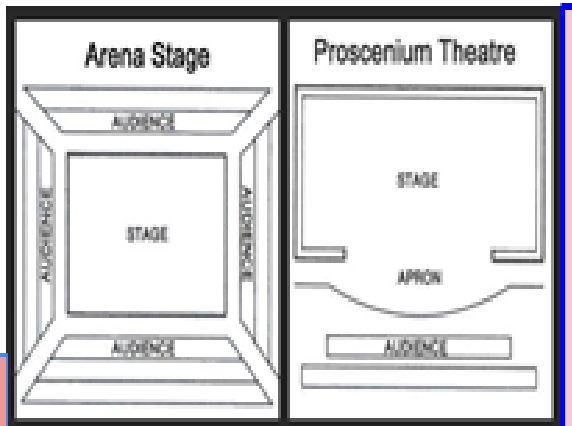
Always read the stage directions for the scene you are writing about. Most of the information and even ideason character or staging willbe in the stage directions

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 mins6 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, uplighting.

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

Dance
A Linha Curva

Year: 10
Term: 1

BIG QUESTIONS

How does the lighting contribute to the audience's understanding of the choreographic intent of A Linha Curva?

How does the costume contribute to the audience's understanding of the choreographic intent of A Linha Curva?

How does the set design contribute to the audience's understanding of the choreographic intent of A Linha Curva?

How does the music contribute to the audience's understanding of the choreographic intent of A Linha Curva?

How does the choreographic approach support our understanding of A Linha Curva?

How does the aural setting support our understanding of A Linha Curva?

How does the choreographic content support our understanding of A Linha Curva?

How does the structure support our understanding of A Linha Curva?

How does the dance style support our understanding of A Linha Curva?

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

Choreographer: Itzik Galili
Performed by: Rambert Dance Company
Performance: Originally performed by Balé da Cidade de São Paulo (Brasil), 2005. Rambert premiere Tuesday 12 May 2009 at Sadler's Wells, London.
Dancers: 28 – 15 male, 13 female
Dance Styles:

- Rhythmic pulses
- Samba - **Samba** is a fun, upbeat, lively dance that progresses counter-clockwise around the floor. It is characterized by its syncopated timing, bounce, rolling hip action and pelvic tilt and a great deal of rhythm is expressed throughout the torso.
- Capoeira - **Capoeira** is an Afro-Brazilian art that combines elements of dance, acrobats and music.
- Contemporary dance - Contemporary dance is a style of expressive dance that combines elements of several dance genres including modern, jazz, lyrical and classical ballet. Contemporary dancers strive to connect the mind and the body through fluid dance movements.

Structure: Narrative with large ensemble sections

Choreographic Approach:

- Task setting – creating a phrase restricted by squares
- Collaboration with dancers
- improvisation

When originally creating A Linha Curva, Itzik Galili worked collaboratively with the dancers and nearly all of the motifs were composed from improvisation. One of the tasks set by Galili was quite simple, he asked the dancers to choreograph a very short solo (2 – 3 counts of eight) of some of their favourite moves which stayed within the boundaries of their allocated square within a chequer-board grid (see lighting) that takes up the floor space of the stage. Galili believes that you can see essences of the dancers' personalities in these sequences. Each of these sequences was named after the dancer who made it and the dancers then learnt each other's sequences to form the basis of this large ensemble work.

Choreographic Intent:

- Having fun
- Men competing and show off in front of the women
- Carnival/ samba parades

The intention behind the choreography is simply to have fun - but there are also a few contradictions, as touched upon in the title. Large ensemble sections of vibrant Brazilian inspired movement are performed in regimental straight lines, creating a sense of samba parade. There are also a number of narrative sections that through the choreography present observations of how Brazilian men communicate with women, for example men in tribes hunting the girls as well as showing off and competing with each other.

Stimuli:

- Brazilian Culture
- Celebration of Brazilian Life
- The title 'The Curved Line'

Lighting:

- Grid 49 coloured squares – red, yellow, green, blue, orange
- Linear patterns: lines and squares
- Restricts dancers' space
- Highlights dancers
- Contrast in showing of section: white wash
- Timing and cues for the lighting is pre-programmed and so in a way dictates the speed and pace of the dancing and music

Staging and Set:

- Props – In one section skateboards are used to propel 5 dancers across the stage
- Performance Environment – End Stage
- Black box set
- Raised platform upstage – 4 live musicians
- End stage
- No set design
- Skateboards – connection to carnival floats
- Equality of musicians and dancers on stage represents the equality of the two art forms at a carnival
- Large space allows for group unison sections and large formations

Costume:

- Designed by Itzik Galili
- Brightly coloured lycra shorts. Each dancer has a different colour
- Black sleeveless vest style top in mesh fabric – one side open. Bright coloured stripe/zip on the top in the same colour as the shorts.
- The men wear the top with the opening at the front however women with it at the back
- Men wear metallic discs around their neck at the start which reflect the light
- Bare feet
- This uniform look adds to the feeling of equality in the ensemble sections
- Colours are carnival inspired
- Minimal clothing; lack of clothing represents hot climate and allows dancers to move freely
- complements lighting, set, music

Aural Setting:

- Performed by Percossa
- Percussion
- Drums
- Body Percussion
- Vocal Chants -
- Samba Rhythms
- Mood created - fast, lively, fun and rhythmic speed
- Contrast is shown through slow section
- Berimbau: Brazilian instrument played in the slow section.

Homework Links

VLE – video links

https://www.rambert.org.uk/explore/news-and-blog/news/linha-curva-ask-dancer/

Key Vocabulary

Costume

Lighting

Set design / Physical Setting

Accompaniment

Choreographic intent

Choreographic approach

Stimulus

Artistic intention

Enhance

contributes

Dance
Dance Technique – Skills for Performance

Year: 10
Term: 1

BIG QUESTIONS

Define all skills listed.

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?

Can you define each of the 5 basic body actions?

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

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

What is the acronym to remember physical skills?

Describe an exercise you could do to improve strength.

Describe an exercise you could do to improve your mental skills and how could this be developed over time?

Why do we need movement memory?

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- Technical Skills

Year: 10
Term: 1

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.

Give examples of formations.

Describe a motif that includes contrast and complementary.

Why might a choreographer use mirroring in their dance work?

When performing contact, how can dancers perform safe practice?

Why might a choreographer use levels in their dance work? What could levels represent?

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 give movement examples of each skill listed.

Subject: Business
Topic: Aims of my market research / Choosing Sampling Methods

Year 10

Term: 1

BIG QUESTIONS

- What are marketing aims?
- Can you give examples of marketing aims?
- Can you explain why marketing aims are important?
- Can you identify primary market research methods?

Used for
- Direction
- Purpose

Two types of aims
- Financial
- Non-financial

Impacts on aims
- Business size
- Business sector

A business **aim** is the overall target or goal of the business, whereas business **objectives** are the steps a business needs to take to meet its overall aims. A business may have several different objectives that will help it to meet its aim.

Key terms

Market research
Marketing aims
Qualitative
Quantitative

SMART
- SPECIFIC
- MEASURABLE
- AGREED
- REALISTIC
- TIME-BOUND

Example

An example of a business **aim** is 'to make £120,000 **profit**'. An example of a **business objective** is 'to make £10,000 profit each month for the next year'.

Growth	Profit	Survival
Challenge	Personal satisfaction	Control

Subject: Business
Topic: Aims of my market research / Choosing Sampling Methods

Year 10

Term: 1

BIG QUESTIONS

- Can you identify secondary market research methods?
- Can you justify your chosen market reach methods?
- Are you able to justify your choice of sampling methods?
- Can you describe different methods of sampling?

Profit
the difference between the amount earned and the amount spent in buying, operating, or producing something

Growth
The action of expanding the business to generate more profits

Survival
Keeping the business operating for a certain amount of time

Aims and objectives are tailored to the particular business. The main reasons that aims and objectives differ between businesses are that businesses operate in different sectors, and business operations vary in size and scale.

When creating a business plan, an entrepreneur has to consider all of the key elements of a business and address any issues.

Financial vs Non-financial
Initially a business will have financial aims so they can ensure operation continues. As this progresses non-financial aims may take precedent for personal reasons

If there is a chance the business might not succeed, the entrepreneur can amend the business objectives plan in order to minimise this **chances of failing the aims**.

A business planning their Aims and objectives allows an **entrepreneur** to minimise the level of **risk** when setting up a business. This is important because there is a high risk of business failure within the first year.

Subject: Business
Topic: Aims of my market research / Choosing research Methods

Year 10

Term: 1

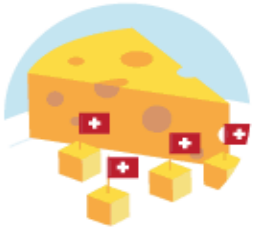
BIG QUESTIONS

- Can you carry out market research that will help you to achieve your marketing aims?
- Are you able to present your secondary research in a table?
- Are you able to present your primary research using charts?
- Are you able to analyse the charts?

Research types
- Primary
- Secondary

Primary types
- Focus groups
- Secondary

Secondary types
- Books, Magazines
- Competitor sites


Hall test


Online survey


Sales figures

Newspapers

Face to face


Focus group

Websites

Government reports

It is important to establish consumers' needs before launching a new product. A business conducts market research to help identify gaps in the market and business opportunities.

Advantages	Disadvantages
Only firm that collects data has access to it	Expensive to collect
Collected for a specific purpose	Time consuming

Subject: Business Year 10

Topic: Aims of my market research / Choosing research Methods

Term: 1

Method	Advantage	Disadvantage
Face to face	Two way communication	Expensive
[redacted]	Mistakes can be cleared instantly	Researchers have to be trained and selected
[redacted]	[redacted]	[redacted]
Focus groups	Topics can be explored in depth	Can be difficult to analyse qualitative results
[redacted]	Qualitative information can be given; opinions, feelings etc.	Expensive
[redacted]	[redacted]	[redacted]
Observations	Quantitative information gathered easily	Samples are random and not representative to all customers
[redacted]	Real life behaviours in action	Only shows actions, it does not show feelings or attitudes

ICT
User Interface Design

Year 10
Term: 1

BIG QUESTIONS

1. What is a user interface?
2. What are the main types of user interfaces?
3. What are the main design principles used in a user interface?
4. Why is it important to include accessibility features in all user interfaces such as apps and websites?
5. What are the four different skill levels and why is it important to understand these when designing a user interface?

Types of interface:	• Text based • Speech/natural language • Graphical User Interface/ Windows, Icons, Menus, Pointers • Sensors • Menu/forms	**Factors:**	• Performance/ response time • Ease of use • User requirements • User experience • Accessibility • Storage space
Range of uses:	• Computers • Handheld devices • Entertainment systems • Domestic appliances • Controlling devices • Embedded systems	**Influences:**	• Operating systems/platforms • Types/size of screen • Types of user input • Hardware resources available • Emerging technologies

Design principles

Colours:	• Use of range of colours • Use of organisational house style • Ensuring that colours do not clash • Use of textures	**Font style/ size:**	• Ensuring text style/style is readable • Use of sans serif fonts for screen reading • Avoiding decorative fonts
Language:	• Using appropriate language for user needs and skill level	**Amount of information:**	• Appropriate amount of information • Making appropriate use of white space
Layout:	• Consistency • Keeping the layout as close as possible to user expectations • Placing important items in prominent positions • Grouping related tasks together • Use of navigational components	**User perception:**	• Colour • Sound • Symbols • Visuals
Retaining user attention:	• Grabbing attention • Screen is uncluttered • Clearly labelled items/features • Use of predetermined/default values for common user inputs • Use of auto-fill • Use of tip text	**Intuitive design:**	• Use graphics to denote what buttons do • Helpful pop-up messages • Easy-to-use help feature • Ensuring consistency • Easy reversal of actions

Audience needs of a user interface

Accessibility needs:	• Visual • Hearing • Speech • Motor • Cognitive
Skill level:	• Expert • Regular • Occasional • Novice
Demographics:	• Age • Beliefs/values • Culture • Past experiences

Wider reading

- https://qualifications.pearson.com/en/home.html
- BTEC Tech Award Digital Information Technology Student Book—Hodder
- Resources available on School Shared Area

Text-Based Interface

Simple text on a plain background. | Commands typed in via keyboard.

Pros	Cons	Uses
Requires little processing power. If you know the commands, quick to perform actions.	Not very intuitive as you need to know the commands.	Technical users for performing tasks like network admin.

Menu-Based Interface

Presents the user with a list of options. | User navigates sub-menus by choosing relevant options.

Pros	Cons	Uses
Easy to use due to simplicity. Easily adaptable to individual needs.	Can be very tedious to perform actions. Limited options – not all tasks are possible.	Self-service kiosks, such as ATMs or self-service tills.

Graphic User Interface

Uses Windows, Icons Menus & Pointers. | User clicks on object with pointer to input commands.

Pros	Cons	Uses
Intuitive navigation – easier for beginners. Simple drag & drop to move data around.	Can be very memory & processor intensive. Often slower to perform simple tasks than other interfaces.	Everyday devices like PCs, tablets & game consoles.

What is a User Interface?

A user interface is the means by which a person is able to interact with a computer system.

Software Features
- Visual - windows, icons, menus & pointers
- Audio - speech recognition & synthesis

Human Features
- Accessibility - high contrast schemes, text/icon resizing & text to speech
- Usability – adaptive interfaces, intuitive layouts & user experience

Homework Links

Links in Teams

Homework 1: Research examples of user interfaces around your area and take a picture of two different kinds. Describe how the user interacts with each one explaining how it has been designed to be easy to use.

Homework 2: Research the different keyboard shortcuts used on a PC and type these up into a able. You must include the name of the shortcut and define its purpose.

Homework 3: Create a fact file on the key design features of a user interface. Use the notes I the KO to help you with this.

Key Vocabulary

User interface
Human device interaction
Text interface
Command line interface
Graphical user interface
Menu user interface
Embedded systems
WIMP
Accessibility
Emerging technology
Skill level
Demographic

MFL – French **Year: 10**

Mod 4 – De la ville à la campagne – *How do I talk about my local area?* **Term: 1**

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 …*
aller à un match de foot	*go to a football match*
aller au cinéma	*go to the cinema*
faire du cheval	*go horse-riding*
faire du ski	*go skiing*
faire du snowboard	*go snowboarding*
faire des promenades	*go for walks*
faire les magasins	*go shopping*
se baigner dans la mer	*swim/bathe in the sea*
se détendre sur la plage	*relax on the beach*
visiter le château	*visit the castle*
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 bureau de poste/une poste	*a post office*
un centre de loisirs	*a leisure centre*
un château	*a castle*
un marché	*a market*
un musée	*a museum*
un parc/jardin public	*a park*
un stade	*a stadium*
un supermarché	*a supermarket*
une bibliothèque	*a library*
une église	*a church*
une gare (SNCF)	*a (railway) station*
une mosquée	*a mosque*
des hôtels	*some hotels*
des restaurants	*some restaurants*
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 …?*
Pour aller au/à la/à l'/aux …?	*How do I get to the …?*
Va/Allez tout droit.	*Go straight on.*
Tourne/Tournez à gauche/droite.	*Turn left/right.*
Prends/Prenez la première/deuxième/troisième rue à gauche/droite.	*Take the first/second/third street on the left/right.*
Traverse/Traversez le pont/la place.	*Cross the bridge/square.*
Descends/Descendez la rue.	*Go down the street.*
C'est près/loin?	*Is it near/far?*
C'est tout près/assez loin.	*It's very near/quite far.*

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

Le meilleur … / *The best …*

le meilleur climat	*the best climate*
la meilleure équipe de football	*the best football team*
le plus beau paysage	*the most beautiful countryside*
les plus belles plages	*the most beautiful beaches*
le plus long fleuve	*the longest river*
la plus longue piste de ski	*the longest ski slope*
la plus haute tour	*the highest tower*
le musée le plus populaire	*the most popular museum*
la région la plus historique	*the most historical region*
les stations de ski les plus populaires	*the most popular ski resorts*
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: 1**

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*
		le quartier	*neighbourhood, district, part of town*
trop de circulation	*too much traffic*		

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?

La paga	Pocket money
Recibo…	*I receive…*
…euros a la semana / al mes	*…euros a week / a month*
dinero de vez en cuando	*money from time to time*
dinero para mi cumpleaños	*money for my birthday*
Gasto mi paga en…	*I spend my pocket money on…*

Compro…	*I buy…*
caramelos	*sweets*
saldo para el móvil	*credit for my mobile phone*
revistas / videojuegos	*magazines / computer games*
ropa y maquillaje	*clothes and make up*

Mis ratos libres	My freetime
Tengo muchos pasatiempos.	*I have lots of hobbies.*
A la hora de comer…	*At lunchtime…*
Cuando tengo tiempo…	*When I have time…*
Después del insti…	*After school…*
Los fines de semana…	*At weekends…*
Los (lunes)…	*On (Mondays)…*
Por la mañana / tarde…	*In the morning / afternoon / evening…*
Por la noche…	*At night…*
cocino	*I cook*
juego al futbolín / al squash	*I play table football / squash*
monto en bici / monopatín	*I ride my bike / skateboard*
toco la guitarra / la trompeta	*I play the guitar / trumpet*
voy / vamos…	*I go / we go…*
al polideportivo / al centro comercial / a la pista de hielo / a la bolera	*to the sports centre / to the shopping centre / to the ice rink / to the bowling alley*

Suelo…	*I tend to / I usually…*
descansar	*rest*
escuchar música / la radio	*listen to music / the radio*
hacer deporte	*do sport*
ir al cine	*go to the cinema*
leer libros / revistas / periódicos	*read books / magazines / newspapers*
salir con amigos	*go out with friends*
usar el ordenador	*use the computer*
ver la tele	*watch TV*
Es divertido / sano	*It's fun / healthy*
Soy…	*I am…*
activo/a / creativo/a	*active / creative*
sociable / adicto/a a…	*sociable / addicted to…*
Me hace reír / relajarme	*It makes me laugh / relax*
Necesito estar…	*I need to be…*
al aire libre	*outdoors*
en contacto con otra gente	*in touch with other people*

El deporte	Sport
Antes era…	*Before I used to be…*
Ahora soy…	*Now I am…*
(bastante / muy) deportista	*(quite / very) sporty*
miembro de un club / un equipo	*a member of a club / a team*
aficionado/a de…	*a fan of…*
un(a) fanático/a de…	*a… fanatic*
Juego al…	*I play…*
Jugué al…	*I played…*
Jugaba al…	*I used to play…*
baloncesto / balonmano	*basketball / handball*
críquet / fútbol	*cricket / football*
hockey / ping-pong	*hockey / table tennis*
rugby / tenis / voleibol	*rugby / tennis / volleyball*
Hago…	*I do…*
Hice…	*I did…*
Hacía…	*I used to do…*

atletismo / ciclismo	*athletics / cycling*
equitación / escalada	*horseriding / climbing*
gimnasia / judo	*gymnastics / judo*
kárate / natación	*karate / swimming*
patinaje sobre hielo	*ice skating*
piragüismo	*canoeing*
Ya no (juego)…	*(I) no longer (play)…*
Entreno	*I train*
Ayer / Esta mañana…	*Yesterday / This morning…*
La temporada pasada…	*Last season…*
jugué un partido	*I played a match*
marqué un gol	*I scored a goal*
gané / ganamos el campeonato	*I / we won the championship*
Mi jugador(a) favorito/a es…	*My favourite player is…*
Lo mejor fue cuando…	*The best thing was when…*
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.

Child Development **Year 10**

Component 1: Children's growth and Development **Term: 1**

BIG QUESTIONS

To understand the different factors that affect growth and development

- ✓ What are the different factors
- ✓ What is the impact of these factors on the 5 areas of development
- ✓ What are the effects of these factors on childhoods?

Learning aim B: Explore factors that affect growth and development

B1 Different factors

Learners will explore the different factors that can affect a child's growth and development from
birth to five years old. Different factors will have an impact on different aspects of growth and development. Learners will consider the impact of factors in the following life stages:

Main life stages:

- 0–18 months
- 18 months–3 years
- 3–5 years.

Physical:

- Prenatal – genetics and how genetic abnormalities occur (e.g. Down's syndrome, muscular
- dystrophy), maternal nutrition/exercise, effects of parental drug or substance abuse,
- premature/low birth weight, mother's mental health
- Health status – chronic or life limiting illness
- Diet and dietary deficiencies
- Amount of exercise.

Environmental:

- Housing – living in areas of deprivation or experiencing housing needs
- Home environment – living with a high level of parental conflict, experiences of abuse
- and neglect
- Effects of exposure to drugs, alcohol and smoking.

Socioeconomic:

- Experiences of discrimination on social, racial or cultural grounds
- Income and poverty – unemployed and workless families, access to good early education
- experiences (e.g. nursery and preschool)
- Poor relationships with significant adults – level of warmth, affection and attention received

Practice Assignment

Learning outcomes

A- Understand the principles of growth and development
B- Understand how factors impact on children's overall development.

The assignment for this component consists of three tasks.

- Task 1, - learners will demonstrate their knowledge and understanding of growth and development of a child of a given age
- Task 2,- learners will demonstrate their knowledge and understanding of development and factors affecting development of a child based on a case study.
- Task 3,- learners will demonstrate their knowledge and understanding of development and factors affecting development of a child based on a case study.

The assignment will take approximately 6 supervised hours to complete

Homework

1.1. Design a leaflet on the impact of one of the factors for a young child

Homework Links

Research from the following websites-

- ✓ www.education.gov.uk
- ✓ https://education.gov.scot/parentzone/learning-at-home/learning-through-play/
- ✓ https://learningthroughplay.com/
- ✓ https://www.earlyyearsmatters.co.uk/eyfs/a-unique-child/play-learning/

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

Listening Walks- being silent whilst walking in order to hear what is going on around you.

Emotion face-showing different emotions on your face. This can be done by a child or adult, or shown through images, or videos

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?

A2 Factors that affect growth and development

RECAP-

Different factors will impact on different aspects of growth and development.

Physical factors, to include:

- genetic inheritance
- experience of illness and disease
- diet and lifestyle choices
- appearance.

Social and cultural factors, to include:

- culture, e.g. community involvement, religion, gender roles and expectations
- educational experiences
- the influence of role models
- the influence of social isolation
- personal relationships with friends and family.

Economic factors, to include:

- income/wealth
- material possessions

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?**

B1: Different types of life event

Types of life events-

a. physical, relationship changes and life circumstances

b. Types of life events through the life stages that may be expected or unexpected-

c. physical events to include accident and injury and ill health

Relationship changes

a. entering into relationships,
b. marriage,
c. divorce,
d. parenthood
e. bereavement

Life circumstances

a. moving house
b. starting school
c. new job
d. exclusion from education
e. Redundancy
f. imprisonment
g. retirement

Subject: 3D AD
Topic: Chairs

Year: 10
Term: 1

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

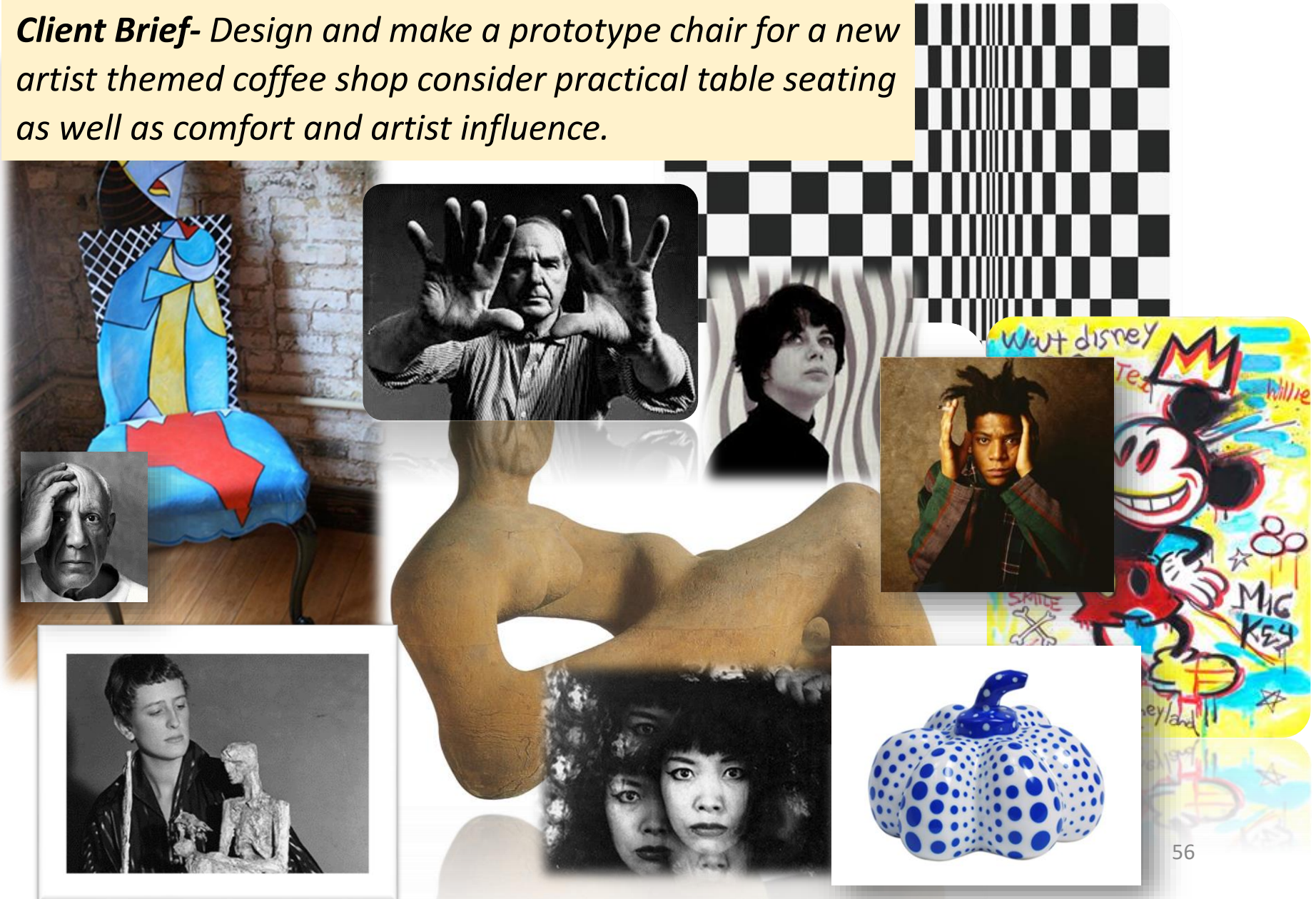
Why should you plan a wide range of ideas before selecting a final one?

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 chair for a new artist themed coffee shop consider practical table seating as well as comfort and artist influence.*



Key Skills

RECORD	DEVELOP
I will learn to record... • **images and information appropriate for the chair theme** • **using 2D & 3D media** • **Using technical drawing, modelling and photography** • **building on my knowledge and understanding of how artists/designers use materials and imagery to create meaningful work** • **ideas for a chair inspired by a chosen artist/designer**	**I will learn how to develop...** • **my observation and 3D skills using a range of media, techniques and processes.** • **my knowledge and understanding of 3D styles and techniques** • **my technical 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 prototypes in 3D	

Homework Links

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

Key Vocabulary

Perspective/Isometric/ Orthographic/Shape/ Form/Balance/Scale/ Colour/Surface/Texture/ Primary source/ Secondary Source/ 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 Year: 10
WPD Term: 1

Big Questions

PSHE

How can I successfully manage my money, including debt and savings?

Why is gambling so addictive and how do online gambling sites hook us in?

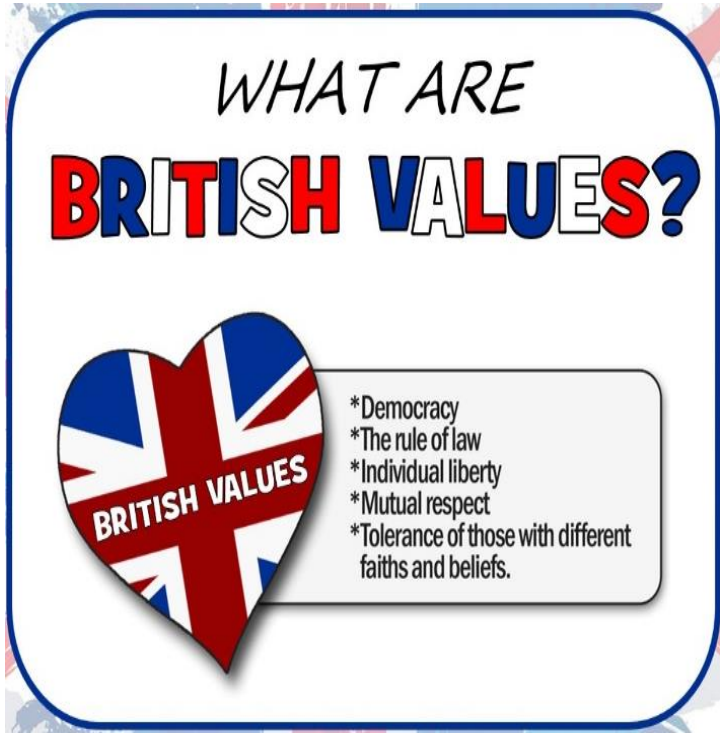
WPD

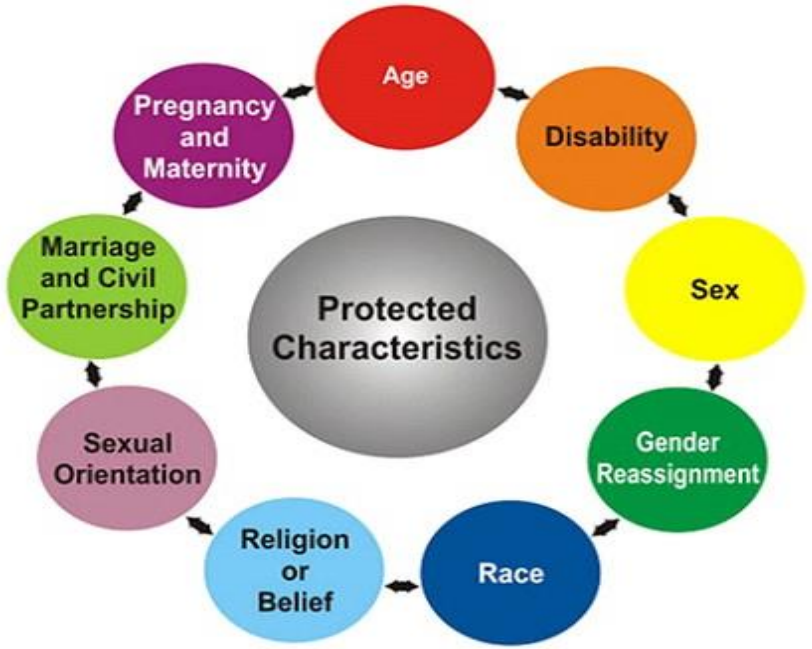
What are British Values?
What are the Protected Characteristics?
What can law abiding citizens do if they disagree with government rules?

Year 10

Term	PSHE Personal, Social and Health Education		WPD Wider Personal Development		Careers
1	Living in the Wider World Personal Finance and Economic Wellbeing Financial decisions • Impact of financial decisions • Debt/Savings • Gambling – hooks/dangers • Financial choices • Managing money		Wider Personal Development Democracy • What are the British Values? • Law abiding citizens • Disagreeing with the government rules • History of standing up for equality, freedom and justice • Protests – definition and examples • Protected Characteristics • Democracy challenges • Protest letter/speeches		Careers Employability Skills Builder: Creativity Industry Focus – Mathematics • Developing personal skills • Self-audit • Considering different perspectives • Innovating effectively when working in a group • Mathematics section • Why creativity is needed in the mathematics sector

House news/competitions:
Write an article for the soon to be launched termly house newsletter.
The article would be to talk about British Values and how the house system relates to this.
Work to be submitted to Mrs Green via your tutor or email direct to kgreen@abbeyschoolfaversham.co.uk
Depending on the quality of submissions there may be more than one published!
All articles published will receive a golden ticket and the best one will get 20 house points, a certificate and a small prize.





Careers:

Employability Focus during form time – Creativity

Careers Event – Apprenticeship Assembly by CXK. A guest speaker will be delivering an assembly so that you are aware of what an apprenticeship is, the range of apprenticeships available and how competitive they are to get.

PSHE GROUND RULES

Understand everyone has a right to a different opinion – listen with tolerance and respect.

Put your hand up if you wish to make a comment – await your turn.

Keep questions and comments general, not personal.

Respect what others say – no put-downs. We make sure everyone feels listened to.

We make sure everyone feels able to join in.

We use the correct vocabulary and check if unsure.

We know who to ask for help or advice – and if not we will ask!