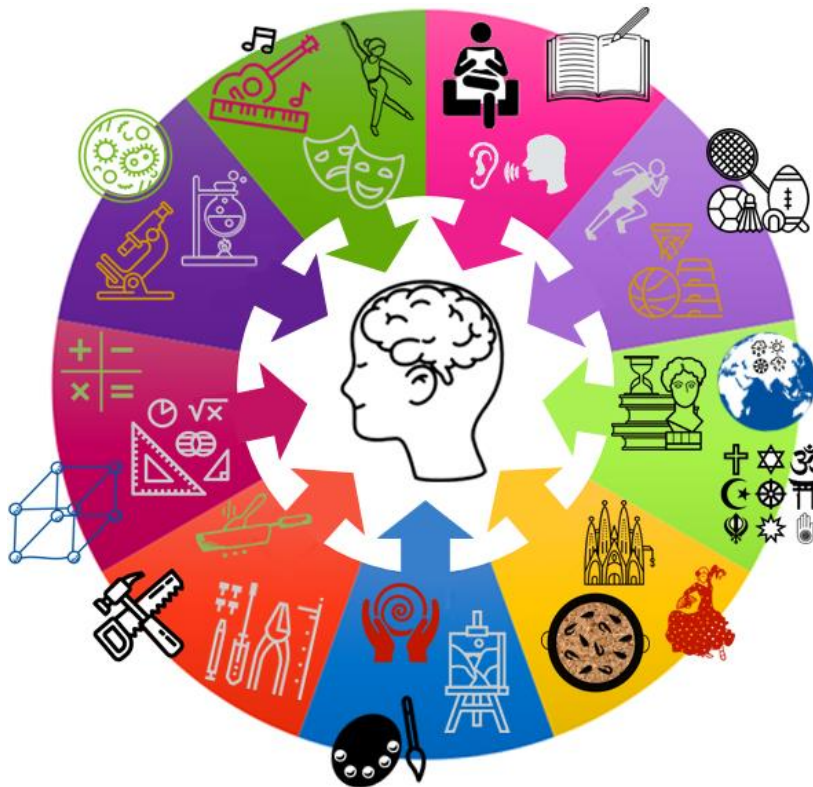


100% book - Year 10 Booster

Aim to memorise 100% of the knowledge on these Knowledge Organisers.



Term 3

Swindon Academy 2023-24

Name:	
Tutor Group:	
Tutor & Room:	

"If you are not willing to learn, no one can help you.

If you are determined to learn, no one can stop you."

How to use your 100% book of Knowledge Organisers and Quizzable Organisers

Knowledge Organisers

Knowledge Organisers contain the essential knowledge that you **MUST** know in order to be successful this year and in all subsequent years.

They will help you learn, revise and retain what you have learnt in lessons in order to move the knowledge from your short-term memory to long-term memory.

Quizzable Knowledge Organisers

These are designed to help you quiz yourself on the essential Knowledge.

Use them to test yourself or get someone else to test you, until you are confident you can recall the information from memory.

Top Tip

Don't write on your Quizzable Knowledge Organisers! Quiz yourself by writing the missing words in your prep book. That way you can quiz yourself again and again!

Expectations for Prep and for using your Knowledge Organisers

1. Complete all prep work set in your subject prep book.
2. Bring your prep book to every lesson and ensure that you have completed all work by the deadline.
3. Take pride in your prep book – keep it neat and tidy.
4. Present work in your prep book to the same standard you are expected to do in class.
5. Ensure that your use of SPAG is accurate.
6. Write in blue or black pen and sketch in pencil.
7. Ensure every piece of work has a title and date.
8. Use a ruler for straight lines.
9. If you are unsure about the prep, speak to your teacher.
10. Review your prep work in green pen using the mark scheme.

How do I complete Knowledge Organiser Prep?

Step 1

Check Epraise and identify what words /definitions/facts you have been asked to learn. Find the Knowledge Organiser you need to use.

The image shows a screenshot of the Epraise website. On the left is a 'Planner' for the week of 20th May to 26th May 2020, with a grid for different subjects. On the right is a 'Knowledge Organiser' for 'Particle Theory'. It contains various sections: 'What is particle theory?', 'What is the law of conservation of mass?', 'What are the different states of matter?', 'What are the differences between the states of matter?', and 'What are the differences between the states of matter?'. There are also diagrams of particle arrangements for solid, liquid, and gas.

Step 2

Write today's date and the title from your Knowledge Organiser in your Prep Book.

The image shows a screenshot of the knowledge organiser from Step 1, but with handwritten text. The date '29th May 2020' and the title 'Particle theory' are written in the top right corner. The rest of the page is blank, showing the original layout of the knowledge organiser.

Step 3

Write out the keywords/definitions/facts from your Knowledge Organiser in FULL.

The image shows handwritten notes on lined paper. The date '29th May 2020' is written at the top. Below it, the title 'Properties of the states of matter' is underlined. The notes define particle theory as 'all matter is made of particles'. It then describes the three states of matter: Solid (regular pattern, particles vibrate in fixed position), Liquid (particles are arranged randomly but are still touching each other, particles can slide past each other and move around), and Gas (particles are far apart and are arranged randomly, particles carry a lot of energy).

Step 4

Read the keywords/definitions/facts out loud to yourself again and again and write the keywords/definitions/facts at least 3 times.

The image shows handwritten notes on lined paper. The definition of solid is written three times: 'Solid = regular pattern particles vibrate in fixed position'.

Step 5

Open your quizzable Knowledge Organiser. Write the missing words from your quizzable Knowledge organiser in your prep book.

The image shows a screenshot of the quizzable knowledge organiser. The questions are: 'What is the law of conservation of mass?' (answered: Self quizzing), 'What are the different states of matter?' (answered: Arrangement/Movement of matter), 'What are the differences between the states of matter?' (answered: Solid = regular pattern, Liquid = pa, Gas =), and 'What are the differences between the states of matter?' (answered: far apart, Gas =).

Step 6

Check your answers using your Knowledge Organiser. Repeat Steps 3 to 5 with any questions you got wrong until you are confident.

The image shows handwritten notes on lined paper. The definition of solid is written: 'Particle theory = all matter is made of particles', 'Solid = regular pattern particles vibrate in fixed position'. The definition of gas is written: 'Liquid = particles are arranged randomly but are still touching each other', 'Particles can slide past each other and move around', 'Gas = Particles are far apart and are arranged randomly. Particles carry a lot of energy'.

Make sure you bring in your completed Prep notes to demonstrate that you have completed your prep.

ENGLISH –A Christmas Carol- Foundation

1. Context

Writer: Charles Dickens (1812-1870)
Dates: First published in 1843
Genre: Allegorical; a ghost story.
Era: Victorian
Set: Victorian London
Structure: The novella is divided into 5 staves (chapters).

Biography of Dickens

- Born in Portsmouth in 1812
- When Dickens was 12, his father was sent to debtors' prison as he was unable to pay his bills.
- His mother and youngest siblings were sent with him, whilst Dickens stayed with a family friend. In order to help his family, Dickens had to leave school and work in a factory sticking labels on bottles.
- Dickens dedicated his life to writing works that revealed the horrors of life in Victorian London for those living in poverty.

Christmas: Dickens grew concerned that, due to capitalism, society had lost sight of traditional values (Christian morals, forgiveness, charity). He felt that Christmas was the perfect time to reconnect with these values and used his novella to do this. He also knew that Christmas would be a popular topic so it would sell well – therefore enabling his message to reach a wider audience.

London and inequality: Dickens contrasts the lives and attitudes of the different classes. He switches between scenes of wealth and poverty to highlight the inequality within Victorian London.

The Poor Law, 1834
 In order to prevent poor people from claiming financial help, the government made people live in workhouses if they did not have enough money. The workhouses were essentially, prisons for the poor. Dickens hated this law and wanted to highlight the situation facing poor people.

Malthusian Theory
 Thomas Malthus argued that if living standards increased, population would increase and eventually the number of people would be too great for the food that could be produced. As a result, Malthus thought it was important not to support the poor or improve their standards of living, but to allow them to die if they couldn't support themselves because charity would only prolong their suffering.

The Supernatural: Victorian society was fascinated by the supernatural, including mediums, ghosts, and spiritualism. However, this belief in the supernatural was also heavily influenced by the church, with the belief that ghosts were souls who were trapped in purgatory (a place of suffering where the souls of sinners were trapped).

2. Key Characters

Ebenezer Scrooge: He is initially established as a villain who dismisses the generosity associated with Christmas and refuses to help others. After being forced to change, he feels remorse for his avarice and becomes a symbol of Christmas spirit. Scrooge demonstrates that anyone can change.

Bob Cratchit: Bob is Scrooge's loyal employee. His family live in poverty but remain cheerful, love one another and demonstrate the Christmas Spirit. Bob shows pity for Scrooge, and provides a contrast to Scrooge's isolation and meanness.

Fred: Scrooge's nephew. He demonstrates Christmas cheer and refuses to be discouraged by his Scrooge's misery. Fred shows that Scrooge has chosen isolation and forgives Scrooge in Stave Five.

Marley's Ghost: Marley's ghost shows the reader Scrooge's potential fate. The chains that drag him down symbolize the guilt caused by his failure to help people in need. Marley's ghost warns Scrooge that he will experience the same fate if he does not change.

The ghosts: The Ghost of Christmas Past is a symbol of childhood, truth and realisation. The Ghost of Christmas Present represents goodwill, plenty and the festival of Christmas. The Ghost of Christmas Yet to Come symbolises what will happen if Scrooge does not change.

Belle: The woman that Scrooge was engaged to when he was a young man. Belle broke off the engagement between her and Scrooge because he was not the man she had fallen in love with- now he loved money too much.

3. Central Themes

Social injustice
 Dickens highlights the unfairness within society through the poor and wealthy characters. Scrooge's refusal to give to charity and his view that the poor should be in workhouses or die shows the selfishness of the higher classes. The children, Ignorance and Want, demonstrate what could happen if poverty continues.

Transformation and redemption
 The character of Scrooge emphasises the idea that everyone is capable of transformation and redemption. From starting as a greedy man, Scrooge is able to reflect upon his actions and to understand that he must live his life helping others to avoid Marley's fate.

Social responsibility
 Dickens felt that every individual had a responsibility for those around them. Marley's Ghost conveys the message of the novella when he cries, 'Mankind was my business' demonstrating that the proper 'business' of life is not about making money but is about having concern for others. Just like Scrooge realises at the end, we must realise that we should help others and be kind to them.

4. Key Vocabulary

Avarice	Extreme greed of possessions or money
Salvation	Saving someone from harm or destruction
Miserly	someone who is greedy and does not like spending money
Callous	Mean or cruel
Antithesis	The exact opposite of something
Epiphany	A moment of sudden understanding
Redemption	The act of being saved or freed from sin or error
Benevolence	Kind and helpful towards others
Philanthropic	Showing concern for others by being charitable
Misanthropic	Someone who has a hatred for other people
Penitence	sincere regret for wrong or evil things that you have done
Remorse	a strong feeling of sadness and regret about something wrong that you have done
Deprivation	When someone is unable to have the things they need or want
Despotism	exercising power in a cruel and controlling way
Capitalism	A political system in which property, business, and industry are owned by private individuals and not by the government

5. Key Terminology, Symbols and Devices

Stave	Chapters in the novella, but we normally associate staves with music, as if the book is a Christmas carol, and each chapter is part of the song. As Christmas carols are repetitive and easy to remember, it links to how Dicken's wishes his message to be remembered.
Circular structure	Circular narratives cycle through the story one event at a time to end back where the story originated.
Allegory	A story that can be interpreted to reveal a hidden meaning, typically a moral or political one.
Foreshadowing	Foreshadowing is a literary device in which a writer gives an advance hint of what is to come later in the story.
Semantic Field	A set of words that are related in meaning. Dickens frequently uses semantic fields of warmth and coldness that are associated with the characters.

ENGLISH –A Christmas Carol- Foundation

1. Context Notes

Writer: (1812-1870) Dates: First published in Genre: Era: Set: Structure:	Biography of Dickens <ul style="list-style-type: none"> Born in Portsmouth in _____ When Dickens was 12... Dickens had to... Dickens dedicated his life to...
---	--

Christmas:	London and inequality:
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The Poor Law, 1834	Malthusian Theory
---------------------------	--------------------------

The Supernatural:

2. Key Character Notes

Ebenezer Scrooge:
Bob Cratchit:
Fred:
Marley's Ghost:
The ghosts:
Belle:

3. Central Themes Notes

Social injustice	
Transformation and redemption	
Social responsibility	

4. Key Vocabulary

Avarice	
Salvation	
Miserly	
Callous	
Antithesis	
Epiphany	
Redemption	
Benevolence	
Philanthropic	
Misanthropic	
Penitence	
Remorse	
Deprivation	
Despotism	
Capitalism	

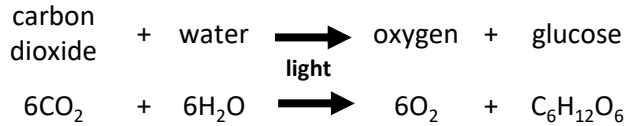
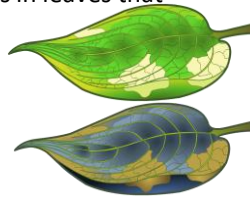
5. Key Terminology, Symbols and Devices

Stave	
Circular structure	
Allegory	
Allegorical figures	
Foreshadowing	
Didactic	
Semantic Field	

B4 Bioenergetics – Photosynthesis

Photosynthesis

Endothermic chemical reaction that takes place in chloroplasts in leaves that produces glucose and oxygen from carbon dioxide and water



What do plants do with the glucose?

- Stored as starch
- Stored as fats and oils
- For making cellulose (for cell walls)
- For respiration
- For making amino acids (along with nitrates from soil)

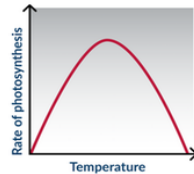
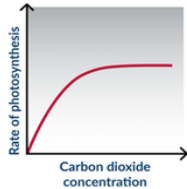
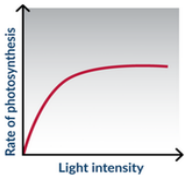
Testing the leaf for starch:

- Boil the leaf for 5 minutes to soften
- Put into heated ethanol to remove chlorophyll (turn off Bunsen burner!)
- Spread leaf on a white tile
- Add iodine
- In the places that contain starch the iodine will turn blue/black
- In a variegated leaf, only the parts containing chlorophyll turn blue black
- This shows chlorophyll is essential for photosynthesis

Factors that affect the rate of photosynthesis

- Light
- Temperature
- CO₂ concentration

Whichever one is in the shortest supply is called the **limiting factor** – as it is the one limiting the rate of photosynthesis

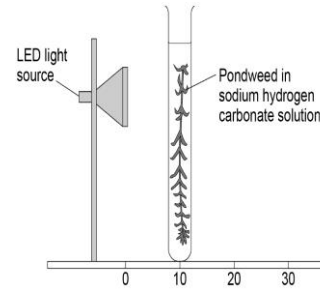


Increased light intensity increases the rate, but only up to a point, when CO₂ or temperature become limiting

Increased CO₂ conc increases the rate, but only up to a point, when light or temperature become limiting

Increased temperature increases the rate, but only up to a point, then the enzymes are denatured & rate drops

RP5 – Effect of light intensity on rate of photosynthesis



Independent variable: distance between lamp and plant (or light intensity)

Dependent variable – number of bubbles per second / rate of photosynthesis

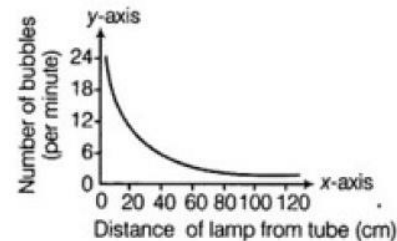
Controls – temperature of solution, piece of pondweed

1. Measure 10cm length of pondweed and cut with scissors.
2. Place into beaker of 250ml NaHCO₃ solution. (this provides CO₂)
3. Place lamp 10cm away from pondweed – turn on lamp and leave for 2 minutes to adjust to light intensity.
4. Count number of bubbles produced in 60 seconds and record in table.
5. Repeat steps 3 and 4 for lamp distances of 20cm – 50cm at 10cm intervals.
6. Keep the temperature of the solution the same (LED light is used to not give off heat)

Inverse Square Law (HT only)

As distance of the lamp doubles the light intensity of the plant quarters $I = \frac{1}{d^2}$

Typical results:



As the **distance** between the lamp and the pondweed **increases**, the **number of bubbles per minute decreases**

B4 Bioenergetics – Photosynthesis

Photosynthesis

1. What are the two reactants for photosynthesis?
2. What are the two products?
3. Where in a cell does this reaction happen?
4. Name two uses of glucose produced in photosynthesis.
5. What else is needed for plants to produce amino acids?
6. What chemical is used to test for starch?
7. Which parts of the leaf contain starch in a variegated leaf?



Factors the affect rate of photosynthesis

1. What are the three main factors that affect the rate of photosynthesis?
2. What is a 'limiting factor'?
3. Why does increasing the temperature above a certain point cause the rate to drop?
4. Describe the effect of increasing the concentration of CO₂ on the rate of photosynthesis

RP5 – Effect of light intensity on rate of photosynthesis

1. What is the independent variable in this investigation?
2. What needs to be kept the same?
3. What is the dependent variable?
4. Why is an LED lamp used rather than a regular lamp?
5. Why is sodium hydrogen carbonate solution used?
6. What is a good range and interval for the distance measurements?
7. Why is the plant left for 2 minutes every time the lamp is moved?
8. Describe the relationship between distance and the number of bubbles per minute

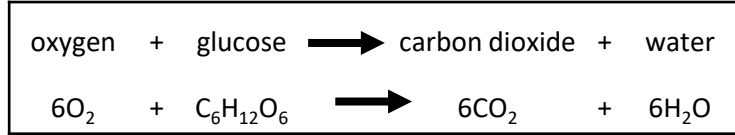
B4 Bioenergetics - Respiration

Respiration

Respiration is a chemical reaction that happens in the mitochondria of cells to release energy from glucose.

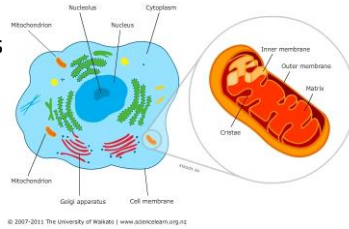
There are two types – Aerobic and Anaerobic.

Aerobic: - with oxygen



Organisms need energy for:

- chemical reactions to build larger molecules
- movement
- keeping warm.



Exercise

During exercise, more energy is needed so that muscles can keep contracting. This means more respiration is needed.

Increased breath depth -

Get more oxygen into blood per breath and remove CO_2



Increased heart rate -

Get more oxygenated blood to muscles.

Increased breathing rate -

Get oxygen into blood quickly.

Heart beats harder - more blood is pumped with every beat.

During intense exercise, there is just not enough oxygen getting into the body. The muscles start to respire anaerobically.

The build up of lactic acid can cause cramp/stitch.

(HT ONLY) When exercise is over, the lactic acid has to be oxidised to CO_2 and H_2O . The amount of oxygen needed to do this is called the oxygen debt

Anaerobic respiration

Respiration without oxygen

In animal cells = **glucose** → **lactic acid**

In plant/yeast cells = **glucose** → **ethanol + carbon dioxide**

In yeast, this is fermentation and is used in brewing and baking



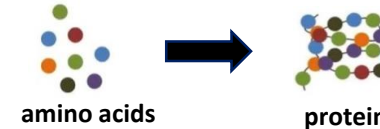
	Aerobic	Anaerobic
Oxygen used?	Yes	No
Waste products	CO_2 and H_2O	Lactic acid (animals) Ethanol + CO_2 (plants/yeast)
Energy released	Lots	Much less

Metabolism

Metabolism is the sum of all the reactions in a cell or the body.

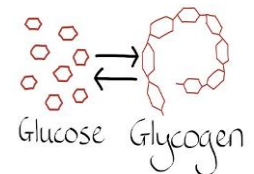
The 'metabolic rate' is the rate at which all of these reactions take place.

An example of a reaction = making proteins using amino acids from digestion.



More examples:

- glucose → glycogen (in muscles/liver)
- respiration
- protein → urea
- glycerol and fatty acids → fats



B4 Bioenergetics - Respiration

Respiration

1. What is respiration?
2. Where does respiration take place?
3. What does aerobic mean?
4. Give two uses for the energy released from respiration
5. What are the two types of respiration?
6. What are the reactants in respiration?
7. Write the equation for respiration below

Exercise

1. Describe two changes to breathing during exercise
2. Why does breathing need to change during exercise?
3. What happens to heart rate during exercise?
4. When does anaerobic respiration happen?
5. Which chemical builds up in muscles during anaerobic respiration?

Anaerobic respiration

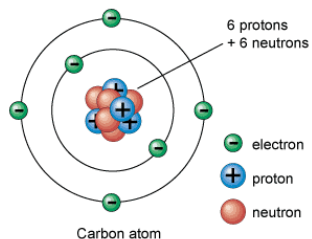
1. What is anaerobic respiration?
2. What is 'fermentation'?
3. What are the waste products of anaerobic respiration in humans?
4. What are the waste products of anaerobic respiration in plants and yeast cells?
5. Which type of respiration releases most energy?

Metabolism

1. What is the metabolic rate?
2. Give two examples of metabolic reactions other than respiration
3. What is glucose stored as in muscles?
4. What are fats made of?

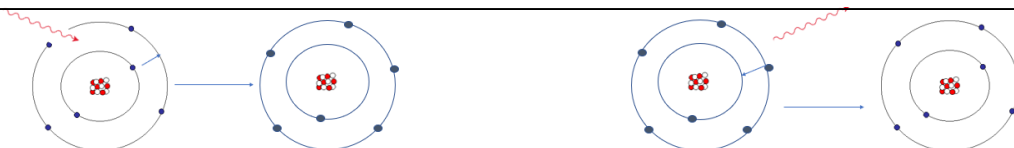
P4 Mainstream Higher - Radioactivity

Atoms



- Atoms are tiny – around 10^{-10}m
- There is a positive nucleus made of protons and neutrons
- Electrons orbit in shells or energy levels
- The nucleus is 10,000 x smaller than the atom (4 orders of magnitude) so around 10^{-14}m

Electrons can move further away or closer to the nucleus



If EM waves (eg UV /light) are **absorbed** electrons can move up energy levels

If EM waves are **emitted** by the atom, then electrons move closer to the nucleus

How the atomic model developed:

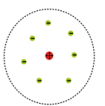
The atomic model has developed over time, when new evidence was discovered.



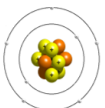
Atoms were first thought to be tiny spheres that could not be divided



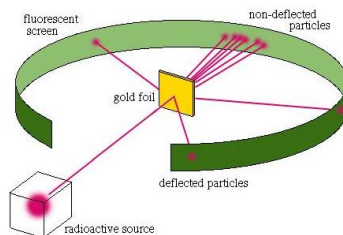
JJ Thomson then discovered the electron
Led to the plum pudding model
Atoms a cloud of positive charge with electrons randomly scattered



Rutherford discovered the positive charge is very small and in the nucleus
This discovery was from the Gold leaf experiment



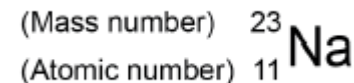
Chadwick discovered neutrons
Bohr discovered the electrons orbit in shells



Rutherford's experiment:

Alpha particles fired at gold leaf
Most went straight through
Some deflected to the side
Some came straight back
This told him that most of the atom was empty space and that the positive charge was in a tiny nucleus

- Atoms of the same element have the same number of protons.
- This is the atomic (proton number)
- In an atom, the number of electrons is equal to the number of protons.
- The total number of protons and neutrons is called the mass number



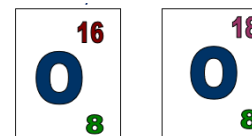
Sodium has :

- 11 protons
- 11 electrons
- 12 neutrons (23-11)

Isotopes

Isotopes are atoms with same number of **protons**, but different numbers of **neutrons** (different mass number)

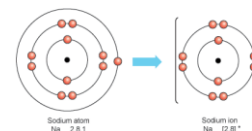
E.g.



These two isotopes both have 8 protons
One has 8 neutrons (16-8)
One has 10 neutrons (18 - 8)

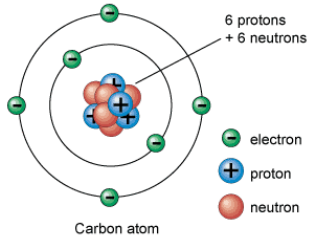
Ions

If atoms lose one or more outer electrons, they turn into positive ions

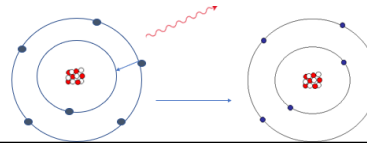
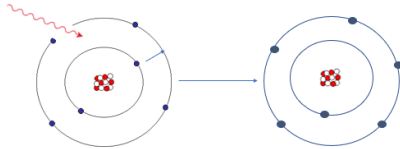


P4 Mainstream Higher - Radioactivity

Atoms



1. What is the size of an atom?
2. What is in the nucleus?
3. What is the size of the nucleus?
4. How many orders of magnitude smaller than the atom is nucleus?



4. What can cause electrons to move further from the nucleus?

5. What can cause electrons to move closer to the nucleus?

1. What do all atoms of the same element have in common?
2. What does the bottom number on the elements in the periodic table represent?
3. What does the mass number show?
4. What is the number of electrons in an atom equal to?

1. What causes scientific ideas to change and develop?

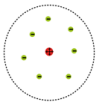


2. What was the thinking about atoms initially?

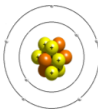


3. Which particle was discovered by JJ Thomson?

4. Where is the positive charge in this model?

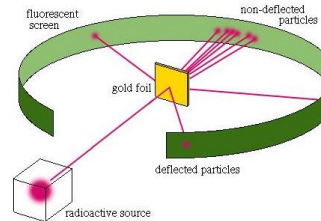


5. Where is the positive charge in this model?



6. Who discovered neutrons?

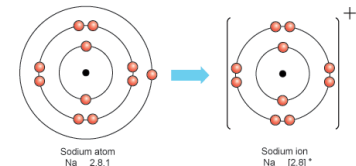
7. What was the discovery that Bohr made?



Rutherford's experiment:

1. What did Rutherford fire at gold leaf?
2. What happened to most of them?
3. What two conclusions did he come to?

5. What is an isotope?
6. What is an ion?
7. What type of ions are formed when atoms lose electrons?



P4 Mainstream Higher - Radioactivity

Nuclear radiation

If an isotope is **unstable**, then **particles** and **energy** are emitted from the nucleus.

There are 3 main types :

Radiation	What is it?	How far does it travel?	Ionising power	Penetrating power
Alpha α	2 protons and 2 neutrons	A few cm	Strong	Stopped by paper
Beta β	A fast moving electron	Metres	Medium	Stopped by aluminium
Gamma γ	An electromagnetic wave	kilometres	Weak	Takes thick concrete or lead to stop it

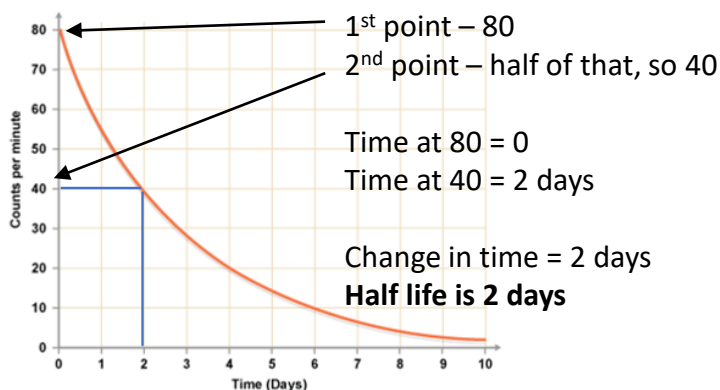
Neutrons can also be emitted from the nucleus.

Half life

Radioactive decay is random.

The half life of an isotope is the time it takes for half of the atoms in the sample to decay OR for the count rate to fall by half

Half life is calculated from a graph by reading two points off the y axis – one value being half the other.
Read the corresponding change in time.



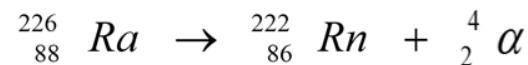
Isotopes are selected for use depending on their properties and half life – e.g. a medical tracer needs to have a short half life so it isn't in the body for very long

Alpha decay:

An unstable nucleus gives out 2 protons and 2 neutrons

An alpha particle is written as : ${}^4_2\alpha$

So when a particle gives out alpha radiation, it loses 2 from the proton number and 4 from the mass number
E.g



Beta decay:

In an unstable nucleus, a neutron changes into a proton and an electron.

The electron is fired out as the beta particle

Beta particles are written as ${}^0_{-1}\beta$ or ${}^0_{-1}e$

The proton number increases

The mass number stays the same

E.g. ${}^{14}_6\text{carbon} \rightarrow {}^{14}_7\text{nitrogen} + {}^0_{-1}e$

The emission of a gamma ray **does not change the nucleus**

Irradiation is the exposure to alpha, beta or gamma radiation

Contamination is the presence of radioactive atoms on materials.

P4 Mainstream Higher - Radioactivity

Nuclear radiation

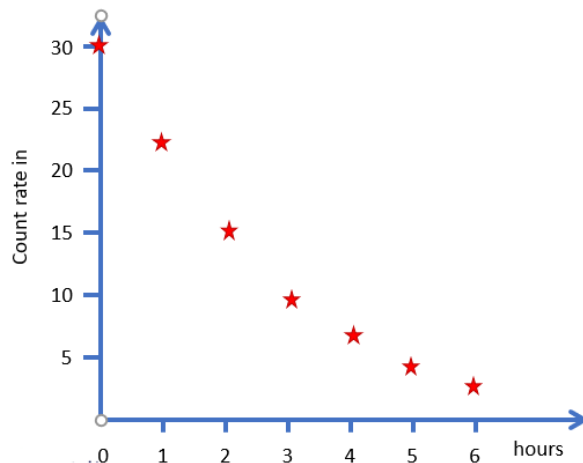
1. Why do atoms give out particles or energy from the nucleus?
2. Which radiation is the most strongly ionising?
3. What is an alpha particle made of?
4. Which radiation is the most difficult to stop?
5. Which radiation is a fast moving electron?
6. Which radiation can only travel a few cm?

Alpha decay:

1. How is an alpha particle written?
2. What happens to the proton number of an atom when alpha decay happens?
3. What happens to the mass number when alpha decay happens?
4. What happens in the nucleus during beta decay?
5. How is a beta particle written?

Half life

1. What is half life?
2. What is the unit missing from the Y axis on the graph opposite?
3. Draw a line of best fit onto the graph
4. What sort of half life would you want in an isotope being used as a medical tracer?



6. What happens to the proton number during beta decay?
7. What happens to the mass number during beta decay?
8. What is irradiation?
9. What is contamination?



What we are learning this term:

- A. The UK is connected to many other countries and places.
- B. The UK is a diverse and unequal society which has geographical patterns.
- C. There are different causes and consequences of development within the UK.
- D. The UK's population is changing.
- E. There are causes for and consequences of urban trends in the UK.
- F. Cities have distinct challenges and ways of life, influenced by its people, culture and geography.

6 Key Words for this term

- | | |
|------------------------|-------------------------|
| 1. Trade | 4. Suburbanisation |
| 2. Deindustrialisation | 5. Counter-urbanisation |
| 3. Infrastructure | 6. Re-urbanisation |

A.	The UK is connected to many other countries and places.
1. Trade	The movement of goods and services across the world.
2. Imports	Products brought into a country
3. Exports	Products taken out of a country.
4. Trade deficit	When a country imports more than they export.
6. Tariffs	Tax that must be paid on imports or exports.

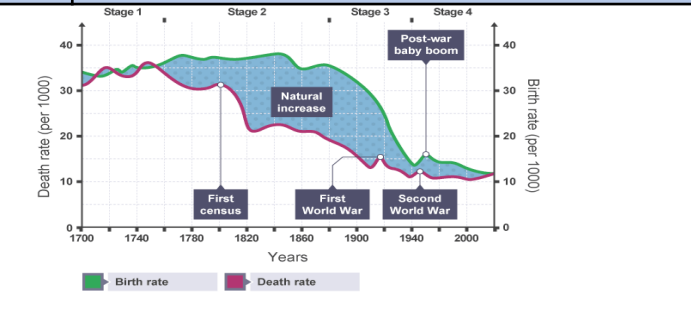
B.	The UK is a diverse and unequal society which has geographical patterns.
1. Tertiary sector	Employment in the services industry such as education or healthcare.
2. Quaternary sector	Employment is research, technology and media.
3. Disposable income	The money people have to live on once their taxes, pensions and rent have been paid.
4. Diversity	Differences within society. For example, race, levels of education and wealth.

C. There are different causes and consequences of development within the UK.

North-south divide	The difference in wealth in the UK between North and South.
Deindustrialisation	The closing down of factories and industry in an area.
Geographical location	The south of England is closer to London so there are more job opportunities.
Economic change	Deindustrialisation in the North led to mines and factories closing down. This led to widespread unemployment.
Infrastructure	Transport, services and communications are better in the South meaning it is easier to travel to Europe.
Government policy	The government invest more in the south because it is closer to London. This can lead to improved infrastructure, education and healthcare.

How has Swindon experienced economic growth?	How has Swindon experienced economic decline?
<ol style="list-style-type: none"> Great Western Railway was opened in 1843 providing many jobs and connecting Swindon to London and Bristol. Honda was built in 1985 and has attracted many other car companies such as BMW and Jaguar. The old train sheds were converted into the Outlet centre which attracts tourists. 	<ol style="list-style-type: none"> GWR yard was closed in 1986 meaning that 40% of Swindon lost their jobs. Honda closed in 2019 because it was cheaper to produce cars abroad. Over 3,000 jobs lost. Low levels of employment mean that people have less disposable income to spend in local businesses.

D. The UK's population is changing.



1. Demographic transition model (DTM).	Shows the changes in population over time by measuring birth rate and death rate.
2. Ageing population	Growing proportion of people above the age of 60.
3. Economically active	Proportion of the population who are employed and pay taxes.
4. Immigration	Inward movement of people to the UK.

D. The UK's population is changing

<i>Causes of an ageing population (2)</i>	<ol style="list-style-type: none"> Improved healthcare. People living more active lifestyles.
Positive effects of an ageing population (2)	<ol style="list-style-type: none"> Skilled workforce More money spent in leisure facilities or resorts.
Negative effects of an ageing population (2)	<ol style="list-style-type: none"> Cost of healthcare is high. Elderly people do not work so do not pay taxes.
Government responses to an ageing population (2)	<ol style="list-style-type: none"> Pension age raised to encourage people to continue working. Increased investment in care homes and healthcare.



What we are learning this term:

- A. The UK is connected to many other countries and places.
- B. The UK is a diverse and unequal society which has geographical patterns.
- C. There are different causes and consequences of development within the UK.
- D. The UK's population is changing.
- E. There are causes for and consequences of urban trends in the UK.
- F. Cities have distinct challenges and ways of life, influenced by its people, culture and geography.

6 Key Words for this term

1.	4.
2.	5.
3.	6.

A. The UK is connected to many other countries and places.

1. Trade	
2. Imports	
3. Exports	
4. Trade deficit	
6. Tariffs	

B. The UK is a diverse and unequal society which has geographical patterns.

1. Tertiary sector	
2. Quaternary sector	
3. Disposable income	
4. Diversity	

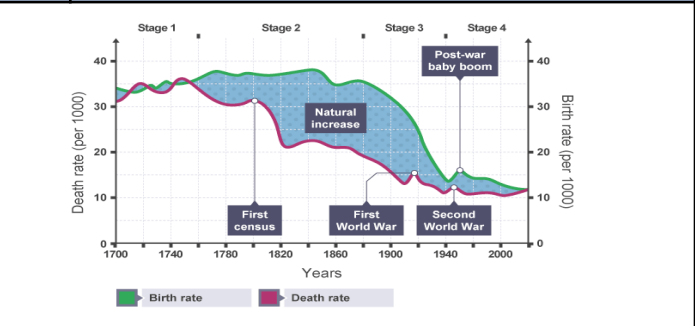
C. There are different causes and consequences of development within the UK.

North-south divide	
Deindustrialisation	
Geographical location	
Economic change	
Infrastructure	
Government policy	

How has Swindon experienced economic growth? How has Swindon experienced economic decline?

1.	1.
2.	2.
3.	3.

D. The UK's population is changing.



1. Demographic transition model (DTM).	
2. Ageing population	
3. Economically active	
4. Immigration	

D. The UK's population is changing

Causes of an ageing population (2)	1. 2.
Positive effects of an ageing population (2)	1. 2.
Negative effects of an ageing population (2)	1. 2.
Government responses to an ageing population (2)	1. 2.



D. The UK's population is changing			
Immigration in the 21 st century.		1. International migration has increased in the 21 st century due to increase in job opportunities, high quality education and global conflict. 2. Immigrants come from all over the world including Poland, India and Pakistan.	
Positive impacts of migration on the UK		Negative impacts of migration on the UK	
Social (2)	1. Different cultures including food, music and fashion. 2. They bring skills that may be in short supply in the UK.	Social (2)	1. People may feel that they are taking local jobs and houses. 2. Can lead to cultural conflict
Economic (2)	1. Workers pay taxes which can be invested into the community. 2. Immigrants are often highly skilled and well educated (e.g. doctors)	Economic (2)	1. Extra costs for healthcare and education. 2. Money may be sent home and not spend in the local community,

E. There are causes for and consequences of urban trends in the UK		E. There are causes for and consequences of urban trends in the UK	
Urban	Towns and cities	Causes of suburbanisation (3)	1. Overcrowding in cities. 2. Improved transport links into inner-city areas. 3. Land may be cheaper outside of the city.
Rural	Countryside and villages		
Urbanisation	The growing proportion of people moving to cities		
Suburbanisation	The outward spread of cities into surrounding green areas.	Causes of counter-urbanisation (3)	1. Overcrowding in cities. 2. People want a more peaceful lifestyle. 3. Poor air quality in cities.
Counter-urbanisation	The movement of people from urban to rural areas.		
Re-urbanisation	Improving inner city areas to attract people and businesses.	Causes of re-urbanisation (3)	1. Government investment. 2. Counter-urbanisation. 3. Inner city decline.

E. There are causes for and consequences of urban trends in the UK					
Consequences of suburbanisation		Consequences of counter-urbanisation		Consequences of re-urbanisation	
Social (2)	1. Increased traffic congestion. 2. Longer commutes.	Social (2)	1. Housing prices in countryside increases. 2. Crowded public services	Social (2)	1. over-crowding. 2. Housing prices increase
Economic (2)	1. Commute is more expensive. 2. Shops in city centres close.	Economic (2)	1. House prices increase in countryside. 2. Inner-city decline	Economic (2)	1. Housing prices increase. 2. Office space is expensive.
Environmental (2)	1. Poor air quality. 2. Green areas destroyed	Environmental (2)	1. More traffic congestion. 2. Pressure on local water supply	Environmental (2)	1. Increased traffic in cities. 2. Air pollution

D. Cities have distinctive challenges and ways of life, influenced by its people, culture and geography. (CASE STUDY OF BRISTOL)	
Location	South-west England. Near the Bristol Channel 1.5 hours from London
Importance within the UK and wider world	1. Two universities 2. UK's 8 th largest tourist destination 3. Home of Airbus and Rolls Royce 4. Home of Aardman Animations
Migration	1. Population has doubled between 1851 and 1891. 2. 50 countries are represented in Bristol 3. St Paul's carnival brings music from African and Caribbean communities.
Challenges: Housing availability	1. Average house price is £350,000 2. Highest homeless population in the UK
Challenges: Transport provision	1. UK's most congested city. 2. Poor public transport links
Challenges: Waste management	1. High amount of food waste. 2. Half a million tonnes of waste per year.
Sustainable strategies: Housing	Brabazon housing estate with provide over 2,500 new affordable homes. • Successful because it uses brownfield sites. • Unsuccessful because the homes are still expensive
Sustainable strategies: Transport	Voi electric scooters. Park and ride to connect the suburbs to the inner city. • Successful because it reduces CO2 emissions. • Unsuccessful because the park and ride is unreliable.
Sustainable strategies: Waste	'Slim my waste, feed my face' initiative to cut down on food waste. • Successful because it has led to food being recycled • Unsuccessful because it is not well monitored.



D. The UK's population is changing			
Immigration in the 21 st century.		1. 2.	
Positive impacts of migration on the UK		Negative impacts of migration on the UK	
Social (2)	1. 2.	Social (2)	1. 2.
Economic (2)	1. 2.	Economic (2)	1. 2.

E. There are causes for and consequences of urban trends in the UK		E. There are causes for and consequences of urban trends in the UK	
Urban		Causes of suburbanisation (3)	1. 2. 3.
Rural			
Urbanisation			
Suburbanisation		Causes of counter-urbanisation (3)	1. 2. 3.
Counter-urbanisation			
Re-urbanisation		Causes of re-urbanisation (3)	1. 2. 3.

E. There are causes for and consequences of urban trends in the UK					
Consequences of suburbanisation		Consequences of counter-urbanisation		Consequences of re-urbanisation	
Social (2)	1. 2.	Social (2)	1. 2.	Social (2)	1. 2.
Economic (2)	1. 2.	Economic (2)	1. 2.	Economic (2)	1. 2.
Environmental (2)	1. 2.	Environmental (2)	1. 2.	Environmental (2)	1. 2.

F. Cities have distinctive challenges and ways of life, influenced by its people, culture and geography. (CASE STUDY OF BRISTOL)	
Location	1. 2. 3.
importance within the UK and wider world	1. 2. 3. 4.
Migration	1. 2. 3.
Challenges: Housing availability	1. 2.
Challenges: Transport provision	1. 2.
Challenges: Waste management	1. 2.
Sustainable strategies: Housing	<ul style="list-style-type: none"> • Successful because • Unsuccessful because
Sustainable strategies: Transport	<ul style="list-style-type: none"> • Successful because • Unsuccessful because
Sustainable strategies: Waste	<ul style="list-style-type: none"> • Successful because • Unsuccessful because

What we are learning this term:
 3.1 Ideas about the cause of disease and illness
 3.2 Approaches to treatment and prevention
 3.3 Key Individuals and fighting cholera in London, 1854

A.	Can you define these key words?
microbes	Any living organism that is too small to see without a microscope. Microbes include bacteria.
vaccination	Treatment with a vaccine to produce immunity against a disease
spontaneous generation	Claimed rotting matter created microbes.
bacteriology	The study of bacteria.
inoculate	Deliberately infecting yourself with a disease to avoid a more severe case later on.

C. Fighting cholera in London , 1854 (3.3)

What is Cholera?	Cholera was a terrible water borne disease that spread quickly across England from 1831. There were lots of cases in slum dwellings.
Attempts to prevent it	Some steps were taken to clean up the filthiest areas of the city. Idea that it was caused by miasma was widespread, so local councils focused on cleaning up the mess in which they were living
John Snow	John Snow was surgeon who investigated the 1854 epidemic. He created a spot map to show the deaths and noticed they were concentrated around a water pump in Broad Street, SoHo. Clear the water pump was the source of the outbreak
Impact of Snows work	In the short-term Snow removed the handle from the Broad Street pump and the deaths in that area went away. Long-term Snow presented his work to the government arguing clean water needed to be supplied. Many rejected his work and clung to the idea of miasma causing cholera

B. Change and continuity in ideas about disease and illness in the 18th and 19th Century. (3.1-3.2)		
<u>Causes</u>	<u>Prevention</u>	<u>Treatments</u>
Religion – People no longer believed that God was responsible for illnesses and world events	Vaccinations – the work of Edward Jenner in the 18 th century led to the first vaccination being created for smallpox. This led the way to other vaccinations being produced as Pastuer and Robert Koch isolated microbes which caused certain diseases	Continuance – despite the new ideas about the cause of disease and illness in the 18 th century, it took a while for medical science to catch up. Not a great deal of understanding how to remove germs as part of treatment
Age of Enlightenment/Scientific Revolution – people started to look for answers in the world about disease and illness. There was also great change across science influencing ideas about cause	Public Health Act 1875 – in the 18 th Century the government had a very <i>laissez-faire</i> attitude to public health. This changed when more men could vote. The government realised changes were needed and passed the Public Health Act. This Act stated that clean water, sewage system, public parks, housing officers and street lighting had to be provided	Hospitals – Florence Nightingale was a pioneer in changing hospitals and hospital care in the 19 th Century. Following her success at the war hospital in the Crimea, Nightingale changed the way that hospitals were designed to having separate wards and more ventilation. Also set up a training school for nurses to give better care
Miasma – people still believed in the theory that disease and illness was caused by harmful fumes in the air. BUT it was becoming less popular	Role of the government – Took a more active role in preventing disease, making smallpox vaccinations compulsory	Anaesthetics – one of the big problems in the 18 th and 19 th centuries was pain during surgery. Ether and laughing gas had been used but they were not good enough. John Simpson discovered that chloroform could be used as a pain relief – this led to more complex surgeries being performed
Spontaneous Generation – this theory stated that rotting matter caused bacteria to form, causing people to get ill		Antiseptics – another big problem with surgery was infections. Joseph Lister built on Pasteur's work and discovered that carbolic acid could be used to prevent infections. Used on wounds and Sterilised equipment, but some surgeons did not like the change
Germ Theory – this correct theory put forward by Louis Pastuer was that germs caused matter to rot. He linked this to disease and illness, stating that germs caused people to get ill		

D. Key People (3.3)

Edward Jenner	John Snow	Edwin Chadwick
Country doctor who realised that milkmaids who got cowpox did not catch smallpox – decided they must be connected. Tested his theory by infecting a local boy with cowpox and then tried to infect him with smallpox but he did not get ill. Wrote up his findings to make sure doctors could follow. Had successfully developed the first vaccine, which was supported by the government.	Used scientific methods to prove that cholera was a water borne disease in the 1850's. Snow presented his findings to the government, recommending that the sewer systems were improved, which they were eventually.	Published his <i>Report on the Sanitary Conditions of the Labouring Classes</i> in 1842. he spent time researching the urban poor and discovered that people living in cities had a lower life expectancy than people living in the countryside. Campaigned for all cities to set up boards of health, responsible for clean water and disposing sewage.

What we are learning this term:
 3.1 Ideas about the cause of disease and illness
 3.2 Approaches to treatment and prevention
 3.3 Key Individuals and fighting cholera in London, 1854

A.	Can you define these key words?
microbes	
vaccination	
spontaneous generation	
bacteriology	
inoculate	

C.	Fighting cholera in London , 1854 (3.3)
What is Cholera?	
Attempts to prevent it	
John Snow	
Impact of Snows work	

B. Change and continuity in ideas about disease and illness in the 18th and 19th Century. (3.1-3.2)		
<u>Causes</u>	<u>Prevention</u>	<u>Treatments</u>

D. Key People (3.3)		
Edward Jenner	John Snow	Edwin Chadwick

GCSE History : Medicine in 18th and 19th Century Britain

What we are learning this term:		B. Change and continuity in ideas about disease and illness in the 18 th and 19 th Century. (3.1-3.2)		
3.1 Ideas about the cause of disease and illness 3.2 Approaches to treatment and prevention 3.3 Key Individuals and fighting cholera in London, 1854		Causes	Prevention	Treatments
				Religion – People no longer believed that God was responsible for illnesses and world events
A.	Can you define these key words?	Miasma – people still believed in the theory that disease and illness was caused by harmful fumes in the air. BUT it was becoming less popular Spontaneous Generation – this theory stated that rotting matter caused bacteria to form, causing people to get ill Germ Theory – this correct theory put forward by Louis Pasteur was that germs caused matter to rot. He linked this to disease and illness, stating that germs caused people to get ill	Public Health Act 1875 – in the 18 th Century the government did not care much about public health. This changed when more men could vote. The government realised changes were needed and passed the Public Health Act. This Act stated that clean water, sewage system, public parks and street lighting had to be provided Role of the government – Took a more active role in preventing disease, making smallpox vaccinations compulsory	Hospitals – Florence Nightingale helped to change hospitals and nursing. Nightingale changed the way that hospitals were designed to having separate wards and more ventilation. Also set up a training school for nurses to give better care Anaesthetics – one of the big problems in the 18 th and 19 th centuries was pain during surgery. Ether and laughing gas had been used but they were not good enough. John Simpson discovered that chloroform could be used as a pain relief – this led to more complex surgeries being performed Antiseptics – another big problem with surgery was infections. Joseph Lister built on Pasteur's work and discovered that carbolic acid could be used to prevent infections. Used on wounds and Sterilised equipment, but some surgeons did not like the change
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inoculate	Deliberately infecting yourself with a disease to avoid a more severe case later on.			
C.	Fighting cholera in London , 1854 (3.3)	D. Key People (3.3)		
What is Cholera?	Cholera was a terrible water borne disease that spread quickly across England from 1831. There were lots of cases in slum dwellings.	Edward Jenner	John Snow	Edwin Chadwick
Attempts to prevent it	Some steps were taken to clean up the filthiest areas of the city. Idea that it was caused by miasma was widespread, so local councils focused on cleaning up the mess in which they were living	Country doctor who realised that milkmaids who got cowpox did not catch smallpox – decided they must be connected. Tested his theory by infecting a local boy with cowpox and then tried to infect him with smallpox but he did not get ill.	Used scientific methods to prove that cholera was a water borne disease in the 1850's.	Published his <i>Report on the Sanitary Conditions of the Labouring Classes</i> in 1842.
John Snow	John Snow was surgeon who investigated the 1854 epidemic. He created a spot map to show the deaths and noticed they were concentrated around a water pump in Broad Street, SoHo. Clear the water pump was the source of the outbreak	Had successfully developed the first vaccine, which was supported by the government.	Snow presented his findings to the government, recommending that the sewer systems were improved, which they were eventually.	He spent time researching the poor in cities and discovered that people living in cities had a lower life expectancy than people living in the countryside. Asked for boards of health to be set up to make cities cleaner.
Impact of Snows work	In the short-term Snow removed the handle from the Broad Street pump and the deaths in that area went away. Long-term Snow presented his work to the government arguing clean water needed to be supplied. Many rejected his work and clung to the idea of miasma causing cholera			

GCSE History : Medicine in 18th and 19th Century Britain

What we are learning this term:

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C. Fighting cholera in London , 1854 (3.3)

What is Cholera ?
 Cholera was a terrible _____ disease that spread quickly across England from _____. There were lots of cases in _____ dwellings.

Attempts to prevent it
 Some steps were taken to clean up the _____ areas of the city. Idea that it was caused by _____ was widespread, so local councils focused on _____ up the mess in which they were living

John Snow
 John Snow was _____ who investigated the 1854 epidemic. He created a _____ to show the deaths and noticed they were concentrated around a water pump in _____. SoHo. Clear the water pump was the source of the outbreak

Impact of Snows work
 In the short-term Snow removed the _____ from the Broad Street pump and the deaths in that area _____. Long-term Snow presented his work to the government arguing _____ needed to be supplied. Many _____ his work and clung to the idea of _____ causing cholera

B. Change and continuity in ideas about disease and illness in the 18th and 19th Century. (3.1-3.2)

Causes	Prevention	Treatments
Religion – _____	Vaccinations – the work of _____ in the 18 th century led to the first vaccination being created for _____. This led the way to other vaccinations being produced	Continuance – despite the new ideas about the cause of disease and illness in the 18 th century, _____ took longer to find
Miasma – people still believed in the theory that _____ was caused by harmful fumes in the air. BUT it was becoming _____	Public Health Act 1875 – in the 18 th Century the government did not care much about _____. This changed when more men could vote. The government realised changes were needed and passed the _____. This Act stated that clean _____, _____, public parks and street lighting had to be provided	Hospitals – _____ helped to change hospitals and nursing. Nightingale changed the way that hospitals were _____ to having separate wards and more _____. Also set up a _____ for nurses to give better care
Spontaneous Generation – this theory stated that _____, causing people to get ill	Role of the government – Took a more _____ in preventing disease, making smallpox vaccinations _____	Anaesthetics – one of the big problems in the 18 th and 19 th centuries was _____ during surgery. Ether and laughing gas had been used but they were _____ John _____ discovered that chloroform could be used as a _____ – this led to more complex surgeries being performed
Germ Theory – this correct theory put forward by _____ was that germs caused matter to rot. He linked this to _____ and illness, stating that _____		Antiseptics – another big problem with surgery was _____ Joseph _____ built on Pasteur's work and discovered that _____ could be used to prevent infections. Used on wounds and Sterilised _____, but some surgeons did not like the change

D. Key People (3.3)

Edward Jenner	John Snow	Edwin Chadwick
Country doctor who realised that _____ who got _____ did not catch smallpox – decided they must be connected. Tested his _____ by infecting a local boy with cowpox and then tried to infect him with smallpox but he _____. Had successfully developed the first _____, which was supported by the government.	Used _____ to prove that cholera was a _____ disease in the 1850's. Snow presented his findings to the _____, recommending that the sewer systems were _____, which they were eventually.	Published his <i>Report on the Sanitary Conditions of the Labouring Classes</i> in _____. He spent time researching the _____ and discovered that people living in cities had a _____ expectancy than people living in the countryside. Asked for boards of health to be set up to make cities _____.



Keywords		What we are learning in this unit		B.	The 5 Pillars - Salah		
Tawalla	Showing love for God and for those who follow Him	A. The 5 Pillars and 10 Obligatory Acts B. Salah C. Sawm D. Zakah E. Hajj F. Jihad G. Id-ul-Adha H. Id-ul-Fitr		What is it?	<ul style="list-style-type: none"> “Salah is a prescribed duty that has to be performed at the given time by the Qur’an” Muslims pray 5 times per day and this allows them to communicate with Allah. The prayers are done at dawn (fajr), afternoon (zuhr), late afternoon (asr), dusk (maghrib) and night (isha) Muslims face the holy city of Makkah when paying. 		
Tabarra	Disassociation with God’s enemies			A.	5 Pillars of Islam and 10 obligatory acts	Wuzu	<ul style="list-style-type: none"> The washing process to purify the mind and body for prayer Muhammad said the key to Salah is cleanliness Hands, arms, nose, mouth, head, neck and ears are cleaned as well as both feet up to the ankle.
Khums	The obligation to pay one-fifth of acquired wealth			What are the 5 pillars	<ul style="list-style-type: none"> 5 key practices or duties for Muslims Both Sunni and Shi’a keep these (Shi’a have them as part of the 10 obligations) They are seen as pillars “holding up the religion” and are all of equal importance 	Rak’ahs and recitations	<ul style="list-style-type: none"> These are the movements that Muslims make during prayer Takbir – raise hands to ears and say 'Allahu Akbar' Qiyam – Standing, Muslims recite Surah Then bow to the waist saying “Glory be to my Great Lord and praise be to Him” Then sink to their knees saying “Glory be to my Lord, The Most Supreme...”
Lesser jihad	The physical struggle or holy war in defence of Islam			What are the 10 obligatory acts	<ul style="list-style-type: none"> There are 10 obligations for a Muslim according to the Shi’a branch of Islam. These include prayer, fasting, almsgiving, pilgrimage, jihad, khums, directing others towards good, forbidding evil, tawalla and tabarra 	Salah at home	<ul style="list-style-type: none"> Salah is a big part of family life Meals and other activities are usually scheduled to fit around prayer times Families pray all together and might have a room set aside for prayer
Greater jihad	The daily struggle and inner spiritual striving to live as a Muslim			Shahadah	<ul style="list-style-type: none"> Shahadah is the first of the 5 pillars It is the Muslim declaration of faith “there is no God but Allah, and Muhammad is His messenger” This is a statement that Muslims reject anything but Allah as their focus of belief It also recognises that Muhammad has an important role and his life is an example to follow 	Salah in the mosque	<ul style="list-style-type: none"> All mosques have a qiblah wall which is to show where to face Makkah Men and women pray in separate rooms at the Mosque
Sunni	Muslims who believe in the successorship of Abu Bakr, Umar, Uthman and Ali as leaders after the Prophet Muhammad			Jumma	<ul style="list-style-type: none"> Jumma is congregational prayer held on a Friday at the mosque where the imam leads the prayer Praying together as a community develops the feeling of unity amongst Muslims Men are obliged to attend unless they are sick or too old Women do not have to go – they may pray at home instead 		
Shi’a	Muslims who believe in the Imamah, leadership of Ali and his descendants			Differences between Sunni and Shi’a	<ul style="list-style-type: none"> Shi’a Muslims combine some prayers so they may only pray 3x a day Shi’a use natural elements e.g. clay where their head rests 		
Niyah	Intention during prayer - having the right intention to worship God						
Du’a	A personal prayer that is done in addition to Salah e.g. asking Allah for help						
		Jihad					
Lesser Jihad		<ul style="list-style-type: none"> Originated when Prophet Muhammad and early Muslims were being attacked and oppressed by the Meccans and had no choice but to engage “Fight in the way of God those who fight against you but do not transgress” Conditions for declaration <ul style="list-style-type: none"> self-defense proportionate legitimate authority no harm to civilians 					
Greater Jihad		<ul style="list-style-type: none"> A struggle within oneself to follow the teachings of Islam and be a better person e.g. perform the Five Pillars, follow Sunnah and avoid temptation “encourage what is right and forbid what is wrong” 					



Keywords		What we are learning in this unit		B.	The 5 Pillars - Salah			
Tawalla		A. The 5 Pillars and 10 Obligatory Acts B. Salah C. Sawm D. Zakah E. Hajj F. Jihad G. Id-ul-Adha H. Id-ul-Fitr		What is it?				
Tabarra				A.	5 Pillars of Islam and 10 obligatory acts	Wuzu		
Khums				What are the 5 pillars		Rak'ahs and recitations		
Lesser jihad				What are the 10 obligatory acts		Salah at home		
Greater jihad				Shahadah		Salah in the mosque		
Sunni				<i>Jihad</i>		Jummah		
Shi'a						Lesser Jihad		
Niyah						Greater Jihad		Differences between Sunni and Shi'a
Du'a								



The 5 Pillars - Zakah	
The role of giving alms	<ul style="list-style-type: none"> • Muslims believe it is their duty to ensure Allah's wealth has been distributed equally as everyone is the same • The Qur'an commands to give to those in need
The significance of giving alms	<ul style="list-style-type: none"> • Giving 2.5% of savings/wealth to charity • Wealth can cause greed which is evil, so Zakah purifies wealth – wealth is given by God and must be shared • The Prophet Muhammad practiced Zakah as a practice in Medina • Given to the poor, needy and travellers • Sadaqah is giving from the heart out of generosity and compassion
Khums	<ul style="list-style-type: none"> • Shi'a Islam – one of the 10 obligatory acts • 20% of any profit earned by Shi'a Muslims paid as a tax • Split between charities that support Islamic education and anyone who is in need • "know that whatever of a thing you acquire, a fifth of it is for Allah, for the Messenger, for the near relative, and the orphans, the needy, and the wayfarer"

The 5 Pillars - Sawm	
The role of fasting	<ul style="list-style-type: none"> • Fasting during Ramadan (9th month in Muslim calendar) • Muslims give up food, drink, smoking and sexual activity in daylight hours • Pregnant people, children under 12, travellers and elderly people are exempt from fasting.
The significance of fasting	<ul style="list-style-type: none"> • Ramadan is believed to be the month that Prophet Muhammad began to receive revelations of the Qur'an • Helps Muslims to become spiritually stronger
Reasons for fasting	<ul style="list-style-type: none"> • Obeying God and exercising self-discipline • Develops empathy for the poor • Appreciation of God's gifts • Giving thanks for the Qur'an • Sharing fellowship and community with other Muslims
Night of power	<ul style="list-style-type: none"> • The night when the Angel Jibril first appeared to Muhammad and began revealing the Qur'an. • The most important event in history – "better than a thousand months" [Surah 97:3] • Laylat Al-Qadr is the holiest night of the year. Muslims try to stay awake for the whole night to pray and study for the Qur'an

The 5 Pillars - Hajj	
The role of pilgrimage	<ul style="list-style-type: none"> • A pilgrimage to Makkah which is compulsory for Muslims to take at least once as long as they can afford it and are healthy
The significance of pilgrimage	<ul style="list-style-type: none"> • God told Ibrahim to take his wife and son on a journey and leave them without food or water • Hajira ran up and down two hills in search of water, could not find any and prayed to God. Then water sprung from the ground. This is the Zamzam well • When Ibrahim returned he was commanded to build the Ka'ba as a shrine dedicated to Allah • Hajj is performed in the month of Dhu'l-Hijja
Actions	<ul style="list-style-type: none"> • Ihram – dressing in two pieces of white cloth • Circling the Ka'aba 7 times (tawaf) • Drinking water from the Zamzam well like Hajar • walking between Al-Safa and Al-Marwa hills seven times • Throwing stones at 3 pillars (jamarat) to represent casting out the devil and remembering Ibrahim throwing stones at the devil to drive him away • Asking Allah for forgiveness at Mt Arafat • Collecting pebbles at Muzdalifah

Id-ul-Adha, Id-ul-Fitr, Ashura	
Id-ul-Adha Not an official holiday in UK	<ul style="list-style-type: none"> • Festival of sacrifice • Marks the end of Hajj and is a chance for whole Ummah to celebrate • Origins – Ibrahim's commitment to God in being willing to sacrifice his son, Ishmael. God was testing Ibrahim • Key events – new clothes, sacrificing an animal, visiting the Mosque. • People ask a butcher to slaughter a sheep for them and share the meat with the community
Id-ul-Fitr Public holiday in Muslim majority countries, not UK	<ul style="list-style-type: none"> • Festival of fast-breaking • Marks the end of Ramadan • Key events – Decorate homes with colourful light and banners, dress in new clothes, gather in Mosques, give gifts and money, give to the poor • Zakah ul-Fitr – donation to the poor so that everyone can eat a generous meal at the end of Ramadan.
Ashura	<ul style="list-style-type: none"> • Sunni celebration – many fast on this day which was established by Prophet Muhammad • Shi'a mourning – Husayn was murdered and beheaded. Muslims remember his death and betrayal • Key events – public displays of grief, day of sorrow, wear black, re-enactments of martyrdom, not a public holiday in Britain but Muslims may have day off school



<i>The 5 Pillars - Zakah</i>	
The role of giving alms	
The significance of giving alms	
Khums	

<i>The 5 Pillars - Sawm</i>	
The role of fasting	
The significance of fasting	
Reasons for fasting	
Night of power	

<i>The 5 Pillars - Hajj</i>	
The role of pilgrimage	
The significance of pilgrimage	
Actions	

<i>Id-ul-Adha, Id-ul-Fitr, Ashura</i>	
Id-ul-Adha Not an official holiday in UK	
Id-ul-Fitr Public holiday in Muslim majority countries, not UK	
Ashura	

GCSE Unit 10 SPANISH Knowledge organiser.
Topic Life at School and College

What we are learning this term:

- A. Talking about your school and daily routine
- B. Talking about school rules and uniform
- C. Translating into English
- D. Revising 'se debe', 'hay que', 'tener que'
- E. Using questions to help your answer
- F. Using quantifiers and intensifiers

6 Key Words for this term

- | | |
|----------------|----------------------|
| 1. acabar de | 4. demostrar |
| 2. actuar | 5. las instalaciones |
| 3. la ausencia | 6. el maquillaje |

10.1F Las reglas y el uniforme

la agenda	diary, planner
el apellido	surname
el artículo	article
la ausencia	absence
buscar	to look for
el chicle	chewing gum
el daño	harm
dejar	to let, allow
demostrar	to show, demonstrate
el edificio	building
escolar	school (adj.)
firmar	to sign
el individuo	individual
las instalaciones	facilities
el intercambio	exchange
llevar	to take, carry, wear
el maquillaje	make up
los materiales	materials
mientras	while
el nombre	name
la palabra	word
el pasillo	corridor
el pendiente	earring
ponerse en contacto	to get in touch
prohibido	prohibited, banned
la puntualidad	punctuality
la regla	rule
el respeto	respect
sufrir	to suffer
traer	to bring
el trayecto	journey
el uniforme	uniform

10.1G El día en el instituto

acabar de	to have just done something
actuar	to perform
el aire libre	the open air
aislado/a	isolated
el/la alumno/a	pupil
aprender	to learn
la asignatura	subject
el bachillerato	A-level equivalent
el bocadillo	sandwich
bonito	lovely
campo de deportes	sports field
la clase	class
el/la compañero/a	classmate
corto/a	short
durar	to last
empezar	to start, to begin
el equipo	team, equipment
el estante	shelf
la evaluación	assessment
funcionar	to work, to function
ganar	to win
ir al baño	to go to the bathroom
el juego de mesa	board game
la hora de comer	lunch hour
el laboratorio	laboratory
la obra de teatro	play
la opción	option
la oportunidad	opportunity
pasar la lista	to take the register
el producto químico	chemical

Key Verbs

Acabar de To have just finished	Mejorar To improve	Maquillarse To put makeup on oneself	Hacer – to do/make	Ofrecer To offer
Acabo de I have just finished	Mejoro I improve	Me maquillo I put make up on	Hago I do	Ofrezco I offer
Acabas de You have just finished	Mejoras You improve	Te maquillas You put make up on	Haces You do	Ofreces You offer
Acaba de He/she it has just finished	Mejora He/she/ it improves	Se maquila He/she/it puts make up on	Hace s/he does	Ofrece He/she/it offers
Acabamos de We have just finished	Mejoramos We improve	Nos maquillamos We put make up on	Hacemos We do	Ofrecemos We offer
Acaban de They have just finished	Mejoran They improve	Se maquilan They put make up on	Hacen They do	Ofrecen They offer

10.1H Lo bueno y lo malo del instituto

el acoso	bullying
aguantar	to put up with
aislado/a	isolated
alegrar	to brighten up, to cheer up
aprobar	to pass an exam
el aspecto	appearance
la calefacción	heating
el castigo	punishment
el comportamiento	behaviour
la conducta	behaviour
corregir	to mark, to correct
cumplir con	to fulfil
en cuanto a	as regards
encenderse	to be turned on
enfadado/a	angry
enseñar	to teach, show
el equipo	equipment
la espalda	back
el estante	shelf
la explicación	explanation

10.1H Lo Bueno y lo malo del instituto

travieso/a	naughty, badly behaved
el trimestre	term
ya que	since, as
el fracaso	failure
golpear	to hit
hace falta	it is necessary
incómodo/a	uncomfortable
la intimidación	bullying
la pizarra	digital smartboard
mejorar	to improve
molestar	to disturb, to annoy
el ocio	leisure
la pared	wall
recordar	to remember
el repaso	revision
sucio/a	dirty
tardar	to take time, to delay

**GCSE Unit 9 SPANISH Knowledge organiser.
Topic My Studies**



What we are learning this term:

- A. Giving your opinion about different subjects
- B. Talking about your studies
- C. Talking about your school life and daily routine
- D. Talking about school rules and uniform
- E. Translating into English

6 Key Words for this term

- | | |
|----------------|------------------|
| 1. asignaturas | 4. suspender |
| 2. notas | 5. licienciatura |
| 3. aprobar | 6. elegir |

9.1G El instituto y las asignaturas

el arte dramático drama
 la asignatura subject
 la carrera career, university course
 las ciencias science
 la clase class
 la cocina cooking, food technology
 continuar to continue, carry on
 los deberes homework
 dejar to drop
 el dibujo art
 difícil difficult, hard
 divertido/a fun
 la educación física PE
 Escoger to choose
 el español Spanish
 estudiar to study
 fácil easy
 el francés French
 la geografía geography
 la historia history
 el inglés English
 las matemáticas maths
 práctico/a practical
 próximo/a next
 la selección choice
 Útil useful

9.1F ¿Cómo ser buen estudiante?

abrir to open
 Afectar to affect
 el apoyo support
 aprender to learn
 los apuntes notes
 asistir a to attend
 la biblioteca library
 el/la compañero/a classmate
 completar to complete
 Consultar to consult
 el debate discussion
 los deberes homework
 el diccionario dictionary
 la duda doubt, query
 el ejercicio exercise
 entender to understand
 la escuela school
 Esperar to hope, to wait, to expect
 el examen, exámenes exam, exams
 la excursión trip
 faltar a clase to miss lessons
 la frase sentence
 Intentar to try
 interrumpir to interrupt
 el instituto school
 levantar la mano to raise your hand
 la literatura literature
 llevar to take, to carry, to wear
 mejorar to improve
 mirar to look at
 el mundo world
 necesitar to need
 la nota grade
 ofrecer to offer
 el ordenador computer
 organizar to organise
 la palabra word
 la pantalla screen
 participar to take part
 pedir to ask for, to request
 pegado/a a glued to
 perder to lose, miss
 la pizarra blackboard
 la pizarra interactiva smartboard
 Preguntar to ask
 el/la profesor(a) teacher
 el progreso progress
 la prueba test
 Repasar to revise

Key Verbs

Aprobar To pass	Elegir To choose	Suspender To fail	Estudiar To study	Pensar To think
Apruebo I pass	Eligo I choose	Suspendo I fail	Estudio I study	Pienso I think
Apruebas You pass	Eliges You choose	Suspendes You fail	Estudias You study	Piensas You think
Aprueba He/she/it passes	Elige He/she/it chooses	Suspende He/she/it fails	Estudia He/she/it studies	Piensa He/she/it thinks
Aprobamos We pass	Elegimos We choose	Suspendemos We fail	Estudiamos We study	Pensamos We think
Aprueban They pass	Eligen They choose	Suspenden They fail	Estudian They study	Piensan They think

9.1F ¿Cómo ser buen estudiante?

el repaso revision
 responsable responsible
 resultar en to end up with, to lead to
 saber to know
 sacar buenas / to get good / bad grades
 malas notas
 serio/a serious
 las tareas homework
 el trabajo work, piece of work
 la tutoría tutorial
 Usar to use
 el vocabulario vocabulary

9.1H ¿Qué tal el instituto?

preocupar to worry
 la sala de informática IT room
 sencillo/a simple
 Sentirse to feel
 usar to use
 el viaje journey
 la zona área

9.1H ¿Qué tal el instituto?

el/la alumno/a pupil
 antiguo/a old
 asustado/a frightened
 asustar to frighten
 el atasco traffic jam, blockage
 atento/a attentive
 el aula (fem.) classroom
 ayudar to help
 buscar to look for
 cambiar to change
 cansado/a tired
 conocer to meet, to get to know
 contento/a glad, happy
 contestar to answer
 el curso school year, course
 los deberes homework
 deteriorado/a dilapidated, shabby
 distinto/a different
 la emoción excitement
 emocionante exciting
 encima on top
 encontrar to find
 explicar to explain
 feo/a ugly
 el gimnasio sports hall, gym
 hambriento/a hungry
 el idioma language
 inmenso/a immense
 el laboratorio laboratory
 largo/a long
 mejor better
 nervioso/a anxious, nervous
 el patio del recreo the school yard, playground
 la pregunta question

Translation Practice. G – blue F – orange H - Green	
Irene _____ porque estudió muy poco	Irene failed because she studied very little
No practicamos _____ atletismo.	We don't practise much athletics.
Cuando _____ de clase hay mucha gente	When we change class there are too many people
No _____ bastantes ordenadores	We don't have enough computers
El instituto está _____ lejos	The school is too far away
Hay _____ posibilidades de estudiarlo	There are few possibilities to study it
Hay _____ llevar uniform	You have to wear a uniform
No _____ usar el móvil	We cannot use mobile phones
No _____ fumar	You must not smoke
Me gustaría _____ para ir al colegio	I would like to put makeup on to go to school
Soy educado y _____	I am polite and considerate
Odio _____ los deberes en casa	I hate doing homework at home
Hay muchas _____ entre los dos	There are many differences between the two
Las aulas _____ ser más grandes	The classrooms ought to be bigger
Debería _____ más ordenadores	There ought to be more computers
Deberían _____ una piscina	They ought to build a swimming pool
He _____ mis estudios	I have finished my studies
Han _____ a casa	They have returned home

Key Questions: Answer the following in your own words. Use these model answers	
¿Qué crees que es lo peor / lo mejor aspecto del instituto?	El mejor aspecto del colegio es ... porque ... El peor aspecto del colegio es ... porque ...
¿Qué cambiarías de tu colegio si tuvieras la oportunidad?	Si tuviera la oportunidad, cambiaría/me gustaría cambiar las reglas. Me gustaría cambiar el uniforme porque me parece que es tan feo, me gustaría cambiar las reglas porque son demasiadas estrictas, me gustaría cambiar unos profesores porque son tan antipáticos
En tu opinión, ¿cuáles son las características más importantes de un buen profesor?	En mi opinión, un buen profesor es siempre simpático, nunca malhumorado, es de vez en cuando gracioso, es comprensivo y cariñoso, es siempre alegre y no es nunca antipático
¿Cómo es tu colegio, las reglas, los edificios, las instalaciones?	Mi colegio es un colegio grande que tiene circa ochocientos alumnos. Está en las afueras de Swindon en los barrios de Pinehurst y Penhill. Tenemos una biblioteca nueva, una cantina acogedora, un patio grande ... En el colegio no debes comer chicle, no debes acosar, no tienes que gritar, no deberías comportarse mal... En el colegio tienes que comportarse bien, llevar el uniforme, ir al baño solo durante el recreo, llegar al colegio a hora

Key Grammar	
Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are: -AR: -é, -aste, -ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, -ieron -IR : -í, -íste, -ió, -imos, -istéis, -ieron
Forming the conditional ('would like to' tense). Always remove the –AR, -ER, -IR endings first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían
Using the immediate future tense IR + A + INFINITIVE	Voy a casarme = I'm going to get married Va a discutir con su padre = He / She is going to argue with his/her father
Perfect Tense ('have done...') Formed with the verb 'haber':	Formed with the verb 'haber': he, has, ha, hemos, habéis, han + past participle: -ar: -ado -er/ir: -ido e.g. <i>He estudiado = I have studied</i>

17. Business Aims & Objectives**Businesspeople like to use the term SMART objectives**

Which Objective?	Explanation of Objective
Specific	Businesses set very specific targets that are very clear and to the point
Measurable	Businesses set measurable targets that can be measured. For example: Business set themselves specific sales targets over a set period.
Achievable	Businesses set realistic targets that are ambitious yet achievable.
Realistic	Businesses set realistic targets that will motivate employees at the same time they will be achievable
Time- Bound	Businesses set their targets over a period of time as this creates a sense of excitement and urgency.

18. Aims and Objectives in Business**Businesses have both financial and non-financial aims**

Type of Objectives	Explanation
Financial Objectives	Profit. Sales. Market Share. Reduce costs.
Non-Financial Objectives	Social objectives. Independence. Control.

19. Business Revenue, Costs & Profits

Term	Definition
Fixed Costs	Costs that don't vary just because output varies for example 'rent'.
Profit (gross/net)	The difference between revenue and total costs; if the figure is negative the business is making a loss
Revenue	The total value of the sales made within a set period, such as a month.
Total Costs	All the costs for a set period, such as a month
Variable Costs	Costs that vary as output varies such as raw materials

20. Business Revenue, Costs & Profits

Term	Formulae
Sales Revenue	Price x Quantity Sold
Total Costs	Variable costs + Fixed Costs
(Gross) Profit	Total Revenue – Total Costs

21. Breaking Even

Term	Definition
Break - Even	The level of sales at which total costs are equal to total revenue. At this point the business is making neither a profit nor a loss.
Break-even Chart	A graph showing a company's revenue and total costs at all possible levels of output
Margin of Safety	The amount by which demand can fall before the business starts making losses

17. Business Aims & Objectives

Businesspeople like to use the term SMART objectives

Which Objective?

Specific

Measurable

Achievable

Realistic

Time- Bound

19. Business Revenue, Costs & Profits

Term

Definition

Fixed Costs

**Profit
(gross/net)**

Revenue

Total Costs

Variable Costs

20. Business Revenue, Costs & Profits

Term

Formulae

Sales Revenue

Total Costs

(Gross) Profit

18. Aims and Objectives in Business

Businesses have both financial and non-financial aims

Type of Objectives

Explanation

**Financial
Objectives**

**Non-Financial
Objectives**

21. Breaking Even

Term

Definition

Break - Even

Break-even Chart

Margin of Safety

22. The Importance of Cash

Question	Answer
Why does Cash matter to a Business?	Cash matters because, without it, bills go unpaid and a business can fail. If you have no cash, you can't pay suppliers or employees.
Why is cash important to a business?	Cash is required to pay suppliers, employees or other costs. Typical overheads include: Salaries/ Rent and Rates/ Utilities and Bills
What is the difference between cash and profit?	Cash flow shows the immediate impact of a transaction on a company's bank account; profit shows the longer-term impact after costs have been taken into account.

23. The Importance of Cash (definitions)

Term	Definition
Cash	The money the firm holds in notes and coins, and in its bank accounts
Cash Flows	The movement of money into and out of the firm's bank account.
Insolvency	When a business lacks the ability to pay its debts
Overdraft	A short-term form of credit. A bank will allow a business to spend more money than it actually has.
Overdraft Facility	An agreed maximum level of overdraft

25. Short Term Sources of Finance

Term	Definition
Bank Overdraft	If a company requires some short term finance they can negotiate to extend their overdraft facility with the bank
Trade Credit	When a supplier provides goods without immediate payment – This gives the business time to sell products in order to pay off the debt.

24. Cash Flow Forecasts

Cash flow forecasting means predicting the future flows of cash into and out of a Business.

Successful cash flow forecasts require:

- Accurate prediction of monthly sales
- Accurate predictions of when customers will pay for the goods they have bought
- Careful allowance of operating costs and the timing of payments
- Careful allowance for **in flows** and outflows of cash

Key Term	Definition
Opening Balance	The amount of cash in the bank at the start of the month
Net Cash Flow	Cash inflow minus cash outflow over the course of a month
Negative Cash Flow	When cash outflows are greater than cash inflows
Closing Balance	The amount of cash left in the bank at the end of the month

26. Long Term Sources of Finance

Term	Definition
Crowdfunding	Raising Capital online from many small investors (but not through the stock market).
Share Capital	Raising finance by selling a share of the business, Shareholders have the right to question the directors and take profit out the firm.
Venture Capital	A combination of share capital and loan capital, provided by an investor.
Retained Profit	Profit kept within the Business that is used for business growth.

22. The Importance of Cash

Question	Answer
Why does Cash matter to a Business?	
Why is cash important to a business?	
What is the difference between cash and profit?	

23. The Importance of Cash (definitions)

Term	Definition
Cash	
Cash Flows	
Insolvency	
Overdraft	
Overdraft Facility	

25. Short Term Sources of Finance

Term	Definition
Bank Overdraft	
Trade Credit	

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Key Term	Definition
Opening Balance	

26. Long Term Sources of Finance

Term	Definition
Crowdfunding	
Share Capital	
Venture Capital	
Retained Profit	

Food science

Functions of ingredients

Ingredients provide a variety of functions in recipes.

Carbohydrate, protein and fat

Carbohydrate, protein and fat all have a range of properties that make them useful in a variety of food products.

Carbohydrates perform different functions in food.

They can:

- help to cause the colour change of bread, toast and bakery products (dextrinisation);
- contribute to the chewiness, colour and sweet flavour of caramel;
- thicken products such as sauces and custards (gelatinisation).

Maillard reaction

Foods which are baked, grilled or roasted undergo colour, odour and flavour changes. This is primarily due to a group of reactions involving amino acids (from protein) and reducing sugars.

Dextrinisation

When foods containing starch are baked they can also produce brown compounds due to dextrinisation. Dextrinisation occurs when the heat breaks the large starch polysaccharides into smaller molecules known as dextrins which produce a brown colour.

Caramelisation

When sucrose (table sugar) is heated above its melting point it undergoes physical and chemical changes to produce caramel.

Gelatinisation

When starch is mixed with water and heated, the starch granules swell and eventually rupture, absorbing liquid, which thickens the mixture. On cooling, if enough starch is used, a gel forms.

Proteins perform different functions in food products.

They:

- aerate foods, e.g. whisking egg whites;
- thicken sauces, e.g. egg custard;
- bind ingredients together, e.g. fishcakes;
- form structures, e.g. gluten formation in bread;
- gel, e.g. lime jelly.

Gluten formation

Two proteins, gliadin and glutenin, found in wheat flour, form gluten when mixed with water. Gluten is strong, elastic and forms a 3D network in dough. In the production of bread, kneading helps untangle the gluten strands and align them. Gluten helps give structure to the bread and keeps in the gases that expand during cooking.

Gelation

Gelatin is a protein which is extracted from collagen, present in animal connective tissue. When it is mixed with warm water, the gelatin protein molecules start to unwind. On cooling, a stable, solid network is formed, trapping the liquid.

Denaturation

Denaturation is the change in structure of protein molecules. The process results in the unfolding of the protein's structure. Factors which contribute to denaturation are heat, salts, pH and mechanical action.

Coagulation

Coagulation follows denaturation. For example, when egg white is cooked it changes colour and becomes firmer (sets). The heat causes egg proteins to unfold from their coiled state and form a solid, stable network.

Aeration

Products such as creamed cakes need air incorporated into the mixture in order to give a well-risen texture. This is achieved by creaming a fat, such as butter or baking spread, with sugar. Small bubbles of air are incorporated and form a stable foam.

Fats performs different functions in food.

They help to:

- add 'shortness' or 'flakiness' to foods, e.g. shortbread, pastry;
- provide a range of textures and cooking mediums;
- glaze foods, e.g. butter on carrots;
- aerate mixtures, e.g. a creamed cake mix;
- add a range of flavours.

Plasticity

Fats do not melt at fixed temperatures, but over a range. This property is called plasticity.

Colloidal systems

Colloidal systems give structure, texture and mouthfeel to many different products.

System	Disperse phase	Continuous phase	Food
Sol	Solid	Liquid	Unset jelly
Gel	Liquid	Solid	Jelly
Emulsion	Liquid	Liquid	Mayonnaise
Solid emulsion	Liquid	Solid	Butter
Foam	Gas	Liquid	Whipped cream
Solid foam	Gas	Solid	Meringue

Raising agents

Raising agents include anything that causes rising within foods, and are usually used in baked goods. Raising agents can be:

- biological, e.g. yeast;
- chemical, e.g. baking powder;
- mechanical, e.g. adding air through beating or folding.

Functional ingredients

These are ingredients that are specifically included in food for additional health benefits. They include:

- probiotics – 'good' bacteria that may have a positive impact on human health;
- prebiotics – food ingredients that promote the growth of beneficial microorganisms in the gut;
- sterols/stanols – compounds that can lower cholesterol;
- healthy fats (e.g. omega-3);
- added vitamins and minerals (more than in the original food).

Food is prepared and cooked to:

- make the food more palatable – improves flavour, texture and appearance;
- reduce the bulk of the food;
- provide variety and interest to meals.

Methods of cooking food

The methods of cooking are divided up into groups. These are based on the cooking medium used. They are:

- moist/liquid methods, e.g. boiling;
- dry methods, e.g. grilling;
- fat-based, e.g. frying.

Selecting the most appropriate way of preparing and cooking certain foods is important to maintain or enhance their nutritional value.

- Vitamins can be lost due to oxidation during preparation or leaching into the cooking liquid.
- Fat-based methods of cooking increase the energy (calories) of the food.
- The use of different cooking methods affects the sensory qualities of the food.

There are three ways that heat is transferred to food.

- Conduction – the exchange of heat by direct contact with foods on a surface.
- Radiation – energy in the form of rays.
- Convection – currents of hot air or hot liquid transfer the heat energy to the food.

Key terms

Conduction: the exchange of heat by direct contact with foods on a surface.

Convection: currents of hot air or hot liquid transfer the heat energy to the food.

Functional ingredients: Included in food for additional health benefits.

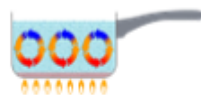
Heat transfer: transference of heat energy between objects.

Radiation: energy in the form of rays.

Tenderisation

• Mechanical tenderisation – a meat cleaver or meat hammer may be used to beat the meat. Cutting into small cubes or mincing can also help.

• Chemical tenderisation (marinating) – the addition of any liquid to flavour or soften meat before cooking.



Tasks

- Choose a recipe that you enjoy or have made recently and explain in detail the functions of the ingredients.
- Explain the function of raising agents, giving examples of recipes.

KS4 FOOD AND NUTRITION KNOWLEDGE ORGANISER T3

Functions of ingredients

Ingredients provide a variety of functions in recipes.

Carbohydrate, protein and fat

Carbohydrate, protein and fat all have a range of properties that make them useful in a variety of food products.

Carbohydrates perform different functions in food.

They can:

-
-
-
-
-
-

Maillard reaction

Foods which are undergo colour, odour and flavour changes. This is primarily due to a group of reactions involving.....(from protein) and reducing sugars.

Dextrinisation

When foods containing.....are heated they can also produce.....compounds due to dextrinisation.

Dextrinisation occurs when the heat breaks the large starch polysaccharides into smaller molecules known as.....which produce acolour.

Caramelisation

When sucrose (table sugar) is heated above its melting point it undergoeschanges to produce caramel.

Functional ingredients

These are ingredients that are specifically included in food for additional health benefits.

They include:

- probiotics –
- prebiotics –
- sterols/stanols –
- healthy fats (e.g. omega-3);

Gelatinisation

When starch is mixed with water and heated, the starch granules swell and eventually rupture, absorbing liquid, which thickens the mixture. On cooling, if enough starch is used, a gel forms.

Proteins perform different functions in food products.

They:

-
-
-
-

Gluten formation

Two proteins, gliadin and glutenin, found in wheat flour, form gluten when mixed with water. Gluten is strong, elastic and forms a 3D network in dough. In the production of bread, kneading helps untangle the gluten strands and align them. Gluten helps give structure to the bread and keeps in the gases that expand during cooking.

Gelation

Gelatine is a protein which is extracted from collagen, present in animal connective tissue. When it is mixed with warm water, the gelatine protein molecules start to unwind. On cooling, a stable, solid network is formed, trapping the liquid.

Denaturation

Denaturation is the change inof.....molecules. The process results in the unfolding of the protein's structure. Factors which contribute to denaturation are heat, salts, pH and mechanical action.

Coagulation

Coagulation follows denaturation. For example:

Aeration

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Key terms

Conduction:

Convection:

Functional ingredients:

Heat transfer:

Radiation:

Food is prepared and cooked to:

-
-
-

Tenderisation

- Mechanical tenderising
- Chemical tenderisation (marinating)



Year 10 PRODUCT DESIGN Term 3



What we are learning this term:

- A. Scales of Production C. Impact on Enterprise E. Impact on People G. Ergonomics
 B. Production Methods D. Anthropometric Data F. Impact on Design

A. Scales of Production		
Type	How Many?	Examples
One-off Production 	1	<ul style="list-style-type: none"> Towers /bridges Bespoke house Custom made clothes
Batch Production 	10s-1000s	<ul style="list-style-type: none"> Baked Foods Limited Edition Socks Chairs
Mass Production 	10,000s – 100,000s	<ul style="list-style-type: none"> Cars Bottles Microchips Plain shirts
Continuous Production 	100,00s+	<ul style="list-style-type: none"> Energy Water Paper Plastic

B. Production Methods	
	Flexible Manufacturing Systems (FMS) This is where automated machines are adaptable and can produce different products if needed.
	Lean Manufacturing This is where waste and energy is kept to a minimum. This saves money and resources in production, as well as helping minimise the environmental impact of producing products.
	Just-in-Time (JIT) Manufacturing This is where manufacturers only order materials, parts, etc, when needed. This can be used in any scale of production but its particularly useful for one-off production.

C. Impact on Enterprise	
Crowdfunding 	A way of raising money from large numbers of people to launch a new product through websites.
Virtual marketing and retail 	Promotion of products online and sharing experiences, reviews and recommendations.
Cooperatives 	A business that is owned and managed by it's workers, all working towards a common goal.
Fair trade 	An organisation that helps workers have fair trading and working conditions in developing countries

D. Anthropometric Data	
The study of human measurements to ensure the products and environments are the correct size for the intended user.	

E. Impact on People		
Technology Push 	When technological discoveries are used to drive the development or creation of a product	
Market Pull 	When products are developed or created to meet the needs of society or a gap in the market.	
Universal Design 	When designs are focused on serving the broadest range of users possible, rather than trying to address individual accessibility or inclusion objectives.	
Inclusive Design 	When the designer focuses on exploring ways of serving a full spectrum of people, regardless of age, gender, and disability.	
User Centred Design (USD) 	When designers focus on the end-user's wants and needs in each phase of the design process.	

F. Impact on Design	
Planned obsolescence	Designing products that will have a limited life and that will become obsolete and require to be replaced, such as disposable razors.
Design for Maintenance	Designing products that are more durable and have spare parts available to mend and maintain them, such as a push bike.
Design for Disassembly	When a product has reached the end of its life it can be taken apart and parts reused or recycled, such as a school seat.
Environmental Design	Designing products to be more sustainable and improving the overall environmental impact of a product, such as paper straws.

G. Ergonomics	
This is the consideration that leads to a product being designed in a way that makes it easy to use. Such as a person sitting at their computer desk or the type of water bottle they use.	



Year 10 PRODUCT DESIGN Term 3



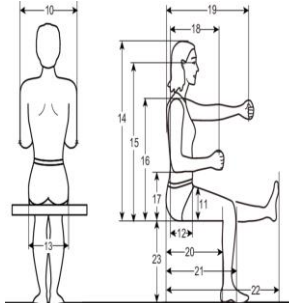
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 B. Production Methods D. Anthropometric Data F. Impact on Design

A. Scales of Production		
Type	How Many?	Examples
One-off Production 		
Batch Production 		
Mass Production 		
Continuous Production 		

B. Production Methods	
	Flexible Manufacturing Systems (FMS)
	Lean Manufacturing
	Just-in-Time (JIT) Manufacturing

C. Impact on Enterprise	
Crowdfunding 	
Virtual marketing and retail 	
Cooperatives 	
Fair trade 	

D. Anthropometric Data


E. Impact on People

Technology Push 	
Market Pull 	
Universal Design 	
Inclusive Design 	
User Centred Design (USD) 	

F. Impact on Design

Planned obsolescence	
Design for Maintenance	
Design for Disassembly	
Environmental Design	

G. Ergonomics

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What we are learning this term:

- A. One-Point Perspective B. Two-point Perspective C. Isometric Drawing
 D. Exploded Drawing E. Oblique Drawing F. CAD G. Orthographic Drawing

Design Strategies Introduction.

Design strategies are used to create technical drawings, to show an object in 3D on a 2D page. Perspective drawings show an object getting smaller in the distance. The rest are done to scale.

A. One-point Perspective Drawing

Single-point perspective shows an object from the front in a realistic way. The front view goes back towards a vanishing point on the horizon.

Commonly used by interior designers to show a view into a room.

B. Two-point Perspective Drawing

Two-point perspective shows an object from the side with two vanishing points. It gives the most realistic view of a product as it shows the item edge on, as we would see it. It is often used to produce realistic drawings of an object.

Commonly used by architects to show realistic building ideas.

C. Isometric Technical Drawing

Made up of a series of parallel **vertical lines** and parallel **30-degree lines**. But no **horizontal lines**.

Used by architects and engineers to communicate their ideas to the client and manufacturer.

D. Exploded Technical Drawing

Exploded technical drawing is an Isometric drawing of all the parts and components of an object.

All parts are shown separately so you can see all aspects. **Dashed lines** indicate where everything goes and in what order.

E. Oblique Technical Drawing

Consists of an object where the front view is drawn flat with height and width of the object drawn to the correct lengths. Diagonal lines are drawn at 45-degrees.

Commonly used by engineers for drafting ideas.

F. CAD (Computer Aided Design)

This is designing using a computer using a software such as 2D Design or Solidworks.

Commonly used to model, test and develop an idea before manufacture.

G. Orthographic Projection – 2D NOT 3D Drawing Strategy!

This shows 2D views of a 3D object from different angles – front, plan and end. Lines are dimensions have specific meaning to avoid confusion.

Commonly used in industry to help the manufacturer understand the design.



What we are learning this term:

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- B. Two-point Perspective
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A. One-point Perspective Drawing

C. Isometric Technical Drawing

E. Oblique Technical Drawing

F. CAD (Computer Aided Design)

B. Two-point Perspective Drawing

D. Exploded Technical Drawing

G. Orthographic Projection – 2D NOT 3D Drawing Strategy!

- Object Line
- - - Hidden Line
- · - · - Center Line
- Dimension Line
- Construction Line



What we are learning this term:	
A.	Understanding professional works
B.	What is a professional work
C.	What is a practitioner
D.	How do we analyse a performance
E.	What are physical skills
F.	What are interpretive skills
G.	Three different performance styles / genres

6 Key Words for this term	
1 Practitioners	4 Performance material
2 Physical skills	5 Analyse
3 Interpretive skill	6 Intentions

A.	Key question – What is the artistic purpose of a performance work?
<p>When watching a professional performance, the key questions you need to think about are the following...</p> <p>How do we Explore artistic purpose?</p> <p>Explore artistic purpose (across all three disciplines/styles) including:</p> <ul style="list-style-type: none"> to educate to inform to entertain to provoke to challenge viewpoints to raise awareness to celebrate. 	

A.	Component 1 – Key focus
<p>In this component of the qualification students will develop their understanding of drama by examining the work of existing practitioners and the processes used to create performance. Students should experience a range of work across the discipline of drama by viewing recorded and/or live work.</p> <p>While this is primarily a theoretical study of the performing arts practical investigations, students will be working at developing practical skills through workshops and links with Component 2 Developing Skills and Techniques in the Performing Arts, to engage in primary exploration of specific repertoire.</p>	

C.	Key question from Assessment objectives
<ol style="list-style-type: none"> 1. What are physical skills 2. What are interpretive skills 3. How do we use these skills practically? 4. How do we IMPROVE on these skills? 	<ol style="list-style-type: none"> 1. What is a professional work 2. What is a practitioner 3. How do we analyse a performance 4. What are a practitioners creative intentions

G.	Key learning aims from Component 1
<p><i>Learning aim A: Examine professional practitioners' performance work</i></p>	<p>A1: Professional practitioners' performance material, influences, creative outcomes and purpose</p> <p>Examine live and recorded performances in order to develop understanding of practitioners' work with reference to influences, outcomes and purpose.</p> <p>Focus on thematic interpretation of particular issues and how artists communicate their ideas to an audience.</p> <p>Roles and responsibilities in theatre.</p>
	<p><i>Learning aim B: Explore the interrelationships between constituent features of existing performance material</i></p> <p>Processes used in performance</p> <ul style="list-style-type: none"> ● Responding to stimuli to generate ideas for performance material. ● Exploring and developing ideas to develop material. ● Discussion with performers. ● Setting tasks for performers. ● Sharing ideas and intentions. ● Providing notes and/or feedback on improvements.

E.	Keywords
Practitioners	A professional theatre maker who creates in a specific style led by a specific theatre ideology.
Performance material	The practical work that a practitioner creates for performance.
Creative Intentions	The ideas behind the choreography, why the choreographer choose to create the work.
Review	Look over your current work and the work of others and be able to review and comment on your own and others practice
Analyse/ Evaluate	Watch and then analyse your own performance and the work of others and giving comments and judgements on what you see
Influences	How the practitioner has been influenced by others, their experiences, their training and how this has affected the work they create.
Physical skills	The physical attributes that an actor uses, stamina, strength, flexibility, control, to dance with technical accuracy.



What we are learning this term:	
A.	Understanding professional works
B.	What is a professional work
C.	What is a practitioner
D.	How do we analyse a performance
E.	What are physical skills
F.	What are interpretive skills
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G.	Key learning aims from Component 1
<p><i>Learning aim A: Examine professional practitioners' performance work</i></p>	<p>A1: Professional practitioners' performance material, influences, creative outcomes and purpose</p> <p>Examine _____ and _____ performances in order to develop _____ of practitioners' work with reference to _____s, o_____s and p_____se. Focus on _____ i_____ of particular i_____ and how artists c_____te their ideas to an _____e. Roles and responsibilities in theatre.</p>
	<p><i>Learning aim B: Explore the interrelationships between constituent features of existing performance material</i></p> <p>Processes used in performance</p> <ul style="list-style-type: none"> • Responding to _____ to generate id_____s for performance material. • Exploring and developing ideas to develop material. • D_____on with performers. • Setting _____ for performers. • S_____ng ideas and intentions. • Providing _____ and/or fe_____ck on imp_____nts.

E.	Keywords
Practitioners	
Performance material	
Creative Intentions	
Review	
Analyse/ Evaluate	
Influences	
Physical skills	



Main assessment objectives	
Learning outcome: Know the personal qualities, styles, roles and responsibilities associated with effective sports leadership.	
Be able to plan sports activity sessions.	

What we are learning this term:	
A. Different leadership roles	
B. Role-related responsibilities	
C. Personal qualities	
D. Leadership styles	
E. Key considerations when planning sports activity	

Can you give examples of managers from different sports?	
Gareth Southgate Eddie Jones	

Role models	
Positive Mo Farah Nicole Adams	Negative Luis Suarez Nick Kyrgios

A. The different leadership roles within sport	
Role	Definition
Coach	A person involved in the direction, instruction and training of the operations of a sports team
Manager	Responsible for handling the business matters of athletes and sports teams
Captain	The leader of the team who is usually also a player
Teacher	A person who teaches, especially in a school
Expedition leader	Someone who leads groups on adventurous activities
Role model	A person looked to by others as an example

A. Role related responsibilities	
Knowledge of activity Enthusiasm for activity Knowledge of safety Knowledge of child protection issues Knowledge of basic first aid	

G. Considerations when planning sports activities	
Session content	Objectives for the session appropriate venue Equipment needs Supervision needs Timing of activities Introduction/conclusion of session Basic warm up/cool down Skills and technique development Engaging Organisation
Safety	Risk assessments- facilities, equipment/clothing checks, activity-specific risks Corrective action- wiping up puddles, removing litter, reporting faulty equipment Emergency procedures- procedures in the event of an accident, procedures in the event of other emergencies, summoning qualified help, completion of relevant documents

Personal qualities	
Reliability Punctuality Confidence Communicator Creativity	

Key sections	
Different leadership roles and opportunities	

Captain Coach Expedition leader	Manager Teacher Role model
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Role related responsibilities	
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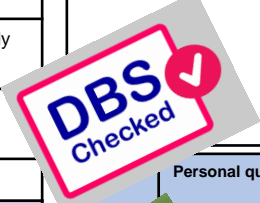
Knowledge of; Activity Safety Child protection Basic first aid	Enthusiasm for activity
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Personal qualities	
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Reliability Punctuality Communication Confidence Creativity

Leadership styles	
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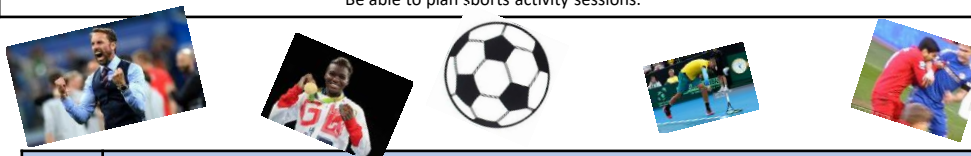
Autocratic Democratic Laissez-faire





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What we are learning this term:

- A. Different leadership roles
- B. Role-related responsibilities
- C. Personal qualities
- D. Leadership styles
- E. Key considerations when planning sports activity

C.	Can you give examples of managers from different sports?
Role models	
Positive	Negative

A.	Role related responsibilities

G.	Considerations when planning sports activities
<i>Session content</i>	
<i>Safety</i>	

A.	Personal qualities

A.	The different leadership roles within sport
Role	Definition
Coach	
Manager	
Captain	
Teacher	
Expedition leader	
Role model	

A.	Leadership styles

	Key sections
Different leadership roles and opportunities	
Role related responsibilities	
Personal qualities	
Leadership styles	



What we are learning this term:

- A. Health & Safety C. Isometric E. Materials and properties
 B. Manufacturing processes D. Marking and measuring tools

A. Health & Safety

Risk Assessment
 A risk assessment is the analysis of the risks involved when using equipment or performing a process.

Signage
 Signage is the word used for all the signs that you may see in a workshop environment. Knowing how to translate and understand the signs in a workshop is vital when dealing with potentially dangerous equipment and processes.

Mandatory sign-
 Specific instruction on behaviour

Prohibition sign-
 Prohibiting or actions

Warning sign-
 Giving warning of hazard or danger

No danger sign-
 Information on exits, first aid etc

B. Manufacturing processes

Pillar drill

Pillar drills are free standing machine tools that use high powered motors to rotate drill bits at varying speed

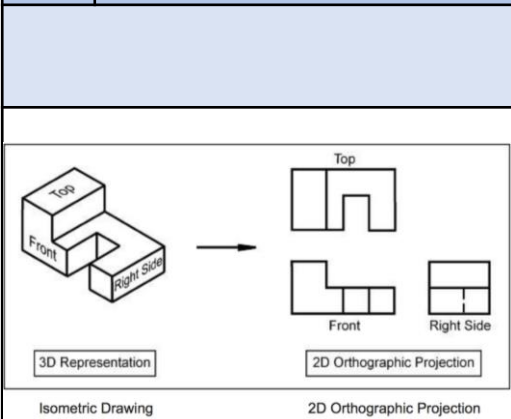
Milling machine

A milling machine is a device that rotates a circular cutting tool that has a number of cutting edges. The workpiece is held in a vice or similar device clamped to a table that can move in directions. X, Y & Z axis

Centre lathe

A centre lathe is used to manufacture cylindrical product /objects and is 'turned' to create different shapes. Different cutting tools can be used such as **facing, parting** and **knurling**.

C. Isometric



The symbol \varnothing on this dimension represents **Diameter** – so it is telling us how wide the circle is overall.

The letter R on this dimension tells us the **Radius** of the curve or circle – the distance from the centre to the outside

D. Marking and measuring tools

Inside calliper – Used by placing it inside the object to be measured and expanding the arms. Measures the inside of a hollow space.

Outside calliper – Used by closing the arms on to the outside of the object to be measured. Wide arms allow it to reach around protruding parts of the object.

Dividers - The ends of these legs are very sharp, so it can scratch into surfaces. Is used for measuring, transferring, or marking off distances onto materials.

Odd-leg or "jenny" calliper – One leg has a scratching tool while the other has a notch. This allows the user to hook the tool to the edge of a workpiece and slide it along to make marks equidistant from the edge.

Vernier Calliper – The most versatile calliper. Can measure depth, inside measurements, and outside measurements of objects. May also have a digital display.

E. Materials and properties

Strength Ability of a material to withstand compression, tension and shear

Hardness Ability to withstand impact without damage

Toughness Materials that are hard to break or snap are tough & can absorb shock

Malleability Being able to bend or shape easily would make a material easily malleable

Ductility Materials that can be stretched are ductile

Elasticity Ability to be stretched and then return to its original shape



What we are learning this term:

A. Health & Safety C. Orthographic E. Materials and properties
 B. Manufacturing processes D. Tools & Equipment

A. Health & Safety

Risk Assessment	
Signage	

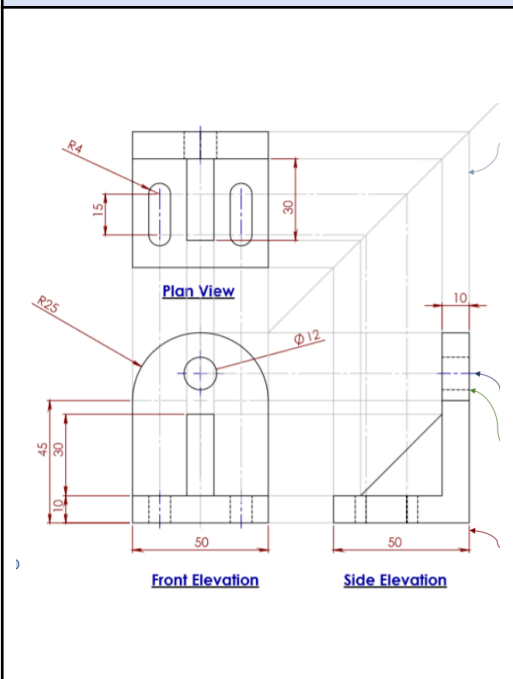
	_____ sign- Specific instruction on behaviour		_____ sign- Prohibiting or actions
	_____ sign- Giving warning of hazard or danger		_____ sign- Information on exits, first aid etc

B. Manufacturing processes

Pillar drill
Milling machine
Centre lathe

C. Orthographic

The study of human measurements to ensure the products and environments are the correct size for the intended user.







$\phi 12$	
R25	

D. Tools & Equipment

E. Materials and properties





Strength	
Hardness	
Toughness	
Malleability	
Ductility	
Elasticity	

What we are learning this term:	
A. Key words	
B. What are the main life stages	
C. What are the 4 areas of growth and development (PIES)?	
D. How do Humans develop physically (P)?	
A.	Key words for this Unit
Characteristics	Something that is typical of people at a particular life stage.
Life stages	Distinct phases of life that each person passes through.
Growth	Increased body size such as height, weight.
Development	Involves gaining new skills and abilities such as riding a bike.
Gross motor development (G)	Refers to the development of large muscles in the body e.g. Legs
Fine motor development (F)	Refers to the development of small muscles in the body e.g. Fingers
Language development	Think through and express ideas
Contentment	An emotional state when people feel happy in their environment, are cared for and well loved
Self-image	How individuals see themselves or how they think others see them
Self-esteem	How good or bad an individual feels about themselves and how much they value their abilities.
Informal relationships	Relationships formed between family members
Friendships	Relationships formed with people we meet in the home or in situations such as schools, work or clubs
Formal relationships	relationships formed with non-family/friends – such as teachers and doctors.
Intimate relationships	romantic relationships.






B	What are the main life stages?		C	What are the 4 areas of growth and development (PIES)?
Age Group	Life Stage	Developmental Characteristics and Progress		
0-2 years	Infancy	Sill dependent on parents but growing quickly and developing physical skills.	Physical Development (P) 	P = growth patterns and changes in the mobility of the large and small muscles in the body that happen throughout life.
3-8 years	Early Childhood	Becoming increasingly independent, improving thought processes and learning how to develop friendships.		
9-18 years	Adolescence	Experiencing puberty, which bring physical and emotional changes.	Intellectual Development (I) 	I = how people develop their thinking skills, memory and language.
19-45 years	Early Adulthood	Leaving home, making own choices about a career and may start a family.	Emotional Development (E) 	E = how people develop their identity and cope with feelings.
46-65 years	Middle Adulthood	Having more time to travel and take up hobbies as children may be leaving home; beginning of the aging process.		
65+ years	Later Adulthood	The aging process continues, which may affect memory and mobility.	Social Development (S) 	S = describes how people develop friendships and relationships.






D.	How do humans develop physically (P)?
0-2	<ul style="list-style-type: none"> Gross Motor Development (G) = life head, roll over, sit unaided, walk holding onto something, walk unaided, climb stairs, kick and throw, walk upstairs, jump. Fine Motor Development (F) = hold a rattle for short time, reach for an item, pass item from one hand to other, hold between finger and thumb, scribble, build a tower, use a spoon, draw lines and circles, turn page of a book.
3-8	<ul style="list-style-type: none"> G = ride a tricycle, catch a ball with two hands, walk backwards and step to the side, bounce a ball, run on tiptoes, ride a bike, catch a ball with one hand, balance along a thin line. F = hold a crayon to make circles and lines, thread small beads, copy letters and shapes with a pencil, make detailed models with construction bricks, joined up writing, use a needle to sew.
9-18	<ul style="list-style-type: none"> Girls = puberty starts at 10-13 years, breasts grow, hips widen, menstruation begins, uterus and vagina grow. Boys = voice deepens, muscles and strength increase, erections, facial hair, produce sperm. Both = pubic and underarm hair, growth spurts.
19-45	<ul style="list-style-type: none"> Physically mature, sexual characteristics are fully formed, peak of physical fitness, full height, women at most fertile. Later in the life stage people may put on weight, hair turn grey and men may lose hair, women's menstrual cycle was slow down
46-65	<ul style="list-style-type: none"> People may put on weight, hair turn grey and men may lose hair, women's menstrual cycle was slow down. Women go through the menopause – when menstruation ends and they can no longer become pregnant. Men may continue to be fertile throughout life but decrease in sperm production in this life stage.
65+	<ul style="list-style-type: none"> Women's hair becomes thinner, men may lose most of their hair, skin loses elasticity and wrinkles appear, nails hard and brittle, bones weaken, higher risk of contracting infections disease and illness. Stamina, reaction time, muscle and senses (hearing, sight, taste) all reduce.

What we are learning this term:	
A. Key words	
B. What are the main life stages	
C. What are the 4 areas of growth and development (PIES)?	
D. How do Humans develop physically (P)?	
A.	Key words for this Unit
Characteristics	
Life stages	
Growth	
Development	
Gross motor development (G)	
Fine motor development (F)	
Language development	
Contentment	
Self-image	
Self-esteem	
Informal relationships	
Friendships	
Formal relationships	
Intimate relationships	

B	What are the main life stages?		C	What are the 4 areas of growth and development (PIES)? Explain them.
Age Group	Life Stage	Developmental Characteristics and Progress		
0-2 years			Physical Development (P) 	
3-8 years				
9-18 years			Intellectual Development (I) 	
19-45 years			Emotional Development (E) 	
46-65 years				
65+ years			Social Development (S) 	

D.	<u>How do humans develop physically (P)?</u>
0-2	
3-8	
9-18	
19-45	
46-65	
65+	





What we are learning this term:		F. How do humans develop emotionally (E)?		
E. How do humans develop intellectually (I)? F. How do humans develop emotionally (E)? G. How do humans develop socially (S)?				
E. How do humans develop intellectually (I)?				
Infancy 	At birth brains are already well developed. Infants use all of their senses to learn about the world around them. Infancy is a time of rapid intellectual development. At 3 months infants can remember routines. At 9-12 months infants are developing their memory. At 12 months to 2 years infants understand processes and how things work. Language begins to develop during this stage.	<u>Bonding and Attachment</u> Bonding and attachment describe the emotional ties an individual forms with others. It starts in the first year of life between infants and their main carer because that person fulfils the infants needs which makes them feel safe and secure.	<u>Self-image and Self-esteem</u> Self-image is heightened during adolescence because of the physical changes we experience. Our self-esteem can change from day to day based on a variety of factors including employment and health status.	
	Early childhood 	At 3-4 years of age children become more inquisitive and enjoy exploring objects and materials. They ask lots of questions and enjoy solving simple problems. At 5-6 years old children's memory is becoming well developed. This helps them to talk about the past and anticipate the future.	<u>Security</u> For infants and young children, security is mainly the feeling of being cared for, being safe and loved – it is closely linked with attachment.	<u>Security</u> Adolescence may feel insecure because of puberty. Adults may feel insecure about relationships, job security of income. Later in life adults may feel insecure about staying in their own home or going into a care home. Feeling secure helps us cope better with everyday situations.
		Adolescence 	During this time abstract thought is developed – thinking logically and solving complex problems are possible by the end of this life stage. Adolescents may find it difficult to understand the consequences of their actions but they are developing empathy – seeing things from another's point of view.	<u>Contentment</u> Infants and young children are content if they have had enough food, love, are clean and dry and all other needs are met.
Early and Middle Adulthood 	By these life stages most adults have a good range of general knowledge. They use this knowledge and experience to solve problems that they come across in their personal and work lives.	<u>Independence</u> Independence is to care for yourself and make your own decisions. Infants are completely dependent on their carer. As children enter early childhood they develop more independence – feed self and get dressed. However, children still need a lot of help from their carer.	<u>Independence</u> Adolescence are dependent on their parents but are beginning to enjoy more independence and freedom to make their own choices. Adults enjoy living independently and controlling their own lifestyle and environment. Later in adulthood people become more dependent on others again.	
Later adulthood 	During this life stage people continue to learn and develop intellectually, however, their speed of thinking and memory may decline. This may affect their ability to think through problems and make logical decisions.	G. How do humans develop socially (S)?		
		Life Stage	Types of relationships and social development	
		Infancy	<ul style="list-style-type: none"> • Solitary Play - From birth to 2 years, infants tend to play alone although they like to be close to their parent or carer; they may be aware of other children but not play with them. 	
		Early childhood	<ul style="list-style-type: none"> • Parallel Play - From 2 to 3 years, children enjoy playing next to other children but are absorbed in their own game; they are not socialising or playing with other children. • Cooperative or social play – from 3 years upwards, children start to play with other children; they have developed social skills that help them to share and talk together; they often make up games together, such as being a shopkeeper and customer. 	
		Adolescence	<ul style="list-style-type: none"> • People become more independent and build more informal and formal relationships. • Social development closely linked to emotions. • Often strongly influenced by peers – 'peer group pressure'. 	
		Early adulthood	<ul style="list-style-type: none"> • Increased independence means greater control of decisions about informal relationships. • People may be developing emotional and social ties with partners and their own children. • Social life often centred on the family but social skills are required to build and maintain formal relationships. 	
		Middle adulthood	<ul style="list-style-type: none"> • Children have often left home, but there are likely to still be strong family relationships. • Social circles may expand through travel, spending more time on hobbies or joining new groups. 	
		Later adulthood	<ul style="list-style-type: none"> • Retired by this stage and so may enjoy more social time with family and friends or join new groups. • However, later in the life stage people may begin to feel isolated if they struggle to get out or if partners and friends pass away. 	

What we are learning this term:		F. How do humans develop emotionally (E)? Explain each.	
E. How do humans develop intellectually (I)? F. How do humans develop emotionally (E)? G. How do humans develop socially (S)?		Infancy and Early Childhood	
E. How do humans develop intellectually (I)?		Adolescence and adulthood	
Infancy		Bonding and Attachment	
		Self-image and Self-esteem	
Early childhood		Security	
		Security	
Adolescence		Contentment	
		Contentment	
Early and Middle Adulthood		Independence	
		Independence	
Later adulthood		G. How do humans develop socially (S)?	
		Life Stage	
		Types of relationships and social development	
		Infancy	
		Early childhood	
		Adolescence	
		Early adulthood	
		Middle adulthood	
		Later adulthood	

What we are learning this term:	
H.	Key words
I.	How do physical factors affect development?
J.	How does lifestyle affect development?
K.	How do social and cultural factors affect development?
L.	How do relationships and isolation affect development?
M.	How do economic factors affect development?

H	Key words:
Genetic inheritance	Genes the person inherits from their parents
Genetic disorders	Health conditions that are passed on from parent to child through their genes. e.g. cystic fibrosis
Lifestyle Choices	Include the food you eat and how much exercise you do. They also include whether you smoke, drink alcohol or take illegal drugs.
Appearance	The way that someone or something looks
Factor	A circumstance, fact, or influence that contributes to a result
Gender role	The role and responsibilities determined by a person's gender.
Culture	ideas, customs, and social behaviour.
Role models	Someone a person admires and strives to be like.
Social Isolation	Lack of contact with other people
Material possessions	Things that are owned by an individual
Economic	To do with person's wealth and income.



I.	How do physical factors affect development?	
	Genetic Disorders	Disease and Illness
Physical Development	A person's physical build can affect physical abilities. Inherited diseases may affect strength and stamina needed to take part in exercise.	May affect the rate of growth in infancy and childhood. Could affect the process of puberty. Could cause tiredness and/or mobility problems. Could limit of prevent participation in physical activity.
Intellectual Development	Some genetically inherited diseases may result in missed schooling, or have a direct impact on learning – conditions such as Edward's syndrome impact learning.	School, college, university, work or training could be missed. Memory and concentration could be affected.
Emotional Development	Physical appearance affects how individuals see themselves (self-image), and how others respond to them impacts on their confidence and wellbeing.	May cause worry and/or stress. Individuals may develop negative self-esteem. Could lead to feelings of isolation.
Social Development	Physical characteristics or disease may affect opportunities or confidence in building friendships and becoming independent.	May cause difficulty in having opportunities to socialize with other and build wider relationships.

J.	How does lifestyle affect development?	
Lifestyle choices include; diet, exercise, alcohol, smoking, sexual relationships and illegal drugs, appearance.		
Positive lifestyle choices lead to: <ul style="list-style-type: none"> • Healthy hair, skin, nails and teeth • Positive self-image • Energy and stamina • Good health • Emotional security 		Negative lifestyle choices lead to: <ul style="list-style-type: none"> • Being overweight or underweight • Lack of energy • Ill health • Negative self-image • Sexually transmitted diseases (STDs) • Unplanned pregnancy 
Our appearance includes: body shape, facial features, hair and nails, personal hygiene and our clothing. Our appearance can affect the way we view ourselves- self-image		
Positive self-image: <ul style="list-style-type: none"> • Feel good about yourself. • Healthy hair, skin, nails and teeth • Big social circle. • High self-esteem. • High self-confidence. 		Negative self-image <ul style="list-style-type: none"> • Low self-esteem • Low self-confidence • Can lead to eating disorders e.g. anorexia • Can lead to anxiety or depression • Can lead to self-harm • Negative impact on building relationships- social circle decreases. 

What we are learning this term:	
H.	Key words
I.	How do physical factors affect development?
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H	Key words:
Genetic inheritance	
Genetic disorders	
Lifestyle Choices	
Appearance	
Factor	
Gender role	
Culture	
Role models	
Social Isolation	
Material possessions	
Economic	

I.	How do physical factors affect development?	
	<u>Genetic Disorders</u>	<u>Disease and Illness</u>
Physical Development		
Intellectual Development		
Emotional Development		
Social Development		

J.	How does lifestyle affect development?	
Lifestyle choices include; diet, exercise, alcohol, smoking, sexual relationships and illegal drugs, appearance.		
<u>Positive lifestyle choices lead to:</u>		<u>Negative lifestyle choices lead to:</u>
<ul style="list-style-type: none"> • • • • • 		<ul style="list-style-type: none"> • • • • •
Our appearance includes: body shape, facial features, hair and nails, personal hygiene and our clothing. Our appearance can affect the way we view ourselves- self-image		
<u>Positive self-image:</u>		<u>Negative self-image</u>
<ul style="list-style-type: none"> • • • • • 		<ul style="list-style-type: none"> • • • • •



K How do social and cultural factors affect development

Development can be influenced by the persons **culture or religion** because it affected their:

- **Values:** how they behave
- **Lifestyle choices:** diet, appearance

Positive affects of a persons culture/religion:

- A sense of security and belonging from sharing the same values and beliefs with others.
- Good self-esteem through being accepted and valued by others

Negative affects of a persons culture/religion:

- Feeling discriminated against by people who do not share their religion/culture which leads to low self-image
- Feeling excluded and isolated because their needs like diet, are not catered for.

Community refers to: local area where people live, school, religious group or hobby clubs. They have common values and goals.

Belonging to a community:

- Brings sense of belonging essential for emotional development.
- Building and maintaining relationships- social development
- Feeling of security.
- Increases self-image and self-confidence

Not belonging to a community:

- Minimal contact with others- isolation
- Anxiety leading to depression
- Making negative lifestyle choices
- Feeling less secure
- Difficulty in building relationships
- Slow self-image and self-confidence

Traditionally, men and women had distinctive responsibilities and expectations which for their gender called **gender roles**. However, nowadays UK equality legislation stops people being discriminated against because of their gender.

What happens when people face discrimination because of gender:

- They might be excluded from a group
- They may be refused promotion at work
- They may be expected to carry out a particular role
- They may be paid less.

What we are learning this term:

- K. How do social and cultural factors affect development?
- L. How do relationships and isolation affect development?
- M. How do economic factors affect development?

L How do relationships and isolation affect development?

1 In adolescence, young people often argue with parents because they want more independence- negative affect on family relationships- can lead to isolation from them.

2 In later life, older people might need to rely on their children for support. This then has a positive affect on their development because all their need are catered for.

3 Relationships are important because they provide emotional security, contentment and positive self- esteem.

4 The breakdown of personal relationships can have a negative effect on persons PIES development:
Low self-esteem, loss of confidence, stress.

5 Isolation can happen when individuals do not have the opportunity of regular contact with others. They have no one to share their feelings, thoughts and worries with resulting in feeling insecure and anxious.

6 Isolation can happen because they live alone, are unemployed or retired, are discriminated against or have an illness or a disability.

7 People have role models- infants learn by copying others, and adolescence base their identity on their role models. Role models can influence how people see themselves compared to others and their lifestyle choices can be positive or negative.

M How do economic factors affect development

Having enough money gives individuals and their families feeling of content and security

Not having enough money causes stress and anxiety.

Having enough money means that the whole family is eating healthy.

Not having enough money can mean that the family is not about to eat well balanced diet, and this has a negative effect on their physical development

Elderly people rely on state pension to live which is not enough and have to cut down on travel, shopping, bills, therefore it speeds their aging process and lead to health decline.

Living in good housing with open spaces:

- Feeling good about themselves
- Be more likely to stay healthy,
- Space to take exercise
- Feel safe ad secure
- Warmth

Living in a poor housing with cramped and damp conditions:

- Have low self-esteem and self-image
- Be more likely to experience ill health
- Be lessson likely to exercise
- Anxious and stressed.

Material possession like a new phone or coat has a positive effect on the persons development because they might have more friends as they look nicer, high self-image.

Not having a phone or the newest trainers can have a negative affect in the persons self-image and self-esteem. They might feel isolated from others.



K How do social and cultural factors affect development

Development can be influenced by the persons **culture or religion** because it affected their:

- **Values:** how they behave
- **Lifestyle choices:** diet, appearance

<u>Positive affects of a persons culture/religion:</u>	<u>Negative affects of a persons culture/religion:</u>
•	•
•	•

Community refers to:

<u>Belonging to a community:</u>	<u>Not belonging to a community:</u>
•	•
•	•
•	•
•	•
•	•

Traditionally, men and women had distinctive responsibilities and expectations which for their gender called **gender roles**. However, nowadays UK equality legislation stops people being discriminated against because of their gender.

What happens when people face discrimination because of gender:

-
-
-
-

What we are learning this term:

- K. How do social and cultural factors affect development?
- L. How do relationships and isolation affect development?
- M. How do economic factors affect development?

L How do relationships and isolation affect development?

1	
2	
3	
4	
5	
6	
7	

M How do economic factors affect development

Having enough money....	Not having enough money
•	•
•	•
→	→
Having enough money means that....	Not having enough money can mean that...
•	•
•	•
→	→
Elderly people rely on state pension to live which is not enough and have to cut down on travel, shopping, bills, therefore it speeds their aging process and lead to health decline.	
<u>Living in good housing with open spaces:</u>	<u>Living in a poor housing with cramped and damp conditions:</u>
•	•
•	•
•	•
•	•
•	•
Material possession like a new phone or coat has a positive effect on the persons development because.....	Not having a phone or the newest trainers can have a negative affect on.... Because....
•	•
•	•
•	•
•	•
•	•

What we are learning this term:	
<p>N. What are life events? O. How do people deal with life events? P. How is dealing with life events supported?</p>	
N.	What are life events?
Life Events	Life events are expected or unexpected events that can affect development. Examples include starting nursery, getting married or becoming ill.
Expected Life Events	Expected life events are life events that are likely to happen. Examples include starting primary school aged four and secondary school aged 11.
Unexpected Life Events	Unexpected life events are events which are not predictable or likely to happen. Examples could include divorce and bereavement (the death of a loved one).
Physical Events	Physical events are events that make changes to your body, physical health and mobility. Examples include illnesses such as diabetes and injuries and accidents such as car accidents.
Relationship Changes	Relationship changes could be new relationships such as the birth of a sibling, a new friendship or romantic relationship. Relationship changes can also be changes to existing relationships such as divorce.
Life Circumstances	Life circumstances are different situations that arise in our life that we must deal with. Examples include redundancy (losing a job), moving house or retirement (finishing work in later adulthood).

O.	How do people deal with life events?
Individual	<ul style="list-style-type: none"> The effects of life events vary from person to person based on how they deal with their new situation. Some people react to able to react to life events positively, others find it more difficult due to a range of factors.
Factors	<ul style="list-style-type: none"> Factors that may affect how people cope with life events: age, other life events happening at the same time, the support they have, their disposition (their mood, attitude and general nature), their self-esteem, their resilience (how quickly they recover).
Adapting	<ul style="list-style-type: none"> Adapt – to adjust to new conditions or circumstances. Expected on unexpected life events can often force people to make changes to their lives. Individuals must find their own way to adapt to the changes that life throws at them.
Resilience	<ul style="list-style-type: none"> Resilience – a person's ability to come to terms with, and adapt to, events that happen in life. Resilience is stronger in people who have a positive outlook on life, accept that change happens, has supportive family and friends and plans for expected life events.
Time	<ul style="list-style-type: none"> Sometimes people need a long time to adapt to unexpected life events. It can take time for people to move on from and accept difficult changes in their life.

P.	How is dealing with life events supported?
Types of Support	How this helps individuals deal with life events
Emotional Support	Emotional support is needed to help individuals deal with all life events – expected and unexpected. Having someone to talk to helps people feel secure and adapt to change. Sometimes individuals can find this support in family and friends or professionals to process difficult life events – such as bereavement.
Information and Advice	Life events, particularly unexpected ones, can cause people to feel like they do not know what to do. Information and advice can help people to have a better understanding of their situation, which allows them to deal with it more successfully. Information and advice help them know where to go for help, the choices than are available to them and how to make healthy choices.
Practical Help	<ul style="list-style-type: none"> Financial help – an individual may need money to help them adapt to a life change i.e. money to pay for a stair lift if their mobility has been effected. Childcare – an individual may need support looking after their children i.e. a lone parent after a divorce that needs to go to work. Transport – an individual may need support with transport if they have mobility problems i.e. a car could be adapted to support a person who has had an accident and can no longer walk.
Informal Support	Informal support is the support an individual receives from partners, family and friends. It is usually the first form of support an individual experiences after and expected or unexpected life event. Informal support can provide reassurance, encouragement, advice, a sense of security, someone to talk through options with and practical help.
Professional Support	Formal support may be provided by statutory care services (the state), private care services and charitable organizations. Professional support may include counsellors, teachers, careers advisers, occupational therapists, social workers and health specialists. Professional support may be needed to help people with a health condition, regain mobility, deal with life changes and emotions, get advice and information or change their lifestyle.
Voluntary Support	Organizations offering voluntary support are charities, community groups and religious groups. At voluntary support services, many staff are volunteers (they work for free), but they also employ qualified people who are paid by donations. Community groups work at a local level to meet the needs of people living in a specific neighbourhood i.e. foodbanks. Religious groups are formed by people who share the same religious or spiritual beliefs but they help all people in need regardless of their beliefs and background i.e. a church run soup kitchen for the homeless.

What we are learning this term:		O.	How do people deal with life events?
N. What are life events? O. How do people deal with life events? P. How is dealing with life events supported?		Individual	
N.		Factors	
What are life events?		Adapting	
Life Events		Resilience	
Expected Life Events		Time	
Unexpected Life Events		P.	How is dealing with life events supported?
Physical Events		Types of Support	How this helps individuals deal with life events
Relationship Changes		Emotional Support	
Life Circumstances		Information and Advice	
		Practical Help	
		Informal Support	
		Professional Support	
		Voluntary Support	

SWINDON ACADEMY READING CANON

Year 7



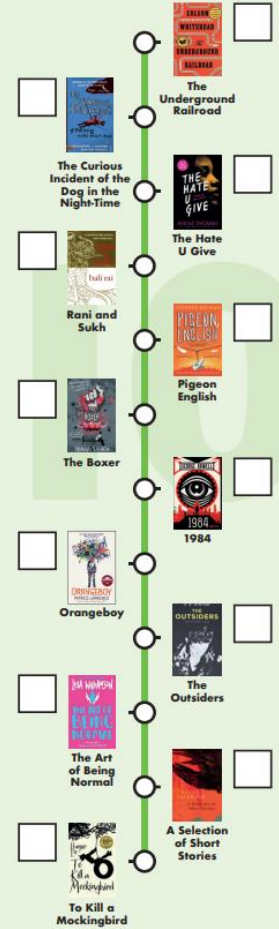
Year 8



Year 9



Year 10



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