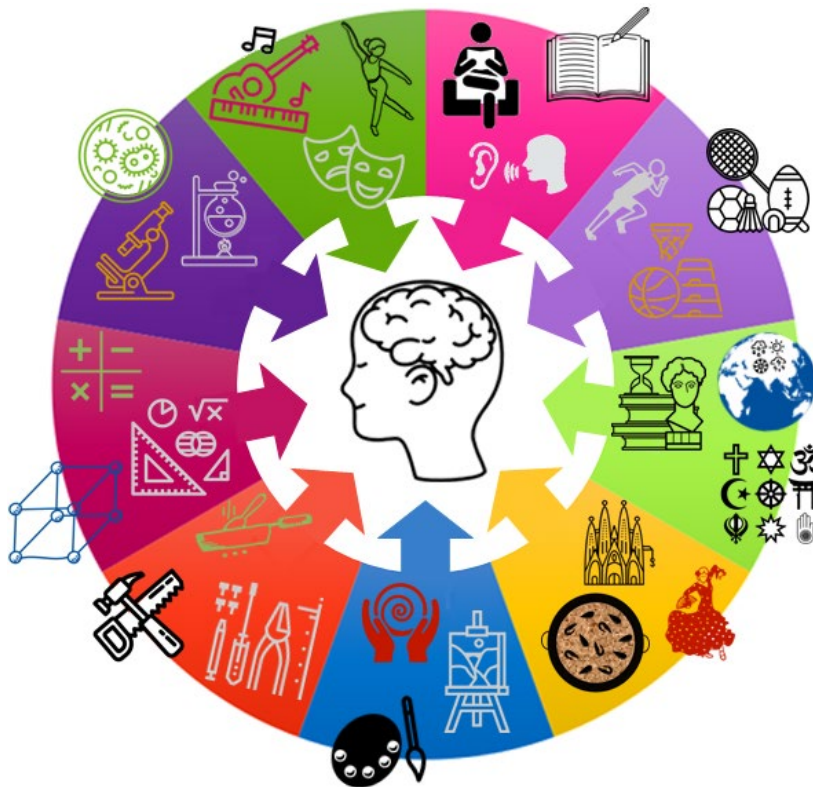


100% book - Year 10 Mainstream

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



Term 3

Swindon Academy 2024-25

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 the Epraise website interface. On the left is a weekly planner for May 2020. On the right is a knowledge organiser for 'What is particle theory?'. It contains several questions and answers related to particle theory, states of matter, and the law of conservation of mass.

Step 2

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

The image shows a knowledge organiser with handwritten notes. The date '29th May 2020' is written at the top. The title 'Particle theory' is written under the first question. The content includes questions about particle theory, states of matter, and the law of conservation of mass, with corresponding diagrams and answers.

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. The title 'Properties of the states of matter' is written. Below it, the definition 'Particle theory = all matter is made of particles' is written. The notes describe 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 'Solid = regular pattern particles vibrate in fixed position' is written three times in a row.

Step 5

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

The image shows a quizzable knowledge organiser with handwritten answers. The date '29th May 2020' is written at the top. The title 'Self quizzing' is written. The notes describe 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 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 date '29th May 2020' is written at the top. The title 'Particle theory = all matter is made of particles' is written. The notes describe 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). There are checkmarks and corrections throughout the notes.

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

ENGLISH –A Christmas Carol- Traditional

1. Context	
<p>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).</p>	<p>Biography of Dickens</p> <ul style="list-style-type: none"> 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.
<p>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.</p>	<p>London and inequality: Dickens juxtaposes scenes of middle-class comfort and poverty to emphasise the close proximity and contrast of the different classes. It highlights the Christian concept of 'love thy neighbour'. The urban setting allows Dickens to exercise his fondness for hyperbole, with the exaggerated extremes of poverty adding to the effect of the 'plight of the poor'.</p>
<p>The Poor Law, 1834 In order to deter poor people from claiming financial help, the government made claimants live in workhouses: essentially, prisons for the poor. Dickens hated this law. He spent 1843 touring factories and mines in England and wished to highlight the situation facing poor people. A Christmas Carol was published soon after – in December 1843.</p>	<p>Malthusian Theory The reformation of The Poor Law was partially informed by the writings of Thomas Malthus. 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 argued 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.</p>
<p>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).</p>	

2. Key Characters	
<p>Ebenezer Scrooge: The protagonist is initially established as an archetypal villain who dismisses the goodwill and generosity associated with Christmas. After being forced to transform, he feels remorse for his avarice and becomes a symbol of Christmas spirit. Scrooge embodies the relentless capitalist spirit of the time, but also demonstrates that everyone has the capacity to reform.</p>	
<p>Bob Cratchit: Bob is Scrooge's downtrodden but loyal employee. His family are a symbol of Victorian poverty, cheerfulness in adversity, togetherness and Christmas Spirit. Bob shows pity for Scrooge, and provides a contrast to Scrooge's isolation and meanness. His son, Tiny Tim, is an emblem for noble poverty; he accepts his disability without complaint.</p>	
<p>Fred: Fred juxtaposes the character of Scrooge and epitomises the concept of goodwill and forgiveness, refusing to be discouraged by his uncle's misery. People speak highly of Fred and his generosity, in contrast to how they speak of Scrooge. Fred shows that Scrooge has chosen isolation and shows forgiveness to Scrooge, welcoming him in Stave Five.</p>	
<p>Marley's Ghost: Marley's ghost is the spiritual representation of 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 too will experience the same guilt if he continues to deny people help.</p>	
<p>The ghosts: The Ghost of Christmas Past is a symbol of childhood, truth and enlightenment. The Ghost of Christmas Present represents goodwill, plenty and the festival of Christmas. The Ghost of Christmas Yet to Come symbolises a catastrophic future for mankind.</p>	
<p>Belle: The woman that Scrooge was engaged to when he was a young man. Belle's role is crucial in Scrooge's transformation, as the scenes show Scrooge what he might have had in his life if he had not been so avaricious. Through the character of Belle, Dickens sets emotional love directly against Scrooge's love of money and suggests that avarice can lead to a deprivation of kindness, love and empathy.</p>	

3. Central Themes	
<p>Social injustice</p>	<p>Dickens highlights the unfairness within society through the juxtaposition of the poor and wealthy. Through Scrooge's refusal to give to charity and his exclamation that the poor should be in workhouses or die, Dickens illustrates the selfishness of the higher classes and the injustice of wealth distribution in Victorian society. The children, Ignorance and Want, personify the dangerous consequences of allowing poverty to continue.</p>
<p>Transformation and redemption</p>	<p>By establishing Scrooge as an archetypal villain, Dickens is able to emphasise the idea that everyone is capable of transformation and redemption. From starting as a greedy, avaricious miser, Scrooge is able to reflect upon his actions and to understand that he must live his life helping others to avoid Marley's fate.</p>
<p>Social responsibility</p>	<p>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 seeking financial reward but having concern for others. Dickens highlights the importance of trying to make a difference – whether that be large financial contributions (Scrooge), smaller contributions (Fezziwig) or simply showing compassion and kindness to one another.</p>

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	
<p>Stave</p>	<p>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.</p>
<p>Intrusive Narrator</p>	<p>A narrator who interrupts the story to provide a commentary to the reader on some aspect of the story or on a more general topic. In 'A Christmas Carol' the narrator helps to shape our impressions of Scrooge.</p>
<p>Circular structure</p>	<p>Circular narratives cycle through the story one event at a time to end back where the story originated.</p>
<p>Allegory</p>	<p>A story that can be interpreted to reveal a hidden meaning, typically a moral or political one.</p>
<p>Allegorical figures</p>	<p>An allegorical figure is a character that serves two purposes: first, they are an important person in the story in their own right, and, second, they represent abstract meanings or ideas.</p>
<p>Foreshadowing</p>	<p>Foreshadowing is a literary device in which a writer gives an advance hint of what is to come later in the story.</p>
<p>Didactic</p>	<p>A type of literature that is written to inform or instruct the reader, especially in moral or political lessons.</p>
<p>Semantic Field</p>	<p>A set of words that are related in meaning. Dickens frequently uses semantic fields of warmth and coldness that are associated with the characters.</p>

1. Context

Writer: Dates: Genre: Era: Set: Structure:	<u>Biography of Dickens</u> • • • •
Christmas:	London and inequality:
The Poor Law, 1834	Malthusian Theory
The Supernatural:	

ENGLISH –A Christmas Carol- Traditional

2. Key Characters
Ebenezer Scrooge:
Bob Cratchit:
Fred:
Marley's Ghost:
The ghosts:
Belle:

3. Central Themes	
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	
Intrusive Narrator	
Circular structure	
Allegory	
Allegorical figures	
Foreshadowing	
Didactic	
Semantic Field	

T3 Year 10 Mainstream Combined Science P2 Mainstream Electricity

Domestic use of electricity

There are two types of electrical supply – direct (DC) and alternating current (AC)

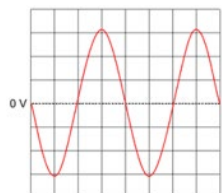
AC

The pd changes direction and magnitude, giving alternating current

The number of times the change of direction happens per second is the frequency.

UK mains is AC - **230V**

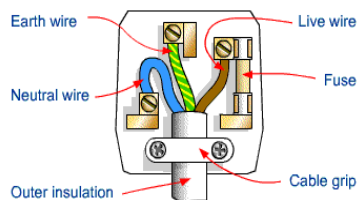
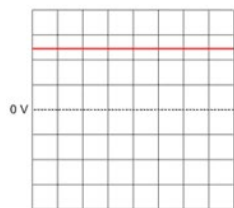
Frequency of **50 Hz**



DC

A direct pd produces current that flows in one direction

Batteries supply DC



Electrical appliances are connected using 3 core cable

- Brown – live wire, with pd of 230V
- Blue – neutral, 0V, completes the circuit
- Yellow and green – Earth wire, is at 0V unless there is a fault, when it will become live

Appliances in the home and power

Power is measured in Watts (W) or kW

Power can be calculated by using:

Power = Voltage x current

$$P = IV$$

Power = current² x resistance

$$P = I^2 R$$

Appliances transfer energy.

Energy is measured in Joules (J) or kJ

The energy transferred can be calculated by using:

Energy = charge flow x potential difference

$$E = QV$$

Energy = power x time

$$E = p t$$

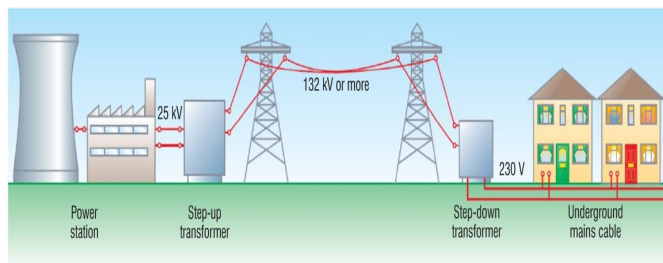
For example

A kettle transfers energy from the thermal store of the filament in the kettle to the thermal store of the water inside.

Some energy is transferred to the thermal store of the surroundings.

The National Grid

The National Grid is a system of cables and transformers connecting power stations to homes and businesses



The National Grid uses very high pd and low current.

High current causes heating in the wires and would result in large energy losses.

Step up transformers increase the pd from the power station (to around 400000V) so that low current can be used to transmit power.

This means the wires don't get hot, so less energy is lost.

Near homes and businesses, step down transformers reduce the pd to 230V for safety.

T3 Year 10 Mainstream Combined Science P2 Mainstream Electricity

Domestic use of electricity

1. What are the two types of current?
2. What type of power supply produces DC current?
3. What are the two differences between AC and DC current?
4. What is the pd of the UK mains supply?
5. What is the frequency of UK mains supply?
6. What colour is the live wire in UK plugs?
7. What is the purpose of the blue wire in UK plugs?
8. When does the yellow and green wire carry a current?

The National Grid

1. What is the National Grid?
2. What sort of pd does the National Grid use to transmit electrical power?
3. What is used to increase the pd from the power station?
4. What is used to reduce the pd near homes and businesses?
5. Why is such a high pd used?

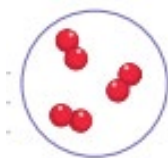
Appliances in the home and power

1. What is the equation linking current, potential difference and power?
2. What is the equation linking current, resistance and power?
3. What two factors affect how much energy an appliance transfers?
4. What is the equation linking energy, power and time?
5. What are the units for power?
6. What is the equation linking charge, energy and potential difference?
7. What are the units for energy?

T3 Year 10 Mainstream Combined Science C8 – Chemical Analysis

Pure substances

Pure = single element or compound – not mixed with any other substance.



Testing to see if a substance is pure:

- Pure substances have specific melting and boiling points

- Compare your data to a library of known values.

E.g. Water has a boiling point of 100°C, if it is above or below this, it is not pure.

Formulations

Formulation = a mixture that is designed as a useful product.

- Components mixed carefully to get the required **properties**.

Examples of formulations:

- Fuels
- Cleaning agents
- Paints
- Medicines
- Alloys
- Fertilisers
- Food



Chromatography

- Technique used to separate mixtures of **soluble substances**.
- How soluble a substance is determines how far it travels across paper.

More soluble = travels further (higher up paper)

Mobile phase

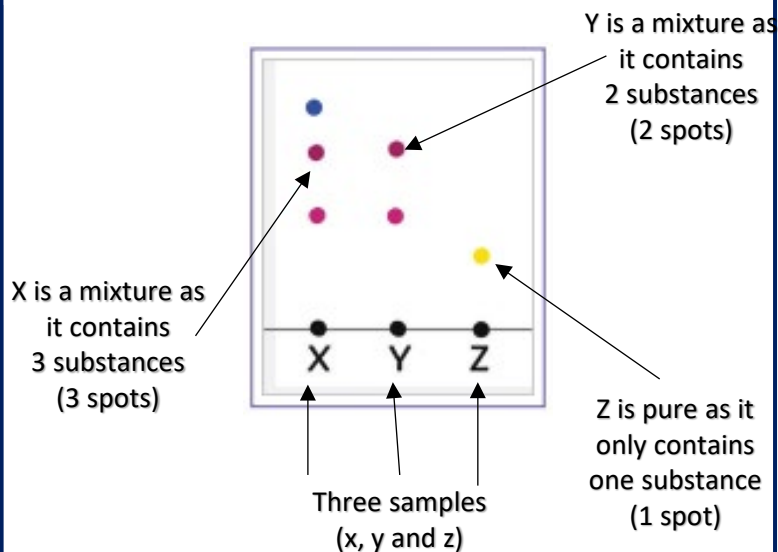
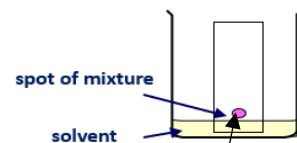
- **Solvent** is the mobile phase
- The substances dissolve in the solvent
- The solvent then moves through the stationary phase.

Stationary phase

- Does not move. The paper is the stationary phase.

Important – start line on paper must be drawn in **pencil** as pencil is **insoluble** and **will not run**

The spot and start line must be **above the solvent line** so the colours won't just wash into the solvent in the beaker.



R_f Values

This is the ratio of the distance moved by a substance to the distance moved by the compound

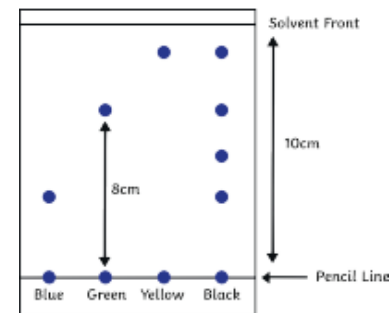
$$R_f = \frac{\text{distance travelled by substance}}{\text{distance travelled by solvent}}$$

- Should always be between 0 and 1.

- Each substance has a unique R_f value.

- Can compare R_f values to a library of known substances

- Can identify unknown substances.



R_f value of green:

$$8\text{cm} / 10\text{cm} = 0.8$$

T3 Year 10 Mainstream Combined Science C8 – Chemical Analysis

1. What is a pure substance?
2. How can you test that a substance is pure?

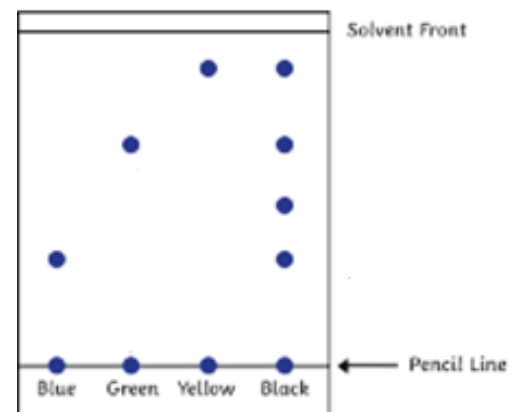
1. What is chromatography used for?
2. What determines how far the substance travels?
3. What is the mobile phase in paper chromatography?
4. What is the stationary phase in paper chromatography?

1. How do you calculate the Rf value?
2. Rf values should always be between...
3. Use a ruler to measure the distance the solvent moved in the diagram below.
4. Use a ruler to measure how far the yellow spot moved

1. What is a formulation?
2. Give 3 examples of formulations.

5. How would you be able to identify a pure substance on a chromatogram?
6. Draw and label a diagram of the experiment to Investigate how many different colours there are in food colouring using paper chromatography.

5. Calculate the Rf value for yellow





9. Global atmospheric circulation

Factor	Explanation
Global atmospheric circulation	Worldwide system of winds, which transport heat from the equator to the poles. Wind is large scale movement of air from HIGH to LOW pressure.
Key information	This is caused by differences in temperature at the Equator and the poles. The circulation is divided into loops called CELLS. Low pressure = Rising air = Rain. High pressure = Sinking air = Clear skies.
	At the poles, cool air sinks creating high pressure. (<250mm rainfall).
	At 60°N air rises between the <u>Ferrel</u> and Polar cell creating an area of low pressure. The UK gets lots of <u>low pressure</u> weather blown in from the Atlantic.
	At 30°N air sinks between the <u>Ferrel</u> /Hadley cell creating high pressure (deserts <250mm rain).
	On the equator air rises as the sun's heat is most concentrated. This creates a <u>low pressure</u> area with high rainfall. (Rainforests >2000mm of rain).
	Surface winds blow towards the equator (trade winds). Direct hurricanes to west.
	Here winds blow towards the poles and are called Westerlies. (From the west).
	The winds curve due to the spin of the earth (Coriolis effect).

10. Weather hazards in the UK

Hazard	Example
Extreme weather	A weather event that is significantly different from the average pattern and is especially severe or unseasonal.
Strong winds	Damage property / disrupt transport. 2018 Storm Ali killed 2 people.
Heavy rain	Can cause flooding, costing millions. Cockermouth 2009 314 mm in 24 hrs.
Snow	Injury, death, travel disruption. March 2018 Beast from East. 50 cm.
Drought	Crop failure, rules to conserve water. April 10-March 12 only 75% of rain.
Heatwaves	Pollution builds up- breathing problems. Death. BUT tourism benefits. 2018.

12. An example of a recent extreme weather event in the UK

Name	Somerset Floods, 2014
Causes	350mm rain fell in Jan and Feb High tides, rivers not dredged for 20 yrs
Impacts	<ol style="list-style-type: none"> £10 million damage 14,000 ha of farmland flooded 600 homes flooded Moorland and <u>Muchelney</u> cut-off Floodwaters contaminated Soil damaged for 2 years after
Management strategies	Immediate responses <ul style="list-style-type: none"> Army helped with rescue boats Volunteers and community groups Locals used boats to go shopping/school Long term responses <ul style="list-style-type: none"> £20 million flood action plan Rivers dredged Road levels raised Tidal barrage by 2024

11. Evidence that weather is becoming more extreme...

Our weather is naturally variable BUT extreme events are becoming more common and severe.

Hazard	Example
Temperature	10 warmest yrs all occurred since 1990 2018 joint hottest summer on record. Dec 2010 coldest month for 100 years.
Rainfall	More rainfall records broken between 2010 - 2014 than in any other decade. Dec 2015 wettest month on record.




9. Global atmospheric circulation	
Factor	Explanation
Global atmospheric circulation	
Key information	
<p>The diagram illustrates the three-cell model of global atmospheric circulation. It shows the Earth with latitude lines at 60°N, 30°N, 0° (Equator), 30°S, and 60°S. The Polar cell is located between the poles and 60° latitude, with air sinking at the poles and rising at 60° latitude. The Ferrel cell is between 60° and 30° latitude, with air sinking at 30° latitude and rising at 60° latitude. The Hadley cell is between the equator and 30° latitude, with air sinking at 30° latitude and rising at the equator. Wind patterns include Westerlies between 30° and 60° latitude and Trade winds between the equator and 30° latitude. High (H) and Low (L) pressure systems are indicated at the boundaries of the cells.</p>	

10. Weather hazards in the UK	
Hazard	Example
Extreme weather	
Strong winds	
Heavy rain	
Snow	
Drought	
Heatwaves	

11. Evidence that weather is becoming more extreme...	
Temperature	

12. An example of a recent extreme weather event in the UK	
Name	
Causes	
Impacts	
Management strategies	



13. Tropical storms	
Hurricanes, cyclones, typhoons. An area of low pressure with winds moving in a spiral around the calm central point called the eye of the storm. Winds are powerful and rainfall is heavy.	
Factor	Explanation
Global distribution	5° – 30° north and south of equator (sea temp warm, wind shear low). More in the northern hemisphere. Move towards the west.
Relationship with ACM	Trade winds (from high to low pressure) send tropical storms to west.
Structure	Circular, can be 100s of km wide. Eye- calm in centre (air ↓, LOW). Eyewall- strong winds, torrential rain. Edges- Wind speed falls, rain reduces.
	
How will climate change affect them?	
Distribution	Increase to higher latitudes (warmer sea temperatures).
Frequency	Number could increase. (Longer season)
Intensity	Stronger? More evaporation.


14. Formation of tropical storms	
Include processes and ensure correct sequence.	
Conditions	5-30° latitude. Ocean depth > 60m deep. Sea temperature > 27°C. Form summer and autumn.
<ol style="list-style-type: none"> 1. Sun heats the ocean (27°C) > rapid evaporation. 2. Condensation occurs quickly leading to a large amount of cloud forming (tropical depression). 3. Due to the earth's rotation, this cloud mass starts to spin. An eye is formed in the centre. 4. Due to rising air, a low pressure area forms below. Air rushes into this creating high wind speeds. (>74mph = tropical storm) 5. The low pressure results in the ocean being uplifted forming a storm surge. 	

15. How can we reduce the impacts?	
Strategy	Explanation
Prediction / monitoring	Satellites and aircraft to monitor storms. Computer models calculate the predicted track. Allows warnings so people can evacuate or protect their home.
Planning	New developments avoid high risk areas Emergency services train and prepare. Plan evacuation routes. Reduces the injuries and deaths.
Protection	Building design- reinforced concrete, stilts to reduce flood risk. Flood defences along rivers and coasts. Reduces the number of buildings destroyed so fewer injuries and deaths.

16. Tropical storms affect people and environments.		
	Generic	Typhoon Haiyan 2013 Philippines
Primary effects	Direct results of strong winds, high rainfall, storm surges. Flooding, buildings destroyed, death.	☠ 6,201 deaths. (Most drowned in storm surge.) ☠ 1.1 million houses damaged. ☠ 90% of Tacloban city destroyed.
Secondary effects	Homelessness > lead to poor health. Lack of sanitation > diseases (cholera) Food shortages, price increase.	☠ 4.1 million homeless. ☠ Damage cost US\$12 billion. ☠ 1.1 million tonnes of crops destroyed (rice).
Immediate responses	Evacuate before the storm. Rescue those affected. Provide food, water, blankets. Aid workers arrive from abroad. Recover dead bodies (prevent disease).	➢ Over 1200 evacuation shelters set up. ➢ Philippines Red Cross delivered basic food aid. ➢ UK sent shelter kits. ➢ 800,000 evacuated (warnings given 2 days early).
Long term responses	Repair homes and infrastructure. Promote economic recovery.	➢ More cyclone shelters built. ➢ No build zones. ➢ 'Cash for work' programmes.



13. Tropical storms

13. Tropical storms	
Factor	Explanation
Global distribution	
Relationship with ACM	
	
How will climate change affect them?	
Distribution	
Frequency	
Intensity	

14. Formation of tropical storms

14. Formation of tropical storms	
Conditions	

15. How can we reduce the impacts?

Strategy	Explanation
Prediction / monitoring	
Planning	
Protection	

16. Tropical storms affect people and environments.

	Generic	Typhoon Haiyan 2013 Philippines
Primary effects		<ul style="list-style-type: none"> ↓ ⊖
Secondary effects		<ul style="list-style-type: none"> ↓ ⊖
Immediate responses		<ul style="list-style-type: none"> ➤ ➤ ➤ ➤
Long term responses		<ul style="list-style-type: none"> ➤ ➤ ➤

Climate Change

Background:	
1.	Since the 1860s the global climate has been recorded.
2.	Since then the climate globally has increased by 0.8° Celsius.
3.	Climate scientists can use methods to find out about the global climate before we started recording it. (B)
4.	From this evidence we can see that the planet has always gone through periods of warming and cooling. (A)
5.	However, the rapid increase of carbon dioxide in the atmosphere from burning fossil fuels, is causing the enhanced greenhouse effect. (D)
6.	The enhanced greenhouse effect is causing changes to the planet, such as the melting of Arctic sea ice, rising temperatures, and an increase in extreme weather events such as tropical storms. (E, F)
7.	Countries are trying to resolve the climate change issue by limiting the amount of carbon dioxide released into the atmosphere, this is known as mitigation. (G, H)
8.	Some countries are trying to adapt to climate change by building flood barriers and growing drought resistant crops. (G, H)

A.	Changes in climate (3)	
Climate change	The process of the Earth's climate changing over time.	
Glacial periods	Cold periods.	
Inter-glacial periods	Warm periods.	

B.	Measuring climate change (3)	
Ice cores	Each layer of ice in a core represents a different year. CO ₂ can be measured in each layer, and therefore the temperature.	
Tree rings	Each ring represents a different year. Thicker rings show a warmer climate.	
Historical evidence	Paintings and diaries e.g. paintings of ice fairs on the frozen Thames 500 years ago.	

C.	Natural climate change (3)	
Volcanic eruptions	Ash from volcanic eruptions can block sunlight, making it colder.	
Sun spots	The sun can give out more energy due to an increase in sun spots.	
Orbital change	The orbit of the sun changes from oval (ellipse) to circular approx. 98,000 yrs.	

E.	Effects on people (6)	
Tropical storms	Increase in frequency and intensity so more damage.	
Sea-level rise	Increased risk of floods, damaging property and businesses.	
Melting Arctic ice	Affects trading routes in the Arctic Circle.	
More droughts/floods	Crop failure, could lead to starvation and famine.	
Cost of defence	Governments have to spend more money on disasters instead of developing.	
Environmental Refugees	Pressure on countries to accept refugees.	

G.	Strategies to resolve climate change (4)	
Adaptation	Adapting to climate change to make life easier.	
Adaptation examples (3)	<ol style="list-style-type: none"> 1. Building flood defences. 2. Growing new crops to suit the new climate. 3. Irrigation channels, sending water from areas of surplus to deficit. 	
Mitigation	Trying to stop climate change from happening by reducing greenhouse gases.	
Mitigation examples (3)	<ol style="list-style-type: none"> 1. International agreements. 2. Alternative energies. 3. Carbon capture. 	

D.	Human-induced climate change (5)	
Greenhouse effect	The way that gases in the atmosphere trap heat from the sun. Like glass in a greenhouse they let heat in, but prevent most from escaping.	
Greenhouse gases	Gases like carbon dioxide and methane that trap heat around the Earth, leading to climate change.	
Transport	More cars, so more CO ₂ causing the enhanced greenhouse effect.	
Farming	Farming livestock produces methane, this is a greenhouse gas.	
Energy	More energy required, meaning more fossil fuels burnt, so more CO ₂ .	

F.	Effects on the environment (4)	
Sea temperature rises	Coral bleaching and destruction of marine ecosystems.	
More droughts	Migration/ death of species which can not survive drought conditions.	
Melting glaciers (ice rivers)	Will send more fresh water into the sea, causing the sea level to rise.	
Melting Arctic ice	Loss of habitats for animals, such as polar bears.	

H.	Place specific examples (2)	
Adaption	<p>The Thames Barrier.</p> <p>Positive: Stops flooding due to rising sea levels.</p> <p>Negative: Expensive</p>	
Mitigation	<p>The Paris Agreement.</p> <p>Positive: Countries are trying to lower CO₂ emissions.</p> <p>Negative: The USA pulled out and China did not sign up.</p>	

Climate Change

Background:	
1.	Since the 1860s the global climate has been recorded.
2.	Since then the climate globally has increased by 0.8° Celsius.
3.	Climate scientists can use methods to find out about the global climate before we started recording it. (B)
4.	From this evidence we can see that the planet has always gone through periods of warming and cooling. (A)
5.	However, the rapid increase of carbon dioxide in the atmosphere from burning fossil fuels, is causing the enhanced greenhouse effect. (D)
6.	The enhanced greenhouse effect is causing changes to the planet, such as the melting of Artic sea ice, rising temperatures, and an increase in extreme weather events such as tropical storms. (E, F)
7.	Countries are trying to resolve the climate change issue by limiting the amount of carbon dioxide released into the atmosphere, this is known as mitigation. (G, H)
8.	Some countries are trying to adapt to climate change by building flood barriers and growing drought resistant crops. (G, H)

A.	Changes in climate (3)
Climate change	
Glacial periods	
Inter-glacial periods	

B.	Measuring climate change (3)
Ice cores	
Tree rings	
Historical evidence	

C.	Natural climate change (3)
Volcanic eruptions	
Sun spots	
Orbital change	

E.	Effects on people (6)
Tropical storms	
Sea-level rise	
Melting Arctic ice	
More droughts/ floods	
Cost of defence	
Environmental Refugees	

G.	Strategies to resolve climate change (4)
Adaptation	
Adaptation examples (3)	
Mitigation	
Mitigation examples (3)	

D.	Human-induced climate change (5)
Greenhouse effect	
Greenhouse gases	
Transport	
Farming	
Energy	

F.	Effects on the environment (4)
Sea temperature rises	
More droughts	
Melting glaciers (ice rivers)	
Melting Arctic ice	

H.	Place specific examples (2)
Adaption	
Mitigation	

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 a?	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 18 th and 19 th Century. (3.1-3.2)		
Causes	Prevention	Treatments

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

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

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3.2 Approaches to treatment and prevention
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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)
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
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<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	Continuance – despite the new ideas about the cause of disease and illness in the 18 th century, treatments to remove germs took longer to find
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	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	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
Spontaneous Generation – this theory stated that rotting matter caused bacteria to form, causing people to get ill	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
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		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

D. Key People (3.3)		
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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. 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 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.

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		<u>Causes</u>	<u>Prevention</u>	<u>Treatments</u>
		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
C. Fighting cholera in London , 1854 (3.3)		D. Key People (3.3)		
What is Cholera ?	Cholera was a terrible _____ disease that spread quickly across England from _____. There were lots of cases in _____ dwellings.	Edward Jenner	John Snow	Edwin Chadwick
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	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 _____.	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 _____.
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	Had successfully developed the first _____, which was supported by the government.		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 _____.
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			

A.	Can you define these key words?
microbes	Any living organism that is too small to see _____. Microbes include _____
vaccination	Treatment with a vaccine to _____ against a _____
spontaneous generation	Claimed _____ created microbes.
bacteriology	The study of _____
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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.
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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				
		<i>Jihad</i>			
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	
Du'a			Differences between Sunni and Shi'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	<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	<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	

Year 10 Spanish Knowledge Organiser

Term 3

ESPAÑOL 

This is some of the vocabulary that you will learn / come across in **Term 3**. Use this knowledge organiser to revise / go over vocabulary. These words have been added in by the exam board (Edexcel) so the more you learn, the better your grade!



¡HOLA!



¡HOLA!

Techniques for learning vocab:

- Look / cover / write / check – ask your teacher for a sheet and to show you how.
- Mind maps
- Post it notes / flash cards
- Record yourself saying them
- Get a family member to quiz you – they say the English, you say the Spanish
- Write the word in a sentence – put it into context

Spare copies of this kept in class. Just ask your teacher if you need one.

¡Qué rico! (pages 80–81):

Para ... el desayuno / la comida la merienda / la cena	For ... <i>breakfast / lunch</i> <i>afternoon snack / dinner</i>	Están hechos/as con ... Consiste(n) en ... verdura/carne/*pollo pescado/arroz	They are made with ... It consists / They consist of ... vegetables/meat/chicken fish/rice
una comida típica un plato popular	a typical meal a popular dish	¿Qué comida o bebida te gustaría probar? Me gustaría probar (la paella).	What food or drink would you like to try? I would like to try (paella).
¿De qué país es cada plato? El/La ... es de ... Los/Las ... son de ... México / España / Perú Chile / Argentina / Cuba	What country is each dish from? ... is from are from ... Mexico / Spain / Peru Chile / Argentina / Cuba	¿Por qué te gustaría probarlo/la/los/las? Porque ... parece/suena rico/a me gusta(n) ... es (muy) sano/a. tiene muchos beneficios para la salud.	Why would you like to try it/ them? Because ... it looks/sounds tasty I like ... it is (very) healthy. it has lots of health benefits.
argentino/a / chileno/a colombiano/a / cubano/a español(a) / inglés/inglesa mexicano/a / peruano/a venezolano/a	Argentinian / Chilean Colombian / Cuban Spanish / English Mexican / Peruvian Venezuelan	¡A comer! ¡Buen provecho!	Let's eat! Enjoy your meal!
¿En qué consiste(n)? Está hecho/a con ...	What is it / are they made of? It is made with ...		

¿Llevas una vida sana? (pages 82–83):

¿Cómo es tu *rutina?	<i>What is your routine like?</i>
Por la mañana/tarde/noche ...	<i>In the morning/afternoon/night ...</i>
Durante el día/la semana ...	<i>During the day/week ...</i>
El fin de semana ...	<i>At the weekend ...</i>
Los domingos ...	<i>On Sundays ...</i>
todos los días / fines de semana	<i>every day / weekend</i>
algunos días / fines de semana	<i>some days/weekends</i>
Primero / Luego ...	<i>First / Later/Afterwards ...</i>
Finalmente ...	<i>Finally ...</i>
Antes de / Después de ...	<i>Before / After ...</i>
hacer los deberes	<i>doing homework</i>
levantarme / vestirme	<i>getting up / getting dressed</i>
terminar las clases	<i>finishing classes</i>
tomar el desayuno	<i>having breakfast</i>
volver a casa / acostarme	<i>returning home / going to bed</i>
¿Qué costumbres sanas tienes?	<i>What healthy habits do you have?</i>
Duermo (bien) / *entreno	<i>I sleep (well) / I train</i>
Hago diez minutos de ejercicio.	<i>I do ten minutes of exercise.</i>

Llevo una botella de agua.	<i>I carry a bottle of water.</i>
Me levanto / Me acuesto ...	<i>I get up / I go to bed ...</i>
a las ... / a la misma hora	<i>at ... (o'clock) / at the same time</i>
tarde / temprano	<i>late / early</i>
Tomo un descanso / Me relajo	<i>I have a rest / I relax</i>
Suelo comer / hacer *meditación	<i>I usually eat / do meditation</i>
Tengo / Tienes / Tiene ...	<i>I am / you are / he/she is ...</i>
sed/hambre	<i>thirsty/hungry</i>
sueño/calor	<i>sleepy/hot</i>
¿Tienes costumbres malsanas?	<i>Do you have any unhealthy habits?</i>
Si tengo hambre/sed, ...	<i>If I'm hungry/thirsty, ...</i>
tomo / como / bebo ...	<i>I have / eat / drink ...</i>
mucha agua.	<i>lots of water.</i>
algunos/muchos *dulces.	<i>some/lots of sweets.</i>
algunas/muchas verduras.	<i>some/lots of vegetables.</i>
chocolate/fruta/pasta.	<i>chocolate/fruit/pasta.</i>

¿Somos lo que comemos? (pages 84–85):

¿A qué hora tomas ... el desayuno/almuerzo? la merienda/cena?	<i>What time do you have ... breakfast/lunch? afternoon snack/dinner?</i>
Normalmente/Generalmente lo/la tomo ... entre las ... y las ...	<i>Normally/Generally I have it ... between ... and ...</i>
A veces como a las ...	<i>Sometimes I eat at ...</i>
¿Te gustaría probarlos/las?	<i>Would you like to try them?</i>
Te recomiendo ...	<i>I recommend ...</i>
Hay que probar ...	<i>You have to try ...</i>
Es un postre / una bebida ... rico/a / típico/a.	<i>It is a ... dessert/drink. tasty/typical</i>
Me gustaría probarlo/la/ probarlos/las ...	<i>I would like to try it/them ...</i>
porque parece/suena ...	<i>because it looks/sounds ...</i>
porque parecen/suenan ...	<i>because they look/sound ...</i>

¿Cómo es tu dieta?	<i>What is your diet like?</i>
(No) Tengo una dieta sana porque ... soy vegano/a / vegetariano/a como comida sana/malsana como demasiados *dulces/ pasteles	<i>I (don't) have a healthy diet because ... I am vegan / vegetarian I eat healthy/unhealthy food I eat too many sweets/cakes</i>
¿Qué hay que hacer para tener una dieta sana?	<i>What do you have to do to have a healthy diet?</i>
Hay que / Se necesita ...	<i>You have to / need to ...</i>
Hace falta ...	<i>It is necessary to ...</i>
comer una dieta equilibrada tener cuidado con la cantidad de azúcar que tomas	<i>eat a balanced diet be careful with the amount of sugar you have</i>

¡Los tiempos cambian! (pages 86–87):

¿Cómo eras antes?	<i>What were you like before?</i>
Cuando era pequeño/a ...	<i>When I was little</i>
Cuando era más joven ...	<i>When I was younger ...</i>
Antes / Cuando tenía ... años, ...	<i>Before / When I was ... years old, ...</i>
dormía bien/mal	<i>I slept well/badly</i>
me levantaba / me acostaba ...	<i>I got up / I went to bed ...</i>
temprano/pronto / tarde	<i>early / late</i>
(no) era muy activo/a.	<i>I was (not) very active.</i>
(no) tenía ...	<i>I had / I didn't have ...</i>
(mucha) energía	<i>(lots of) energy</i>
una vida sana	<i>a healthy life</i>
(nunca) iba al gimnasio	<i>I (never) went to the gym</i>

¿Qué te gustaba comer y beber?	<i>What did you like to eat and drink?</i>
Solía comer / beber ...	<i>I usually ate / drank ...</i>
(No) Comía ...	<i>I ate / I didn't eat ...</i>
Bebía demasiado café.	<i>I drank too much coffee.</i>
Me encantaban los postres.	<i>I loved desserts.</i>
Me gustaba comer *dulces.	<i>I liked eating sweets.</i>

¿Qué hacías en tu tiempo libre cuando eras pequeño/a?	<i>What did you do in your free time when you were little?</i>
(No) Hacía (mucho/suficiente) ejercicio/deporte.	<i>I did / didn't do (lots of/enough) exercise/sports.</i>
(No) Iba a la piscina (tres veces a la semana).	<i>I went / didn't go to the pool (three times a week).</i>
(No) Montaba en *bici (cada día).	<i>I rode / didn't ride my bike (every day).</i>
(No) Jugaba ...	<i>I played / didn't play ...</i>

(Siempre) Estaba cansado/a y enfermo/a. *I was (always) tired and sick.*

¿Cómo es tu *rutina ahora?
Cuido más mi dieta. *What is your routine like now?
I look after my diet more.*

¿Cómo eres ahora?
Me siento mucho mejor.
Soy bastante activo/a.
No / **Ya no** ...
hago (mucho) ejercicio/
deporte
hago nada para **mantenerme**
en forma
me levanto temprano como
antes *What are you like now?
I feel a lot better.
I am quite active.
I don't / no longer ...
do (lots of) exercise/sports
do anything to stay in shape
get up early like before*

¿Qué te gusta comer y beber?
(No) Como comida rápida/
malsana.
(**Ya no**) Bebo/Como ...
Prefiero las bebidas con azúcar.
Me gusta comer comida sana. *What do you like to eat and drink?
I (don't) eat fast/unhealthy food.
I (no longer) eat/drink ...
I prefer sugary drinks.
I like to eat healthy food.*

¿Qué haces en tu tiempo libre?
(No) Hago ejercicio/deporte.
(No) **Voy** al **gimnasio**/cine.
(No) Juego a *los videojuegos. *What do you do in your free time?
I (don't) do exercise/sports.
I (don't) go to the gym/cinema.
I (don't) play videogames.*

¡Qué mal estoy! (pages 88–89):

¿Qué te pasa?	<i>What's the matter with you?</i>
Me / te / le duele(n) ...	<i>My / your / his/her ... hurt(s)</i>
el brazo / el estomago	<i>arm / stomach</i>
el pie / la boca / la mano	<i>foot / mouth / hand</i>
la cabeza / la espalda	<i>head / back</i>
la garganta / la nariz	<i>throat / nose</i>
la rodilla / la pierna	<i>knee / leg</i>
los oídos / los ojos / los dedos	<i>ears / eyes / fingers</i>
los dientes / (todo) el cuerpo	<i>teeth / (whole) body</i>
Estoy (muy) enfermo/a.	<i>I am (very) sick.</i>
Me siento (muy) mal.	<i>I feel (very) unwell.</i>
No me siento bien porque tengo ...	<i>I don't feel well because I have ...</i>
fiebre / dolor de cabeza una herida	<i>a fever / a headache an injury</i>
Ayer / La semana pasada ...	<i>Yesterday / Last week ...</i>
me rompí / me corté ...	<i>I broke my / I cut my ...</i>
me quemé ...	<i>I burned my ...</i>

la pierna/**piel**

leg/skin

¿Desde cuándo estás así?	<i>Since when have you been like this?</i>
desde (ayer)	<i>since (yesterday)</i>
desde hace una hora / más de (dos días)	<i>for an hour / more than (two days)</i>
Debes / Necesitas ...	<i>You must / You need to ...</i>
Tienes que ...	<i>You have to ...</i>
quedarte en la cama / en casa	<i>stay in bed / at home</i>
descansar/dormir	<i>rest/sleep</i>
comprar medicinas (en la farmacia)	<i>buy medicine (at the chemist's)</i>
evitar el sol	<i>avoid the sun</i>
recuperarte/relajarte	<i>recover/relax</i>
ir al médico /hospital	<i>go to the doctor's/hospital</i>
Voy a pedir cita con el médico .	<i>I am going to ask for a doctor's appointment.</i>

Mi salud, de la cabeza a los pies (pages 90–91):





¿Cómo cambiarás tu estilo de vida?	<i>How will you change your lifestyle?</i>
Si deajo de comer/beber/fumar, ...	<i>If I stop eating/drinking/smoking, ...</i>
Si duermo (al menos ocho horas), ...	<i>If I sleep (at least eight hours), ...</i>
Si practico más deporte, ...	<i>If I practise more sport, ...</i>
Si tengo (una vida más activa), ...	<i>If I have (a more active life), ...</i>
me sentiré más feliz	<i>I will be happier</i>
mi salud física/mental mejorará	<i>my physical/mental health will improve</i>
dormiré mejor	<i>I will sleep better</i>
me levantaré con más energía	<i>I will wake up with more energy</i>

¿Qué harás para mejorar tu salud en el futuro?	<i>What will you do to improve your health in the future?</i>
Para cambiar esta mala costumbre, ...	<i>To change this bad habit, ...</i>
Para mejorar mi dieta/salud ...	<i>To improve my diet/health ...</i>
dormiré más tiempo / beberé agua	<i>I will sleep longer / I will drink water</i>
no usaré el móvil (después de las nueve)	<i>I won't use my mobile (after nine o'clock)</i>
iré (al gimnasio)	<i>I will go (to the gym)</i>
evitaré beber alcohol y fumar	<i>I will avoid drinking alcohol and smoking</i>
empezaré a practicar deporte	<i>I will start practising sport</i>

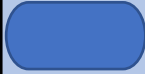

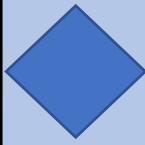
Year 10 Computer Science – Term 1 Answers

A.	Terms
Abstraction	The process of removing all unnecessary details from a problem.
Algorithm	The sequence of steps required to carry out a specific task.
Assignment	Setting the value of a variable in a computer program.
Data	Units of information which are acted upon by instructions.
Decomposition	Breaking down a problem into smaller steps that are easier to work with and solve.
Flowchart	A diagram which shows the step-by-step flow of an algorithm.
Input	Data which is inserted into a system to be processed or stored.
Output	Data which is sent out of a system.
Process	An action taken by the program without input from the user.
Pseudocode	A method of writing an algorithm using plain English.
Variable	A memory location within a computer where values are stored.

What we are learning this term:		
A. Terms B. Common Algorithms C. Flowcharts D. Data Types		
B.	Common Algorithms	Worked Example
Binary Search	Compares the search object to the middle point of a sorted list. If they are not equal, the half in which the target cannot lie is eliminated and the search continues on the remaining half, again taking the middle point to compare to the search object, and repeating this until the target value is found or the end is reached.	2,5,6 searching for 6 Midpoint 5 5 < 6, remove left side of list 2,5,6 Midpoint 6 6 == 6 Item found
Bubble Sort	Sorts a list by continuously stepping through a list, swapping items until they appear in the correct order.	5, 1, 3 1, 3, 5 1st pass complete 1, 2, 5 1, 2, 5 2nd pass complete - sorted
Linear Search	Compares the search object with each item in the list in order from the beginning until it is found or the end is reached.	2,6,5 searching for 6 2 != 6 2,6,5 6==6 Item found
Merge Sort	Sorts a list by repeatedly dividing a list into two until all the elements are separated individually. Pairs of elements are then compared, placed into order and combined. The process is then repeated until the list is recompiled in the correct order as a whole.	5, 1, 3 5, 1 3 Break list into sublists 5 1 3 Until sublists contain 1 # 1, 5 3 Merge pairs 1, 3, 5 Until all sublists merged

C.	Flowchart Symbol		
	Symbol	Usage	Symbol Name
		The start or end of the algorithm.	Terminator
		An action which occurs during the algorithm.	Process
		Data is either inputted to or outputted from the algorithm.	Input/ Output
		A Yes/No, True/False decision.	Decision
D.	Data Types		Example
	Boolean	TRUE/FALSE or 1/0	TRUE or 1
	Character	A single, alphanumeric character.	1 or A or !
	Integer	Whole numbers	15
	String	One or more alphanumeric characters.	1A!
	Real/Float	Decimal numbers	15.5

Year 10 Computer Science – Term 1

A.	Terms	What we are learning this term:		C.	Flowchart Symbol		
	Abstraction	A. Terms B. Common Algorithms C. Flowcharts D. Data Types			Symbol	Usage	Symbol Name
	Algorithm						
	Assignment						
	Data						
	Decomposition						
	Flowchart						
	Input						
	Output						
	Process						
	Pseudocode						
	Variable						
B.	Common Algorithms	Worked Example					
	Binary Search		2,5,6 searching for 6				
	Bubble Sort		5,1,3				
	Linear Search		2,6,5 searching for 6				
	Merge Sort		5,1,3				
D.	Data Types	Example					
	Boolean						
	Character						
	Integer						
	String						
	Real/Float						

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 <u>period of time</u> 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	

24. Cash Flow Forecasts

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

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- Careful allowance for in flows and outflows of cash

Key Term	Definition
Opening Balance	

26. Long Term Sources of Finance

Term	Definition
Crowdfunding	
Share Capital	
Venture Capital	
Retained Profit	



Year 10 PRODUCT DESIGN Term 3



A. Physical & Working Properties	What we are learning this term:		E. 6 R's
Physical properties are the traits a material has before it is used.	A. Physical & Working Properties B. Forces & Stressors C. Types of Motion D. Paper & Card/Boards E. 6 R's F. Natural & Manufactured Timbers		You can use the 6R's when designing to help reduce the impact that new products have on the environment.
Absorbency Ability to soak up moisture, light or heat	B. Forces and Stressors	C. Types of Motions	Repair It's better to fix things instead of throwing them away.
Density How solid a material is			Reuse You can extend a products life by passing it on or using it again.
Fusibility Ability of a material to be heated and joined to another material when cooled	Forces apply stress to objects, causing them to break or change shape.	Linear Moves something in a straight line. E.g. a train moving down a track	Recycle The uses less energy than obtaining new materials.
Electrical Conductivity Ability to conduct electricity	Different materials can withstand different forces.	Reciprocating Has a repeated up and down motion or back-and-forth motion. E.g a piston or pump	Rethink You should think about your design carefully. Is it needed?
Thermal Conductivity Ability to conduct heat	Tension Is a stretching or pulling force. E.g. the ropes of a suspension bridge	Rotary Is where something moves around an axis or pivot point. E.g a wheel	Reduce Making long-lasting durable products. Think rechargeable!
Working properties are how a material behaves when it is manipulated.	Compression Is a pushing or squashing force, e.g. the weight of a building on its foundation	Oscillating Has a curved backwards and forwards movement that wings on an axis or pivot point. E.g a swing or clock pendulum	Refuse You can refuse to buy a product if you think it is wasteful. Such as plastic bags.
Strength Ability of a material to withstand compression, tension and shear	Bending Is a combination of tension and compression. It exerts tension on one side and compression on the other, e.g. bending anything	D. Paper & Card/Boards	F. Natural & Manufactured Timbers
Hardness Ability to withstand impact without damage	Shear Is a cutting force. The opposing forces are not directly opposite each other, e.g. cutting paper with scissors.	Paper and cards/boards both come from wood pulp.	Natural timber comes from trees.
Toughness Materials that are hard to break or snap are tough & can absorb shock	Torsion Is a twisting force that attempts to rotate two ends of a material in opposite directions, e.g. wringing out a wet cloth.	Paper Board	Hardwood Softwood
Malleability Being able to bend or shape easily would make a material easily malleable		Cartridge Paper Corrugated Card	Ash Larch
Ductility Materials that can be stretched are ductile		Grid Paper Duplex Board	Beech Pine
Elasticity Ability to be stretched and then return to its original shape		Layout Paper Foil-Lined Board	Mahogany Spruce
		Tracing Paper Foam Core Board	Oak Softwoods are faster growing and cheaper to buy.
		Corrugated Card Inkjet Card	Balsa
		Solid White Board	Manufactured Boards
			Manufactured boards are usually made from natural timber waste and adhesive.
			Medium-density fibreboard (MDF)
			Plywood
			Chipboard



Year 10 PRODUCT DESIGN Term 3



A. Physical & Working Properties	
Physical properties are _____.	
Absorbency 	
	How solid a material is
Fusibility 	
	Ability to conduct electricity
Thermal Conductivity 	Ability to conduct heat
Working properties are _____.	
Strength 	
	The ability to withstand impact with damage
Toughness 	
	Being able to bend or shape easily would make a material easily malleable
Ductility 	
Elasticity 	Ability to be stretched and then return to its original shape

What we are learning this term:
 A. Physical & Working Properties B. Forces & Stressors C. Types of Motion
 D. Paper & Card/Boards E. 6 R's F. Natural & Manufactured Timbers

B. Forces and Stressors	
Forces apply _____ to objects, causing them to _____ or _____.	
Different materials can withstand different forces.	
Tension 	
	Is a pushing or squashing force, e.g. _____
Bending 	
	Is a cutting force. The opposing forces are not directly opposite each other, e.g. _____
Torsion 	

C. Types of Motions	
Linear 	
	Has a repeated up and down motion or back-and-forth motion. E.g _____
Rotary 	
	Has a curved backwards and forwards movement that wings on an axis or pivot point. E.g _____

D. Paper & Card/Boards	
Paper and cards/boards both come from _____.	
Paper	Board
Cartridge Paper	
	Duplex Board
Layout Paper	
	Foam Core Board
Corrugated Card	
	Solid White Board

E. 6 R's	
You can use the 6R's when designing to help reduce the impact that new products have on the environment.	
Repair 	
	You can extend a products life by passing it on or using it again.
Recycle 	
	You should think about your design carefully. Is it needed?
Reduce 	
	You can refuse to buy a product if you think it is wasteful. Such as plastic bags.

F. Natural & Manufactured Timbers	
Natural timber comes from _____.	
Hardwood	Softwood
Ash	
	Pine
Mahogany	
	Softwoods are _____
Balsa	
Manufactured Boards	
Manufactured boards are usually made from _____.	
Plywood	

Film Music

Area of study 3 - Eduqas GCSE Music



Some film **SOUNDTRACKS** include specially composed **SCORES**, either for orchestra (e.g. composers like John Williams, Ennio Morricone) or songs written especially for the film (e.g. Disney films). Other films use pre-existing music e.g. popular songs from the era/place in which the film is set.

STRINGS

- Violin
- Cello
- Viola
- Double bass
- Harp

WOODWIND

- Flute
- Clarinet
- Oboe
- Bassoon
- Saxophone

BRASS

- Trumpet
- Trombone
- French horn
- Tuba

KEYBOARDS

- Piano
- Electronic keyboard
- Harpsichord
- Organ
- Synthesizer

PERCUSSION

- Bass drum
- Snare drum
- Triangle
- Cymbal
- Drum kit (untuned)
- Timpani
- Glockenspiel
- Xylophone (tuned)

OTHER

- Electric guitar
- Bass guitar
- Spanish/classical guitar
- Traditional world instruments

Musical elements

Film composers use the **MUSICAL ELEMENTS** (tempo, texture, dynamics, timbre, tonality, rhythm, melody, harmony) to create mood and atmosphere to help to tell the story and enhance the action.

For example:

In a sad, reflective scene, a composer might use slow tempo, minor tonality, soft dynamics, legato, homophonic texture, long sustained notes, and a conjunct melody.

An exciting car chase scene in a thriller might have a fast tempo, busy, polyphonic texture, dissonant chords, loud dynamics, syncopated rhythms, a disjunct melody and short riffs.

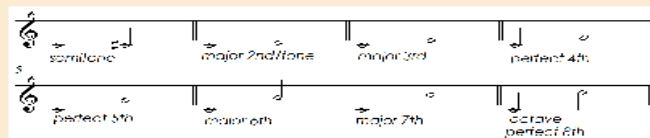
A scene where the superhero 'saves the day' might use a major tonality, brass fanfares, loud dynamics, accents, 4th and 5th (intervals).

Composers will often use **CONTRASTS** to create effect (e.g. using a wide range of pitch from very high to very low).

Intervals

Film composers often use intervals to create a particular effect (e.g. a rising perfect 4th sounds 'heroic', and a semitone can sound 'menacing').

An interval is the distance between two notes.



Rising interval: moving upwards (ascending)

Falling interval: moving downwards (descending)

Specific instrumental terms

Pizzicato	Plucking the strings.
Divisi	Two parts sharing the same musical line.
Double stopping	Playing two strings at the same time.
Arco	Using a bow to play a stringed instrument.
Tremolo	A 'trembling' effect, moving rapidly on the same note or between two chords (e.g. using the bow rapidly back and forth).
Tongued	A technique to make the notes sound separated (woodwind/brass).
Slurred	Notes are played smoothly.
Muted	Using a mute to change/dampen the sound (brass/strings).
Drum roll	Notes/beats in rapid succession.
Glissando	A rapid glide over the notes.
Trill	Alternating rapidly between two notes.
Vibrato	Making the notes 'wobble' up and down for expression.

Composers also use:

Theme	The main tune/melody.
Motif	A short musical idea (melodic or rhythmic).
Leitmotif	A recurring musical idea linked to a character/object or place (e.g. Darth Vader's motif in Star Wars).
Underscoring	Music playing underneath the dialogue.
Scalic	Melody follows the notes of a scale.
Triadic	Melody moves around the notes of a triad.
Fanfare	Short tune often played by brass instruments, to announce someone/something important; based on the pitches of a chord.
Pedal note	A long, sustained note, usually in the bass/lower notes.
Ostinato/riff	A short, repeated pattern.
Conjunct	The melody moves by step.
Disjunct	The melody moves with leaps/intervals.
Consonant harmony	Sounds 'good' together.
Dissonant harmony	Sounds 'clashy'.
Chromatic harmony	Uses lots of semitones/accidentals that's not in the home key.
Minimalism	A style of music using repetition of short phrases which change gradually over time.

Question	Answer	Question	Answer
What is a Theme in film music?		What does the word Interval mean?	
Define Pizzicato		A _____ Texture is typically used for a sad scene	Polyphonic Monophonic Homophonic
What is Minimalism ?		A Major tonality is used for what kind of scene?	
How does a Rising Perfect 4th sound?		What is a Trill ?	
Define Ostinato		The term for a piece of music written for a film is a.....	Score Soundtrack
What Dynamics could be used in a car chase scene?	<i>pp p f ff mp mf</i>	What is a Falling interval ?	
Circle the correct definition for Conjunct	<ol style="list-style-type: none"> The melody moves in leaps The melody moves in steps The melody moves in octaves The melody repeats the same 3 notes 	List 3 film composers	
What is Vibrato ?		If notes are Slurred they are played?	Short and snappy Smoothly
What do composers use to create effect? Circle the correct answer	Contrast Brass Fanfares Dynamics	What interval is an Octave ?	Perfect 4th Major 2nd Minor 2nd Perfect 8th
What is the term for a theme that is repeated throughout a film?		What does Scalic mean?	



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

Can you give examples of managers from different sports?	
<p>Gareth Southgate</p> <p>Eddie Jones</p>	

Role models	
<p>Positive</p> <p>Mo Farah</p> <p>Nicole Adams</p>	<p>Negative</p> <p>Luis Suarez</p> <p>Nick Kyrgios</p>

Key sections	
Different leadership roles and opportunities	

<p>Captain</p> <p>Coach</p> <p>Expedition leader</p>	<p>Manager</p> <p>Teacher</p> <p>Role model</p>
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Role related responsibilities	
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<p>Knowledge of;</p> <p>Activity</p> <p>Safety</p> <p>Child protection</p> <p>Basic first aid</p>	<p>Enthusiasm for activity</p>
---	--------------------------------

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	
<p>Knowledge of activity</p> <p>Enthusiasm for activity</p> <p>Knowledge of safety</p> <p>Knowledge of child protection issues</p> <p>Knowledge of basic first aid</p>	

G. Considerations when planning sports activities	
Session content	<p>Objectives for the session</p> <p>appropriate venue</p> <p>Equipment needs</p> <p>Supervision needs</p> <p>Timing of activities</p> <p>Introduction/conclusion of session</p> <p>Basic warm up/cool down</p> <p>Skills and technique development</p> <p>Engaging</p> <p>Organisation</p>

Personal qualities	
<p>Reliability</p> <p>Punctuality</p> <p>Confidence</p> <p>Communication</p> <p>Creativity</p>	

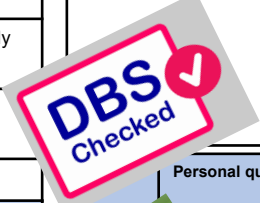
Safety	<p>Risk assessments- facilities, equipment/clothing checks, activity-specific risks</p> <p>Corrective action- wiping up puddles, removing litter, reporting faulty equipment</p> <p>Emergency procedures- procedures in the event of an accident, procedures in the event of other emergencies, summoning qualified help, completion of relevant documents</p>
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Personal qualities	
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<p>Reliability</p> <p>Punctuality</p> <p>Communication</p> <p>Confidence</p> <p>Creativity</p>
--

Leadership styles	
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<p>Autocratic</p> <p>Democratic</p> <p>Laissez-faire</p>
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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

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

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Role related responsibilities

--	--

Personal qualities

--	--

Leadership styles

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What we are learning this term:

A. Health & Safety

B. Manufacturing processes

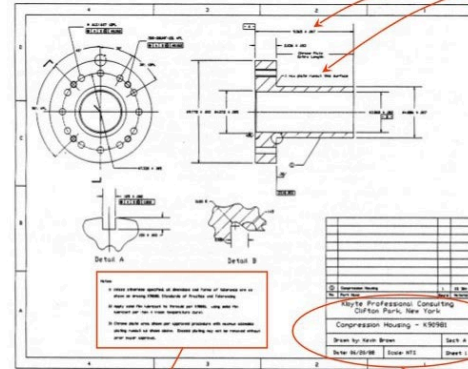
C. reading technical drawings

D. Tools & Equipment



A. Health & Safety	
Risk Assessment	A risk assessment is the analysis of the risks involved when using equipment or performing a process.
Hazard – something that may harm someone. Risk – how likely a hazard is to happen. Control measure – actions taken to reduce the risk of harm	
Ejection hazard – material being thrown out of the machine toward the user	Entrapment hazard – the user being caught and pulled into the moving parts of the machine
Inhalation hazard – people in the vicinity of the hazard breathe in harmful dust or chemicals	Sharp force hazard – the user is cut, stabbed or scraped by the sharp material.
Slip, trip and fall hazards – common hazards caused by unclean or cluttered workspaces.	Blunt force hazard – a victim is crushed, hit or bruised by the blunt object. Major blunt trauma can cause fractures or internal bleeding.

C. Reading technical drawings



Dimension & Notes

Technical drawings always include a border and title block to identify them and give the reader important information. You may also write notes on a technical drawing, if relevant.

The scale factor shows how big the real product is compared to the drawing.

TITLE WHEEL BEARING	
NAME John Smith	CHECKED <i>[Signature]</i>
VERSION 1.1	DATE 16/10/98
NO NEED TO MEASURE - ALL MEASUREMENTS IN MM	SCALE 1:1
ITI ENGINEERING	

The type of orthographic drawing is shown by this symbol.

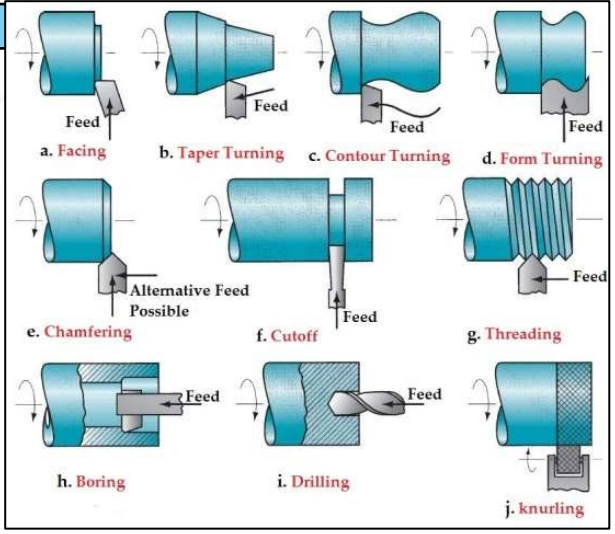
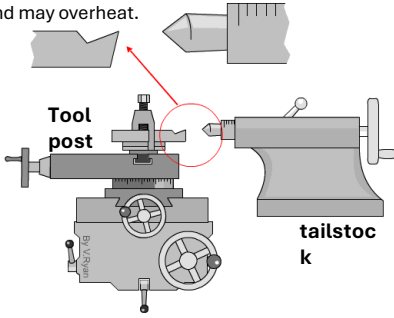
Notes

Lec. Bhuiyan Shameem Mahmood

B. Manufacturing processes

The **dead center tool** is used to align the tools in the **tool post**.

The dead center is placed in the **tailstock**. If the cutting tools are not in line with it, then they will not cut efficiently and may overheat.



D. Tools & Equipment



External calliper – used for measuring the external dimensions of a workpiece



Lathe tools – cutting tools for a range of functions. From left to right; Parting tool, right-hand cutting tool, threading tool, left-hand cutting tool







Knurling tool - an attachment for the lathe that allows you to impress a diamond pattern into the material. Example shown here.



Tap and die set – these tools are attached to wrenches and allow you to cut an internal or external thread (spiral) in a hole. The hole must be pre-drilled 0.5mm smaller than the intended size of the final hole.





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	 Physical Development (P)  Intellectual Development (I)  Emotional Development (E)  Social Development (S)	P = growth patterns and changes in the mobility of the large and small muscles in the body that happen throughout life. I = how people develop their thinking skills, memory and language. E = how people develop their identity and cope with feelings. S = describes how people develop friendships and relationships.
0-2 years	Infancy	Sill dependent on parents but growing quickly and developing physical skills.		
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.		
19-45 years	Early Adulthood	Leaving home, making own choices about a career and may start a family.		
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.		






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			Intellectual Development (I) 	
9-18 years			Emotional Development (E) 	
19-45 years			Social Development (S) 	
46-65 years				
65+ years				

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.	Bonding and Attachment 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.	Adolescence and adulthood Self-image and Self-esteem 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.
		Security For infants and young children, security is mainly the feeling of being cared for, being safe and loved – it is closely linked with attachment.	Security 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.
		Contentment Infants and young children are content if they have had enough food, love, are clean and dry and all other needs are met.	Contentment When people feel discontented with aspects of their life – for example, relationships or work – their emotions can be negatively affected.
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.	Independence 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.	Independence 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.
G. How do humans develop socially (S)?			
Life Stage		Types of relationships and social development	
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.	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 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.	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.
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.	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)?			
E. <i>How do humans develop intellectually (I)?</i>			
Infancy			
			
Early childhood			
			
Adolescence			
			
Early and Middle Adulthood			
			
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	
		Infancy and Early Childhood	
		Adolescence and adulthood	
		Bonding and Attachment	Self-image and Self-esteem
		Security	Security
		Contentment	Contentment
		Independence	Independence

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?
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	
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

Positive affects of a persons culture/religion:

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-

Negative affects of a persons culture/religion:

-
-

Community refers to:

Belonging to a community:

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-
-
-
-

Not belonging to a community:

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-
-
-

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:

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-
-
-

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.

Living in good housing with open spaces:

-
-
-
-
-

Living in a poor housing with cramped and damp conditions:

-
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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.

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Physical Events	
Relationship Changes	
Life Circumstances	

O.	How do people deal with life events?
Individual	
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Types of Support	How this helps individuals deal with life events
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Information and Advice	
Practical Help	
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Professional Support	
Voluntary Support	

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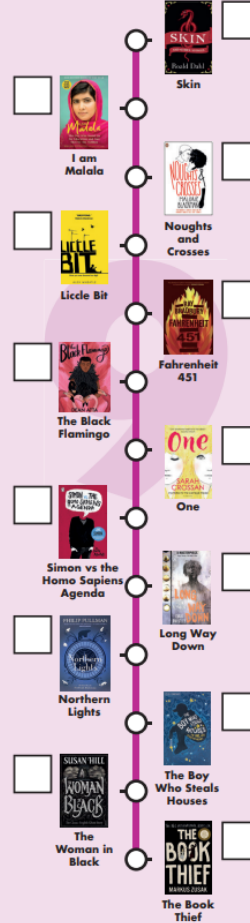
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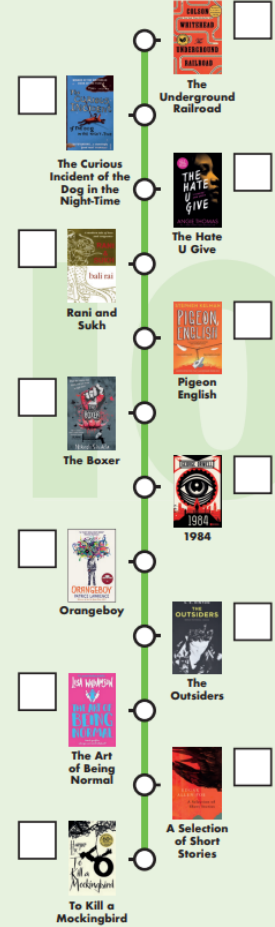
Year 8



Year 9



Year 10



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