

Knowledge Organiser

Year 9

Cycle 3

Name:

Tutor Group:



What is a Knowledge Organiser and why are they important?

A knowledge organiser is designed to summarise the key information, concepts, and vocabulary for a specific topic or unit of work in each subject. Its purpose is to help students:

- o Understand what they are expected to learn.
- o Make connections between ideas.
- o Retain and recall essential knowledge more effectively.
- o Support independent study and revision

Your Knowledge Organiser contains the essential knowledge that we expect every student to know. Regular use of the Knowledge Organiser helps you to recap, revise and revisit what you have learnt in lessons. This can be part of your homework in some subjects or as independent revision. The aim is to help remember this knowledge in the long term and to help strengthen your memory.

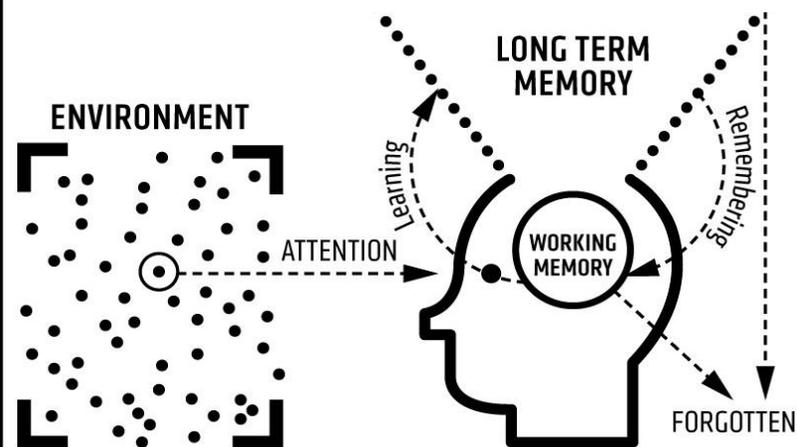
Each cycle there is an assessment in every subject and you will be assessed on the knowledge from your Knowledge Organiser; the more you revisit information the more likely it will be remembered for lessons, assessments and exams.

How we learn anything

We learn by focusing our attention on something. If we are distracted by other things in our environment (eg mobile phones, listening to music) it will affect how much/what we learn.

Information we pay attention to goes into our working memory, but our working memory is not very good and we quickly and easily forget things.

Learning happens when we think about, process or practise doing something so that it is stored in our long-term memory. Even then it can still be forgotten if we do not regularly think about it and go over it. *We remember what we think about.* Using your Knowledge Organiser outside of lessons helps you to remember things in the long-term.



Homework in Year 7-9

The purpose of homework

Homework plays a crucial role in reinforcing what you learn in the classroom, helping you to develop a deeper understanding of the material. It encourages independent learning, time management, and responsibility: skills that are essential for success both in school and in life.

Homework fosters a strong work ethic and a sense of discipline, preparing you for future academic and professional challenges. Homework is not just about completing tasks, it is about building lifelong learning habits. Learning is defined as a change in the long-term memory. You attend 5 hours of lessons per day, which is a lot of new information being taken in. Without additional opportunities to practise remembering, much of that information would be quickly forgotten.

Homework expectations

In Years 7-9 we expect every student to complete a maximum of 1 hour of homework a day, 4 days a week in the following subjects: English, Maths, Science, History, Geography, French/Spanish and RPE using the following timetable:

	Monday	Tuesday	Wednesday	Thursday	Friday
Week A	English Maths Science	English Maths Science	English Maths Science	History Geography	No homework
Week B	English Maths Science	English Maths Science	English Maths Science	French or Spanish RPE	No homework

Whilst homework is not formally set weekly/fortnightly in other subjects, you may still be provided with tasks to help further your learning, which we would strongly encourage you to complete. You should regularly review the Knowledge Organiser for all subjects to help your learning.

How do I do my Homework?

There are two types of homework that you will complete: Sparx Online (English, Maths and Science) and Knowledge Organiser homework (History, Geography, RPE and French/Spanish).

Platform	Subject	What to do	Reason we do it	How checked
Sparx	Sparx Maths	Homework is completed online. Complete the maths questions set weekly. Each student is set around 1 hour of questions per week. Book work codes must be written down in homework books.	Sparx Maths provides additional practice on topics that have been recently covered in class. This allows students to revisit and help embed mathematical procedures that may otherwise be forgotten.	Weekly check by teacher using online platform. Parents kept informed of progress by email.
	Sparx Reader (English)	Homework is completed online. Students read a book of their choice in sections and are asked comprehension questions at the end of each section. Students must earn a set number of Sparx Reader Points (SPR) to complete the homework. This should usually take around 1 hour per week.	We know that reading is essential for students to be able to access the curriculum, yet 1 in 4 students come to us in Year 7 at least one year below their chronological reading age. Sparx Reader encourages students to build positive reading habits and strengthen fluency and comprehension.	
	Sparx Science	Homework is completed online. Complete the science questions set weekly. Each student is set around 1 hour of questions per week.	Sparx Science provides questions to ensure students regularly revisit the key concepts that are required in Science.	
Knowledge Organisers	History Geography RPE French/Spanish	Using the Knowledge Organiser, complete the questions/tasks for the relevant subjects set according to the date	The Knowledge Organisers contain questions that directly relate to the content that students have learned in lessons. Regular review ensures that students embed the learning in the long-term memory. In French/Spanish students will practise learning and using key vocabulary.	Fortnightly check by teacher in lessons. Teachers will check the blue homework exercise books (provided for students) for completion of the questions.

For Thursday homework in your blue knowledge book you will always write the date, subject heading and ensure that they are underlined with a ruler.

Knowledge Organiser Contents Page

Subject	Page Number
History	6-12
Geography	13-17
French	18-23
Spanish	24-29
RPE	30-32
3D Design	33
Art and Design	34-35
Computer Science	36
Drama	37-38
English	39-50
Food and Nutrition	51-52
Life Skills	53-55
Maths	56-57
Music	58-59
PE	60
Science	61-70

Topic: Civil Rights

Date	Event
1861-65	American Civil War – slavery made illegal at the end
May 1954	Brown Vs Board of Education court ruling – said that segregation in schools was illegal and had to end.
25 th Aug 1955	Murder of Emmett Till
1 st Dec 1955	Rosa Parks bus protest – led to the boycott of buses
4 th Sep 1957	Little Rock Nine – Nine students including Elizabeth Eckford become the first black students to be integrated into a formerly segregated school.
28 th Aug 1963	March on Washington ' I have a dream ' speech.
2 nd July 1964	Civil Rights Act signed – gave black and white citizens legal equality.
4 th April 1968	Martin Luther King assassinated
11 th April 1968	Civil Rights Act signed by President Johnson – helped end differences in housing for black and white families.
15 th July 2013	#BlackLivesMatter used for the first time on twitter
2020	Murder of George Floyd sparks the Black Lives Matter protests across the world.

Questions:

1. In your homework book draw a timeline using the information above.
2. Try and do some further research about the topics above and add extra information!

Topic: Civil Rights

Key Word	Definition
slavery	The state of being enslaved (not free)
abolition	To bring something to an end
segregation	The system that kept black and white people separate in the southern states of USA
boycott	Refusing to use a service or buy from a shop/business as a way of protesting. E.g. The bus boycotts – people refused to travel by bus so the company lost money.
civil rights	The rights of citizens to social and political equality
civil disobedience	Breaking the laws that you disagree with on purpose as a way of protesting.
integration	Ending segregation – allowing black people to mix freely. E.g. ending separate schools for black and white children.
lynching	The brutal, public murders of black people by white mobs (large groups). This was often done by hanging from trees.
Jim Crow Laws	The laws that made segregation legal in the southern states of the USA
Ku Klux Klan	White supremacist group who used violence and murder to intimidate African Americans.
white supremacy	The belief that white people are better than black people.

Questions:

1. Copy out the definitions.
2. Then choose 3 words to practice using in a sentence that makes sense, to do with the topic.

Topic: Civil Rights

Topic - Civil Rights

<p>Rosa parks</p> 	<p>American activist in the civil rights movement renowned for bus boycott. She refused to give up her seat for a white passenger</p>
<p>Martin Luther King Jr</p> 	<p>Spokesperson and leader in the civil rights movement from 1955 until his assassination in 1968. Gave the famous I have a dream speech</p>
<p>Malcom X</p> 	<p>A key civil rights leader. He influenced the Black Panthers, a group who were prepared to use violence to gain civil rights for African Americans</p>

Although slavery was declared illegal in 1863, it existed until the end of the Civil War in 1865. The idea of *white supremacy* remained strong in the Southern States. The North may have won the Civil War and outlawed slavery but racist views were deeply embedded in the South.

Changes were made to the *American Constitution* to try and correct this and create rights for former slaves:

Civil Rights Act 1866 - All former slaves were to be citizens of the US and to have the same rights as white people.

Reconstruction Act 1867 - The Southern States were divided into military districts under the control of army generals. Elections were to be held under army supervision and former slaves were allowed to vote.

14th Amendment 1868 - No state shall make any law which shall reduce the rights of citizens of the United States.

15th Amendment 1870 - The right of the American citizens to vote shall not be denied because of race or colour. These appeared to give black people equal rights to white people.

Despite these rights, African Americans faced discrimination, violence and denial of civil rights. Black Codes took away their rights, and in 1896 Plessy Versus Ferguson ruled 'separate but equal' leading to discrimination against African Americans being made lawful in America.

Homework questions

1. What is an activist?
2. Why are these individuals considered activists?

Homework Questions

1. What did the changes to the constitution do to African American rights?
2. Which amendment do you think is most significant and why?
3. What was treatment of African Americans like after these amendments were made?

HISTORY 14th May

Topic - Civil Rights

On August 28, 1955, while visiting family in Money, Mississippi, 14-year-old Emmett Till, an African American from Chicago, is brutally murdered for allegedly flirting with a white woman four days earlier.

His murderers—the white woman's husband and his brother—made Emmett carry a 75-pound cotton gin fan to the bank of the Tallahatchie River and ordered him to take off his clothes. The two men then beat him nearly to death, gouged out his eye, shot him in the head and then threw his body, tied to the cotton gin fan with barbed wire, into the river.

After seeing the mutilated remains, Emmett's mother decided to have an open-casket funeral so that all the world could see what racist murderers had done to her only son. *Jet*, an African American weekly magazine, published a photo of Emmett's corpse, and soon the mainstream media picked up on the story.

Less than two weeks after Emmett's body was buried, Milam and Bryant went on trial in a segregated courthouse in Sumner, Mississippi. There were few witnesses besides Mose Wright, who positively identified the defendants as Emmett's killers.

On September 23, the all-white jury deliberated for less than an hour before issuing a verdict of "not guilty," explaining that they believed the state had failed to prove the identity of the body. Many people around the country were outraged by the decision and also by the state's decision not to indict Milam and Bryant on the separate charge of kidnapping. This led to the civil rights movement gaining widespread support, and increased activism to get change.

Homework questions

1. Who was Emmett Till?
2. What happened to him?
3. What does this reveal about treatment of African Americans in the South?
4. What enabled the world to hear about this murder?
5. How did this impact the Civil Rights movement?

Topic - Civil Rights

The Montgomery Bus Boycott

In December 1955, Rosa Parks was arrested for refusing to give up her seat on a bus to a white passenger. This was not the first time she had refused to give up her seat, but on this occasion her *civil disobedience* triggered a city-wide response. The NAACP and WPC decided to organise a city-wide bus boycott on the day of Parks' trial. Most black people observed the boycott. Around 70 per cent of the bus users in Montgomery were black, this meant the bus company's profits were greatly reduced.

After Parks was found guilty and fined \$10, a longer bus boycott was planned. It was to be organised by the Montgomery Improvement Association (MIA), which included a mixture of community and church leaders and was led by *Dr Martin Luther King Jnr*. As well as organising the boycott, the MIA initially demanded that:

- both white and black passengers should be permitted to sit anywhere on a bus, on a **'first come, first served'** basis
- white bus drivers should be **polite to black passengers**
- the bus company should **employ black drivers** on routes mostly used by black passengers

Black people, who were most often on low incomes, commonly depended on buses to get to work. Therefore, the year-long boycott was a huge sacrifice for them. The MIA was determined that black people should stick with the boycott, as they believed it would only be effective if all black people were shown to be determined to fight segregation. To make things easier, the MIA also set up *car pools* and encouraged black taxi drivers to charge the same rate as the bus. In 1956 it was declared unconstitutional to segregate on transport.

Homework Questions

1. What is a boycott?
2. What problem did African Americans boycott the buses about?
3. What action did they take?
4. Why was this difficult for many African Americans?
5. What impact did this activism have?

HISTORY 4th June

Topic - Civil Rights

Little Rock 1957

Causes

In 1957, desegregation laws came into effect at Central High School in Little Rock, Arkansas.

Central High decided to admit nine black students in September.

Events

This was opposed by the Governor of Arkansas, Orval Faubus who sent state soldiers to the school to stop the black students entering.

President Eisenhower ordered Faubus to remove the state soldiers. He also sent 1000 US soldiers to protect the black students on their way to and from school.

Although they were subject to threats and violence the black students never retaliated.

One of the students, Elizabeth Eckford recalled my knees started to shake and I wondered if I would make it to school. The crowd moved closer. Somebody started yelling 'Drag her over to this tree! Let's take care of that *****'.

Impact

The events in Little Rock attracted worldwide attention to the civil rights movement and can be seen to have directly influenced the Civil Rights Act of 1957.

Some have argued that, despite the intervention of the government, the events at Little Rock changed almost nothing for the majority.

Homework questions

1. What is desegregation?
2. What challenge was faced in Little Rock?
3. How did the Federal Government deal with this?
4. What does this reveal about African American rights to equal education during this time?

Topic - Civil Rights

Martin Luther King Jr was born on 15 Jan 1929, the son of a Baptist preacher. Martin Luther King's family were African American. He grew up at a time when the Southern States of America operated under the *Jim Crow laws* that kept Black and white people separate. This was called *segregation*. Black people had different schools, toilets and even sections of the bus to white people. They were also denied the right to vote in elections.

The march on Washington

Image caption, Dr Martin Luther King making his 'I have a dream' speech
Also known as the March on Washington for Jobs and Freedom, the main purpose was to gain publicity for the new civil rights bill.

On August 28, 1963, 250,000 people gathered at the Lincoln Memorial in Washington DC. Martin Luther King made his famous *I have a dream* speech to a worldwide audience. It has become one of the most famous speeches in history. It focuses on the dream of a society where black people and white people live together in harmony.

In 1964 The *Civil Rights Act* was passed US President Lyndon B. Johnson.

This saw an end to segregation in public places and a ban on employment discrimination. The voting act that followed allowed black people to exercise their legal right to vote.

Homework Questions

1. Who was MLK?
2. What action did MLK take?
3. What impact did his actions have?

Topic - Civil Rights

The civil rights campaigns during the late 1950s and early 1960s had a significant effect on US society. New laws were introduced which extended the rights of many black Americans and demonstrated that the Federal government was willing to support civil rights.

However, riots between black and white people in several northern cities between 1964 and 1967, and the move by some civil rights campaigners towards the Black Power movement, demonstrated that the campaigns had not been a total success.

Significant achievements -

Civil Rights Act 1957 - The Civil Rights Act meant that a national civil rights commission was convened and the Federal Justice Department would support African Americans if they went to court because they could not vote freely.

Civil Rights Act 1964 - Discrimination on the basis of race in any or all public places in the USA was banned.

Voting Rights Act 1965 - Literacy tests and many other obstacles to stop African Americans being able to register to vote were banned. The Poll Tax was removed. By the end of 1965, there were over 250,000 black voters newly registered and within 3 years, most of the black population of the South had registered to vote.

Homework questions

1. What caused laws to be passed?
2. Create a mini timeline describing progress of civil rights for African Americans.
3. Which achievement do you think was most significant and why?

Topic - Cold War

Capitalism is an economic system where businesses and property are owned by private individuals or companies. People can make a profit from selling goods and services, and prices are usually decided by supply and demand. Countries such as the United States have traditionally followed capitalist systems, where competition and individual success are encouraged.

Communism is an economic and political system where property and businesses are owned by the state and wealth is shared equally among citizens. The aim is to create a classless society where everyone is equal. The Soviet Union was the most famous communist country in the 20th century.

The Cold War was a long period of tension between the United States and the Soviet Union after World War Two. It was called "cold" because the two superpowers never fought directly but competed through threats, propaganda, and proxy wars.

Homework Questions

1. What is capitalism?
2. What is communism?
3. Explain what the Cold War was.

Topic - Cold War

Berlin blockade & wall

At the Yalta Conference in 1945, after World War Two, it was decided that Germany would be split into four zones. The Soviet Union, UK, America and France would each control a zone. Berlin, which was in the Soviet zone, would also be divided into four.

In August 1961, the Soviet Union began to build a wall around West Berlin, which was controlled by the USA, UK, and France. The Berlin Wall remained in place until 1989. It became a symbol of the Cold War and the division between East and West.

East Berlin citizens were told that if they tried to leave and escape into West Berlin they would be considered dissenters, and that they would be killed.

By 1989, the Eastern bloc was coming under pressure. On 9 November 1989, the East German border guards opened checkpoints and allowed people to travel freely across the border into the West. Before long, thousands of people began to flood into West Berlin and started to tear down the wall. On 13 June 1990, the East German Border Troops officially began dismantling the Wall.

Homework questions

1. Where did the Berlin Wall separate?
2. Why do you think East Berlin citizens might have wanted to escape to the West?
3. How might this wall have affected lives?
4. When was the wall brought down?

Topic - Cold War

The Cuban Missile Crisis, 1962

The Cuban Missile Crisis was probably the hot spot in the Cold War. For 13 days in October 1962 the world appeared to stand on the brink of nuclear war.

Background

Cuba is an island just 90 miles off the coast of Florida. Until 1959, it was closely allied to the United States under the leadership of the right-wing dictator, General Batista. There was considerable American investment in Cuba and the USA was the chief consumer of Cuba's sugar and tobacco.

Figure caption, Fidel Castro and Nikita Khrushchev in the hall at the United Nations general meeting in September 1960

In 1959 Batista was overthrown in a revolution led by Fidel Castro. One of Castro's first moves was to go to the USA to secure support for his new state, but President Eisenhower refused to speak with him. At the United Nations office in New York, Castro talked with representatives of the Soviet Union, and they offered their support for his new government. Castro had not been a communist before 1960, but was drawn to communism by the friendship and support offered by Khrushchev and his government. Castro nationalised all American-owned companies in Cuba, and refused to pay compensation. The USA then had a communist state 'in its own backyard'.



Homework Questions

1. Why was the Cuban Missile Crisis a crisis?
2. Where is Cuba in relation to USA?
3. How did the relationship between Cuba and USA change?
4. Why was this an issue for USA?

HISTORY 16th July

Topic - Cold War

The Bay of Pigs:

In April 1961, just after he was installed as President of the USA, John F Kennedy approved a plan to invade Cuba and overthrow communism. The CIA landed 1,400 Cuban *exiles* at the Bay of Pigs on the southern coast of Cuba with the aim of provoking an anti-communist uprising. Almost at the last minute, Kennedy cancelled an order that had promised the Cuban *resistance* US Air Force support for their *coup d'état*. The lack of air support meant the rebels were easily defeated when they were met by 20,000 heavily armed Cuban troops. All were captured or killed.

Homework questions

1. What was the purpose of the Bay of Pigs landing of Cuban exiles?
2. What happened at the Bay of Pigs?
3. Why was this seen as a failure?

Topic - Cold War

Cuban Missile Crisis:

Discovery of the missiles

On 14 October 1962, an American spy plane flying over Cuba took pictures that showed the construction of Soviet missile launch sites. Experts estimated that they would be ready to fire in seven days. Meanwhile, another American spy plane discovered 20 Soviet ships carrying nuclear missiles in the Atlantic Ocean heading for Cuba.

The threat to the USA

Cuba was only 90 miles from the coast of Florida meaning that the USA, including many of its biggest cities like Washington DC and New York, would be well within range of these missiles. The lives of 80 million Americans were at stake.

Kennedy's final decision was a US blockade of Cuba, which Kennedy called a 'quarantine zone', and which could stop further Soviet missiles coming to Cuba buying him time to negotiate with the Soviets.

Both the USA and the USSR realised they had been on the brink of nuclear war and entered into talks. These talks eventually led to the 1963 **Test Ban Treaty** which began the process of ending the testing of nuclear weapons.

In the long term, the crisis may have created a willingness on both sides to enter into the Strategic Arms Limitation Talks (SALT) later in the 1960s. At SALT1 an agreement was reached not to build any more Intercontinental Ballistic Missiles (ICBMs).

Homework Questions

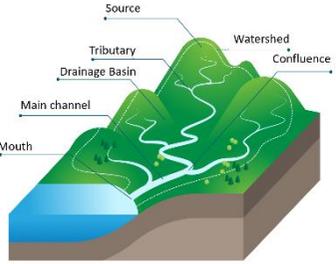
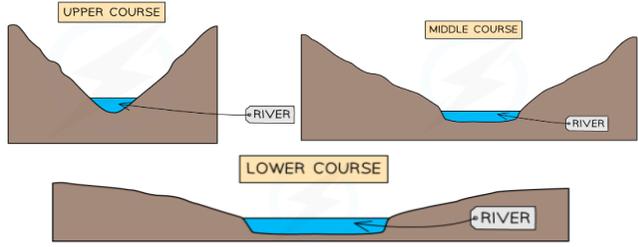
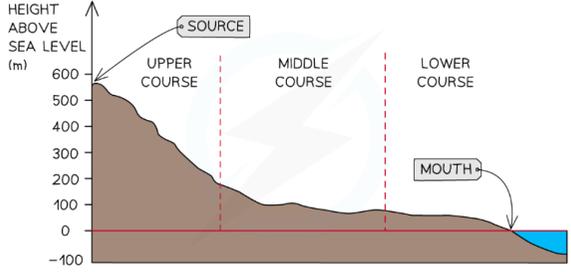
1. Write an 'in a nutshell summary' about what the Cuban Missile Crisis was, using no more than 20 words.
2. What was the consequence of this crisis?



Year 9 Cycle 3 Geography Knowledge Organiser – UK Landscapes: Rivers



Homework 1 – Thursday 2nd April 2026

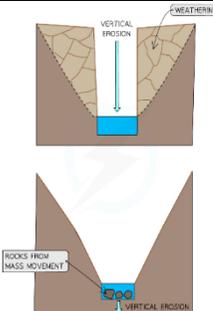
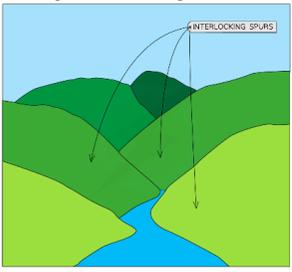
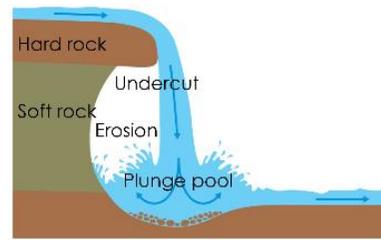
Lesson 1 – Drainage Basin	Lesson 2 – Long and cross profile	Lesson 3 – River processes
<p>Key Terms: Drainage basin: The area drained by one river Watershed: The edge of a drainage basin</p>	<p>Key Terms: River profile: Shows changes in the height (altitude) of the course of a river from its source to its mouth. Upper course: Shallow channel, steep valley sides and vertical (up and down) erosion. Middle course: Deeper channel, gentle valley sides and lateral (side to side) erosion. Lower course: Deep channel, flat floodplains and deposition dominant.</p>	<p>Key Terms: Erosion: Wearing away and removal of material by a force. Transportation: The movement of material through the force of water. Deposition: When a river does not have enough energy to carry its material and it drops it. Bedload: Large material that is deposited by a river.</p>
<p>Content: Source: The beginning of a river. Main channel: This is where the river flows. Tributary: A small stream that joins the main channel. Confluence: The point at which a tributary joins the main channel.</p> <div style="text-align: center;">  </div> <p>Mouth: This is the end of the river where it meets the sea or lake.</p>	<p>Content:</p> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div>	<p>Content: Erosional processes:</p> <ul style="list-style-type: none"> • Hydraulic Action: Force of the water removes material from the bed and banks of the river. • Abrasion: Material carried in the river scrape the banks. • Attrition: Material being carried hits each other. • Solution: Material is dissolved by the slightly acidic water. <p>Transportation processes:</p> <ul style="list-style-type: none"> • Traction: Large rocks are rolled along the river bed. • Saltation: Material bounces along the river bed. • Suspension: Material carried within the water flow. • Solution: Material is dissolved in the water.
<p>Questions:</p> <ol style="list-style-type: none"> 1. What is a drainage basin? 2. What is a watershed? 3. What is the source and mouth? 4. What is a tributary and confluence? 	<ol style="list-style-type: none"> 5. What is a river profile? 6. How many courses does a river have? 7. Draw a cross section for each of the different courses 8. Draw a long profile cross section of a river 	<ol style="list-style-type: none"> 9. Describe the 4 types of erosion 10. Describe the 4 types of transportation 11. What is deposition? 12. What is bedload?



Year 9 Cycle 3 Geography Knowledge Organiser – UK Landscapes: Rivers



Homework 2 – Thursday 30th April 2026

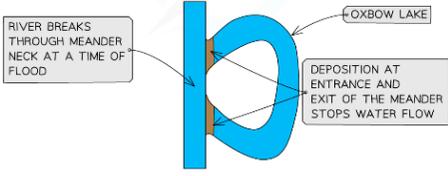
Lesson 4 – V Shape Valley & Interlocking Spurs	Lesson 5 – Waterfalls and gorges	Lesson 6 – Meanders
<p>Key Terms: Vertical erosion: The wearing away and deepening of the river bed. Weathering: The breaking down or dissolving of rock and minerals in situ (in place). Mass movement: Downslope movement of materials, such as rock, soil, or mud due to gravity.</p>	<p>Key Terms: Waterfall: When a river falls over a vertical drop. Gorge: Narrow valley with steep sides created when a waterfall retreats backwards up the river channel.</p>	<p>Key Terms: Meander: A wide bend or horseshoe like loop in a river. Lateral erosion: Sideways erosion by a river causing a widening of a channel.</p>
<p>Content: Vertical erosion is dominant in the upper course. This cuts down into the river bed and deepens the channel. Weathering and mass movement lead to material from the valley sides collapsing, leaving a steep V-shaped valley.</p> <div style="display: flex; align-items: center;">  <div style="font-size: small;"> <p>When a river is not powerful enough to cut through hard rock so flows around it, forming interlocking spurs.</p> </div> </div> 	<p>Content:</p> <ol style="list-style-type: none"> Hard rock is on top of soft rock Erosion such as hydraulic action and abrasion erodes the soft rock, this creates a plunge pool The hard rock is undercut Hard rock is the unsupported and becomes unstable then collapses This process causes a waterfall The process repeats which causes the waterfall to retreat upstream causing a gorge of recession 	<p>Content: Meander Formation:</p> <ol style="list-style-type: none"> In the middle course the river has lateral erosion which widens the river channel. This forms large bends and then horseshoe-like loops called meanders. The fastest flow (thalweg) is on the outside of the meander bend. The force of the water erodes and undercuts the river bank, forming a river cliff. The main types of erosion are hydraulic action and abrasion. On the inside of the bend, where the river flow is slower, material is deposited. A river beach/slip off slope forms here.
<p>Questions:</p> <ol style="list-style-type: none"> What is vertical erosion? How are V-shaped valleys formed? Draw a diagram of a V-shaped valley How are interlocking spurs formed? 	<ol style="list-style-type: none"> How are waterfalls formed? Draw a diagram of a waterfall What are the two types of erosion that create waterfalls? What is a gorge? 	<ol style="list-style-type: none"> What is a meander? What is lateral erosion? What two types of erosion happen on a meander? Explain the formation of a meander



Year 9 Cycle 3 Geography Knowledge Organiser – UK Landscapes: Rivers

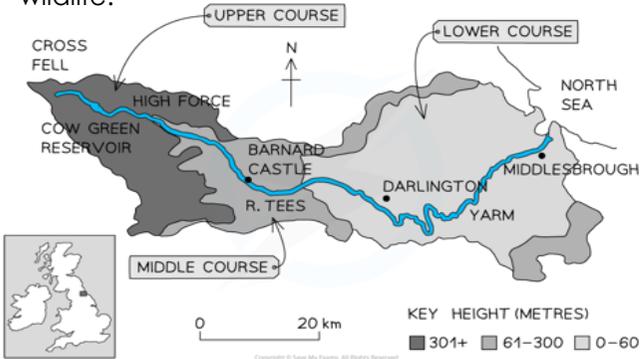
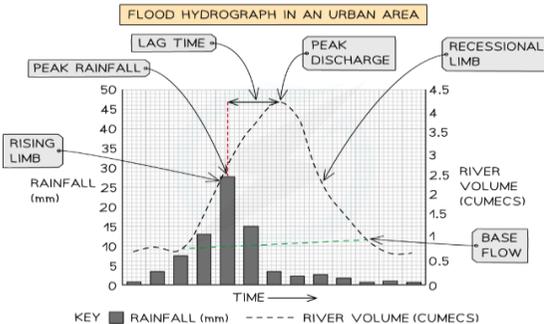


Homework 3 – Thursday 14th May 2026

Lesson 7 – Oxbow Lakes	Lesson 8 – Floodplains and Levees	Lesson 9 – Estuaries
<p>Key Terms: Oxbow Lake: An arc-shaped lake on a floodplain formed by a cut-off meander.</p> <p>Deposition: When a river drops the material, it was carrying due to a decrease in velocity (speed) of the water.</p>	<p>Key Terms: Levee: Natural embankments along the sides of a river.</p> <p>Floodplain: Flat expanses of land on either side of a river.</p> <p>Discharge: The volume of water which flows through a certain point in a given time. Usually measured in cubic meters per second.</p>	<p>Key Terms: Estuary: An area where a freshwater river or stream meets the ocean.</p>
<p>Content:</p> <ol style="list-style-type: none"> 1. Meanders become more sinuous (wiggly) due to lateral erosion. 2. The meander becomes tight, known as a swan's neck meander. 3. During times of high discharge, the river erodes across the meander neck through hydraulic action and abrasion. 4. The river will now use the new channel. 5. The old meander channel is left as an oxbow lake due to sediment being deposited at either end. <div style="text-align: center;">  </div>	<p>Content:</p> <p>Levee Formation:</p> <ol style="list-style-type: none"> 1. When a river floods, sediment spreads out across the floodplain. Friction with the land causes deposition. 2. When a flood occurs, the river loses energy. The largest material is deposited first on the sides of the riverbanks and smaller material (finer silt and mud) further away. 3. After many floods, the sediment builds up to increase the height of the riverbanks, so the levées become higher than the surrounding floodplain. <p>A floodplain forms when meanders migrate across the floodplain. When they reach the edge of the floodplain they erode the valley side (bluff) making floodplains wide.</p>	<p>Content:</p> <p>Estuary formation:</p> <ol style="list-style-type: none"> 1. During a rising tide the river is unable to be discharged into the sea. 2. The rivers velocity falls and sediment is deposited. 3. At low tide these fine deposits form extensive mud flats. 4. These develop into saltmarshes and are important habitats for species. They provide protection for boats too. <div style="text-align: right;">  </div>
<p>Questions:</p> <ol style="list-style-type: none"> 1. What is an oxbow lake? 2. What is deposition? 3. Explain the formation of an oxbow lake 4. Draw a diagram of an oxbow lake 	<ol style="list-style-type: none"> 5. What is a levee? 6. Explain the formation of a Levee 7. What is a floodplain? 8. Explain how a floodplain is created 	<ol style="list-style-type: none"> 9. What is an estuary? 10. Explain the formation of an estuary 11. What habitat forms in an estuary? 12. An estuary also provides protection for what?



Homework 4 – Thursday 4th June 2026

Lesson 10 – River Tees	Lesson 11 – Flood hydrographs	Lesson 12 – Factors affecting flood risk
<p>Key Terms: River Tees: Located in north-east England. It is 85 miles from source to mouth. It flows eastwards from the source in the Pennines to the mouth where it flows into the North Sea.</p>	<p>Key Terms: Flood hydrograph: A graph that shows how a drainage basin responds to a period of rainfall. River discharge: The volume of water which flows through a certain point in a given time. Usually measured in cubic meters per second.</p>	<p>Key Terms: Surface runoff: The flow of water across the surface when the land is unable to absorb it. Impermeable: A surface that does not allow water to pass through it, therefore stays on the top.</p>
<p>Content: Features along the River Tees:</p> <ul style="list-style-type: none"> • High Force Waterfall (UK's largest waterfall) and a steep sided gorge. • Meander at Darlington. • Meander, oxbow lake, floodplain and levees around Yarm. • Large estuary and mudflats that supports wildlife. 	<p>Content: Features of a flood hydrograph:</p> <ul style="list-style-type: none"> • Base flow: Normal level of the river. • Peak rainfall: Highest rainfall level. • Rising limb: Increase in river discharge. • Peak discharge: Highest level of river discharge. • Lag time: Time difference between peak rainfall and peak discharge. • Falling limb: River discharge falling to normal level. 	<p>Content: Physical factors that affect flood hydrographs:</p> <ul style="list-style-type: none"> • Relief: Steep slopes encourage a rapid transfer of water towards river channels. • Precipitation: Torrential rainstorms or prolonged rainfall can lead to sudden flash floods as rivers cannot contain the volume of water. • Geology: Impermeable rocks encourage water to flow overland and into rivers. <p>Human factors that affect flood hydrographs:</p> <ul style="list-style-type: none"> • Urbanisation: Building on floodplains creates impermeable surfaces, such as tarmac and increases surface runoff. • Deforestation: Less interception from trees means more water hits the ground and surface runoff increases. • Agriculture: Soil left unused and exposed can lead to an increase in surface runoff. Rain can also flow quickly along the ploughed furrows (narrow trenches).
<p>Questions:</p> <ol style="list-style-type: none"> 1. Where is the River Tees? 2. What is the name of the waterfall? 3. What can be found at Yarm? 4. What is the estuary like? 	<ol style="list-style-type: none"> 5. What is a flood hydrograph? 6. What is the peak rainfall and peak discharge? 7. How is the lag time calculated? 8. Draw a sketch of a flood hydrograph 	<ol style="list-style-type: none"> 9. What is surface runoff? 10. What is impermeable? 11. Describe 3 physical factors that affect hydrographs 12. Describe 3 human factors that affect hydrographs



Year 9 Cycle 3 Geography Knowledge Organiser – UK Landscapes: Rivers



Homework 5 – Thursday 18th June 2026

Lesson 13 – Hard flood protection	Lesson 14 – Soft flood protection	Lesson 15 – Somerset Floods
<p>Key Terms: Flood risk: The predicted frequency of floods in an area.</p> <p>Hard engineering: Involves the building of entirely artificial structures to reduce or stop the impact of river processes.</p>	<p>Key Terms: Soft engineering: Involves managing a river using natural materials and mimicking natural processes to protect more vulnerable areas.</p> <p>Afforestation: The process of planting large numbers of trees on land which has few or no trees on it.</p>	<p>Key Terms: Somerset Levels: An area of coastal plain and wetland in central Somerset around 650km². It is flat land lying close to sea level. It has 2 main rivers flowing through: River Tone and River Parret.</p>
<p>Content: Dam and reservoir: A barrier built across a valley to interrupt river flow and create a man-made lake (reservoir) which stores water and controls the discharge of the river.</p> <p>Embankments: Raised banks constructed along the river; the river can hold more water. They are expensive and do not look natural, but they do protect the land around them.</p> <p>Flood Relief channels: Building new artificial channel which are used when a river is close to maximum discharge. They take the pressure off the main channels when floods are likely.</p> <p>Channel straightening: Removing meanders from a river to make the river straighter. The river can carry more water quickly downstream, so it doesn't build up and is less likely to flood.</p>	<p>Content: Flood plain zoning: Restricts different land uses to certain locations on the flood plain. Areas close to the river are kept clear of high value land uses such as housing.</p> <p>Flood warning: Areas at risk are warned so preparation can take place. For example, flood gates, sand bags and moving valuable items.</p> <p>Afforestation: Planting trees can intercept rainfall, slowing the transfer of water to river channels reducing the risk of flooding. It also creates habitats and increases biodiversity.</p> <p>River restoration: This is where previously a course of a river has been changed artificially is returned to its original course. It uses natural processes and features so slow down river flow and reduce the likelihood of flooding downstream.</p>	<p>Content: Immediate river management plan:</p> <ul style="list-style-type: none"> • 8 temporary pumps • People evacuated • Artificial levees built <p>Long-term river management plan:</p> <ul style="list-style-type: none"> • £20 million • Dredge the river so it holds more water • Install new pumping stations (21 in total) • Raise roads and railways • Tidal barrage at Bridgewater on the River Parret.
<p>Questions:</p> <ol style="list-style-type: none"> 1. How does dams & reservoirs reduce flood risk? 2. How do embankments reduce flood risk? 3. How does flood relief channels reduce flood risk? 4. How does channel straightening reduce flood risk? 	<ol style="list-style-type: none"> 5. How does flood plain zoning reduce flood risk? 6. How do flood warnings reduce flood risk? 7. How does afforestation reduce flood risk? 8. How does river restoration reduce flood risk? 	<ol style="list-style-type: none"> 9. What are the Somerset Levels? 10. State 3 actions of the immediate river management plan 11. How much did the long-term river management plan cost? 12. State 3 actions of the long-term river management plan



Year 9 French

Cycle 3



Instructions

- Look at the list of 12 words/phrases and practice saying them
- Cover the English side and try to say them to yourself, then write them down.
- Check your answers
- Repeat until you can remember all 12
- Complete the gapfill using the correct word from the list. Enter your answers into your homework book to be checked in class

Challenge : Can you cover up the French side and remember all 12 including the spellings ?

You have **two** weeks to revise each vocabulary list at home.

You will then be tested in class on how well you know all 12 words/phrases.

Still got time left ? Look at the back of this booklet for some MFL challenges to complete at home and show your teacher.

Bon Courage !

Test 1 – School rules LC3

FRANCAIS	ANGLAIS
1. Au collège en Angleterre je dois porter l'uniforme	At school in England I have to wear a uniform
2. On doit travailler en classe	We have to work in lessons
3. Il faut être gentil(le)	It is necessary to be kind
4. Je ne dois pas utiliser un portable	I must not use a mobile phone
5. On ne doit pas crier dans les couloirs	We must not shout in the corridors
6. Il est interdit de harceler d'autres élèves	It is forbidden to bully other students
7. Je trouve ça juste car il faut protéger des jeunes	I find that fair because it's necessary to protect young people
8. Je trouve ça énervant car on n'est pas des bébés	I find that annoying because we are not babies
9. Je trouve ça facile car je veux apprendre	I find that easy because I want to learn
10. Je trouve ça ridicule car c'est trop stricte	I find that ridiculous because it is too strict
11. Il faut écouter le/la prof- je trouve ça normal	It is necessary to listen to the teacher- I find that normal
12. Je ne dois pas porter des bijoux- je trouve ça frustrant	I must not wear jewellery-I find that frustrating

Gapfill (Complete in your homework book)

1. _____ **en classe** = I have to work in class
2. **Il faut** _____ = It is necessary to wear uniform
3. _____ **crier dans les couloirs** = I must not shout in the corridors
4. _____ = I find that annoying
5. _____ = I find that too strict
6. _____ = It is necessary to protect young people
7. _____ = we are not babies
8. _____ = I want to learn

Test 2 – What do you like to wear ? LC3

FRANCAIS	ANGLAIS
1. Au collège je porte une chemise bleue	At school I wear a blue shirt
2. À l'école je dois porter une jupe grise	At school I have to wear a grey skirt
3. On porte un pantalon noir	We wear black trousers
4. On doit porter un chapeau vert	We have to wear a green hat
5. Hier j'ai porté une veste blanche et un jean	Yesterday I wore a white jacket and jeans
6. Le weekend dernier j'ai porté un haut rouge	Last weekend I wore a red top
7. Selon moi l'uniforme est trop cher	In my opinion the uniform is too expensive
8. Je trouve que l'uniforme est assez confortable	I find that the uniform is quite comfortable
9. Je porte un pull jaune car j'aime le style courant	I wear a yellow jumper because I like the up-to-date style
10. Hier j'ai porté une chemise grise car j'aime les vêtements pratiques	Yesterday I wore a grey shirt because I like practical clothes
11. Au collège je trouve que l'uniforme est un peu moche	At school I find that the uniform is a bit ugly
12. Je porte un jean blanc car je préfère le style relaxe	I wear white jeans because I prefer a relaxed style

Gapfill (Complete in your homework book)

1. je porte _____ = I wear a grey skirt
2. _____ une jupe grise = I have to wear a grey skirt
3. _____ une chemise = we have to wear a shirt
4. Hier _____ une chemise = Yesterday I wore a shirt
5. Hier j'ai porté _____ = Yesterday I wore red jeans
6. _____ = I like a relaxed style
7. _____ = I prefer an up-to-date style
8. _____ = According to me uniform is ugly

Test 3 – Languages and travel LC3

FRANCAIS	ANGLAIS
1. En ce moment j'apprends le français	At the moment I'm learning French
2. Actuellement j'apprends l'espagnol	Currently I'm learning Spanish
3. Un jour je voudrais apprendre l'arabe	One day I would like to learn Arabic
4. Je pense que c'est important car dans le futur je vais voyager	I think that it is important because in the future I'm going to travel
5. Après avoir fini mes études je vais faire du bénévolat	After having finished my studies I'm going to do volunteering
6. Dans le futur je vais habiter en Allemagne	In the future I'm going to live in Germany
7. Je vais faire une formation à l'étranger avec ma copine	I'm going to do some training abroad with my friend
8. Un jour je voudrais apprendre le grec et je vais habiter en Grèce	One day I would like to learn Greek and I'm going to live in Greece
9. Dans le futur je vais faire un échange scolaire avec mon copain	In the future I'm going to do a school exchange with my friend
10. Je vais soutenir un projet en Amérique du Sud	I'm going to support a project in South America
11. Après avoir fini mes études je vais avoir une carrière	After having finished my studies I'm going to have a career
12. Je vais faire une année sabbatique en Asie seul(e)	I'm going to do a gap year on my own

Gapfill (Complete in your homework book)

1. Actuellement _____ = Currently I'm learning Greek
2. Un jour _____ l'espagnol = One day I'd like to learn Spanish
3. _____ en France = I'm going to live in France
4. _____ je vais apprendre l'alleman = In the future I'm going to learn German
5. je vais _____ = I'm going to do a gapyear
6. _____ = I think it's important
7. _____ = I'm going to live on my own
- 8 _____ = I'd like to do some training
abroad

Test 4 – My future trip LC3

FRANCAIS	ANGLAIS
1. L'année prochaine je vais aller en France avec ma famille	Next year I'm going to go to France with my family
2. L'été prochain je vais aller en Espagne avec mon école	Next summer I'm going to go to Spain with my school
3. Je vais aller au Canada pour améliorer mon français	I'm going to go to Canada to improve my French
4. Bonjour, je peux vous aider ?	Hello, can I help you?
5. Je voudrais l'entrée et le plat du jour s'il vous plait	I would like the starter and the dish of the day please
6. Et comme boisson ?	And as a drink?
7. Je voudrais de l'eau	I would like water
8. Je voudrais une chambre avec un grand lit	I would like a room with a double bed
9. Pour combien de nuits ?	For how many nights?
10. Je voudrais une chambre pour 8 nuits s'il vous plaît	I would like a room for 8 nights please
11. Je voudrais une chambre avec une vue sur la mer pour 2 nuits	I would like a room with a sea view for 2 nights
12. Ça fait 150 euros, merci et au revoir	That is 150 Euros. Thank you and goodbye

Gapfill (Complete in your homework book)

1. _____ **je vais aller en Italie** = Next year I'm going to go to Italy
2. **L'été prochain** _____ **au Canada** = next summer I'm going to go to Canada
3. _____ = I would like a drink
4. **une chambre** _____ = A room please
5. _____ ? = For how many nights?
6. _____ **le plat du jour** = I would like the dish of the day
7. _____ = To improve my Spanish
8. _____ 230 Euros, _____ = That is 230 Euros, thank you

MFL challenges

These are some ideas for tasks to complete at home – they are totally optional but bring them in to show your teacher!

1. Draw a picture of your ideal school uniform and label in French
2. Make a poster showing the school rules in French - add your opinion of them!
3. Choose a French film (your teacher can suggest!). Watch it in French with English subtitles. See what you can understand!
4. Research the French school system – how is it different to school in England?
5. Create a menu for an imaginary French restaurant – include descriptions and prices.
6. Create a short dialogue in your restaurant in French
7. Create a poster showing your ideal teacher / school. Write the details in French
8. Research a Francophone festival or landmark that interests you and present in a poster / presentation.

Year 9 Spanish

Cycle 3



Instructions

- Look at the list of 12 words/phrases and practice saying them
- Cover the English side and try to say them to yourself, then write them down.
- Check your answers
- Repeat until you can remember all 12
- Complete the gapfill using the correct word from the list. Enter your answers into your homework book to be checked in class

Challenge : Can you cover up the Spanish side and remember all 12 including the spellings ?

You have **two** weeks to revise each vocabulary list at home.

You will then be tested in class on how well you know all 12 words/phrases.

Still got time left ? Look at the back of this booklet for some MFL challenges to complete at home and show your teacher.

Buena Suerte!

Test 1 ¿Cómo es Barcelona?–LC3

Español	Inglés
1. Barcelona es una ciudad animada	Barcelona is a lively city
2. No es una ciudad fea	It is not an ugly city
3. Era una ciudad bastante sucia	It was quite a dirty city
4. Barcelona no era una ciudad económica	Barcelona wasn't a cheap city
5. Será una ciudad muy peligrosa	It will be a very dangerous city
6. Mejor que / peor que	Better than / worse than
7. Está en el norte / sur	It is in the North / south
8. Está situada en el oeste / este	It is (located) in the West/ East
9. Está cerca de la playa	It is near the beach
10. Está lejos de la costa	It is far from the coast
11. Barcelona es una ciudad moderna y está en Cataluña	Barcelona is a modern city and it is in Catalonia
12. Barcelona era una ciudad histórica pero también industrial	Barcelona was a historic but also industrial city

Gapfill (Complete in your homework book)

1. Está _____ en el norte= It is located in the North
2. Está _____ = It is far from the coast
3. Es _____ = It is a modern city
4. Barcelona _____ una ciudad histórica = Barcelona was a historic city
5. Es _____ que Londres = It is better than London
6. _____ una ciudad peligrosa = It will be a dangerous city
7. Es una ciudad muy _____ = It is a very ugly city
8. _____ = It was an ugly city

Test 2 - ¿Cómo es Costa Rica? – LC3

Español	Inglés
1. Me encanta Costa Rica porque hay animales	I love Costa Rica because there are animals
2. Me gusta Costa Rica porque no hay muchos ruidos	I like Costa Rica because there aren't lots of noises.
3. Me gustaría visitar porque me gustan los lagos	I'd like to visit because I like lakes
4. Hay bosques donde puedo pasear	There are forests where I can go for a walk
5. Voy a visitar Costa Rica porque hace sol	I'm going to visit Costa Rica because it is sunny
6. Quiero visitar Costa Rica porque se puede pasarlo bien	I want to visit Costa Rica because you can have a good time
7. Hay espacios verdes pero también se puede bailar	There are green spaces but you can also dance
8. Hay parques nacionales donde me gusta montar	There are national parks where I like to ride
9. Hace calor pero no hay ríos	It is hot but there are no rivers
10. Odio Costa Rica porque hay peligros	I hate Costa Rica because there are dangers
11. Voy a ir a Costa Rica porque hay mercados donde puedo caminar	I'm going to go to Costa Rica because there are markets where I can walk
12. Me gustaría ir a Costa Rica porque hay pájaros y me gusta pintar	I'd like to go to Costa Rica because there are birds and I like to paint

Gapfill (Complete in your homework book)

1. _____ Costa Rica = I'm going to visit Costa Rica
2. Hay _____ = There are National Parks
3. Me _____ a Barcelona = I would like to go to Barcelona
4. Hay espacios _____ donde _____ bailar = There are green spaces where I can dance
5. _____ pájaros = There are birds
6. _____ visitar Costa Rica = I want to visit Costa Rica
7. Me encanta porque _____ = I love it because there are animals
8. Me gusta porque _____ = I like it because it is sunny

Test 3 - ¿Qué tal lo pasaste en.....? – LC3

Español	Inglés
1. El año pasado visité Barcelona	Last year I visited Barcelona
2. El verano pasado fui a Costa Rica	Last summer I went to Costa Rica
3. La primavera pasada visité España	Last Spring I visited Spain
4. Lo mejor fue cuando comí y bebí	The best was when I ate and drank
5. Lo peor fue cuando me quemé	The worst was when I got sunburnt
6. Lo mejor fue que había arena blanca	The best was that there was white sand
7. Lo peor fue que había pobreza	The worst was that there was poverty
8. Lo peor fue que no había fiestas	The worst was that there were no parties
9. Lo mejor fue cuando fui de compras	The best was when I went shopping
10. Había islas bonitas y me divertí	There were beautiful islands and I had fun
11. Visité Barcelona y lo mejor fue cuando tomé el sol	I visited Barcelona and the best was when I sunbathed
12. Lo mejor fue que había castillos y probé platos típicos	The best was that there were castles and I tried typical dishes

Gapfill (Complete in your homework book)

1. Lo mejor ___ cuando comí = The best thing was when I ate
2. ___ fue cuando bebí = The worst thing was when I drank
3. ___ pobreza = There was poverty
4. ___ Barcelona con mi tío = I visited Barcelona with my uncle
5. ___ de compras = I went shopping
6. ___ arena blanca = There was white sand
7. La primavera pasada ___ Colombia = Last spring I visited Colombia
8. Lo peor fue cuando me ___ = The worst thing was when I got sunburnt

Test 4 - ¿Quieres tomar un año sabático?- LC3

Español	Inglés
1. En el futuro voy a aprender a conducir	In the future I'm going to learn to drive
2. Antes de trabajar quiero ser turista	Before working I want to be a tourist
3. Antes de la universidad quisiera ganar dinero	Before university I'd like to earn money
4. Después del colegio espero visitar latinoamérica	After school I hope to visit Latinamerica
5. Sueño con viajar	I dream of travelling
6. Voy a ayudar en mi comunidad porque me importa	I'm going to help in my community because it is important to me
7. Quisiera hacer un viaje en tren por Europa	I'd like to do a train journey through Europe
8. Para un año sabático voy a enseñar inglés	For a gap year I'm going to teach English
9. Quisiera practicar mi español	I'd like to practice my Spanish
10. Voy a ayudar en un proyecto medioambiental	I'm going to help an environmental project
11. Quiero cruzar fronteras porque parece guay	I want to cross borders because it seems cool
12. Sueño con trabajar como voluntari@	I dream of working as a volunteer

Gapfill (Complete in your homework book)

1. voy a _____ a conducir = I'm going to learn to drive
2. _____ de trabajar quiero dormir = After work I want to sleep
3. _____ visitar Latinoamérica = I dream of visiting Latinamerica
4. _____ en mi comunidad = I'm going to help in my community
5. _____ cruzar fronteras = I'd like to cross borders
6. _____ = I'm going to teach English
7. Quisiera _____ = I'd like to do a train journey
8. Después del colegio _____ = After school I'd like to be a tourist

MFL challenges

These are some ideas for tasks to complete at home – they are totally optional but bring them in to show your teacher!

1. Research a Spanish speaking country and create a poster to show what you have learnt
2. Research a Hispanic recipe and have a go at making something at home
3. Create a poster all about you using the vocab in the lists – include pictures
4. Watch your favourite film in Spanish or with Spanish subtitles
5. Imagine you have £1000 to spend on holiday in Spain. Plan and budget for your holiday including travel, accommodation and activities for a one week stay
6. Find a song you like by a Spanish speaking artist
7. Research flags from Spanish speaking countries and make a poster with 5 different flags
8. Research a Spanish/Latin American festival or landmark that interests you and present in a poster / presentation.

RPE Year 9 – Unit 2 - Religion, Peace and Conflict

Key Words			
Forgiveness	Pardoning someone for wrongdoing	Peace-making	Working toward bringing about an end to war and a state of peace
Greed	Going to war to gain land or natural resources such as oil	Protest	A public expression of disapproval, often in a big group, can be peaceful or violent
Holy War	A war that is fought for religious reasons, usually backed by a religious leader	Quakers	A Christians denomination who worship in silence and are well known pacifists
Just War	A Christian theory that asks whether a war is fought justly	Reconciliation	Restoring friendly relationships after a war or conflict
Justice	Bringing about what is right and fair, according to the law or God’s will	Retaliation	Deliberately harming someone as a response to them harming you
Nuclear Weapon	A weapon using a nuclear reaction to cause massive damage	Self-Defence	Protecting yourself or others from harm
Pacifism	A belief that all forms of violence are wrong, commonly held by Quakers	Terrorism	Using violence in order to further a political or religious message
Peace	A state of happiness and harmony, an absence of war	WMD	Weapons of mass destruction: chemical, nuclear or biological weapons

Key Ideas			
Reasons for War 	Greed To gain more land or to control important resources such as oil or gas. e.g. The UK and US invading Iraq in order to control oil resources.	Self-Defence To defend one’s country against invasion or attack or to protect allies who are under attack. E.g. UK threatened by Nazi invasion in WWII .	Retaliation To fight against a country that has done something very wrong or to fight against a country that has attacked you. e.g. US invading Afghanistan in retaliation for 9/11.
Nuclear War and WMD 	Nuclear weapons work by a nuclear reaction and devastate huge areas and kill large numbers of people. They are a type of WMD (weapons of mass destruction) which also includes chemical and biological weapons. All these weapons are not allowed under the Christian Just War Theory and would therefore be rejected by most Christians. Nuclear weapons were used at the end of WWII in Japan to force the Japanese to surrender. Some people say their use was justified as it prevented more suffering even though 140,000 people died. Although some Christians justify war with ‘an eye for an eye’, this cannot be used to justify the use of weapons of mass destruction as they are not a proportionate response.		
Holy War 	A Holy War is a war which is fought for religious reasons, often with the backing of religious leaders. An example of this was the Crusades fought from the 11 th -14 th Century by Christians, backed by the Pope. Religion can still be a cause for war today such as in Northern Ireland where Protestant and Catholic Christians fought a civil war between 1968-98.		
Just War Theory 	Just War Theory is a Christian moral theory for working out if a war meets internationally accepted criteria for fairness. These are some of the conditions that must be met for a war to be just: <ul style="list-style-type: none"> • Just Cause – fought in self-defence or to protect others. • Just Intention – fought to promote good and defeat wrongdoing. • Last Resort – only going to war if all other methods have been tried first. • Proportional – excessive force should not be used, and innocent civilians must not be killed. 		
Pacifism and Christian Responses to War 	Pacifism is the idea that all forms of violence are wrong . Pacifists such as Quakers refuse to take part in war and often choose to be a conscientious objector (someone who doesn’t go to war for moral reasons) or to assist in medical tasks like ambulance driving. Christians try to follow Jesus’ teaching that “ blessed are the peacemakers. ”	Christians try to show mercy to victims of war and provide them with assistance. This can be through charity or through welcoming them into their churches. It can be victims in their own country or refugees such as people fleeing from Syria or Yemen. This is an example of ‘ love your neighbour ’ in action.	

<p>Week 1: 26th March</p>	<p>Create a 10-question self-test using the key words from the knowledge organiser. You must include:</p> <ul style="list-style-type: none"> • 10 definition questions • 5 “fill in the blank” questions • 5 application questions (e.g. “Explain why pacifism would reject nuclear weapons.”) <p>Stretch: Include at least 3 of these terms in a short paragraph: <i>Just War, retaliation, WMD, reconciliation, forgiveness.</i></p>
<p>Week 2: 23rd April</p>	<p>Choose one reason for war:</p> <ul style="list-style-type: none"> • Greed • Self-defence • Retaliation <p>Create a 6 line PEE explanation that includes:</p> <ul style="list-style-type: none"> • A clear definition • The example from the knowledge organiser • An explanation of whether Christians might agree or disagree with this reason • A link to Just War Theory <p>Challenge: Explain whether your example meets the criteria for a Just War.</p>
<p>Week 3: 7th May</p>	<p>Research one example of a Holy War (e.g. the Crusades). Then:</p> <ul style="list-style-type: none"> • Explain what makes a war “holy” • Compare Holy War with Just War Theory • Decide which is more convincing for Christians today and explain why <p>Extension: Could a Holy War ever meet Just War criteria?</p>
<p>Week 4: 21st May</p>	<p>Create an A4 revision poster explaining:</p> <ul style="list-style-type: none"> • The 4 main Just War conditions • A modern example that might meet the criteria • An example that would not meet the criteria • Why WMD would not be allowed <p>Use key vocabulary accurately.</p>
<p>Week 5: 11th June</p>	<p>Create a Religion & Conflict Glossary using at least 12 key terms from the knowledge organiser. You must:</p> <ul style="list-style-type: none"> • Write the key word • Write a clear definition in your own words • Include a simple example • Add a small symbol or picture to help you remember it <p>You must include:</p> <ul style="list-style-type: none"> • Pacifism • Just War • Self-defence • Nuclear weapon • Forgiveness • Holy War <p>Challenge: Write one paragraph explaining how at least three of your glossary terms link together.</p>
<p>Week 6: 25th June</p>	<ol style="list-style-type: none"> 1. What does <i>pacifism</i> mean? 2. What is a <i>Just War</i>? 3. Give one reason why countries go to war. 4. What is a <i>nuclear weapon</i>? 5. What does <i>WMD</i> stand for?

Week 7: 9 th July	<ol style="list-style-type: none">1. What does <i>retaliation</i> mean?2. Who are the Quakers?3. What is <i>self-defence</i>?4. What is meant by <i>Holy War</i>?5. Give one way Christians try to help victims of war.
------------------------------	---

A. Visual Elements Keywords

Line	Line is the path left by a moving point. A line can be horizontal, diagonal or curved and can also change length.
Shape	A shape is an area enclosed by a line. Shapes can be geometric or irregular.
Form	Form is a three dimensional shape, such as a cube, sphere or cone.
Tone	This refers to the lightness or darkness of something. This could be a shade, or how dark or light a colour appears.
Texture	This is to do with the surface quality of something. There are two types of texture: Actual texture really exists, so you can feel it or touch it; Visual texture is created using marks to represent actual texture.
Pattern	A design that is created by repeating lines, shapes, tones or colours.
Colour	Red, yellow and blue are primary colours, which means they can't be mixed using any other colours.

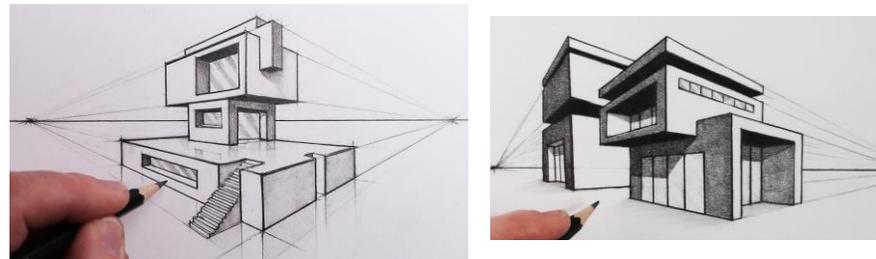
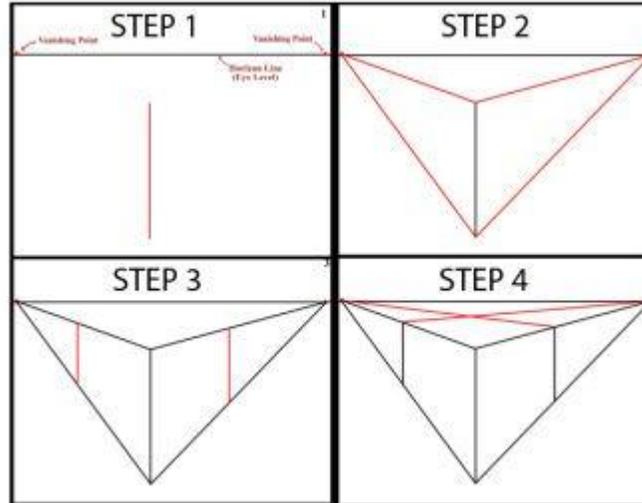
B. Key Knowledge 1: Brutalist Architecture

Brutalism, also known as **Brutalist architecture**, is a style that emerged in the 1950s and grew out of the early-20th century modernist movement. **Brutalism** was generally characterised by its rough, unfinished surfaces, unusual shapes, heavy-looking materials, straight lines, and small windows



E. Expert Modelling: Drawing in 2 point perspective

- Follow these steps to help you practice your 2 point perspective drawing
- To develop your drawings watch and follow the steps in F. Wider thinking / further reading
- Add Tone like the drawings below



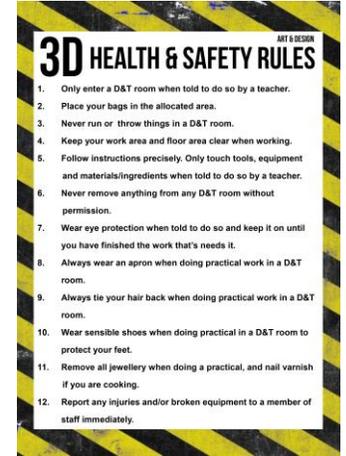
What Visual Elements can you see in this work?

CREATIVE ARTS

3D DESIGN – YR 9 – BRUTALISM

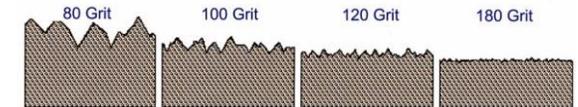
C. Key Knowledge 2: HEALTH & SAFETY RULES

Refer to your booklet for a larger version of the H&S Rules



D. Key Knowledge 3: Sand paper grades

Sandpapers are commonly graded as coarse (40 to 60 grit), Medium (80 to 120), Fine (150 to 180), Very Fine (220 to 240), Extra Fine (280 to 320) and Super Fine (360 and above). Sanding with progressively finer **grits** removes the scratches left by the previous paper and eventually leaves a smooth finish.



F. Wider thinking / further reading:

https://www.youtube.com/watch?v=w_LbQviO1K4

Check out this tutorial on drawing in 2 point perspective

Yr9 Art Cycle 3 Knowledge Organiser – Art Activism

Artists and designers use text and images to create work with personal, political or social messages. Art has the potential to influence human behaviour. It can evoke emotion and provoke action.



'The Mechanical Head' by Raoul Hausmann



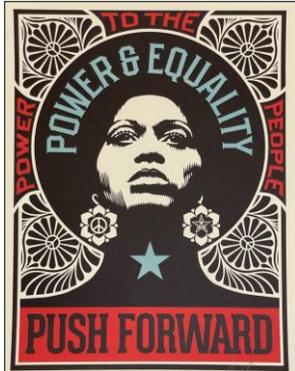
'Earth Day' Poster by Robert Rauschenberg



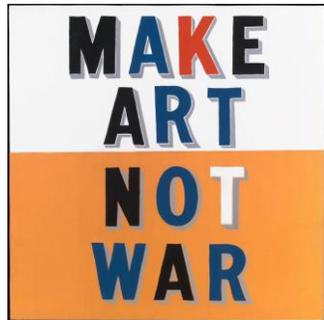
'Your Body Is A Battleground' by Barbara Kruger



'Love' by Robert Indiana



'Power & Equality' Shepard Fairey



'Make Art Not War' Bob & Roberta Smith

Art History - Knowledge & Inspiration:

Dada was an art movement formed during the First World War in Zurich in negative reaction to the horrors of the war. The Dadaists protested through their art about the war and the current culture. They meant for us to rethink the items that surround us so that we might rethink our world.

Raoul Hausmann (1886-1971) was a German Dada artist. His sculpture titled 'The Mechanical Head' shows a man who cannot think for himself but accepts everything he is told. He has a wooden head with tight lips and eyes that show no expression. The mechanical man will never argue or share an opinion of his own.

Robert Rauschenberg (1925 –2008) was an American painter and graphic artist who also worked with photography and printmaking. Rauschenberg's belief in the power of art as a catalyst for positive social change was at the heart of his participation in a number of international projects in the 1970s. To mark the first 'Earth Day' he designed a poster built around the image of the endangered bald eagle using a collection of photographs of other endangered animals, deforestation and pollution.

Barbara Kruger (born 1945) is an American conceptual artist. Most of her work consists of black-and-white photographs, overlaid with captions, often in white-on-red. "Your body is a battleground" was produced by Barbara Kruger for the Women's March on Washington in support of anti-abortion. In the case of abortion, the campaign for a woman's right to choose occurs outside of her **body**, yet directly affects her. This image is both art and protest.

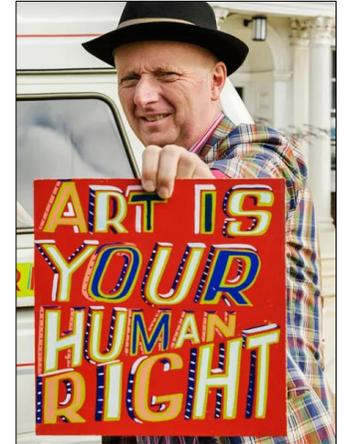
Robert Indiana (1928 - 2018) 'LOVE' was a Pop Art sculpture by American artist Robert Indiana. Pop Art presented a challenge to traditions of fine art by including imagery from popular culture such as advertising, news, and mundane everyday objects.

Shepard Fairey (born 1970) is an American contemporary street artist, activist. He is most famous for his designs for the Barack Obama "Hope" poster for the 2008 US presidential election.

Bob & Roberta Smith (born 1963) is in fact just one person, otherwise known as British artist Patrick Brill's. His paintings look like signboards, featuring slogans in brightly coloured letters that reflect on life, politics and the role of art.

Yr9 Art Cycle 3 Knowledge Organiser Page 2- Key terms and Definitions:

- **Art Activism** is a term used to describe art that is grounded in the act of campaigning to bring about political or social change.
- **Charcoal** is a burnt wood used in drawing. Willow charcoal is easily spread on a surface, easily smudges and is very easy to erase, it generally makes a lighter mark when you draw than compressed charcoal. Compressed charcoal is darker and harder to smudge or rub out than willow charcoal. A charcoal drawing can be "fixed" using fixative or hairspray to prevent smudging!
- **Collaboration** = The action of working with someone to produce something.
- **Collage (also known as Photomontage)** = Is a technique named after the French word 'coller' meaning 'to glue'. It is a process in which pieces of paper, photographs, fabric or other ephemera are arranged and stuck down onto a surface.
- **Combine** = to unite or to join together to make a single thing or group.
- **Font:** Font is an alphabet designed so that all the letters and symbols have similar features. A font, essentially, is the lettering that graphic designers use to put text on their images and videos. A good image paired with a great font gives your work an edge and helps you to better convey your message.
- **Influence:** Influence is the ability to persuade someone to think or act differently. Art influences people by inspiring them. Art can influence and effects each person differently.
- **Juxtaposition:** Putting two or more dissimilar images next to each other is called juxtaposition. This creates automatic comparisons between the images by asking how they are different, how are they similar, and what the artist is trying to convey.
- **Text Art:** Text art is a form of art that includes words or phrases, it is a combination of language and visual imagery.
- **Typography:** Typography is the art of arranging letters and text in a way that makes it legible, clear, and visually appealing when displayed. It involves font style, appearance, and structure, which aims to elicit certain emotions and convey specific messages.
- **Sculpture:** Sculpture is the art of making three-dimensional forms.

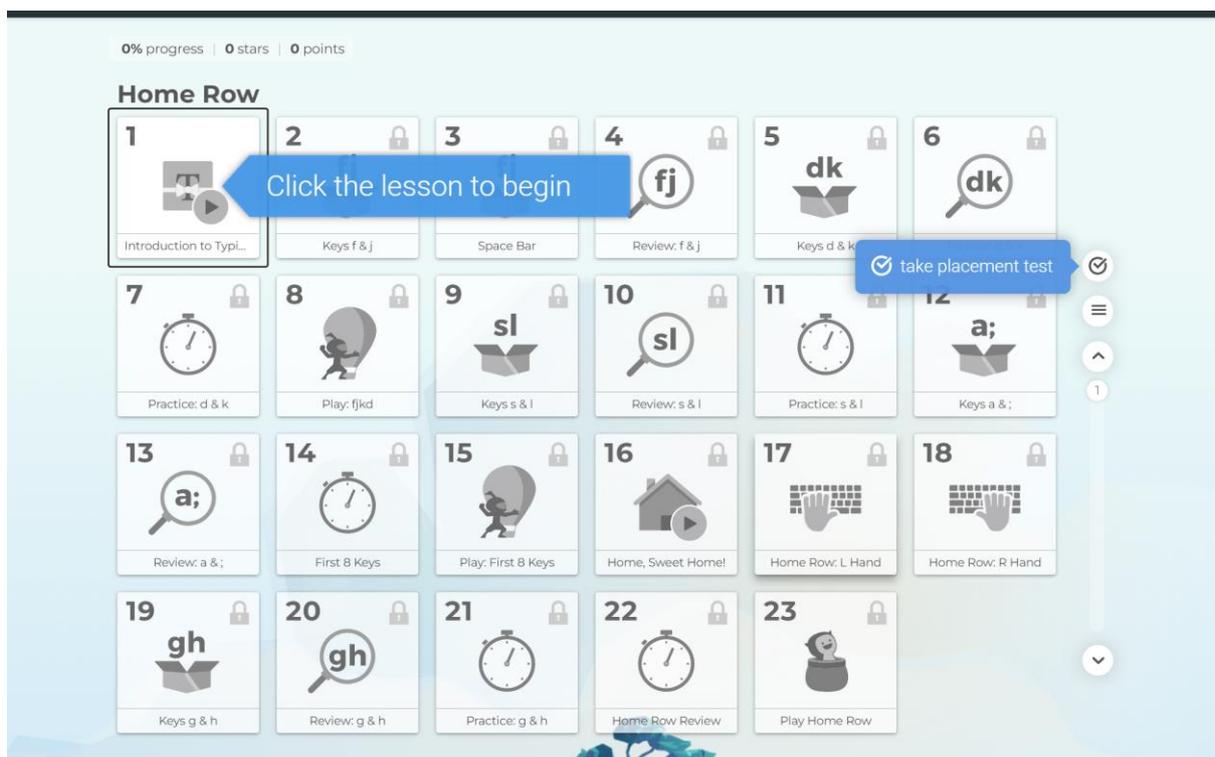
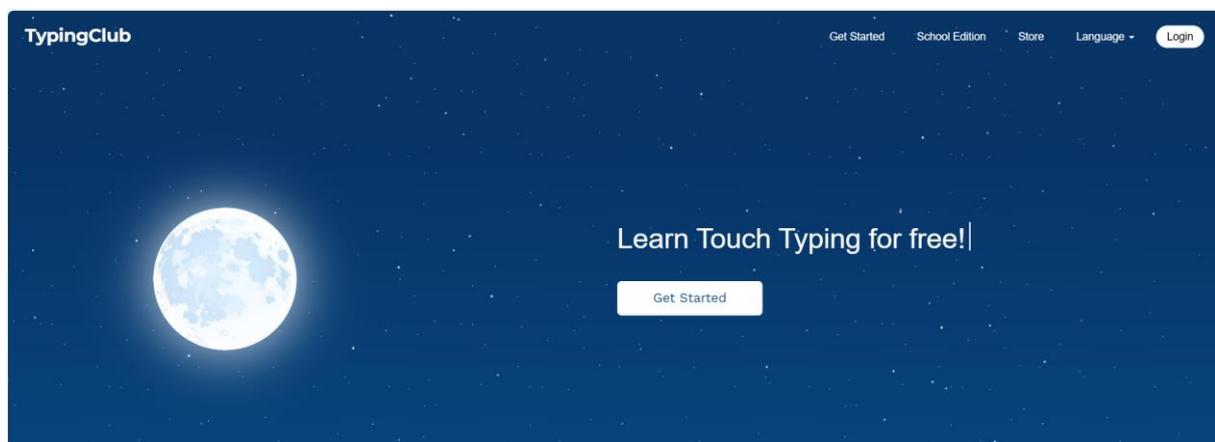


KS3 COMPUTER SCIENCE KNOWLEDGE ORGANISER CYCLE 3

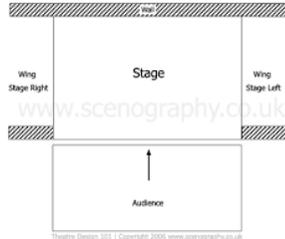
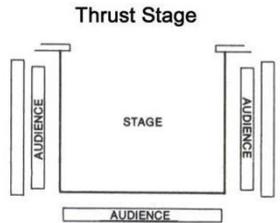
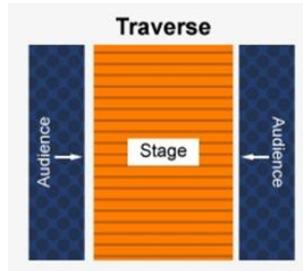
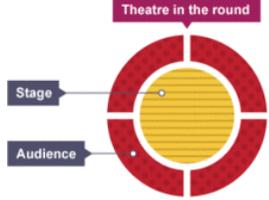
www.typingclub.com

Learning to touch-type can improve your speed and efficiency at the computer. Typing skills can also help you grow your confidence at school and/or in the workplace. Depending on how you learn, typing might improve your spelling skills and writing fluency too

Using the login details provided to you in class follow the activities and increase your place on the class leader board!



	Week 1	Week 2	Week 3	Week 4	Week 5
YEAR 9 DRAMA– CYCLE 3	<p><u>Blood Brothers by Willy Russell</u></p> <p><u>Key Points</u> Blood Brothers is a musical with book, lyrics, and music by Willy Russell. The story is a contemporary nature versus nurture plot, revolving around fraternal twins Mickey and Eddie, who were separated at birth, one subsequently being raised in a wealthy family, the other in a poor family.</p> <p>The main Blood Brothers theme and issues are as follows:</p> <ul style="list-style-type: none"> • Social class. • Nature VS nurture. • Friendship & loyalty. • Growing up. • Fate & superstition. • Violence. <p>Nature vs. Nurture: Splitting up the twins shows us how the environment can have a huge impact on life chances.</p> <p>Relationship: The development and change in friendship between M, E, and Linda. The interaction between Mr and Mrs L, mother and son, and Mr</p>	<p><u>Performing Skills</u></p> <p><u>Gesture</u> This is a defined movement which clearly communicates meaning using body language and facial expression.</p> <p><u>Mime</u> A drama technique of expressing an idea or mood or portraying a character entirely by gesture and bodily movement without the use of words.</p> <p><u>Pace</u> The speed at which someone speaks to highlight the character or the mood of the scene.</p> <p><u>Pause</u> Moments within a piece of drama of silence to highlight a crucial moment or to comment on the action occurring.</p> <p><u>Characterisation</u> The act of changing voice, body language, movement, gesture etc when in role is called characterisation. The performer must use their skills to portray a character consistently throughout their performance.</p>	<p><u>Character Information</u></p> <p><u>Some words to describe the characters;</u></p> <p>Mickey Mickey and his family represent the working classes, who were badly affected by the economic downturn, whereas Edward and the Lyons family embody the middle classes, who thrived in the 1980s.</p> <p>Edward Like his twin brother Mickey, Edward is a sincere, honest, and good-natured boy. Despite having grown up in the lap of luxury with the high-strung and snobbish Mrs. Lyons, he is not entitled or arrogant. Indeed, his sheltered upbringing has made him more innocent and trusting than his lower-class twin.</p>	<p><u>Design Skills</u></p> <p><u>Staging</u> This plays a very importance role and the performer needs to consider how and why the characters move in a particular way and how they use the stage effectively in order for the audience to understand the aims and intentions of the play extract.</p> <p><u>Proxemics</u> This drama technique is also as key skill when blocking in drama, as it explores 'spatial relationships', between different characters within the elements of the set.</p> <p><u>Performance skills</u> Skills used by performers including voice/vocal skills, movement/physical skills, use of space/proxemics and facial expression/posture/ non-verbal skills.</p>	<p><u>Contextual Information</u></p> <p>Social: There was a large gap between working and middle class in Britain during this time. The Johnstones and Lyons families are class stereotypes. Many working class families struggled financially and to find work. There was also a class divide in education; this is shown when Mickey goes to secondary school and Edward attends a private boarding school.</p> <p>Margaret Thatcher: The first female Prime Minister in power during that time. She was responsible for lots of working-class people losing their jobs. During her time in power, unemployment rates raised higher than ever before. She believed everyone can be successful if they work hard.</p> 

	Week 6	Week 7	Week 8	Week 9	Week 10				
	<p><u>Design Elements</u></p> <p><u>Lighting</u></p> <p><u>Back Projection</u> A method of projecting images onto a translucent screen from behind. Often used for projected scenery or special effects.</p> <p><u>Barn Door</u> A rotatable attachment consisting of two or four metal flaps (hinged) which is fixed to the front of a Fresnel lantern to cut off the beam in a particular direction(s).</p> <p><u>Cyclorama</u> A fabric drop hung from a curved or segmented batten, or a curved wall at the back of the stage, upon which light can be cast to create effects (<u>cyc for short</u>).</p> <p><u>Flood</u> To wash the stage with general lighting. The name given to a basic box-shaped lantern with a simple reflector used to achieve this effect.</p> <p><u>Gel</u> A sheet of plastic usually composed of a coloured resin which creates coloured light on stage.</p>	<p><u>Design Elements - Types of Staging</u></p> <p><u>Proscenium Arch</u> A stage where the audience sits on one side only is called a proscenium stage (you might know this as end-on staging). The audience faces one side of the stage directly, and may sit at a lower height or in tiered seating. The frame around the stage is called the proscenium arch.</p>  <p><u>Thrust Staging</u> This type of staging is one that extends into the audience on three sides and is connected to the backstage area by its upstage end. A thrust has the benefit of greater intimacy between performers and the audience than a proscenium.</p> 	<p><u>Design Elements</u></p> <p><u>Types of Staging</u></p> <p><u>Traverse</u> This type of staging is when</p>  <p>the audience is on two opposite sides of the stage facing towards each other.</p> <p><u>Theatre-in-the-round</u> Is a form of theatrical</p>  <p>staging in which the acting area may be raised or at floor level, is surrounded by the audience.</p>	<p><u>Revision for Knowledge Organiser test:</u></p> <p>Revise areas on Performance and Design skills. Learn the types of staging and the different lighting elements.</p> <p>You may choose to look over all the performance and design elements and use the following to support you with your revision:</p> <table border="1" data-bbox="1456 750 1758 885"> <tr><td>LOOK</td></tr> <tr><td>COVER</td></tr> <tr><td>WRITE</td></tr> <tr><td>CHECK</td></tr> </table> <p>Ensure you have knowledge of DNA. This includes understanding of the characters, the themes and knowledge of the original performance conditions.</p> <p>Remember how you used the performance and design elements when creating your drama work on key scenes from Act 1.</p>	LOOK	COVER	WRITE	CHECK	<p><u>DNA Original Performance Conditions</u></p> <p>Directed by Paul Miller</p> <p>Set, Costume and Video Designer by Simon Daw</p> <p>Lighting Designer by Paule Constable</p>  <p>Sound Designer by Rich Walsh</p> <p>Associate Video Designer by Paul Kenah</p>  <p>DNA had a forensic quality slowly moving through and exploring the spaces in which the play is set including a wood and a field.</p>
LOOK									
COVER									
WRITE									
CHECK									

Your English homework is to complete your Sparx Reader homework online.

You can access Sparx Reader by typing it into an internet search function, or you can sign into Sparx Maths, click 'Menu' and access Sparx Reader there.

You will not be able to complete Sparx Reader as your homework until you have completed the Sparx Reader test in one of your English lessons. If you have not yet completed this test, please use the following pages of the KO as your English homework, using the 'look, cover, write, check' method.

Once you are using Sparx Reader as your homework, you do not need to do the KO as well. If Sparx Reader does not work for any reason, return to completing the KO until you can access Sparx again. If your Sparx Reader is not working, let your English teacher know as soon as you can.



What do I have to do on Sparx Reader?

Select a book, read it and answer the questions that pop up as you read. The questions are checking your understanding of the book.

How will I know I have completed my homework?

Your target is to reach 300 SRP (Sparx Reader Points) every week. 300 SRP = roughly 30 minutes of reading. You get points by correctly answering questions. You get more points if you answer a question correctly the first time. You get more points the more carefully you read – Sparx Reader knows when you have read too quickly or improperly, which stops you from getting as many points.



Well done!

Your score was 4/4.

+38 SRP

+13 Check passed

+25 First try bonus

Next >

When will my homework be due in and checked?

Your English teacher will decide what day of the week you have to complete your homework by and they will inform you of this day. Don't worry if your homework is due a different day to your friend's homework; go by what your teacher has told you.

Task Progress



64 / 200 SRP

Continue >

What do I do if I'm confused or stuck?

Ask your English teacher as soon as you can – they will be able to help you with any questions you may have.

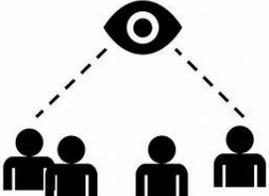
Start with Week 1. Each week, complete the next colour block. Write each word out 3 times and each definition once. Check it all with a purple pen. Tick what is correct, amend what is wrong.

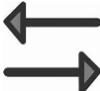
wk	Keyword	Definition	Example	Character/Theme/Plot/Context
Week 1	Ostentatious <i>os-ten-tey-shuh s</i>	Characterised by pretentious or showy display 	When celebrating the engagement, Birling refers to the port as being the one Gerald's father drinks, and therefore boasting.	Mr Birling  Mr Birling is the head of the Birling household . He has made himself very wealthy by being a 'hard-headed' business man . He is an active member of the community in Brumley and thinks that he might be in the running for a Knighthood. At the start of the play he comes across as being arrogant, making long speeches about his predictions for the future. He also makes assertions about how a man should look out for number one and not waste time helping others. It is at this exact moment that the Inspector arrives. Sybil, his wife, is his 'social superior' and it is hinted that he is self-conscious about being from a more working-class background. He is materialistic and possessive and also has old fashioned views about women . 
	Condescending <i>con-de-scend-ing</i>	Having or showing an attitude of patronising superiority 	When Mr Birling meets the inspector he informs him 'I was an alderman for years – and Lord Mayor two years ago – and I'm still on the Bench – so I know the Brumley officers pretty well' to show his importance.	
	Belittling	Dismiss (someone or something) as unimportant	When discussing the possibility of war he says 'Fiddlesticks! The Germans don't want war. Nobody wants war.'	
	Context	The background information that shapes a piece of literature. 	The context of An Inspector Calls could be things like Britain in 1912, Britain in 1945, class structure, Priestley etc...	
	Capitalism	An economic and political system in which property, business, and industry are owned by private individuals and not by the state.		
Week 2	Materialistic	Excessively concerned with material possessions; money-oriented	When receiving the ring from Gerald Sheila says 'Now I really feel engaged'	Sheila Birling Sheila Birling is Arthur and Sybil's daughter and is in her early twenties. At the start of the play she is celebrating
	Naïve <i>Ni-ave</i>	Showing a lack of experience, wisdom, or judgement	Sheila is is shocked to discover the true harsh of reality	

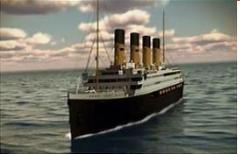
		<p>regarding girls like Eva. Her comment about Eva shows just how sheltered her life has been 'She was pretty and looked as if she could take care of herself'</p>	<p>her engagement to Gerald Croft and she is a giddy, naïve and childish young lady. The Inspector arrives and she is very shocked by the news of Eva Smith's death, she is also very regretful of her own involvement in the suicide.</p>  <p>As the play continues, she matures, admiring Gerald's honesty, even though he cheated on her. She shows an assertive side by standing up to her mother and father and she also shows that she is insightful and intelligent - she can see where the Inspector's investigation is going and tries to warn the others.</p> <p>By the end of the play she has grown up and has realised that her actions can have grave consequences.</p> 
<p>Petulant <i>pech-uh-luhnt</i></p>	<p>Childishly sulky or bad-tempered</p> 	<p>The relationship she has with Eric at the beginning of the play is very childlike she says Eric is 'squiffy' and is excitable. In addition, her behaviour at Milwards when trying on the dress supports how childlike she acted believing Eva had laughed at her she then demanded her to be sacked.</p>	
<p>Symbolism</p>	<p>the use of symbols in order to represent something.</p>	<p>The disinfectant that Eva/Daisy swallows should make her "clean," but it destroys her. In the same way the Inspector's questions should "make clean" the family by bringing people's secrets into the light of day. But these secrets nearly tear the family apart too.</p>	
<p>Personal Responsibility</p>	<p>the duty to try hard to make your life worthwhile and to be fair to others.</p> 	<p>Priestley believed that we are all a community and have a responsibility to look after each other, and this crucial message is showcased through the character of the Inspector, the mouthpiece of Priestley.</p>	

Week 3	Aristocratic <i>aris-to-crat-ic</i>	Of, belonging to, or typical of the aristocracy /upper classes 	<i>e.g. holds the same view as Mr Birling and his father as to how their business should be run. He says after hearing Birling sacked Eva 'You couldn't have done anything else'</i>	Week 3	Gerald Croft  <p>Gerald is described as 'an attractive chap about thirty, rather too manly to be a dandy but very much the easy well-bred young man-about-town'. Mr Birling is very pleased that Gerald is getting engaged to Sheila because his family are upper-class business owners, Mr Birling hopes they can join forces in business.</p> <p>At the beginning of the play, Gerald comes across as being confident and charming. This changes after his affair with Eva Smith is revealed. Gerald gives himself away when he hears that Eva changed her name to Daisy Renton. He initially is evasive and tries not to talk too much about it but redeems himself in the eyes of the audience by being more open and honest about it as he talks to Sheila. He lets himself down in the final act by trying to get the family out of trouble, he doesn't seem to have learned from his mistakes.</p> 
	Duplicitous <i>doo-plis-i-tuh s</i>	Deceitful 	<i>Gerald leads Daisy on by setting her up in a flat and giving her money, but then dropping her when he realised it couldn't go anywhere 'I didn't feel about her as she felt about me.'</i>		
	Advantaged	Having a comparatively favourable position in terms of economic or social circumstances. 	<i>being the son of Lord and Lady Croft Gerald is the perfect son-in-law for the Birlings. Gerald and Sheila's engagement offers the possibility of uniting the families.</i>		
	Philandering	(Of a man) readily or frequently enter into casual sexual relationships with women	<i>began a relationship with Daisy despite being in a relationship with Sheila (Sheila to Gerald) 'Except for last summer when you wouldn't come near me.'</i>		
	Static	Lacking in movement, action, or change, especially in an undesirable or uninteresting way	<i>quick to revert to normality after discovering the inspector wasn't a real one, he assumed he could pick up his relationship with Sheila now 'Everything's all right now, Sheila. Demonstrating that like the older Birlings he has learnt nothing from the inspector.</i>		

Week 4	Prejudiced	Having or showing a dislike or distrust that is derived from a biased opinion 	<i>Mrs Birling taking an instant dislike to Eva because she used her name.</i>	
	Stereotypical	Relating to a widely held but fixed and oversimplified image or idea of a particular type of person or thing 	<i>Mrs Birling making assumptions about Eva because she is working class 'As if a girl of that sort of class would ever refuse money'</i>	Sybil Birling 
	Unsympathetic	Not feeling, showing, or expressing sympathy 	<i>Her reaction to her daughter when Sheila discovers Gerald has cheated.</i>	Mrs Sybil Birling is Arthur Birling's wife and right from the opening of the play she is cold-hearted and snobbish despite being a prominent member of local women's charity. Throughout dinner she tells Sheila and Eric off for things that she considers impolite whilst ignorantly turning a blind eye to her son drinking too much. It is clear that despite Eric being old enough to drink and Sheila getting married, she sees them both as children, not as a young man and woman.
	Ignorant	Lacking knowledge or awareness in general	<i>Mrs Birling is unable to learn anything from the Inspector's visit.</i>	Her cold, uncaring nature leads to her downfall as the Inspector forces her to unknowingly condemn her own son.
	Conceited kuhn-see-tid	Excessively proud of oneself.	<i>when Eva used the family name Mrs Birling said 'She'd impertinently made use of our name' highlighting how she considers their name to be of great importance.</i>	
Week 5	Bourgeois boor-ghwa	Belonging to or characteristic of the middle class, typically with reference to its perceived materialistic values or conventional attitudes 	<i>Eric has been born into a middle class family and has been given a job at his father's company. It is expected he will take over the company in the future.</i>	Week 5 Eric Birling 

	Privileged	Having special rights, advantages, or immunities	<i>Eric being born into the family allows him at the beginning of the play to appear to be untouchable. Through his lack of responsibility given to him by his parents and being treated like a child.</i>		<p>Eric is the Birlings' son and is in his early twenties, he is described as being 'not quite at ease, half shy, half assertive'. In other words, he lacks confidence. At points he tries to stand up to his father but is talked down. It becomes clear that he is drunk at the dinner table and later it is revealed that he has been drinking too much for quite some time.</p> <p>It turns out that Eric had an affair with Eva Smith and that she was pregnant with Eric's baby when she committed suicide. Eric stole money from his father's business to help Eva. In the final act Eric makes an emotional attack on his parents and their values and shows that he can be assertive.</p> 
	Guilty	Responsible for a specified wrongdoing 	<i>When he describes his encounter with Eva 'I was in a state when a chap easily turns nasty.'</i>		
	Culpable <i>cul-pa-ble</i>	Deserving blame 	<i>Eric symbolised how those with money get what they want at the beginning of the play and for his treatment of Eva/Daisy. Therefore deserving the blame he felt through his abuse of power.</i>		
	Responsible	Being the primary cause of something and so able to be blamed or credited for it	<i>Eric accepts his part in the death of Eva, and also is prepared to face the consequences for his action he states 'we helped to kill her.'</i>		
Week 6	Omniscient <i>Om-nis-ee-uhnt</i>	Knowing everything 	<i>The inspector seems to have a deep knowledge of the whole family and uses this when he questions them.</i>	Week 6	<p>Inspector Goole</p> <p>The Inspector arrives whilst the Birling family are celebrating the engagement of Sheila and Gerald. The stage directions state that he 'need not be a big man' but that he must create an 'impression of massiveness, solidity and purposefulness'. The Inspector investigates each family member one at a time and in doing so, reveals the consequences of their behaviour.</p> 
	Solid	Firm and stable	<i>The Inspector does not get drawn into any petty quarrels, he questions the characters one at a time and remains unfazed by their reactions.</i>		

<p>Socialist</p>	<p>One who believes that the means of production should be owned by or regulated by the community as a whole</p> 	<p><i>The Inspector represents socialism through his actions and being the voice of Eva, reminding the family that they do not live alone. Furthermore, he represents Priestley and his view point and the attempts to encourage those in society that held the same views as the character Birling to be more caring towards other and want an equal society to live in.</i></p>		<p>He drives forward the drama, with his questions creating shocking moments and gripping cliff-hangers for the audience. By the end of the play it is revealed that he isn't actually an Inspector. It is not entirely clear who he is, Priestley leaves it up to the audience to decide. His name 'Goole' suggests a supernatural or ghost like element, and he seems to know what the characters will say before they do - is he the conscience of the audience? Is he the voice of Priestley? Either way he delivers a frightening message when he leaves, that if people do not take responsibility for each other, the world is doomed.</p>
<p>Authoritative <i>au-thor-i-ta-tive</i></p>	<p>Commanding and self-confident; likely to be respected and obeyed</p> 	<p><i>In the stage direction he is described as 'He speaks carefully, weightily and has a disconcerting habit of looking hard at the person he addresses before actually speaking.' In addition, he controls the room the lighting changes from 'pink and intimate' to 'brighter and harder' once he arrives.</i></p>		
<p>Antithesis <i>an-tith-uh-sis</i></p>	<p>A person or thing that is the direct opposite of someone or something</p> 	<p><i>the inspector is a socialist and Mr Birling is a capitalist their views and opinions are the antithesis of each other's.</i></p>		

Week 7	Stoical <i>s-to-ical</i>	Enduring pain and hardship without showing one's feelings and complaining <i>the inspector informed the family Eva had ' No work, no money coming in, and living in lodgings with no relatives to help her'</i>	Eva Smith/ Daisy Renton  We never meet Eva Smith during the course of the play, but she is a very important character. It is her death that is the cause of the Inspector's investigation which in turn drives the drama. The audience learns about Eva through the Inspector, who has read a letter and a diary she kept. They also learn about her through the characters she came into contact with. A lot of the information about her is inferred - from the incident at Mr Birling's factory we can infer that she was strong willed . From her interaction with Sheila the audience can see that Eva had a sense of humour . Her relationship with Gerald, when she changed her name to Daisy Renton, reveals her sensitivity. By the time she reaches Eric and Sybil, Eva is desperate and resourceful in trying to get herself help. Eva is always referred to in a positive light by the characters that met her but the Inspector never lets the audience or the Birlings and Gerald forget her gruesome death. The Inspector's final speech reveals Priestley's lesson that there are millions of Eva Smiths being exploited and this must not continue.
	Diligent	Having or showing care and conscientiousness in one's work and duties  <i>Putting herself in danger of losing her job because she felt passionate about how others were paid as well as herself.</i>	
	Vulnerable	Exposed to the possibility of being attacked or harmed, either physically or emotionally  <i>Eva/Daisy has placed herself in many situation where she was vulnerable when Gerald saved her from old man Meggarty and Eric forcing himself on her.</i>	
	Underprivileged	(of a person) not enjoying the same standard of living or rights as the majority of people in a society  <i>Eva was a working class girl living in 1912 where there was a huge divide between the social classes.</i>	
	Emblematic <i>em-blem-at-ic</i>	Serving as a symbol of a particular quality or concept; symbolic <i>when the inspector says 'One Eva Smith has gone – but there are millions and millions of Eva Smith's and John Smith's still left with their lives, their hopes and fears all intertwined with our lives'</i>	
Week 8	Dramatic Irony  Irony that is understood by the audience but not grasped by the characters in the play.	The audience know what the characters don't; makes Mr Birling appear foolish & discredits his ideas	Week 8 Social Responsibility 



	Setting and props	Constant throughout but with subtle changes 	Lighting: reflects insular and self-centred view point of the Birlings Large suburban house, port and cigars, champagne glasses, the photograph		<p><i>An Inspector Calls</i> was first performed in the UK just after the end of World War Two, in 1946. It was a time of great change in Britain and many writers were concerned with the welfare of the poor. At that time there was no assistance for people who could not afford to look after themselves. Priestley wanted to address this issue. He also felt that if people were more considerate of one another, it would improve quality of life for all. This is why social responsibility is a key theme of the play. Priestley wanted his audience to be responsible for their own behaviour and responsible for the welfare of others.</p> 
	Stage Directions	Set the scene for tension, class and relationships at the beginning	This emphasises the change in Sheila and Eric by the end of the play,		
	Entrances and Exits	Used to create tension and emphasise key plot points to the audience * Cliff-hangers *	Entrances and Exits are often controlled by Inspector Goole Act 1 ends with the Inspector saying 'Well?' to Gerald. This is the same way that Act 2 begins. This cliff-hanger means the audience have to wait to find out what happens, even though they have already anticipated what will happen.		
	Contrasts	The audience are forced to make contrasts between the Birlings' self-interested attitudes and the beliefs of the Inspector.	The Inspector himself -It is especially clear that Priestley is using the Inspector to move the plot along, to control the pace of events and to decide the order in which the characters are questioned.		
	<u>Keyword</u>	<u>Definition</u>	<u>Which character does this link to?</u>		
Week 9	Exploitative <i>ex-ploit-at-ive</i>	Making use of a situation or treating others unfairly in order to gain an advantage or benefit 			Age/ Generation Gap Age is an important theme in <i>An Inspector Calls</i> . Priestley uses it to show how he believed that there was hope in the younger generation's ability to learn and change.
	Boastful	Showing excessive pride and self-satisfaction in one's achievements, possessions, or abilities			
	Grandiose <i>gran-dee-ohs</i>	Extravagantly or pretentiously imposing in appearance or style 			

	Imperious <i>im-peer-ee-uhs</i>	Arrogant and domineering 		The older characters' opinions and behaviours are stubbornly fixed. Mr Birling refuses to learn and Mrs Birling cannot see the obvious about herself and her children. Eric and Sheila however are younger - they accept their mistakes and offer the chance for a brighter future.
	Cruel	Wilfully causing pain or suffering to others, or feeling no concern about it		
Week 10	Arrogant	Having or revealing an exaggerated sense of one's own importance or abilities		Week 10 Gender <i>An Inspector Calls</i> was written after World War Two. As many British men went away to fight during the war, their positions in work had to be filled by women. This helped change existing perceptions. Men had to acknowledge the fact that women were just as capable as them. As a result of this, many women enjoyed a newfound freedom that working and earning money allowed them. Not all men saw this change in attitude as a good thing and stayed stuck in the past. Priestley explores the impact of these new gender roles through the independence of Eva Smith and the sexist attitudes of Mr Birling.
	Rapacious <i>ruh-pey-shuhs</i>	Aggressively greedy or grasping		
	Covetous	Having or showing a great desire to possess something belonging to someone else 		
	Brazen	Bold and without shame		
	Avaricious <i>av-uh-rish-uh s</i>	Having or showing an extreme greed for wealth or material gain. 		



Make sure that you are confident with the AO2 Subject Terminology – You need to know the definition and be able to identify it in a passage of text.

Learn quotes – You will need to memorise quotes for all your GCSE Literature exams. You also need to be able to analyse the quotes – comment on the Why it is significant, What it demonstrates about the character, How it affects the audience and How it develops the themes within the play.

Key Characters

- (pick 1)
- Create a character sheet
 - Create a mind map
 - Plot their activities and actions
 - Draw their picture using evidence from the play
 - Write a letter home from their perspective
 - Write a script between two characters
 - Write what happens to a character after the play

**Mr Birling * Eva Smith/Daisy Renton * Gerald * Sheila * Eric *
Inspector Goole * Sybil**

AO3 – Social Context – *(Influences on the book and author)*

Developing Cultural Capital - Themes

Read a newspaper article on a theme from the play that's linked to current events.

Tasks: Print them out and highlight literary techniques.

(pick 1) Write a summary of the article

Find two conflicting articles

CONTEXT

BRITAIN IN 1912

- Society was divided along class lines. Those with the most money had the most power.
- Only men who owned property could vote. Women could not vote.
- Women's lives were controlled by their families and husbands.

BRITAIN WAS HEADING TOWARDS THE FIRST WORLD WAR

- Tension between big European countries in 1912, resulting in WW1. This cost millions of lives.
- After WW1, many British people questioned the leadership given by the upper classes during the war.

BRITAIN IN 1945

- Britain was still divided by class, but women had more power and could vote.
- Conflict between businesses and owners, causing industries to grind to a halt.
- Great depression in 1930s.

PRIESTLEY SET THE PLAY IN THE PAST

- The end of WW2 changed Britain: the Labour Party focussed on improving the welfare system for the poorest.
- Priestley wanted to highlight what had improved since 1912, and also show what needed to be changed.

Sample Exam Questions

CHARACTER

How and why does Sheila change in An Inspector Calls?

Write about:

- how Sheila responds to her family and to the Inspector
- how Priestley presents Sheila by the ways he writes.

How far does Mr Birling change in An Inspector Calls?

Write about:

- how Mr Birling responds to her family and to the Inspector
- how Priestley presents Mr Birling by the ways he writes.

How and why does Eric change in An Inspector Calls?

Write about:

- how Eric responds to his family and to the Inspector
- how Priestley presents Eric by the ways he writes.

How does Priestley present the character of Mrs Birling in An Inspector Calls?

Write about:

- how Mrs Birling responds to her family and to the Inspector
- how Priestley presents Mrs Birling by the ways he writes.

How does Priestley present the character of Gerald in An Inspector Calls?

Write about:

- how Gerald responds to the Birling family and to the Inspector
- how Priestley presents Gerald by the ways he writes.

THEME:

How does Priestley explore responsibility in An Inspector Calls?

Write about:

- the ideas about responsibility in An Inspector Calls
- how Priestley presents these ideas by the ways he writes.

How does Priestley explore the issue of class in An Inspector Calls?

Write about:

- the ideas about class in An Inspector Calls
- how Priestley presents these ideas by the ways he writes

How does Priestley explore the idea of blame in An Inspector Calls?

Write about:

- the ideas about blame in An Inspector Calls
- how Priestley presents these ideas by the ways he writes.

How does Priestley explore the ideas of status and power in An Inspector Calls?

Write about:

- the ideas about status and power in An Inspector Calls
- how Priestley presents these ideas by the ways he writes.

How does Priestley explore the ideas of socialism in An Inspector Calls?

Write about:

- the ideas about socialism in An Inspector Calls
- how Priestley presents these ideas by the ways he writes.

Week 1 & 2
Nutrition recall

8 tips for a healthy diet

1. Base your meals on higher fibre starchy carbohydrates.
2. Eat lots of fruit and veg.
3. Eat more fish, including a portion of oily fish.
4. Cut down on saturated fat and sugar.
5. Eat less salt: no more than 6g a day for adults.
6. Get active and be a healthy weight.
7. Do not get thirsty.
8. Do not skip breakfast.

VITAMINS AND THEIR FUNCTIONS

	Function (what does it do?)	Source (foods found in)
A	<ul style="list-style-type: none"> • Healthy skin • Helps us see in the dark 	<ul style="list-style-type: none"> • Animals – liver and milk • Plants – carrots and red peppers
B	<ul style="list-style-type: none"> • Releases energy from food 	<ul style="list-style-type: none"> • Bread, fish, broccoli, liver, milk, peas, rice
C	<ul style="list-style-type: none"> • Keeps connective tissue healthy • Helps absorb iron 	<ul style="list-style-type: none"> • Oranges, blackcurrants, broccoli, red and green peppers
D	<ul style="list-style-type: none"> • Helps the body absorb calcium 	<ul style="list-style-type: none"> • Butter, eggs, milk, oily fish

MINERALS AND THEIR FUNCTIONS

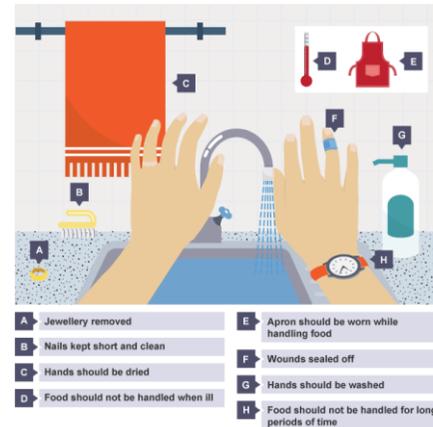
	Function (what does it do?)	Source (foods found in)
Calcium	Build strong bones and teeth	Yoghurt, cheese, milk, tofu
Sodium (salt)	Keeps the correct water balance in the body	Cheese, ready meals, salted nuts, bacon
Iron	Keeps red blood cells healthy	Dark green vegetables, beans, fish, egg yolk, red meat

Questions:

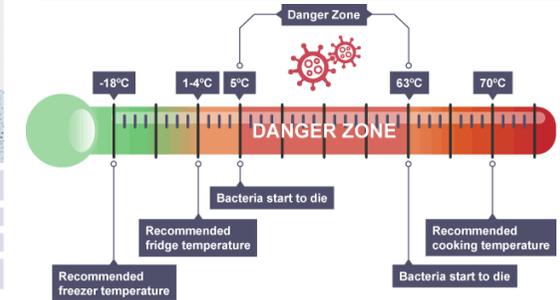
1. What colour is each section of the Eatwell guide?
2. What should we cut down on eating too much of?
3. What do the letters GERM stand for in proteins function in the body?
4. What do the letter PIE stand for in fats functions in the body?

Week 3 & 4
Food safety 1

Food safety advice when handling food:



How do bacteria grow?
Bacteria double every 10-20 minutes in the right conditions (asexual) e.g. 1 becomes 2, then 4, then 8 through binary fission



Definitions:

- **Food poisoning** is an illness caused by eating contaminated food. It's not usually serious and most people get better within a few days without treatment. In most cases, food is contaminated by bacteria.
- **High-risk foods:** ready-to-eat foods high in moisture and protein

Food poisoning bacteria and symptoms

Name	Foods it can come from
Salmonella	Undercooked poultry, Eggs, Unpasteurised milk
Listeria	Soft cheeses, pate
Campylobacter	Poultry, milk and milk products
E-coli	Undercooked meat – especially burgers, Unwashed contaminated fruit

Symptoms of food poisoning:

- Vomiting
- Stomach pains
- Diarrhoea
- Dehydration
- Nausea

Questions:

1. What are the 5 main things that bacteria need to grow?
2. What are the main symptoms of food poisoning?
3. How could you control or stop bacterial growth?

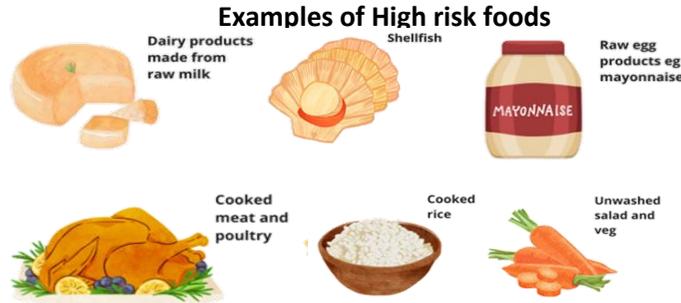
Week 5 & 6
Food safety applied

Week 7 & 8
Revision for assessment

Definition:

Food poisoning is an illness caused by eating contaminated food. It's not usually serious and most people get better within a few days without treatment. In most cases, food is contaminated by bacteria.

High-risk foods: ready-to-eat foods high in moisture and protein



Using your knowledge of food safety from years 7, 8 and 9 and this knowledge organiser, answer the following questions:

1. Explain how the ingredients used to make a chicken curry should be stored. You can't repeat answers

Ingredient	Storage instruction
Raw mince	
Left over coconut milk	
Cooked curry	

2. Give 2 food safety rules that must be used for each of the following and explain why the rule is important.
3. Which type of food poisoning could you get from eating raw/undercooked chicken?
4. Name 3 high-risk foods

You need to use all of the information from the knowledge organiser to revise for the end of rotation assessment. Use the following questions to help.

You don't need to answer them all in your book but you should be able to answer them. See which ones you can/can't answer.

1. Why should you eat a variety of foods?
2. List the 5 main nutrients needed by the body and give a function of each
3. How much water should we drink a day?
4. List the sections of the Eatwell Guide including foods you would find in each section
5. What is the 4 letter word to remember the functions of protein
6. Which groups of people need more protein in their diet?
7. What are proteins made from and how many are there?
8. Can the body make all of the amino acids?
9. What are 3 of the main functions of fat in the body?
10. Name 3 sources of animal fat & 3 sources of vegetable fat
11. Which type of fat should we be eating less of and which should we eat more of?
12. What is the main function of carbohydrate in the body?
13. What are the 3 main groups of carbohydrate?
14. What percentage of our energy should come from carbohydrates?
15. What problems do you think eating too many free sugars could cause in the body?
16. Explain the difference between a macronutrient and micronutrient?
17. Are macronutrients more important than micronutrients in the body?
18. Which vitamin helps the body absorb calcium?
19. Which vitamin helps the body absorb iron?
20. Why do teenagers need extra protein in their diets?
21. Which foods should adults avoid to prevent weight gain?
22. What type of drinks are suitable for pregnant women?
23. Why does the elderly need less energy than younger adults?



Lesson 1 and 2– Unhealthy Coping Strategies	Lesson 3 and 4 – Knife Crime
<p>Places to access support https://www.kooth.com/</p>	<p>Places to access support www.knifefree.co.uk www.childline.org.uk</p>
<p>Content: Mental Health- a person’s condition with regard to their psychological and emotional well-being.</p> <p>Anxiety is something that everyone experiences at low levels as part of day-to-day life. When thoughts of anxiety, fear or panic are repeatedly present over several weeks or months and/or they are beginning to impact on a young person’s ability to access or enjoy day-to-day life, intervention is needed.</p> <p>Depression: Ups and downs are a part of life, but for someone who is suffering from depression these ups and downs may be more extreme. Feelings of failure, hopelessness, numbness or sadness may invade day-to-day life.</p> <p>Unhealthy coping strategies are behaviours people use to deal with difficult emotions which have long-term negative consequences. Self-harm describes a wide range of ways in which a person might hurt themselves, put themselves at risk or neglect to take care of themselves in order to manage difficult thoughts, feelings or experiences.</p> <p>Teens can avoid unhealthy coping strategies by learning to manage their emotions in healthier ways. Here are a few tips: Talk to someone Find creative outlets Practice relaxation techniques Set goals and focus on positive activities Seek professional support: A therapist or counselor can help</p>	<p>Content: Why has knife crime increased in the UK? Social media is an accelerator to promote knife crimes because it is a medium for several audiences. The continuous increase in Knife Crime In the UK has led to a landscape of fear in the young community.</p> <ul style="list-style-type: none"> ➤ 96% of 10-29 year olds do not carry a knife ➤ A person can get up to 4 years in prison for carrying a knife, even if it is never used <p>County Lines’ is a term used when drug gangs from big cities expand their operations to smaller towns, often using violence to drive out local dealers and exploiting children and vulnerable people to sell drugs. In the last few years County Lines has become one of the most common forms of modern slavery in the UK. Children and young people are used because they are easier to manipulate, they can be deceived into working for little or no pay and are less likely to be detected.</p> <div data-bbox="1697 852 2112 1072" data-label="Image"> </div>
<p>Questions</p> <ol style="list-style-type: none"> 1. What does mental health refer to? 2. When should someone get help for anxiety? 3. How can depression affect a person’s daily life? 4. What are unhealthy coping strategies, and why should they be avoided? 5. What are some healthy ways for teens to manage their emotions? 	<p>Questions</p> <ol style="list-style-type: none"> 1. How does social media contribute to the rise in knife crime? 2. What percentage of 10-29 year olds carry a knife in the UK? 3. What can happen to someone who is caught carrying a knife, even if they don’t use it? 4. What does the term "County Lines" refer to? 5. Why are children and young people often targeted by drug gangs in County Lines operations?



Lesson 5 and 6– Effects of Drugs	Lesson 7 and 8 – Sexually Transmitted Diseases
<p>Places to access support www.talktofrank.com www.fearless.org</p>	<p>Places to access support www.brook.co.uk Newton Abbot Hospital – Sexual Health Clinic</p>
<p>Content: Substance use disorder is the clinical term used to describe what is commonly referred to as addiction. It features a cluster of symptoms including the strong internal drive to use substances or impaired ability to control. Dependency A state in which a person relies upon a substance to feel or function as normal. This can be physical and/ or psychological Supply When a person distributes or gives someone a controlled substance including selling, exchanging for reward or ‘gifting’. Possession- When a person is found with a controlled drug for personal use. They don’t have to be using it they just need to have it.</p> <p>Short term effects of taking drugs:</p> <ul style="list-style-type: none"> ➤ Impaired judgment: Drugs can affect decision-making, making people more likely to take risks. ➤ Increased heart rate: Some drugs can cause your heart to beat faster or irregularly. ➤ Confusion or dizziness: Drugs can make it hard to think clearly or cause a feeling of being lightheaded. <p>Long term effects of taking drugs:</p> <ul style="list-style-type: none"> ➤ Addiction: Continued drug use can lead to physical and mental dependence, making it hard to stop. ➤ Mental health issues: Long-term drug use can increase the risk of anxiety, depression, or other mental health problems. ➤ Damage to organs: Drugs can cause long-term harm to organs like the heart, liver, or lungs, leading to serious health problems. 	<p>Content: Sexually Transmitted Infections are infections that are passed on mainly through sexual contact both vaginally, anally and orally. They can be bacterial or viral.</p> <p>Common STIs:</p> <p>Chlamydia (Bacterial)- Women often have no symptoms or may have pain with sexual intercourse, lower abdominal pain, changes in bleeding pattern. Men may have no symptoms or may have watery or thick discharge from penis, pain or urinating. Gonorrhoea (Bacterial) Women usually have no symptoms, but may have pain with sex, vaginal discharge, lower abdominal pain. Men may have no symptoms or discharge from penis, discharge from anus, pain in testicles, pain on urinating. Syphilis (Bacterial): Painless ulcer (chancre) usually on genitals; later swollen glands, rash, hair loss. Genital herpes (Viral Infection) Painful, red blisters, little sores or ulcers, flu-like symptoms, and sometimes a discharge.</p> <p>If a teen thinks they have an STI, they should:</p> <ul style="list-style-type: none"> ➤ Talk to a trusted adult or healthcare professional ➤ Visit a doctor or clinic ➤ Avoid sexual activity ➤ Get tested 
<p>Questions</p> <ol style="list-style-type: none"> 1. What is substance use disorder? 2. What is the difference between physical and psychological dependency? 3. What does it mean to have possession of a controlled substance? 4. What are some short-term effects of taking drugs? 5. How can long-term drug use affect a person’s health? 	<p>Questions</p> <ol style="list-style-type: none"> 1. What are sexually transmitted infections (STIs)? 2. What are some common symptoms of chlamydia in women and men? 3. How can gonorrhoea affect both women and men? 4. What are the signs of genital herpes? 5. What should a teen do if they think they have an STI?



Lesson 9 and 10– Female Genital Mutilation (FGM)

Places to access support

<https://www.gov.uk/female-genital-mutilation-help-advice>

Content:

Female Genital Mutilation (FGM) comprises all procedures that involve partial or total removal of the external female genitalia, or other injury to the female genital organs for nonmedical reasons.



It is **illegal for FGM to be performed in the UK or anywhere in the world on UK citizens** or permanent residents of any age. Female Genital Mutilation (FGM) is practiced in several countries, mainly in parts of Africa, the Middle East, and Asia.

Effects of FGM

FGM can lead to serious health issues such as bleeding, urinary tract infections, shock, pain, pregnancy complications, difficulty during childbirth, menstruation problems, painful sex, infertility, and loss of bladder control.

FGM Law UK

In the UK, Female Genital Mutilation (FGM) is illegal. The Female Genital Mutilation Act 2003 makes it a criminal offense to perform FGM on anyone, regardless of their nationality or where the procedure takes place. It is also illegal to take someone abroad for FGM. Perpetrators can face up to 14 years in prison. The law applies to both residents of the UK and UK nationals who are abroad. Healthcare professionals and others working with children are required by law to report any concerns about FGM.

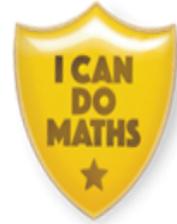
Questions

1. What is Female Genital Mutilation (FGM)?
2. In which countries is FGM most commonly practiced?
3. What are some of the serious health effects of FGM?
4. Is FGM legal in the UK, and what are the consequences for performing it?
5. What are the responsibilities of healthcare professionals regarding FGM in the UK?

Y9C3 Maths Key knowledge

Use this guide to make sure you know **what to do, when to do it and how to do it**:

Maths homework is to complete **sparx**



What to do

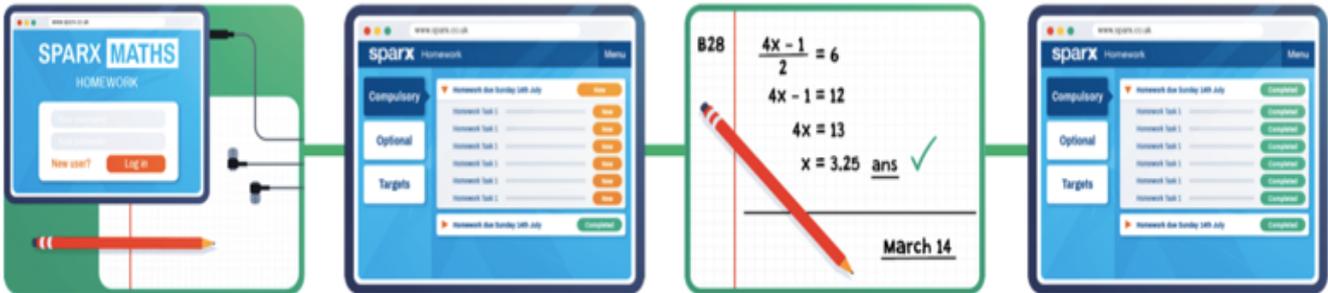
- Do Sparx **on the days in the homework timetable**
- **Compulsory Homework:** You **must do this** part of your homework every week
- **XP Boost/Target Homework:** Do this to **gain loads of XP** and to improve your maths!

Top Tips

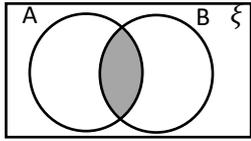
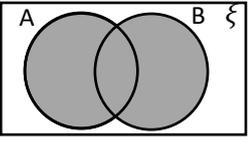
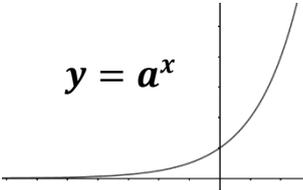
- Do your homework as soon as you can
- Watch the help video
- If you are stuck, speak to your maths teacher before hand-in or pop in to Sparx Support club during breaks

Always:

- Write down the date
- Write down your bookwork code
- Read the question carefully
- Show all your workings
- Highlight/underline your final answer
- Tick if correct/cross if wrong



Your Maths Homework is to complete your sparx

Y9C3 Maths Key knowledge									
Item	Description								
$A \cap B$	A 'and' B. Represented by: 								
$A \cup B$	A 'union' B (or A 'or' B). Represented by: 								
Similar	Shapes with the same angles but different side lengths. Similar shapes are enlargements of each other.								
Congruent	Shapes with the same angles and side lengths. Congruent shapes are identical.								
Scale factor	The multiplier that links side lengths of one shape to another. Also called the Length scale factor								
Area scale factor	Found by calculating <i>Length Scale Factor</i>²								
Volume scale factor	Found by calculating <i>Length Scale Factor</i>³								
Transformation	There are 4 transformations at GCSE. They are Rotation, Reflection, Transformation, & Enlargement								
Describe fully	Command words that are asking for all information about a transformation including the name. <table border="1" data-bbox="571 1339 1465 1529"> <thead> <tr> <th>Rotation</th> <th>Reflection</th> <th>Transformation</th> <th>Enlargement</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • Angle • Direction • Centre of rotation </td> <td> <ul style="list-style-type: none"> • Mirror line </td> <td> <ul style="list-style-type: none"> • Vector $\begin{pmatrix} x \\ y \end{pmatrix}$ </td> <td> <ul style="list-style-type: none"> • Centre of enlargement • Scale factor </td> </tr> </tbody> </table>	Rotation	Reflection	Transformation	Enlargement	<ul style="list-style-type: none"> • Angle • Direction • Centre of rotation 	<ul style="list-style-type: none"> • Mirror line 	<ul style="list-style-type: none"> • Vector $\begin{pmatrix} x \\ y \end{pmatrix}$ 	<ul style="list-style-type: none"> • Centre of enlargement • Scale factor
Rotation	Reflection	Transformation	Enlargement						
<ul style="list-style-type: none"> • Angle • Direction • Centre of rotation 	<ul style="list-style-type: none"> • Mirror line 	<ul style="list-style-type: none"> • Vector $\begin{pmatrix} x \\ y \end{pmatrix}$ 	<ul style="list-style-type: none"> • Centre of enlargement • Scale factor 						
Exponential curve	A common graph shape. The equation has x as a power. Found a lot in nature and science. $y = a^x$ 								
Speed	<i>Average speed = $\frac{\text{distance}}{\text{time}}$</i>								
Speed	The gradient of a distance time graph.								
Elevations	2D views of the different sides of a 3D object.								
Plan view	The top down/birds eye view of a 3D object.								

FILM MUSIC



A. The Purpose of Music in Film

Film Music is a type of **DESCRIPTIVE MUSIC** that represents a **MOOD, STORY, SCENE** or **CHARACTER** through music, it is designed to **SUPPORT THE ACTION AND EMOTIONS OF THE FILM ON SCREEN**. Film Music can be used to:

- Create or enhance a mood (though the **ELEMENTS OF MUSIC**) ->
- Function as a **LEITMOTIF** (see D)
- To emphasise a gesture (**MICKEY-MOUSING** – when the music fits precisely with a specific part of the action in a film e.g. cartoons)
- Provide unexpected juxtaposition/irony (using music the listener wouldn't expect to hear giving a sense of uneasiness or humour!)
- Link one scene to another providing continuity
- Influence the pacing of a scene making it appear faster/slower
- Give added commercial impetus (released as a **SOUNDTRACK**) – sometimes a song, usually a pop song is used as a **THEME SONG** for a film.
- Illustrate the geographic location (using instruments associated with a particular country) or historical period (using music 'of the time').

D. Leitmotifs

LEITMOTIF – A frequently recurring short melodic or harmonic idea which is associated with a character, event, concept, idea, object or situation which can be used directly or indirectly to remind us of one not actually present on screen. Leitmotifs can be changed through **SEQUENCING, REPETITION** or **MODULATION** giving a hint as to what may happen later in the film or may be heard in the background giving a “subtle hint” to the listener e.g. the “*Jaws*” Leitmotif



B. How the Elements of Music are used in Film Music

PITCH AND MELODY – **RISING MELODIES** are often used for increasing tension, **FALLING MELODIES** for defeat. Westerns often feature a **BIG THEME**. **Q&A PHRASES** can represent good versus evil. The **INTERVAL OF A FIFTH** is often used to represent outer space with its sparse sound. **DYNAMICS** – **FORTE (LOUD)** dynamics to represent power; **PIANO (SOFT)** dynamics to represent weakness/calm/resolve. **CRESCENDOS** used for increasing threat, triumph or proximity and **DECRESCENDOS** or **DIMINUENDOS** used for things going away into the distance. Horror Film soundtracks often use **EXTREME DYNAMICS** or **SUDDEN DYNAMIC CHANGES** to ‘shock the listener’.

HARMONY – **MAJOR** – happy; **MINOR** – sad. **CONSONANT HARMONY OR CHORDS** for “good” and **DISSONANT HARMONY OR CHORDS** for “evil”. **SEVENTH CHORDS** often used in Westerns soundtracks.

DURATION – **LONG** notes often used in Westerns to describe vast open spaces and in Sci-Fi soundtracks to depict outer space; **SHORT** notes often used to depict busy, chaotic or hectic scenes. **PEDAL NOTES** – long held notes in the **BASS LINE** used to create tension and suspense.

TEXTURE – **THIN/SPARE** textures used for bleak or lonely scenes; **THICK/FULL** textures used for active scenes or battles.

ARTICULATION – **LEGATO** for flowing or happy scenes, **STACCATO** for ‘frozen’ or ‘icy’ wintery scenes. **ACCENTS (>)** for violence or shock.

RHYTHM & METRE – 2/4 or 4/4 for Marches (battles), 3/4 for Waltzes, 4/4 for “Big Themes” in Westerns. **IRREGULAR TIME SIGNATURES** used for tension. **OSTINATO** rhythms for repeated sounds e.g. *horses*.

C. Film Music Key Words

SOUNDTRACK – The music and sound recorded on a motion-picture film. The word can also mean a commercial recording of a collection of music and songs from a film sold individually as a CD or collection for digital download.

MUSIC SPOTTING – A meeting/session where the composer meets with the director and decides when and where music and sound effects are to feature in the finished film.

STORYBOARD – A graphic organiser in the form of illustrations and images displayed in sequence to help the composer plan their soundtrack.

CUESHEET – A detailed listing of **MUSICAL CUES** matching the visual action of a film so that composers can time their music accurately.

CLICK TRACKS – An electronic **METRANOME** which helps film composers accurately time their music to on-screen action through a series of ‘clicks’ (often heard through headphones) – used extensively in cartoons and animated films.

DIEGETIC FILM MUSIC – Music within the film for both the characters and audience to hear e.g. *a car radio, a band in a nightclub or sound effects*.

NON-DIEGETIC FILM MUSIC – Music which is put “over the top” of the action of a film for the audience’s benefit and which the characters within a film can’t hear – also known as **UNDERScore** or **INCIDENTAL MUSIC**.

E. History of Film Music

Early films had no soundtrack (“**SILENT CINEMA**”) and music was provided live, usually **IMPROVISED** by a pianist or organist. The first **SOUNDTRACKS** appeared in the 1920’s and used existing music (**BORROWED MUSIC** – music composed for other (non-film) purposes) from composers such as Wagner and Verdi’s operas and ballets. In the 1930’s and 1940’s Hollywood hired composers to write huge Romantic-style soundtracks. **JAZZ** and **EXPERIMENTAL MUSIC** was sometimes used in the 1960’s and 1970’s. Today, film music often blends **POPULAR, ELECTRONIC** and **CLASSICAL** music together in a flexible way that suits the needs of a particular film.

F. Film Music Composers and their Soundtracks



Jerry Goldsmith
Planet of the Apes
Star Trek: The Motion Picture
The Omen
Alien



John Williams
Star Wars
Jaws
Harry Potter
Indiana Jones
Superman, E.T.



James Horner
Titanic
Apollo 13
Braveheart
Star Trek II
Aliens



Ennio Morricone
The Good, The Bad and The Ugly
For a Few Dollars More
The Mission



Danny Elfman
Mission Impossible
Batman Returns
Men in Black
Spider Man



Hans Zimmer
The Lion King
Gladiator
Dunkirk
Blade Runner 2049
No Time to Die



Bernard Herrmann
Psycho
Vertigo
Taxi Driver

New Directions

Exploring ways to develop music from small ideas in C20th Music

There were many different types, styles, genres and movements of music in the twentieth century. These include: Impressionism, 20th Century Nationalism, Jazz Influences, Polytonality, Atonality, *Expressionism*, *Serialism*, Microtonality, Electronic Music, Experimentalism, *Minimalism*, Pointillism and Music Concrète.



A. Features of Music in the Twentieth Century (How Composers used the Elements of Music)

A1. Melody & Dynamics	A2. Harmony	A3. Rhythm	A4. Timbres and Sonorities
<p>CONJUNCT - wide leaps, angular and spiky.</p> <p>CHROMATIC -uses all 12 notes (black and white) of the CHROMATIC SCALE.</p> <p>DISSONANCE - harsh sounds.</p> <p>EXTREMES OF DYNAMICS - (<i>pppp-ffff</i>) No clear melody/"tune".</p>	<p>ATONALITY – no (sense of) key.</p> <p>POLYTONALITY – two or more keys played at once.</p> <p>DISCORDS – dissonant, clashing chords.</p>	<p>SYNCOPIATION – half beat followed by full beat emphasising weaker beats of the bar.</p> <p>IRREGULAR ACCENTS (>) – e.g. <i>The Rite of Spring</i></p> <p>IRREGULAR TIME SIGNATURES – 5 or 7 beats per bar.</p>	<p>Strange, intriguing, and exotic sounds; striking, sometimes explosive, contrasts.</p> <p>PERCUSSION – expanded in orchestra and more emphasis on percussion timbre and sonorities.</p> <p>Unfamiliar sounds from strange instruments such as EXTREME PITCH RANGES and playing instruments in different and unusual ways.</p> <p>TOTALLY NEW SOUNDS often involving ELECTRONIC EQUIPMENT and MAGNETIC TAPE.</p>

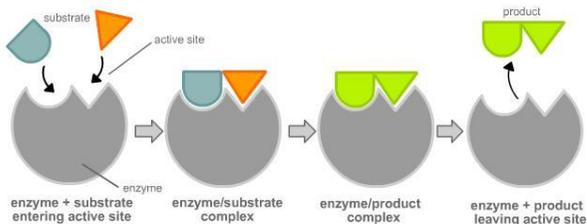
B. Minimalism	C. Expressionism	D. Serialism
<p>Based on CELLS or MOTIFS – short simple ideas.</p> <p>Use of REPETITION – also called LOOPING.</p> <p>LAYERED TEXTURES</p> <p>NO CLEAR MELODY</p> <p>GRADUAL CHANGES OVER TIME</p> <p>PHASE SHIFT (PHASE IN/OUT) – when two or more motifs or cells begin in UNISON and gradually become “out of sync” with each other through displacement, either forwards or backwards.</p> <p>METAMORPHOSIS – tiny changes are made over time to one note or to one part of the rhythm. This can go a “full circle” and end up exactly the same at the end.</p> <p>ADDITIVE MELODY – adding notes to an original melodic cell gradually.</p> <p>ISORHYTHMIC OVERLAP – combining different length motifs or ostinato patterns</p> <p>AUGMENTATION – doubling the note values of a motif or cell.</p> <p>DIMINUTION – halving the note values of a motif or cell.</p> <p>RETROGRADE/INVERSION/RETROGRADE INVERSION (see D. Serialism)</p> <p><i>Famous Minimalist Composers include: Terry Riley, Steve Reich, Philip Glass, Michael Nyman.</i></p>	<p>“Expressionism” is borrowed from painting and is concerned with dark, secret terrors, mental breakdowns, and fantastic visions.</p> <p>ATONAL, DISSONANCE, DISJUNCT, LARGE ORCHESTRAS, UNUSUAL AND STRANGE TIMBRES AND SONORITIES.</p> <p>Expressionist composers often use HEXACHORDS as a form of ACCOMPANIMENT. Hexachords are chords formed of SIX NOTES. A hexachord can be formed on any note of the CHROMATIC SCALE, but must follow a strict pattern of TONES and SEMITONES:</p> <p>Semitone – Tone – Semitone – Tone+Semitone - Semitone</p> <p>The notes can then be arranged in any order in different (and often extreme!) pitch ranges.</p> <p><i>Famous Expressionist Composers include: Arnold Schoenberg, Alban Berg, Anton Webern</i></p>	<p>TONE/NOTE ROWS – use the 12 notes of the CHROMATIC SCALE into an order (the PRIME/ORIGINAL) on which the entire composition is based.</p> <p>All 12 notes are of equal importance and none should appear out of turn.</p> <p>As well as being used in its PRIME/ORIGINAL, the tone/note row could also be used in:</p> <p>INVERSION (intervals upside down)</p> <p>RETROGRADE (backwards)</p> <p>RETROGRADE INVERSION (the inversion row backwards)</p> <p>These 4 rows would then become the bases of the composition, used either vertically (as chords) or horizontally (as melody).</p> <p><i>Famous Serialist Composers include: Arnold Schoenberg, Alban Berg, Anton Webern, Igor Stravinsky</i></p>



Year 9 Cycle 3 Sport and PE Knowledge Organiser

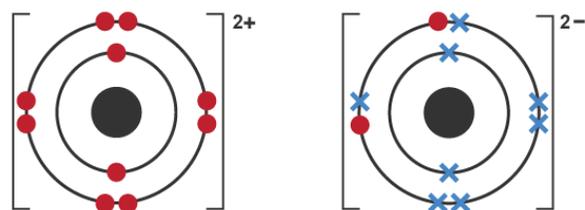
Week 1 and 2	Week 3 and 4	Week 5 and 6	Week 7 and 8	Week 9 and 10	Week 11 & 12
User Groups who participate in Sport	Barriers to Participation	Solutions to Barriers	Values Promoted through Sport	The Olympic and Paralympic Creed & Values	Conduct of Performers
1.Children 2.Teenagers 3.Single Parents 4.Families with young children 5.Disabled 6.Retired people/over 50 7.Ethnic minorities 8.Working singles/Couples 9.Unemployed/Economic ally disadvantaged  	1.Family commitments 2.Lack of money/disposable income 3.Lack of time/work commitments 4.Gender –perception that boys & girls don't do certain sports 5.Influence of peers/family 6.Lack of role models 7.Low self esteem 8.Provision and awareness of activities 9.Accessibility to facilities 10.Lack of transport 	PROMOTION (advertise it) <ul style="list-style-type: none"> •Targeted promotion (e.g. social media) •Using role models to encourage participation among different user groups •Initiatives aimed at promoting participation and inclusion PROVISION (what to put on and when) <ul style="list-style-type: none"> •Programme sessions for use by different user groups •Providing appropriate activities for user groups •Planning of times to suit different user groups ACCESS (Can people get to it) <ul style="list-style-type: none"> •Access to FACILITIES (e.g. transport if in country side or wheelchair ramps for disabled) •Access to equipment (e.g. a hoist for swimming pool access) •Sensible Pricing (e.g. reduction of charges for unemployed people or young children) 	1. Team Spirit –learning how to work together and support others 2. Fair Play –learning the importance of adhering to rules and being fair 3. Citizenship –get involved in your local community 4. Tolerance & Respect – developing understanding of different countries and cultures through sport 5. Inclusion -initiatives to get under-represented social groups involved 6. National Pride – supporters and performers unite behind the country in international events 7. Excellence -striving to be the best you can be	 <p>The creed and motto are meant to inspire the athletes to embrace the Olympic spirit and inspire them to perform to the best of their ability. The vision is 'To enable Paralympic athletes to achieve sporting excellence and inspire and excite the world.'</p> <p><i>"The important thing in life is not the triumph, but the fight; the essential thing is not to have won, but to have fought well."</i></p> <p style="text-align: center;">OLYMPIC AND PARALYMPIC VALUES</p> <p style="text-align: center;"> Friendship Excellence Determination Respect </p>  <p style="text-align: center;"> Inspiration Courage Equality </p> <p style="text-align: right;"><small>© OLYMPIC</small></p>	ETIQUETTE - Are the unwritten rules of a sport/activity, they are not enforced but usually observed & shows a level of respect & fairness for the sport & opponent e.g. acknowledging to your opponent if your shot hit the net and still went over so you win the point SPORTSMANSHIP - Is conforming to the rules, spirit & etiquette of a sport e.g. shaking hands with an opponent, being gracious in winning or losing. GAMESMANSHIP -Is the attempt to gain an advantage by stretching the rules to their limit e.g. timewasting, diving in football

<p align="center">Lesson 1 Organisational Hierarchy</p>	<p align="center">Lessons 2 & 3 The Digestive System</p>	<p align="center">Lesson 4 Required Practical- Food Tests</p>
<div data-bbox="174 311 719 592" data-label="Diagram"> </div> <p>Cell: The smallest unit of an organism</p> <p>Tissue: A group of cells with a similar structure and function, which all work together to do a particular job.</p> <p>Organ: Made from a group of different tissues, which all work together to do a particular job.</p> <p>Organ system: Made from a group of different organs, which all work together to do a particular job.</p> <p>Organism: An individual plant, animal, or single-celled organism.</p>	<div data-bbox="808 272 1391 683" data-label="Diagram"> </div> <p>Function: Digestion: breaking down food so that it is small enough and soluble enough to pass through the wall of the small intestine. Absorption: transporting digested food molecules from the lumen of the gut into the blood.</p> <p>The small intestine is adapted to absorb food:</p> <ul style="list-style-type: none"> • Thousands of villi • Large surface area – quicker absorption of food molecules • Good blood supply 	<p>1. Benedict's test for sugar Add 10 drops of Benedict's solution to food sample. Heat in a water bath at 80°C for 5 minutes. Negative result – Blue Positive result – Green/ orange/ brick red</p> <p>2. Iodine test for starch Add 5 drops of iodine solution to food sample. Negative result – Orange Positive result – Blue/black</p> <p>3. Ethanol test for lipids (fats) Add a few drops of distilled water and then a few drops of ethanol to food sample. Positive result – white & cloudy emulsion forms</p> <p>4. Biuret test for protein Add 5 drops of Biuret solution to food sample. Negative result – Blue Positive result – Purple</p>

<p align="center">Lesson 5 Properties of Enzymes</p>	<p align="center">Lesson 6 Required Practical - Enzymes</p>	<p align="center">Lesson 7 Digestive Enzymes</p>
<p>Catalyst: A chemical which speeds up a reaction without being changed or used up.</p> <p>Enzyme:</p> <ul style="list-style-type: none"> A substance produced by a living organism that acts as a catalyst for chemical reactions. It is made up of amino acids. Enzymes are specific, they can only catalyse one type of reaction. E.g. amylase in saliva only catalyses the reaction of breaking down starch. <p>Lock and Key Theory of Enzyme action:</p>  <p>In the same way that a key fits into a lock, so a substrate is thought to fit into an enzyme's active site. The enzyme is the lock, and the substrate is the key.</p>	<p>The effect of pH and temperature on enzymes:</p> <ul style="list-style-type: none"> A low or high pH denatures enzymes. At a low temperature enzyme and substrate molecules have low kinetic energy so rate of reaction is low. At a high temperature the enzymes start to denature. <p>Denatured: An enzyme's active site has changed shape, the substrate will no longer fit. The enzyme will no longer work.</p> <p>Aim: to find the optimum pH for the enzyme amylase to catalyse the reaction to break down starch.</p> <p>Independent variable: pH of the solution</p> <p>Dependent variable: time taken to break down starch in seconds</p> <p>Control variables: temperature, volume of starch solution, volume of buffer solution, time of intervals between testing, volume of amylase</p> <p>Calculating rate of reaction:</p> $\text{Rate} = \frac{1000}{\text{Time}}$ <p>Units = s⁻¹</p>	<p>Food molecules must be broken down before they can be absorbed into the blood because they are too large and insoluble.</p> <p>Carbohydrate digestion Carbohydrase enzymes e.g. amylase break down starch into sugar.</p> <p>Protein digestion Protease enzymes break down protein into amino acids.</p> <p>Fat digestion Bile emulsifies fats Lipase enzymes break down fat molecules into glycerol and fatty acid molecules.</p>

<p>Lessons 1 States of Matter</p>	<p>Lessons 2 Ions</p>	<p>Lessons 3 Ionic Bonding</p>
<div data-bbox="129 311 750 742" style="text-align: center;"> </div> <p>Solids: have a fixed shape and cannot flow, because their particles cannot move from place to place cannot be compressed (squashed), because their particles are close together and have no space to move into</p> <p>Liquids: flow and take the shape of their container, because their particles can move around each other cannot be compressed, because their particles are close together and have no space to move into</p> <p>Gases: flow and completely fill their container, because their particles can move quickly in all directions can be compressed, because their particles are far apart and have space to move into.</p> <div data-bbox="129 1212 750 1340" style="display: flex; justify-content: space-around;"> </div>	<p>An ion is an atom or group of atoms with a positive or negative charge. Ions form when atoms lose or gain electrons to obtain a full outer shell:</p> <ul style="list-style-type: none"> metal atoms and hydrogen lose electrons to form positively charged ions non-metal atoms gain electrons to form negatively charged ions <p>For elements in groups 1, 2 and 3, the number of electrons lost is the same as the group number.</p> <div data-bbox="784 670 1232 925" style="text-align: center;"> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="text-align: center;"> <p>Sodium atom</p> <p>Na 2.8.1</p> </div> <div style="text-align: center;"> <p>Sodium ion</p> <p>Na⁺ 2.8</p> </div> </div> </div> <p>For elements in groups 6 and 7, the charge on the ion is equal to (8 minus group number).</p> <div data-bbox="784 989 1232 1324" style="text-align: center;"> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="text-align: center;"> <p>Oxygen atom</p> <p>O 2.6</p> </div> <div style="text-align: center;"> <p>Oxide ion</p> <p>O²⁻ 2.8</p> </div> </div> </div>	<p>Positive and negative ions form when a metal reacts with a non-metal, by transferring electrons. The oppositely charged ions are strongly attracted to each other, forming ionic bonds.</p> <p>A dot and cross diagram models the transfer of electrons from metal atoms to non-metal atoms. The electrons from one atom are shown as dots, and the electrons from the other atom are shown as crosses.</p> <div data-bbox="1478 686 2083 1324" style="text-align: center;"> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="text-align: center;"> <p>Sodium atom, Na</p> </div> <div style="text-align: center;"> <p>Chlorine atom, Cl</p> </div> </div> <p style="text-align: center; margin-top: 5px;">Ionic bonding in sodium chloride</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>Sodium ion, Na⁺</p> </div> <div style="text-align: center;"> <p>Chloride ion, Cl⁻</p> </div> </div> </div>

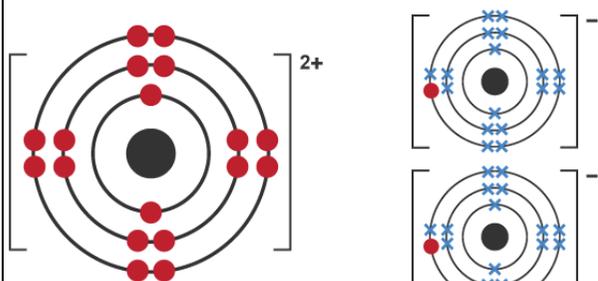
Lessons 3 Ionic Bonding continued..



Magnesium ion, Mg^{2+}

Oxide ion, O^{2-}

Ionic bonding in magnesium oxide



Calcium ion, Ca^{2+}

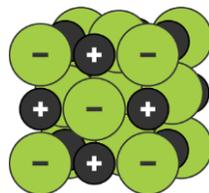
Two chloride ions, Cl^{-}

Ionic bonding in calcium chloride

Example of ion charges and groups

Group	Element	Ion charge	Ion symbol
1	Na	+	Na^{+}
2	Mg	2+	Mg^{2+}
6	O	2-	O^{2-}
7	Cl	-	Cl^{-}

Lesson 4 Properties of Ionic Compounds



An ionic compound is a **giant structure** of ions. The ions have a regular, repeating arrangement called an ionic lattice. The lattice is formed because the ions attract each other and form a regular pattern

with oppositely charged ions next to each other. Ionic compounds have **high melting and boiling points**, so they are in the **solid state** at room temperature. Ionic compounds are held together by electrostatic forces between the oppositely charged ions. As the ionic lattice contains such a large number of ions, a lot of energy is needed to overcome this ionic bonding so ionic compounds have high melting and boiling points. The higher the charge of the ion the stronger the force between them so they have a higher melting point.

Conducting electricity

A substance can conduct electricity if: it contains charged particles, such as ions, and these particles are free to move from place to place. An ionic compound can conduct electricity when: it has **melted to form a liquid**, or it has **dissolved in water to form an aqueous solution**. Both these processes allow **ions to move** from place to place. Ionic compounds **cannot conduct electricity in the solid state** because their **ions are held in fixed** positions and cannot move.

Lesson 5 Covalent Bonding

A **covalent bond** is formed when two atoms share a pair of electrons. Covalent bonding occurs in most non-metal elements. Most covalently bonded substances consist of small molecules. A **molecule** is a group of two or more atoms joined together by covalent bonds.

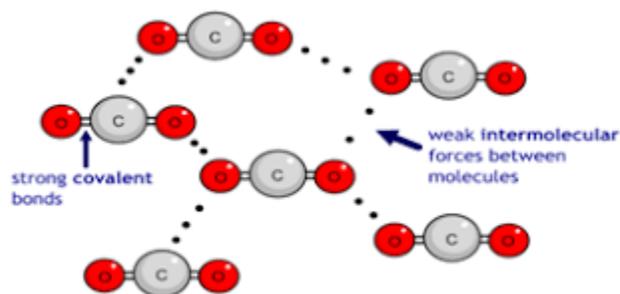
Name	Formula	Dot and cross diagram	Structure
Chlorine	Cl_2		$Cl-Cl$
Hydrogen chloride	HCl		$H-Cl$
Water	H_2O		$H-O-H$

Name	Formula	Dot and cross diagram	Structure
Oxygen	O_2		$O=O$
Nitrogen	N_2		$N \equiv N$

Lesson 6 Properties of Simple Covalent Molecules

Properties: A substance with small molecules has strong covalent bonds that hold the atoms together in its molecules. There are **weak forces** between molecules and their neighbours. Relatively little energy is needed to overcome the **intermolecular forces**, so small molecular substances have **low melting and boiling points**.

Many are in the liquid or gas state at room temperature. Small molecules have no overall electric charge, so they **cannot conduct electricity**, even when liquid or dissolved in water.

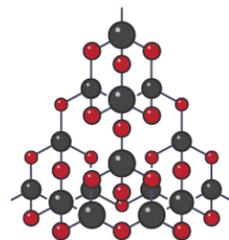


Substance	Melting point	Boiling point	State at 20°C
O ₂	-218°C	-183°C	Gas
H ₂ O	0°C	100°C	Liquid

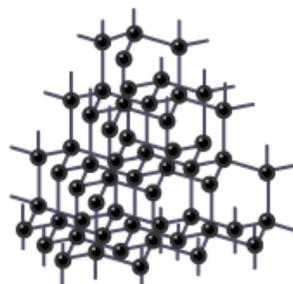
Lesson 6 continued Properties and Structure of Giant Covalent Substances

Giant covalent substances have **many atoms** joined together by **covalent bonds**.

Silicon dioxide (often called silica) is the main compound found in sand. It contains many silicon and oxygen atoms. All the atoms in its structure are linked to each other by strong covalent bonds. The atoms are joined to each other in a regular arrangement, forming a giant covalent



structure. There is no set number of atoms joined together in this type of structure. It has a very **high melting points and boiling points** and **solid** at room temperature. This is because large amounts of energy are needed to overcome their strong covalent bonds to make them melt or boil. It has no charged particles that are free to move. This means that most **cannot conduct electricity**.



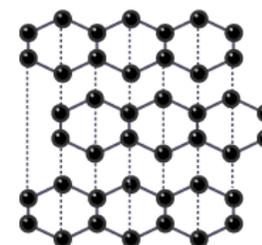
Diamond - each **carbon** atom is joined to **four** other carbon atoms by strong covalent bonds the carbon atoms form a regular tetrahedral network structure there are **no free electrons**.

Lesson 6 continued Properties and Structure of Giant Covalent Substances

Properties and uses of Diamond

The rigid network of carbon atoms, held together by strong covalent bonds, makes diamond very hard. This makes it useful for cutting tools, such as diamond-tipped glass cutters and oil rig drills. Like silica, diamond has a very high melting point and it does not conduct electricity.

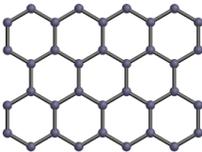
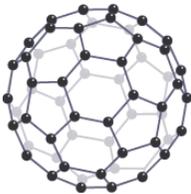
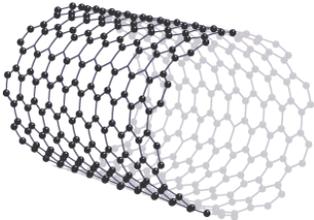
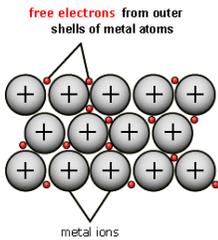
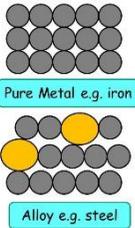
Graphite – dotted lines represent the **weak forces** between the layers in graphite and the solid lines



represent the **strong covalent bonds**. Each carbon atom forms **three** covalent bonds with other carbon atoms, the carbon atoms form layers of hexagonal rings, there are no covalent bonds

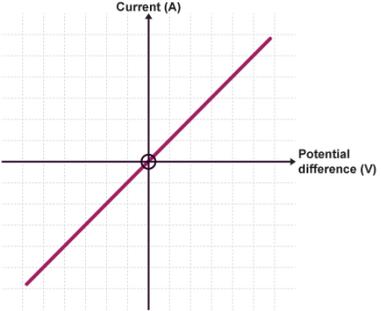
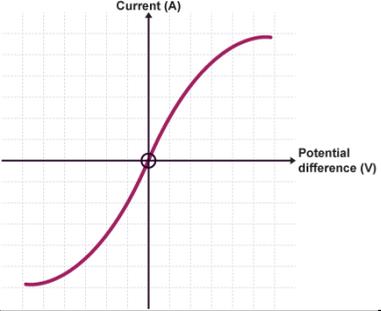
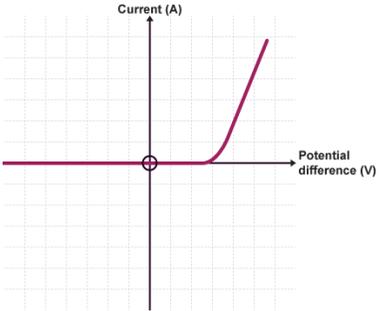
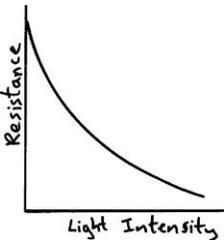
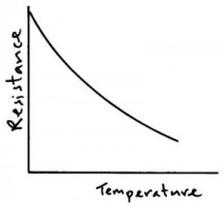
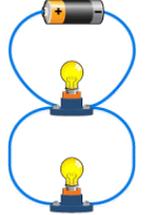
between the layers, there is one non-bonded - or delocalised - electron from each atom.

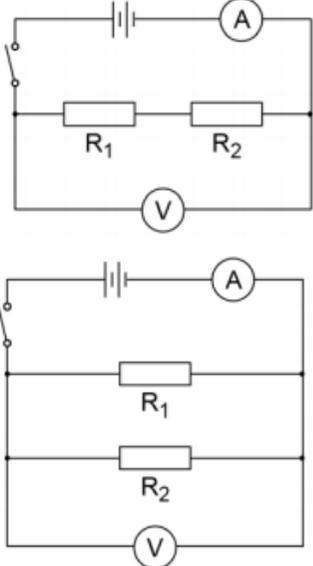
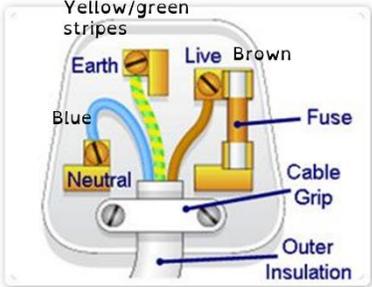
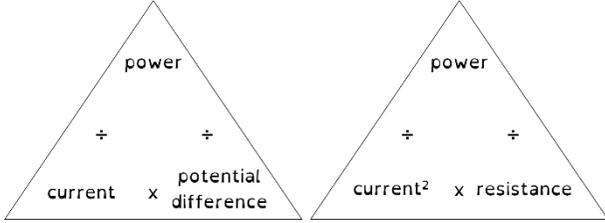
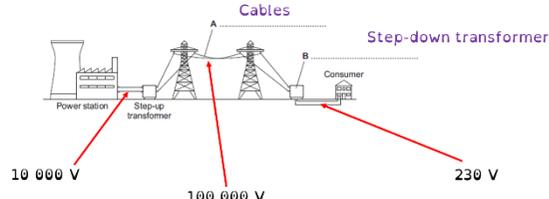
Properties and uses - Graphite has delocalised electrons, just like metals. These **electrons are free to move between the layers in graphite**, so graphite can **conduct electricity**. This makes graphite useful for electrodes in batteries and for electrolysis. The forces between the layers in graphite are weak. This means that the layers can **slide** over each other. This makes graphite slippery, so it is useful as a lubricant.

Lesson 7 Fullerene and Polymers	Lesson 7 Fullerene and Polymers continued.....	Lesson 8 Metallic Bonding
<p>Graphene is a single layer of graphite. The strong covalent bonds between the carbon atoms mean that graphene: has a very high melting point, is very strong, like graphite, graphene conducts electricity well because it has delocalised electrons that are free to move across its surface. These properties make graphene useful in electronics and for making composites.</p>  <p>Graphene has a giant covalent structure, but fullerenes have large molecules. Fullerenes are molecules of carbon atoms with hollow shapes. Their structures are based on hexagonal rings of carbon atoms joined by covalent bonds. Some fullerenes include rings with five or seven carbon atoms. Two examples of fullerenes are buckminsterfullerene and nanotubes.</p>  <p>Buckminsterfullerene was the first fullerene to be discovered. Its molecules are made up of 60 carbon atoms joined together by strong covalent bonds. Molecules of C₆₀ are spherical. There are weak intermolecular forces between molecules of buckminsterfullerene. These need little energy to overcome, so buckminsterfullerene is slippery and has a low melting point.</p>	<p>A nanotube is like a layer of graphene, rolled into a cylinder. The length of a nanotube is very long compared to its width, so nanotubes have high length to diameter ratios. Nanotubes have high tensile strength, so they are strong in tension and resist being stretched. Like graphene, nanotubes are strong and conduct electricity because they have delocalised electrons. These properties make nanotubes useful for nanotechnology, electronics and specialised materials.</p>  <p>Polymers have very large molecules. The atoms in a polymer molecule are joined together by strong covalent bonds in long chains. There are variable numbers of atoms in the chains of a given polymer. One example of a polymer is poly(ethene). The intermolecular forces between polymer molecules are strong compared to the intermolecular forces between small molecules. This means that polymers melt at higher temperatures than substances with small molecules. They are solids at room temperature.</p> $\begin{array}{cccccccc} \text{H} & \text{H} \\ & & & & & & & \\ -\text{C} & -\text{C}- \\ & & & & & & & \\ \text{H} & \text{H} \end{array}$ <p>A short section of a poly(ethene) molecule. Poly(ethene) molecules contain thousands of carbon atoms joined together in a chain.</p>	<p>Metallic bonding. Metals consist of giant structures of atoms arranged in a regular pattern. The electrons from the outer shells of the metal atoms are delocalised, and are free to move through the whole structure. This sharing of delocalised electrons results in strong metallic bonding.</p>  <p>Properties of metals: They are electrical conductors because their delocalised electrons carry electrical charge through the metal, they are good conductors of thermal energy because their delocalised electrons transfer energy. They have high melting points and boiling points, because the metallic bonding in the giant structure of a metal is very strong - large amounts of energy are needed to overcome the metallic bonds in melting and boiling</p>  <p>An alloy is a mixture of two or more elements, where at least one element is a metal. In a pure metal, the force needed to make the layers slide over each other is small. This explains why many pure metals are soft. In an alloy, there are atoms of different sizes. The smaller or bigger atoms distort the layers of atoms in the pure metal. This means that a greater force is required for the layers to slide over each other. The alloy is harder and stronger than the pure metal.</p>

<p style="text-align: center;">Lessons 1 & 2 Early atmosphere and its evolution</p>	<p style="text-align: center;">Lessons 3 & 4 Greenhouse effect and global warming</p>	<p style="text-align: center;">Lessons 5 Atmospheric pollutants</p>										
<p>The envelope of gases surrounding the earth or another planet is called an atmosphere. Atmospheres are formed from mixtures of different gases. Atmospheres can be formed from different combinations of gases. Different planets have different types of atmospheres. Scientists predict that the early atmosphere contained :</p> <ul style="list-style-type: none"> • a large amount of carbon dioxide • little or no oxygen • Water vapour • small amounts of other gases, such as ammonia and methane <p>One theory suggests that the early atmosphere came from intense volcanic activity. Combustion reactions happen in a volcano, where hydrogen and carbon react with oxygen to make Carbon dioxide and water vapour. As the Earth cooled the water vapour condensed to form oceans. Nitrogen was also released by volcanoes which gradually built up in the atmosphere because it is unreactive.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" style="background-color: #4a86e8; color: white;">Earths atmosphere Today</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Nitrogen</td> <td style="text-align: center;">78%</td> </tr> <tr> <td style="text-align: center;">Oxygen</td> <td style="text-align: center;">21%</td> </tr> <tr> <td style="text-align: center;">Water</td> <td style="text-align: center;">1%</td> </tr> <tr> <td style="text-align: center;">Carbon Dioxide</td> <td style="text-align: center;">0.04%</td> </tr> </tbody> </table> <p>Photosynthesis by primitive plants and algae released oxygen, which gradually built up in the atmosphere. carbon dioxide + water → glucose + oxygen Oxygen is a reactive gas, as it built up in the atmosphere it reacted with other gases. Ammonia + Oxygen → Nitrogen oxide and water Methane + Oxygen → Carbon Dioxide + Water Carbon dioxide dissolved in the oceans, formed carbonate compounds and precipitated as limestone. Carbon dioxide is incorporated into living things which form fossil fuels.</p>	Earths atmosphere Today		Nitrogen	78%	Oxygen	21%	Water	1%	Carbon Dioxide	0.04%	<p>Greenhouse gases are gases that absorb heat radiated from the Earth then release energy in all directions, which keeps the Earth warm. Greenhouse gases present in the atmosphere include:</p> <ul style="list-style-type: none"> • water vapour • carbon dioxide • methane <p>Human activities are increasing the amount of some greenhouse gases in the atmosphere. For example:</p> <ul style="list-style-type: none"> • farming cattle releases methane • farming rice in paddy fields releases methane • burning fossil fuels in vehicles and power stations releases carbon dioxide • deforestation releases carbon dioxide and reduces the absorption of carbon dioxide through photosynthesis <p>Greenhouse effect</p> <ol style="list-style-type: none"> 1. electromagnetic radiation a short wavelength, (e.g. UV) passes through the Earth's atmosphere 2. the Earth absorbs most of the radiation. 3. Some of the radiation is reflected as long wave radiation ,(infrared radiation) 4. some of the infrared radiation is absorbed by the covalent bonds between the atoms in greenhouse gases. 5. The greenhouse gases can then emit the infrared radiation back into the atmosphere. <p>Global warming is the term used to describe the warming of the climate in the past 200 years The effects of global warming include:</p> <ul style="list-style-type: none"> • glaciers and polar ice melting • sea levels rising • patterns of rainfall changing, producing floods or droughts • habitats changing 	<p>Combustion creates pollutant gases: Methane + Oxygen → Carbon dioxide + water Complete combustion of a hydrocarbon fuel occurs when there is a good supply of oxygen. It releases the maximum amount of energy and produces carbon dioxide and water. Incomplete combustion of a hydrocarbon fuel occurs when there is a poor supply of oxygen. Less energy is released. Water is produced along with carbon monoxide , carbon dioxide and carbon. Carbon monoxide is a poisonous gas It binds to haemoglobin in your red blood cells, preventing them from carrying oxygen to the cells in your body. Carbon monoxide is colourless and has no smell. Particulate carbon Causes health problems for humans because it irritates the lining of the lungs, can make asthma worse, and perhaps even cause cancer. Particulate carbon can also cause global dimming, which may reduce rainfall. Sulfur dioxide is caused when sulfur atoms which are present in some fossil fuels are oxidised: Sulfur dioxide is then further oxidised in the atmosphere to sulfur trioxide, SO₃. This gas dissolves in rainwater to make acid rain, which is a dilute solution of sulfuric acid, H₂SO₄. Acid rain harms and kills plants and animals, especially those that live in aquatic environments. It can also damage man-made objects like statues and buildings Nitrogen is not present in fuels, but the high temperatures and pressures inside a car engine can cause the nitrogen and oxygen in the air to react together to make oxides of nitrogen. Nitrogen oxide gases can cause acid rain, and they also react in the atmosphere with other pollutants to make photochemical smog. Smog can have major health effects, causing asthma attacks and even death.</p>
Earths atmosphere Today												
Nitrogen	78%											
Oxygen	21%											
Water	1%											
Carbon Dioxide	0.04%											

<p style="text-align: center;">Lesson 1 Introduction to circuits</p>	<p style="text-align: center;">Lessons 2 & 3 Current, p.d. and resistance</p>	<p style="text-align: center;">Lesson 4 Required Practical – Resistance and the length of a wire</p>
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <p>—○— switch (open)</p> <p>—○— switch (closed)</p> <p>—+ — cell</p> <p>—+ --- — battery</p> <p>—▷— diode</p> <p>—□— resistor</p> <p>—□— variable resistor</p> <p>—▷— LED</p> </div> <div style="width: 50%;"> <p>—⊗— lamp</p> <p>—□— fuse</p> <p>—V— voltmeter</p> <p>—A— ammeter</p> <p>—□— thermistor</p> <p>—□— LDR</p> </div> </div> <ul style="list-style-type: none"> • Charge is a property of materials. • It can be positive or negative and is measured in coulombs. Electrons have a negative charge. • Metals have a “sea” of delocalised/free “conduction electrons”. • These electrons can move through the material, causing a current. • Insulators do not have free electrons. 	<p><i>charge flow = current x time</i></p> <p>Charge in Coulombs, C Current in Amperes, A Time in seconds, s</p> <div style="text-align: center;"> </div> <p><i>energy transferred = charge x potential difference</i></p> <p>Energy transferred in Joules, J Charge in Coulombs, C Potential difference in Volts, V</p> <div style="text-align: center;"> </div> <p><i>potential difference = current x resistance</i></p> <p>Potential difference in Volts, V Current in Amperes, A Resistance in Ohms, Ω</p> <div style="text-align: center;"> </div>	<ul style="list-style-type: none"> • Resistance is a measure of how hard or easy it is for a current to flow. • The more resistance: <ul style="list-style-type: none"> • The lower the current will be for a given p.d. • The higher the p.d. will be needed for a particular current to flow. • You will investigate the relationship between the length of a wire and its resistance. <div style="text-align: center;"> </div> <ul style="list-style-type: none"> • Independent variable: Length of wire in metres • Dependent variable: Resistance of wire in Ω • Control variable: Current, temperature, material of wire

<p>Lessons 5 & 6 Required Practical – I-V Characteristics</p>	<p>Lesson 7 Non-ohmic components</p>	<p>Lessons 8 & 9 Series and Parallel circuits</p>												
<ul style="list-style-type: none"> You will investigate the relationship between current and potential difference for circuit components Ohm's law states that the current through a resistor is directly proportional to the potential difference across it, at constant temperature. A graph is directly proportional if a line of best fit is a straight line through the origin. <p>Resistor:</p>  <p>Filament lamp/bulb:</p> 	<p>Diode/LED:</p>  <ul style="list-style-type: none"> Some components have a resistance that depends on an environmental factor. <p>LDR:</p>  <p>Thermistor:</p> 	<ul style="list-style-type: none"> In a series circuit, you have one component after another. All of the components are connected together by the same 'loop' of wire.  <ul style="list-style-type: none"> A parallel circuit is one where components are connected in separate loops – sometimes called branches. Each component is placed along a different path.  <table border="1" data-bbox="1411 949 2042 1324"> <thead> <tr> <th></th> <th>Series</th> <th>Parallel</th> </tr> </thead> <tbody> <tr> <td>Current</td> <td>Same everywhere</td> <td>Shared between branches</td> </tr> <tr> <td>P.d.</td> <td>Shared between components</td> <td>Same in each branch (and equal to p.d. of the supply)</td> </tr> <tr> <td>Resistance</td> <td>Sum of individual resistances</td> <td>Less than the resistance of any one resistance</td> </tr> </tbody> </table>		Series	Parallel	Current	Same everywhere	Shared between branches	P.d.	Shared between components	Same in each branch (and equal to p.d. of the supply)	Resistance	Sum of individual resistances	Less than the resistance of any one resistance
	Series	Parallel												
Current	Same everywhere	Shared between branches												
P.d.	Shared between components	Same in each branch (and equal to p.d. of the supply)												
Resistance	Sum of individual resistances	Less than the resistance of any one resistance												

<p align="center">Lesson 10 Required Practical – Resistance in series and parallel</p>	<p align="center">Lessons 11 & 12 The 3-pin plug and mains electricity</p>	<p align="center">Lessons 13 & 14 Electrical power and The National Grid</p>												
<ul style="list-style-type: none"> You will investigate how combinations of resistors in series and parallel behave  <ul style="list-style-type: none"> In series, current must flow through both resistors. It is harder to flow through both than to flow through either resistor individually, so the resistance increases. In series: $R_{total} = R_1 + R_2$ In parallel, current can flow through both resistors at the same time. More current flows in the circuit than if only one of the resistors was there. As the p.d. remains constant, this means the total resistance must have decreased. 	 <table border="1" data-bbox="790 603 1384 1002"> <thead> <tr> <th>Name of wire</th> <th>Colour</th> <th>Job</th> </tr> </thead> <tbody> <tr> <td>Live</td> <td>Brown</td> <td>Supplies the alternating potential difference</td> </tr> <tr> <td>Neutral</td> <td>Blue</td> <td>Completes the circuit</td> </tr> <tr> <td>Earth</td> <td>Green/Yellow stripes</td> <td>Safety (can prevent shocks or fires)</td> </tr> </tbody> </table> <ul style="list-style-type: none"> A fuse is a thin wire in a glass tube designed to melt at a specific current. Earthing means connecting the metal case of an appliance directly to the earth using a low resistance cable. The UK mains supply is an alternating current supplied at a p.d. of 230 V and a frequency of 50 Hz. 	Name of wire	Colour	Job	Live	Brown	Supplies the alternating potential difference	Neutral	Blue	Completes the circuit	Earth	Green/Yellow stripes	Safety (can prevent shocks or fires)	<p>power = potential difference x current power = current² x resistance</p>  <p>Power in Watts, W</p> <ul style="list-style-type: none"> The National Grid is the system of cables and transformers that bring electricity to homes and businesses.  <ul style="list-style-type: none"> Transformers increase (step up) or decrease (step down) the potential difference of the electricity supply. If the potential difference goes up the current goes down. (As power = current x p.d.) If the current goes down, less energy is lost as heat in the wires. (As power = current² x resistance, half the current means ¼ the energy lost!)
Name of wire	Colour	Job												
Live	Brown	Supplies the alternating potential difference												
Neutral	Blue	Completes the circuit												
Earth	Green/Yellow stripes	Safety (can prevent shocks or fires)												