

Knowledge Organiser

Year 8

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.

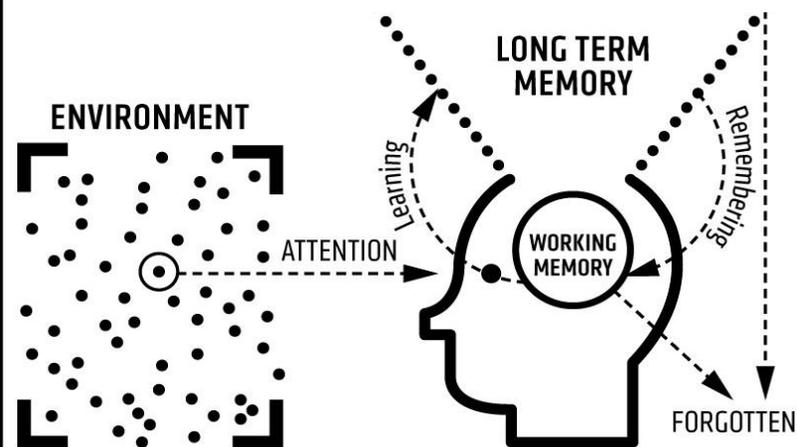
Each cycle there is an assessment in every subject and you will be assessed on the knowledge from your Knowledge Organiser; the more you revisit information the more likely it will be remembered for lessons, assessments and exams.

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
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Topic: Transatlantic Slavery

Date	Event
1560s onward	Start of British involvement in the Transatlantic trade in enslaved people. Remember that slavery has existed in many cultures throughout history.
1700-1800	6 million Africans enslaved and taken to Americas
1787	Thomas Clarkson launches campaign against slavery
1804	Successful fight for independence by enslaved people in Haiti. Haiti becomes an independent country.
1807	The trade in enslaved people in the British empire is banned.
1833	Slavery Abolition Act – A law that banned slavery in the British empire.
1861-65	American Civil War – The Union (Northern states) win and slavery is abolished in USA

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: Transatlantic Slavery

Key Word	Definition
slavery	The state of being enslaved (not free)
enslaved person	A person that has no freedom, is forced to work without pay and treated with no respect. We use this term rather than 'slave' to show that they were people who had been forced into this way of life, it was not, and is not, normal for anyone to be enslaved.
Transatlantic slavery	Transatlantic = across the Atlantic, i.e. between the west coast of Africa and the Americas. This phrase is used to describe the trade in enslaved people 1500s-1900. It was at its height in the 1700s
triangular trade	The three part trading journey between Europe, Africa and America.
middle passage	The journey from Africa to the Americas on which enslaved people were transported in terrible conditions.
plantations	Huge farms, growing a single crop, that used enslaved people to complete the work. Main crops = cotton, sugar, tobacco

Questions:

1. Copy out the definitions.
2. Then use each word in a sentence that makes sense, to do with the topic.

Topic: Transatlantic Slavery

Africa before the slave trade:

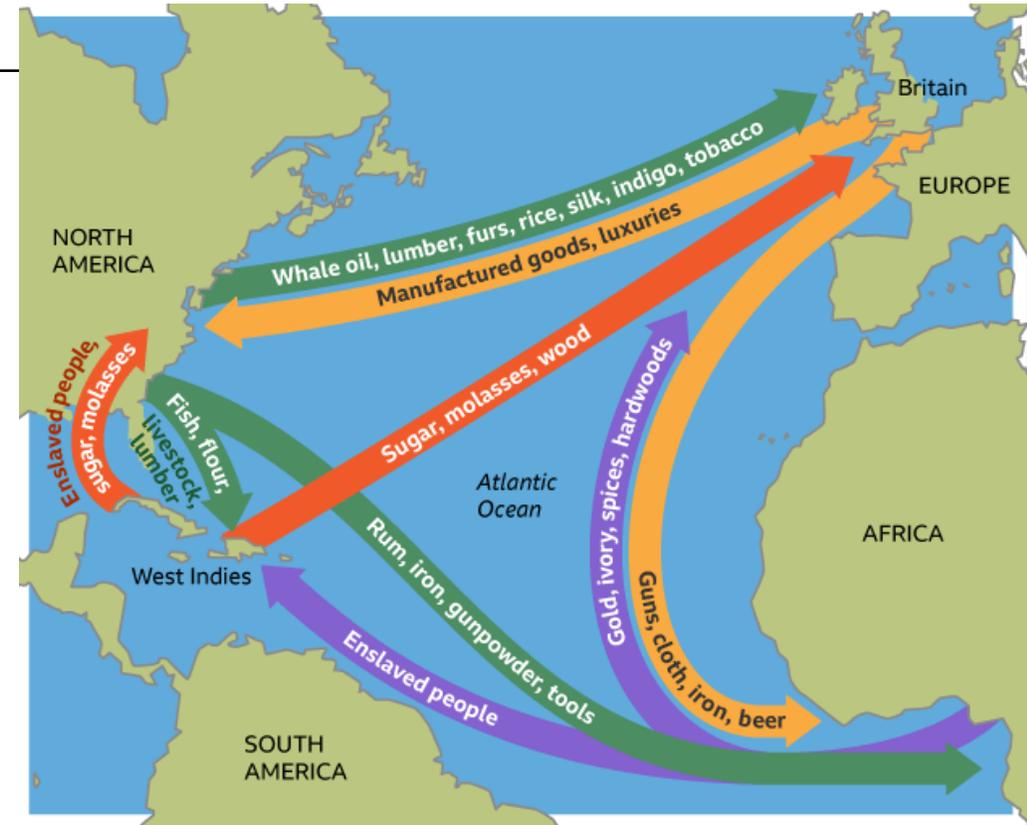
The peoples of West Africa had a rich and varied history and culture long before European slavers arrived. They had a wide variety of political arrangements including kingdoms, city-states and other organisations, each with their own languages and culture. The empire of Songhai and the kingdoms of Mali, Benin and Kongo were large and powerful with monarchs heading complex political structures governing hundreds of thousands of subjects. Art, learning and technology flourished and Africans were especially skilled in subjects like medicine, mathematics and astronomy. As well as domestic goods, they made fine luxury items in bronze, ivory, gold and terracotta for both local use and trade.

West Africans had traded with Europeans through merchants in North Africa for centuries. The first traders to sail down the West African coast were the Portuguese in the 15th century. Later the Dutch, British, French and Scandinavians followed. They were mainly interested in precious items such as gold, ivory and spices, particularly pepper. From their first contacts, European traders kidnapped and bought Africans for sale in Europe. However, it was not until the 17th century, when plantation owners wanted more and more slaves to satisfy the increasing demand for sugar in Europe, that transatlantic slaving became the dominant trade.

Homework questions

1. Write a PEEL paragraph explaining what Africa was like before the Transatlantic Slave Trade took place.
2. Why do you think there are lots of misconceptions about what Africa was like before the Slave Trade took place?

Topic - Transatlantic Slavery



Homework Questions

1. Draw a triangle in your book. Label this with the continents. Then annotate drawing arrows to show the goods that were traded.
2. Why was it called the 'Transatlantic' slave trade?
3. Why do some people refer to it as the 'trade triangle'?

HISTORY 14th May

Topic - Transatlantic Slavery - Middle Passage

Enslaver ships spent several months travelling to different parts of the coast, buying their cargo. The captives were often in poor health from the physical and mental abuse they had suffered. They were taken on board, stripped naked and examined from head to toe by the captain or surgeon.

Conditions on board ship during the Middle Passage were appalling. The men were packed together below deck and were secured by leg irons. The space was so cramped they were forced to crouch or lie down. Women and children were kept in separate quarters, sometimes on deck, allowing them limited freedom of movement, but this also exposed them to violence and sexual abuse from the crew.

The air in the hold was foul and putrid. Seasickness was common and the heat was oppressive. The lack of sanitation and suffocating conditions meant there was a constant threat of disease. Epidemics of fever, dysentery (the 'flux') and smallpox were frequent. Captives endured these conditions for about two months, sometimes longer.

In good weather the captives were brought on deck in midmorning and forced to exercise. They were fed twice a day and those refusing to eat were force-fed. Those who died were thrown overboard.

The combination of disease, inadequate food, rebellion and punishment took a heavy toll on captives and crew alike. Surviving records suggest that until the 1750s one in five Africans on board ship died.

Homework questions

1. What was the Middle Passage?
2. Using 3 adjectives to describe conditions on the Middle Passage.
3. Explain why so many enslaved people were crammed onto the ships.
4. Explain the impact of the poor conditions on the health and survival of enslaved people on these journeys.

Topic - Transatlantic Slavery - plantations

The introduction of sugar cultivation to St Kitts in the 1640s and its subsequent rapid growth led to the development of the plantation economy which depended on the labour of imported enslaved Africans. African slaves became increasingly sought after to work in the unpleasant conditions of heat and humidity. European planters thought Africans would be more suited to the conditions than their own countrymen, as the climate resembled that of their homeland in West Africa. Enslaved Africans were also much less expensive to maintain than indentured European servants or paid wage labourers. Once they arrived in the Caribbean islands, the Africans were prepared for sale. They were washed and their skin was oiled. Finally they were sold to local buyers. Often parents were separated from children, and husbands from wives. The plantation relied almost solely on an imported enslaved workforce, and became an agricultural factory concentrating on one profitable crop for sale.

Enslaved Africans were forced to engage in a variety of laborious activities, all of them back-breaking. The work in the fields was gruelling, with long hours spent in the hot sun, supervised by overseers who were quick to use the whip. Tasks ranged from clearing land, planting cane, and harvesting canes by hand, to manuring and weeding. Inside the plantation works, the conditions were often worse, especially the heat of the boiling house. Additionally, the hours were long, especially at harvest time. The death rate on the plantations was high, a result of overwork, poor nutrition and work conditions, brutality and disease. Many plantation owners preferred to import new slaves rather than providing the means and conditions for the survival of their existing slaves.

Homework Questions

1. What was a plantation?
2. What crop was grown there, which was in demand in Britain?
3. Describe what work was like for enslaved people there.
4. How were enslaved people treated by their masters?

HISTORY 14th June

Topic - Transatlantic Slave Trade - resistance

Enslaved Africans resisted, or rebelled, against their position as slaves in many different ways. Each expression of resistance by enslaved individuals or groups counted as acts of rebellion against the system of slavery. The many instances of resistance show that slaves were not victims of slavery who accepted their situation. Instead they proved their strength and determination in fighting for their freedom.

Uprising, or rebellion, was the most dramatic and bloody way that slaves could resist their enslavement. Less obvious methods of resistance occurred on the plantations. For example, slaves could steal from their owner, robbing him of his property and profit. They could damage machinery, so that it was put out of action and needed either lengthy repairs or costly replacement. The slaves could avoid work, by working as slowly as they dared, or by pretending to be sick. All these acts of resistance carried the threat of punishment if they were found out.

There were other ways of attacking slave owners. The children of a slave woman were born as slaves. Therefore, some women would terminate a pregnancy or even kill their new-born babies rather than bring a child into the world to be a slave. In doing this, the women rebelled against the slavery system as well as depriving their owners of another slave. Many enslaved African women had knowledge of medicines made from plants and could use their skills against owners. Plantation owners were therefore anxious that the female slaves who cooked their food might poison them.

Some enslaved people tried to run away.

Enslaved Africans also fought against slavery by keeping their African cultures and traditions alive in words, names, music and beliefs.

Homework questions

1. Why is it important to learn about resistance of enslaved people?
2. Describe active methods of resistance used.
3. Describe passive methods of resistance used.
4. What do you think was often the consequence of resistance?
5. What type of resistance do you think would have been most effective?

Topic - Abolition

From the 1770s in Britain, a movement developed to bring the **slave trade** to an end. This is known as the abolitionist movement.

The work of politicians, ordinary workers, women and the testimonies of formerly enslaved people all contributed to the British abolitionist movement.

In 1807, the British Parliament passed the Abolition of the Slave Trade Act. This ended the buying and selling of enslaved people within the British Empire, but it did not protect those already enslaved. Many enslavers continued to trade illegally. Hundreds of thousands of people remained enslaved. It took a further 30 years of campaigning before slavery was abolished in most British colonies.

The abolition of enslavement in the British Empire was not wholly achieved until the Slavery Abolition Act 1833. Protecting profit remained a crucial factor in ending enslaved labour in the colonies. When Britain abolished the practice of enslavement, plantation owners across the British Empire received a share of £20 million, around £17 billion in today's money, in *compensation*. In contrast, the newly emancipated people received no compensation and were forced into a new apprenticeship scheme, which tied them to their plantations for up to six further years.

Homework Questions

1. Name four factors that caused the abolition.
2. State the two laws that banned slavery.
3. Why was there opposition to ending slavery?

HISTORY 18th June

Topic - WW1

Date	Event
28 th June 1914	Assassination of Arch-Duke Franz Ferdinand in Sarajevo
28 th July 1914	Start of WWI, Britain joins 4 th August
December 1914	On Christmas Day 1914, troops put down their weapons and met in No Man's Land.
January 1916	Britain introduces conscription
July- September 1916	Battle of Somme- over half a million casualties. 20,000 British soldiers are killed on the first day
6 th April 1817	America declares war on Germany
11 Nov 1918	The armistice is signed (ceasefire). This marks the end of WW1 after four years of bitter fighting

Topic - WW1

Homework questions

- Using the information above create a timeline to summary WW1 key events.

Homework Questions

- Copy out the definitions.
- Then use each keyword in a sentence that makes sense for our topic.

Topic - WW1

propaganda	Propaganda is exaggerated or even false information that is published in order to influence people.
conscription	All men aged 18-41 forced to register for Military service. Britain introduced this in Jan 1916.
trenches	Name given to the series of deep ditches dug for defence. Soldiers fought and lived in these on the front line during WWI.
morale	How good or bad a person feels about a situation
inevitable	Something that cannot be avoided
armistice	A formal agreement by both sides to temporarily end any fighting
assassination	A murder carried out for political rather than personal reasons
interpretations	Historians views of the past. They will all be based on facts but will differ due to the attitudes of the society in which they live, or the evidence that they have chosen to focus on.
Front/ Front line	The line along which the two opposing armies met. E.g. The soldiers were sent to the western front.

Homework questions

1. Copy out the definitions.
2. Then use each keyword in a sentence that makes sense for our topic.

Topic - WW1

CAUSES OF WORLD WAR I (M.A.I.N.)

Militarism	Imperialism and nationalism led to increased production of goods and economic stability in these countries, which resulted in an arms race. The aggressive attitude of this policy drove them into producing more weaponry, such as strong navies and armored vehicles.
Alliances	The alliances of Europe were formed for protection against each other. However, the Triple Entente and the Triple Alliance very quickly took aggressive postures towards one another. This is due in large part to the lack of any global organization designed to promote peace among the nations of the world.
Imperialism	European countries divided up Africa and Asia to strengthen the political and economic power of the mother country. This resulted in competition among European countries.
Nationalism	Nationalism was both a uniting force and a divisive one. It resulted in Germany and Italy uniting into strong nations, and also caused the disintegration of the Ottoman Empire and Austria-Hungary.

Homework Questions

1. Why did militarism cause WW1?
2. Why did alliances cause WW1?
3. Why did imperialism cause WW1?
4. Why did nationalism cause WW1?

HISTORY 16th July

Topic - WW1

On the Western Front, the war was fought by soldiers in trenches. Trenches were long, narrow ditches dug into the ground where soldiers lived. They were very muddy, uncomfortable and the toilets overflowed. These conditions caused some soldiers to develop a problem called trench foot. There were many lines of German trenches on one side and many lines of Allied trenches on the other. In the middle was no man's land, which soldiers crossed to attack the other side.

A typical day in the trenches

Time	Activity
5am	'Stand-to' (short for 'Stand-to-Arms', meaning to be prepared for enemy attack) half an hour before daylight
5.30am	Rum ration
6am	Stand-down half an hour after daylight
7am	Breakfast (usually bacon and tea)
8am onwards	Clean selves and weapons, tidy trench
Noon	Dinner
After dinner	Sleep and downtime
5pm	Tea
6pm	Stand-to half an hour before dusk
6.30pm	Stand-down half an hour after dusk
6.30pm onwards	Work all night with some time for rest (patrols, digging trenches, putting up barbed wire, getting stores)

Homework questions

1. What was 'no man's land'?
2. What was trench warfare?
3. Describe what a typical day for a soldier was like.

Topic - WW1

The Battle of the Somme started on 1 July 1916 and continued for 141 days until 18 November 1916. The battle was the largest of the First World War on the Western Front, stretching along 16 miles north of the Somme River. After four months of bloody fighting the British and French had only penetrated six miles into German held territory. The first day of action was the worst in the history of the British Army, which suffered 57,470 casualties. The British and French forces, including forces from the British Empire such as Canada, Australia, and New Zealand, suffered staggering losses over the four month battle. Combined casualties totalled 623,907 men, including 146,431 killed or missing. Germany suffered heavy losses as well, with 465,181 casualties including 164,055 killed or missing. The First World War is often remembered as a futile waste of life. A pointless slugging match that saw uncaring commanders send thousands of young men to their untimely deaths - lions led by donkeys. In Britain in particular, it's the mud-soaked trenches of Passchendaele which capture public imagination. While Field Marshall Sir Douglas Haig is remembered as the butcher of the Somme. But were British soldiers really lions led by donkeys? Modern historians are challenging this idea and looking anew at Haig and his commanders to produce a more nuanced view of their command and generalship in the First World War.

Homework Questions:

Write down 3 facts about the Battle of the Somme



Year 8 Cycle 3 Geography Knowledge Organiser – Industry and Urbanisation



Homework 1 – Thursday 2nd April 2026

Lesson 1 – Types of industry	Lesson 2 – UK Industrial change	Lesson 3 – Industry in the 21 st century
<p>Key Terms: Industry: A type of economic activity that creates jobs and income. It is split into 4 sectors.</p> <p>Manufacturing: Making of products by hand or machinery.</p>	<p>Key Terms: Mechanisation: Changing from making products by hand to making them with machinery.</p> <p>Imports: Goods that are bought in from another country.</p>	<p>Key Terms: Brownfield sites: Land that has been used, abandoned, and now awaits a new use. Usually found in urban areas.</p> <p>Derelict: A building or a piece of land is deserted or abandoned.</p>
<p>Content: Primary sector: Extraction of raw materials from the environment e.g. farming, fishing, mining.</p> <p>Secondary sector: Production and manufacturing of good from raw materials and making them into new products.</p> <p>Tertiary sector: Providing a service such as hairdressers, banks, supermarkets or cinemas.</p> <p>Quaternary sector: Research and development and other hi-tech industries. Workers are highly skilled and educated.</p>	<p>Content: When a country develops, it is likely the percentage in primary and secondary industries decrease due to mechanisation.</p> <p>Cheap imports will decrease secondary industries.</p> <p>Education will increase tertiary and quaternary industries.</p> <div style="text-align: center;"> <p style="font-size: small;">Line graph to show the UK employment structure from 1800 – 2000</p> </div>	<p>Content: Loss of primary and secondary industries has led to brownfield sites like derelict factories.</p> <p>Tourism is the fastest growing industry in the UK. It accounts for 11% of UK total employment and 10% of UK GDP. Some old factories/ quarries have been regenerated into Eden Project and Adrenalin Quarry.</p> <p>The service industry is changing as many of these jobs are replaced with online shopping and automation.</p> <p>Jobs will be completed more efficiently, safely and quickly with the help of technology and use of AI and drones.</p>
<p>Questions:</p> <ol style="list-style-type: none"> 1. What does industry mean? 2. What does manufacturing mean? 3. What is the primary and secondary sector? 4. What is tertiary and quaternary sector? 	<ol style="list-style-type: none"> 5. What does mechanisation mean? 6. What causes the primary and secondary sectors decrease? 7. What does cheap imports do? 8. What does education do? 	<ol style="list-style-type: none"> 9. What are brownfield sites? 10. How is tourism affecting the UK? 11. How is the service industry changing? 12. How will AI and drones help jobs?



Year 8 Cycle 3 Geography Knowledge Organiser – Industry and Urbanisation



Homework 2 – Thursday 30th April 2026

Lesson 4 – The quaternary sector	Lesson 5 – Rise of China	Lesson 6 – A world of TNCs
<p>Key Terms: Science Park: A purpose-built cluster of office spaces, labs, workrooms and meeting areas designed to support research and development in science and tech.</p> <p>Knowledge economy: Production of goods and services based on knowledge activities.</p>	<p>Key Terms: Absolute poverty: A person or household does not have the minimum amount of income needed to meet the minimum living requirements.</p> <p>Special Economic Zones (SEZ): Area of a country with different economic rules than the rest of the country.</p>	<p>Key Terms: Transnational Corporation (TNC): Large companies that operate all of the world.</p> <p>Labour: Workers within an industry.</p> <p>LIC: Low Income Country</p> <p>NEE: Newly Emerging Economy</p>
<p>Content: The quaternary industry is sometimes referred to the knowledge economy as they develop ideas and original unique products.</p> <p>Science parks are usually located...</p> <ul style="list-style-type: none"> • The edge of cities • They have good access to public transport and motorway • They have lots of green space • Space for expansion • Near universities <p>Cambridge Science Park is located in the east of UK. It is north of London. It is close to the M11 and M25</p>	<p>Content: Before 1978, China was a relatively poor country. 88% of people lived in absolute poverty.</p> <p>In 1978 the government created Special Economic Zones (SEZ) which boosted the economy and modernised the country.</p> <p>Foreign countries now invest and it is the world's second largest economy after USA.</p> <p>Many people work in manufacturing, taking 500 million people out of poverty. Some of the jobs are low paid. China is the largest emitter of CO₂.</p>	<p>Content: TNCs usually have their headquarters in one country where they research and design new products.</p> <p>TNCs make and manufacture productions in LICs/NEEs. This is due to cheap labour, and lack of environmental laws. This allows them to pay less.</p> <p>They do give people jobs, invest in infrastructure and improve the economies of LIC/NEEs.</p> <p>TNCs have been accused of exploiting people and the environment.</p>
<p>Questions:</p> <ol style="list-style-type: none"> 1. What is a science park? 2. What is a knowledge economy? 3. State 5 location factors for science parks 4. Where is the Cambridge Science Park? 	<ol style="list-style-type: none"> 5. What is absolute poverty? 6. What was China like before 1978? 7. What happened in 1978? 8. What is China like today? 	<ol style="list-style-type: none"> 9. What is a TNC? 10. What do TNCs do? 11. What do TNCs give people? 12. What are TNCs accused of?



Year 8 Cycle 3 Geography Knowledge Organiser – Industry and Urbanisation



Homework 3 – Thursday 14th May 2026

Lesson 7 – Smartphone production	Lesson 8 – Impact of industry	Lesson 9 – Site and Settlement
<p>Key Terms: Components: A part of a larger product.</p>	<p>Key Terms: Exploitation: Using someone unfairly for someone else's advantage. Extraction: The action of removing something.</p>	<p>Key Terms: Settlement: A place where people live e.g., village, town, city. Site: The land the settlement was built on.</p>
<p>Content: The Apple iPhone is designed in California, USA (a HIC) in the headquarters This is the quaternary sector.</p> <p>Raw materials are mined (primary sector) and then made into the different components in at least 10 different countries.</p> <p>All these components are then assembled in a factory in China (this is in an SEZ) which is an NEE. Apple take advantage of the cheap labour and relaxed environmental laws. This is secondary sector.</p> <p>The iPhone is then sent to countries all over the work but mostly in HICs. This is the tertiary sector.</p>	<p>Content: Impact on people:</p> <ul style="list-style-type: none"> • People in HICs lose their jobs. • People in LICs/NEEs have new jobs. • Workers may be exploited. • TNCs promote relationships between countries. <p>Impact on the environment:</p> <ul style="list-style-type: none"> • Factories in HIC and left derelict. • Increase in air and water pollution • More emissions are being created. <p>Extraction of even more raw materials.</p>	<p>Content: Most settlements have a primary function or industry (the reason people settled here although this changes over time).</p> <p>The function of a settlement helps to identify the economic and reasons for development of a place.</p> <p>The original functions include:</p> <ol style="list-style-type: none"> 1. Defensive points (high ground) 2. Bridging points (narrow part of river) 3. Natural harbours 4. Wet points 5. Dry points 6. Flat valley floors
<p>Questions:</p> <ol style="list-style-type: none"> 1. What happens in the quaternary? 2. What happens in the primary? 3. What happens in the secondary? 4. What happens in the tertiary? 	<ol style="list-style-type: none"> 5. What does exploitation mean? 6. What does extraction mean? 7. State 4 impacts on people 8. State 4 impacts on the environment 	<ol style="list-style-type: none"> 9. What is a settlement? 10. What is a site? 11. What is the function of a settlement? 12. State 6 original functions



Year 8 Cycle 3 Geography Knowledge Organiser – Industry and Urbanisation



Homework 4 – Thursday 4 th June 2026		
Lesson 10 – Settlement, function & industry	Lesson 11 – Settlement growth & land use	Lesson 12 – Reasons settlements change
<p>Key Terms: Bridging point: Where a river was shallow enough to be crossed or narrow enough to easily build a bridge.</p>	<p>Key Terms: Natural resources: Materials that occur naturally and can be used by people. Industrial revolution: Making products by machines rather than by hand. CBD: Central Business District. Suburb: Area on the outside of a town/city.</p>	<p>Key Terms: Greenwich Peninsular: Area of London with modern developments including the O2 Arena. Containership: Ships that carry manufactured goods and products between places.</p>
<p>Content: Dartmouth is natural harbour and defensive point which has developed into tourist and military port. Totnes has a castle, bridge point and market town. Kingsbridge is a market town and a is a bridging point. Newton Abbot had a fort and was a manufacturer of wool.</p> <p>Most large cities in the UK are either natural harbours (Cardiff, Belfast), located on the coast or close to a natural resource such as coal, tin or iron ore (Leeds/ Sheffield).</p>	<p>Content: Settlers chose sites with a farmland, water and protection. Markets to sell goods. Businesses started during the industrial revolution. People came from the countryside to get jobs. More people lead to more businesses. Structure of a settlement:</p> <ul style="list-style-type: none"> • CBD is where the shops are and the old industrial sector. • Inner city has low value housing and old factories. • Inner Suburbs have slight large houses. • Suburbs have the largest houses. <p>New industrial areas locate on the outskirts.</p>	<p>Content: Settlements along the River Thames were small farms. The Romans made London a bridging point and then developed into docks.</p> <p>Secondary industry developed along the River Thames and including the Greenwich Peninsular.</p> <p>However, the river was too shallow to accommodate large containerships and secondary industry started to locate in NEE. The Greenwich Peninsular has been regenerated into leisure, tourism and offices.</p>
<p>Questions: 1. What was Dartmouth function? 2. What was Totnes function? 3. What was Kingsbridge function? 4. What was Newton Abbot function?</p>	<p>5. State 3 reasons why settlers chose a site 6. What developed first? 7. Why do people leave the countryside? 8. List the 5 parts of a settlement</p>	<p>9. What were settlements along the River Thames originally? 10. What did the Romans do? 11. What caused industry to move? 12. What is at Greenwich Peninsular now?</p>



Year 8 Cycle 3 Geography Knowledge Organiser – Industry and Urbanisation



Homework 5 – Thursday 18th June 2026

Lesson 13 – Sustainable London	Lesson 14 – Growth of Lagos	Lesson 15 – Makoko
<p>Key Terms: Sustainable: Meeting the needs of today's population without compromising the needs of future generations.</p> <p>Congestion: Occurs when there are too many vehicles for the size of road.</p> <p>Hydrogen: A fuel that uses hydrogen to generate energy.</p>	<p>Key Terms: Lagos: The largest city on the Atlantic Coast in Nigeria, West Africa.</p> <p>Port: A landing place for ships to load and unload their cargo and passengers.</p>	<p>Key Terms: Informal settlement: An area of low-quality housing, lacking amenities such as a clean water, sewage systems and access to electricity.</p> <p>Informal sector: When workers do not work regular hours and do not pay tax.</p>
<p>Content: Cities have large carbon footprints from travel, waste, buildings, energy consumption.</p> <p>London has tried to become more sustainable through the use of:</p> <ul style="list-style-type: none"> • Congestion Charging which charges motorists £11.50 to drive into the city. • Public Transport is efficient and cheap. Buses and taxis run on natural gas and hydrogen. • Brownfield sites are being regenerated into new developments. <p>BedZED is a housing community that aims to be carbon neutral.</p>	<p>Content: Lagos' original function was a small fishing village as it was a natural harbour. The Portuguese developed it into a port. It is now a megacity (pop. 14.8m) has the fourth-highest GDP in Africa. One of the largest and busiest seaports on the continent.</p> <p>Nigeria has large reserves of crude oil and it is its main export. TNCs such as Shell have located here to mine the oil (Primary Industry). Unilever are also located here and make household chemicals (Secondary Industry).</p> <p>It is one of the fastest growing cities in the world due to rural to urban migration.</p>	<p>Content: Makoko is an informal settlement located under the 3rd City Bridge in Lagos and is home to at least 85,000 people.</p> <p>It is an informal settlement meaning that the government do not provide rubbish collection, water or toilets or sewers.</p> <p>Houses are made out of whatever people can find. People work in jobs in the formal sector such as fishing. Other people work in informal sector such as selling water, fire wood/ charcoal or fixing boat engines.</p> <p>Some charities have set up schools but they only have 80 places.</p>
<p>Questions:</p> <ol style="list-style-type: none"> 1. What does sustainable mean? 2. Why do cities have large carbon footprint? 3. What is congestion? 4. State 4 ways London has tried to become more sustainable 	<ol style="list-style-type: none"> 5. Where is Lagos? 6. What was Lagos' original function? 7. What is Lagos' port like today? 8. What TNCs have located in Lagos? 	<ol style="list-style-type: none"> 9. What is an informal settlement? 10. What is Makoko? 11. What do people work in? 12. What have charities done?

Year 8 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 – Future plans- jobs LC3

FRANCAIS	ANGLAIS
1. J'aime le dessin	I like art
2. Je déteste l'informatique	I hate ICT / Computer Science
3. Donc à l'avenir	So in the future
4. Je vais devenir avocat / avocate	I'm going to become a lawyer
5. Je vais devenir coiffeur / coiffeuse	I'm going to become a hairdresser
6. Je vais être employé(e) de bureau	I'm going to be an office worker
7. Je vais être médecin	Im going to be a doctor
8. Parce que ce sera genial	Because it will be great
9. Parce que ce sera éducatif	Because it will be educational
10. J'adore l'EPS alors un jour je vais devenir professeur(e)	I love PE so one day I'm going to become a teacher
11. Dans le futur je vais être journaliste car ce sera chouette	In the future I'm going to be a journalist because it will be great
12. Un jour je vais être scientifique car ce sera intéressant	One day I'm going to be a scientist because it will be interesting

Gapfill (Complete in your homework book)

1. ___ _____ **le dessin** = I hate art
2. ___ _____ **avocat(e)** = I'm going to be a lawyer
3. **je vais** _____ = I'm going to become a doctor
4. **Un jour** _____ = I One day I'm going to be a journalist
5. _____ **alors....** = I love PE so....
6. _____ = I'm going to become a scientist
7. _____ = I hate Maths
- 8 _____ = because it will be great

Test 2 – My ambitions LC3

FRANCAIS	ANGLAIS
1. Mon rêve est de travailler dans les sciences	My dream is to work in the sciences
2. Je ne veux pas travailler dans la restauration	I don't want to work in catering
3. Mon but est de faire mon carrière dans les medias	My goal is to have a career in the media
4. Mon ambition est de travailler dans le commerce	My ambition is to work in business
5. Je ne veux pas faire carrière dans l'informatique	I don't want to have a career in computing
6. Mon but est de travailler dans la technologie	My goal is to work in technology
7. Car c'est un métier bien payé	Because it is a well-paid job
8. Car c'est un métier enrichissant	Because it is an enriching job
9. Car c'est un métier fatigant	Because it is a tiring job
10. Car c'est un métier affreux	Because it is an awful job
11. Je veux travailler dans l'hôtellerie car c'est un métier stimulant	I want to work in hotels because it's a stimulating job
12. Je veux devenir professeur(e) car c'est un métier créatif	I want to become a teacher because it's a creative job

Gapfill (Complete in your homework book)

1. _____ = I don't want to work
2. _____ **de faire un métier bien payé** = My aim is to do a well paid job
3. _____ **intéressant** = because it is an interesting job
4. **Je veux travailler** _____ = I want to work in catering
5. _____ = to work in business
6. _____ = My dream is to....
7. _____ = because it's a tiring job
8. _____ = because it's a creative job

Test 3 – Next steps LC3

FRANCAIS	ANGLAIS
1. Après avoir fini mes examens	After having finished my exams
2. À l'avenir je vais faire un apprentissage	In the future I'm going to do an apprenticeship
3. Je vais étudier au lycée	I'm going to study at sixth form college
4. Je vais faire du bénévolat	I'm going to do some volunteering
5. Je vais faire une année sabbatique	I'm going to have a gap year
6. Avant d'aller à l'université je vais étudier l'anglais	Before going to university I'm going to study English
7. Ce sera fascinant	It will be fascinating
8. Ce sera essentiel pour moi	It will be essential for me
9. je veux aider les gens	I want to help people
10. J'ai hâte de le faire	I can't wait to do it
11. Je vais faire un stage en entreprise car ça m'intéresse	I'm going to do work experience because it interests me
12. Je vais étudier les maths car c'est ma passion	I'm going to study maths because it is my passion

Gapfill (Complete in your homework book)

1. _____ = Before going to university
2. _____ **intéressant** = It will be interesting
3. _____ **aider les gens** = I want to help people
4. _____ = It is my passion
5. _____ **l'anglais** = I'm going to study English
6. _____ **finir mes examens** = In the future I'm going to finish my exams
7. _____ **pour moi** = It will be essential for me
8. _____ = I'm going to do work experience

Test 4 – Celebrations LC3

FRANCAIS	ANGLAIS
1. D'habitude	Usually
2. Pour fêter Noël je danse	To celebrate Christmas I dance
3. Je mange trop de chocolat	I eat too much chocolate
4. Pour fêter mon anniversaire je fais du bowling	To celebrate my birthday I go bowling
5. Tous les ans on mange un grand repas	Every year we eat a big meal
6. Normalement on fait la fête	Normally we have a party
7. Pour fêter Noël je fais la fête avec mes amis	To celebrate Christmas I celebrate with my friends
8. Je mange au restaurant avec mon meilleur ami	I eat in a restaurant with my best friend
9. D'habitude on va en vacances avec mes grands-parents	Usually we go on holiday with my grandparents
10. Tous les ans je reçois des cadeaux	Every year I receive presents
11. On célèbre en famille et je regarde un film au cinéma	We celebrate with the family and I watch a film at the cinema
12. Pour fêter mon anniversaire, je danse avec ma sœur	To celebrate my birthday I dance with my sister

Gapfill (Complete in your homework book)

1. D'habitude _____ = Usually I dance
2. je mange _____ = I eat a big meal
3. D'habitude _____ avec mes amis = Usually I go on holiday with my friends
4. _____ je regarde un film = Every year I watch a film
5. _____ = To celebrate my birthday....
6. _____ = I go bowling
7. _____ on mange trop de chocolat = To celebrate Christmas we eat too much chocolate
- 8 _____ = Normally we have a party

Test 5 – Last year or next year ? LC3

FRANCAIS	ANGLAIS
1. L'année dernière	Last year
2. L'année prochaine	Next year
3. L'année dernière j'ai mangé au restaurant	Last year I ate in a restaurant
4. L'année dernière on est allés en vacances	Last year we went on holiday
5. On a célébré en famille et c'était cool	We celebrated with the family and it was cool
6. Pour fêter Noël j'ai mangé trop de chocolat	To celebrate Christmas I ate too much chocolate
7. L'année prochaine je vais recevoir des cadeaux	Next year I'm going to receive presents
8. L'année prochaine je vais faire du bowling	Next year I'm going to do bowling
9. On va faire la fête	we are going to have a party
10. On va manger un grand repas ce sera mieux	We are going to have a big meal it will be better
11. L'année dernière j'ai dansé mais l'année prochaine je vais faire la fête. Ce sera pire	Last year I danced but next year I'm going to have a party. It will be worse
12. L'année dernière j'ai regardé un film mais l'année prochaine je vais manger au restaurant	Last year I watched a film but next year I'm going to eat in a restaurant.

Gapfill (Complete in your homework book)

1. _____ je suis allé(e)... = Last year I went....
2. _____ en famille = We celebrated with the family
3. _____ je vais célébrer... = Next year I'm going to celebrate....
4. _____ = It will be better
5. _____ = It will be worse
6. _____ = Last year I danced
7. _____ un grand repas = We're going to eat a big meal
8. _____ = Last year I watched a film

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. Rewrite your school timetable in French, with your opinion about each subject
2. Create your ideal job – make a list of the skills / what you need to study to achieve it
3. Write a description of your plans to celebrate your next birthday / Christmas / family celebration
4. Write a description of a recent family celebration in French. Add pictures to show what you did!
5. Make a poster to remind you how to form the past tense in French
6. Write a song/rhyme to help you remember the verbs **avoir**, **être** and **aller** in French
7. Find a song in French that you enjoy. Try to translate the lyrics.
8. Research a Francophone festival or landmark that interests you and present in a poster / presentation.

Year 8 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 ¿Cuánto cuesta una pizza, por favor?–LC3

Español	Inglés
1. Quisiera un bocadillo de queso por favor	I would like a cheese sandwich please
2. Quisiera una hamburguesa por favor	I would like a burger please
3. Quisiera unos caramelos y unas patatas fritas	I would like some sweets and chips
4. Tomo una pizza	I am having a pizza
5. Tomo un refresco y una paella	I am having a soft drink and a paella
6. Tomo una sopa de tomate y un plátano	I am having a tomato soup and a banana
7. ¿Cuánto cuesta el helado de chocolate?	How much does chocolate ice cream cost?
8. ¿Cuánto cuesta el zumo de manzana?	How much does apple juice cost?
9. ¿Cuánto cuesta la ensalada por favor?	How much does the salad cost?
10. Cuesta quince euros	It's 15 euros
11. Cuesta ocho euros	It's eight euros
12. Cuesta veintitrés euros	It's twenty-three euros

Gapfill (Complete in your homework book)

1. _____ un refresco= I would like a soft drink
2. Tomo _____ por favor = I'm having a sandwich please
3. _____ una hamburguesa _____ = I'm having a hamburger please
4. ¿_____ la ensalada? = How much is the salad?
5. ¿Cuánto cuesta _____?= How much does the icecream cost?
6. _____ = It costs three Euros
7. _____ = It costs eighteen euros
8. _____ = It costs twenty four euros

Test 2 - ¿por qué comes este? – LC3

Español	Inglés
1. Normalmente como esta fruta	Normally I eat this fruit
2. Bebo esa agua	I drink that water
3. Evito la comida rápida	I avoid fast food
4. Porque no es sano	Because it is not healthy
5. Porque son sabrosos	Because they are tasty
6. Como carne roja porque es delicioso	I eat red meat because it is delicious
7. Evito las patatas fritas porque son malsanas	I avoid chips because they are unhealthy
8. Ayer comí esos caramelos	Yesterday I ate those sweets
9. Ayer bebí estos refrescos	Yesterday I drank those fizzy drinks
10. En el futuro voy a evitar el sal	In the future I'm going to avoid salt
11. En el futuro voy a comer vitaminas	In the future I'm going to eat vitamins
12. Bebo refrescos y como caramelos porque son malsanos	I drink fizzy drinks and eat sweets because they are unhealthy

Gapfill (Complete in your homework book)

1. _____ = I avoid fast food
2. Normalmente _____ = I normally eat red meat
3. Ayer _____ patatas fritas = Yesterday I ate chips
4. _____ voy a evitar los caramelos = In the future I'm going to avoid sweets
5. En el futuro _____ agua = In the future I'm going to drink water
6. _____ = because it is unhealthy
7. _____ = Because they are delicious (mpl)
8. _____ = Because it is delicious

Test 3 - ¿Con qué frecuencia lo comes?

Español	Inglés
1. Lo como todos los días	I eat it every day
2. Los bebo a veces	I drink them sometimes
3. La comí ayer	I ate I yesterday
4. Las voy a comer en el futuro	I'm going to eat them in the future
5. Porque me ayuda	Because it helps me
6. Porque nos daña	Because it damages us
7. Lo como de vez en cuando porque es delicioso	I eat it from time to time because it is delicious
8. La evito a menudo porque es malsano	I avoid it often because it is unhealthy
9. Los bebí ayer porque me ayudan	I drank them yesterday because they help me
10. No lo voy a comer en el futuro porque me daña	I'm not going to eat it in the future because it damages me
11. La como dos veces a la semana porque me gusta	I eat it twice a week because I like it
12. La evito cada día porque es malsana	I avoid it every day because it is unhealthy

Gapfill (Complete in your homework book)

1. **a veces** = I eat it sometimes
2. **todos los días** = I drink them every day
3. **en el futuro** = I'm going to eat it in the future
4. = because it helps me
5. = because **they** help me
6. **Los** = I ate them yesterday
7. = Twice a week
8. = I avoid it often

Test 4 - ¿Cómo es tu rutina diaria?- LC3

Español	Inglés
1. Todos los días desayuno	Everyday I have breakfast
2. Normalmente me lavo	Normally I wash myself
3. Ayer me vestí	Yesterday I got myself dressed
4. Mañana voy a acostarme	Tomorrow I'm going to put myself to bed
5. Antes de cenar	Before having dinner
6. Después de levantarse	After getting up
7. Ayer me lavé antes de desayunar	Yesterday I washed myself before having breakfast
8. Normalmente ceno a las siete	Normally I have dinner at 7
9. Ayer me desperté a las ocho	Yesterday I woke up at 8
10. Mañana voy a levantarme a las diez	Tomorrow I'm going to get up at 10
11. Siempre ceno y me acuesto	I always eat dinner and go to bed
12. A veces me lavo y ceno. Después me acuesto a las diez	I sometimes wash myself and have dinner. After, I go to bed at 10

Gapfill (Complete in your homework book)

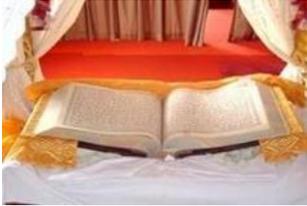
1. Todos los días = Every day I wash myself
2. Ayer = Yesterday I washed myself
3. lavarme = After washing myself
4. Mañana = tomorrow I'm going to wash myself
5. me lavo = I always wash myself
6. Ayer a las ocho = Yesterday I ate dinner at 8
7. Normalmente temprano = Normally I have breakfast early
8. Me levanté desayunar = I got up before having breakfast

MFL challenges

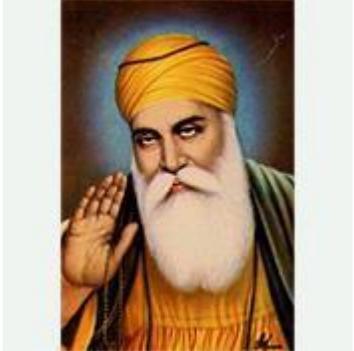
These are some ideas for tasks to complete at home – they are totally optional but bring them in to show your teacher!

1. Create a menu for a Spanish restaurant- include prices and pictures of all the food you will offer
2. Using your menu, create a dialogue in a restaurant with a partner – perform to the class!
3. Create a poster giving advice on how to stay healthy – in Spanish!
4. Watch your favourite film in Spanish or with Spanish subtitles
5. Write a short text describing your daily / weekly / monthly routine
6. Find a song you like by a Spanish speaking artist
7. Draw a plate with examples of all the different food groups in Spanish
8. Research a Spanish/Latin American festival or landmark that interests you and present in a poster / presentation.

RPE

Week 1: 26 th March	Week 2: 23 rd April	Week 3: 7 th May	Week 4: 21 st May
Lesson 1 – What Is Sikhism?	Lesson 2 – What Do Sikhs Believe?	Lesson 3 – Who Were The Gurus?	Lesson 4 – What Are A Sikh's 3 Duties?
<p>Key Terms: Dharmic: Religions which focus on the concept of dharma, which is a sanskrit term for a "law or duty." Sikhism: A religion that developed in the 15th century, based on belief in a single god and on the teachings of Guru Nanak. Guru: Someone who teaches and leads a person to knowledge and understanding of God.</p>	<p>Key Terms: Guru Granth Sahib: The main holy scripture of Sikhism. Mool Mantar: The opening section of the Guru Granth Sahib.</p> 	<p>Key Terms: Guru: Someone who teaches and leads a person to knowledge and understanding of God. Langar: The concept of free food for all. Sewa: 'Selfless service'. It involves acting selflessly and helping others in a variety of ways, without any reward or personal gain.</p>	<p>Key Terms: Nam Simran : to remember God and meditate on His name. Kirat karna: to earn one's living by honest means and hard work. Vand chhakna: to share with others who are less fortunate. Samsara: The cycle of birth, death and rebirth. Mukti: Liberation from samsara.</p>
<p>Content: Sikhism began in the Punjab region of India and was founded by the first Sikh Guru, Guru Nanak. Sikhs believe in one God who guides and protects them. They believe everyone is equal before God.</p>	<p>Content: The Guru Granth Sahib is the Sikh holy book. The first verse of the Guru Granth Sahib is called the Mool Mantar. It is important as it is the start of the Sikh holy book and also explains the Sikh ideas of God.</p>	<p>Content: There were 10 Sikh Gurus altogether. The 3rd Guru, Guru Amar Das introduced the idea of the Langar (free food for all). He also stressed the importance of sewa.</p>	<p>Content: Guru Nanak gave Sikhs 3 golden rules to follow. In order to reach mukti, Sikhs must live their life with God in their mind at all times. They must also act with love and compassion.</p>
<p>Questions:</p> <ol style="list-style-type: none"> 1. What is a Dharmic religion? 2. What are the main beliefs of Sikhism? 3. Who was Guru Nanak? 4. Why is Guru Nanak so important to Sikhs? 	<p>Questions:</p> <ol style="list-style-type: none"> 1. What is the Guru Granth Sahib? 2. What is the Mool Mantar? 3. How does the Guru Granth Sahib describe God? 	<p>Questions:</p> <ol style="list-style-type: none"> 1. What is a Guru? 2. Why are the ten Gurus important to Sikhs? 3. What key important ideas or principles did the Gurus introduce? 	<p>Questions:</p> <ol style="list-style-type: none"> 1. What are the three golden rules that a Sikh has to follow? 2. How do Sikhs put the golden rules into practice?

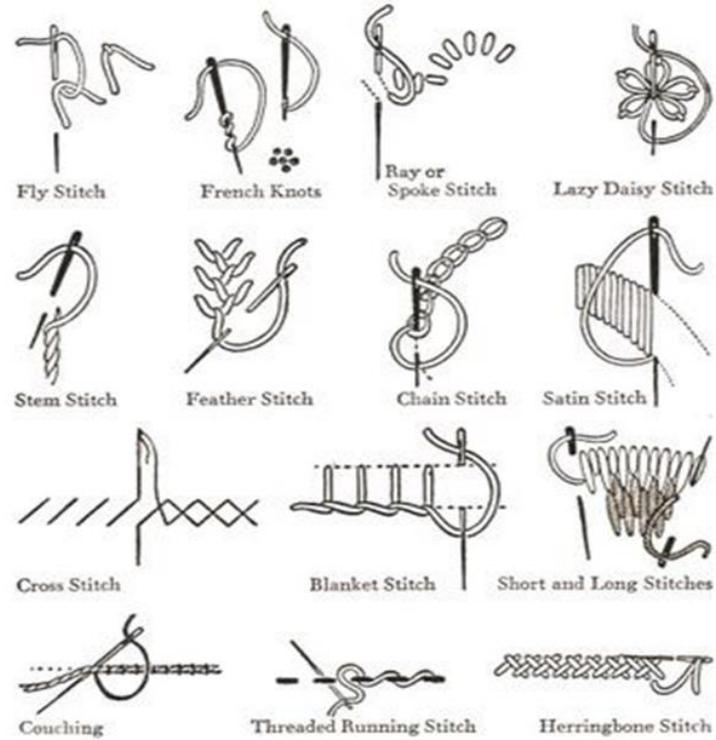
RPE

Week 5: 11 th June	Week 6: 25 th June	Week 7: 9 th July	
<p>Lesson 5 – The Sikh Path Of Life</p> <p>Key Terms: Gurmukh: God centred (Keeping God at the forefront of your mind)</p> <p>Mukti: Freedom from the cycle of birth, death and rebirth</p> <p>Samsara: The cycle of birth, death and rebirth</p> <p>Karma: The consequences of a person’s actions or words</p>	<p>Lesson 6 – What Is Amritdhari?</p> <p>Key Terms: Amrit: A sanctified solution of sugar and water</p> <p>Amrit Chhakna: An initiation ceremony into Sikhism</p> <p>Khalsa Panth: The Sikh community</p> <p>Shabads: Passages of the Guru Granth Sahib</p>	<p>Lesson 7 – Sikh Identity In Britain</p> <p>Key Terms: Identity: Characteristics that determine who or what a person is.</p> <p>Turban: A head covering for a man, worn by Sikhs.</p>	
<p>Content:</p> <ul style="list-style-type: none"> In order to reach mukti, Sikhs must live their life with Waheguru (God) in their mind at all times and must rid themselves of all bad karma and focus on gaining good karma. They must act with love and compassion towards others. 	<p>Content:</p> <ul style="list-style-type: none"> Every Sikh is urged to become an active member of the Khalsa Panth. Amrit is sugar crystals dissolved in water by stirring them with the sword while shabads are recited. Sikhs who have taken amrit must wear the Five Ks. 	<p>Content:</p> <ul style="list-style-type: none"> Most Sikhs settled in Britain in the 1950s and 1960s from the Punjab. There are around 500,000 Sikhs living in Britain and over 300 gurdwaras around the country. Over 100,000 Sikhs fought in the British Indian Army during World War II. 	
<p>Questions:</p> <ol style="list-style-type: none"> What is Samsara? How do Sikhs achieve mukti? What does Gurmukh mean? What is Karma? 	<p>Questions:</p> <ol style="list-style-type: none"> Why are Sikhs urged to become active members of the Khalsa Panth? What is Amrit Chhakna and what does it involve? What are the 5 K’s? 	<p>Questions:</p> <ol style="list-style-type: none"> When and why did the Sikh community in the UK grow? Why do Sikh men wear turbans? What contributions have Sikhs made to the UK? 	

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: Decorative Stitch names



D. Key Knowledge 3: Key Words

Pattern- In sewing and fashion design, a pattern is the template from which the parts of a garment are traced onto fabrics before being cut out and assembled. Patterns are usually made of paper.

Seam allowance is the extra space you add around the edge of a pattern piece so that it can be sewn together.

Seam- a line where two pieces of fabric are sewn together in a garment or other article

Applique- decorate (a garment or larger piece of fabric) with pieces of fabric to form pictures or patterns

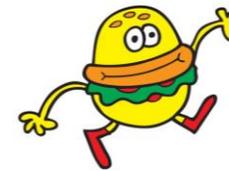
CREATIVE ARTS 3D DESIGN TEXTILES
Project – CRAZY CHARACTERS (SOFT SCULPTURE)

C. Key Knowledge 2: Design your own Jon Burgerman character and experiment with Shape and Colour



E. Expert Modelling: Research the following artists / designers and write 3 interesting facts

John Murphy - Sock Monsters



Jon Burgerman



Jenny Strunge

F. Wider thinking / further reading: Watch this video to help you with making a sock character
https://www.youtube.com/watch?v=6Ju_NxDHvpo



'Notre Dame Cathedral'
Paris 1163
Gothic Architecture

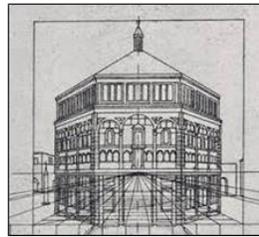


Diagram of Filippo Brunelleschi's Perspective Technique 1420



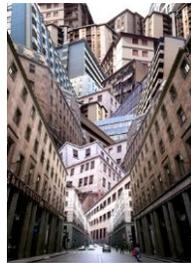
'Casa Batlló' Barcelona by Antoni Gaudi, 1906



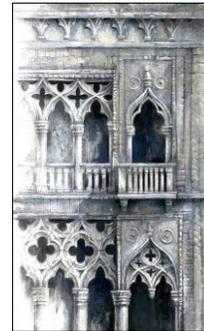
'Bridge' painting by Lyonel Feininger 1912



'Habitat 67' by Moshe Safdie 1967,



Palazzo Ca D'oro II by Ian Murphy, 2015
Photomontage by Giacomo Costa 1997



Art History- Key Terms & Facts:

Lyonel Feininger was a cartoonist and leading figure of the Expressionism art group alongside Kandinsky. He was one of the most famous modern artists in Germany who was born and grew up in New York City, traveling to Germany at 16 to study and perfect his art.

Antoni Gaudí was a Spanish architect famous for his own distinctive style of architecture.

Architecture = the art or practice of designing and constructing buildings.

Gaudi got some ideas from Neo-Gothic architecture, Art Deco and Oriental techniques and became part of the modernist movement in the late 19th and early 20th centuries.

Most of his work is located in Barcelona, including the church of the Sagrada Família.

Giacomo Costa is an Italian mixed media artist who creates imaginary and creating dystopian landscapes through manipulated photography. His photomontages have an environmental message about sustainability & reducing human impact on our world.

Photomontage = a montage constructed from photographic images.

Painting Perspective:

Atmospheric perspective the effect that the atmosphere has on the tone and colour of a landscape when it is viewed over a distance.

3 key techniques to create the illusion of depth and distance in a landscape:

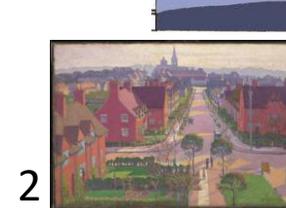
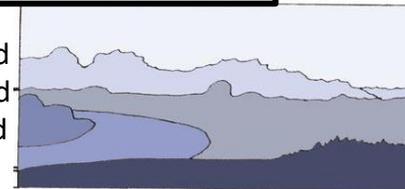
1. **The size of objects** become smaller the further they are from the viewer.
2. **There is less details in objects** that are further away from the viewer.
3. **The colours of objects** begin to fade the further they are from the viewer.

Painting Key Terms:

- Atmospheric perspective
- There are 3 components in a landscape painting - The Foreground, Mid-ground & Background
- Monochromatic colour= tints and shades of one colour



Background
Mid-ground
Foreground



1. Lyonel Feininger
 2. William Ratcliffe
- Both paintings show use of atmospheric perspective

Drawing & Perspective:

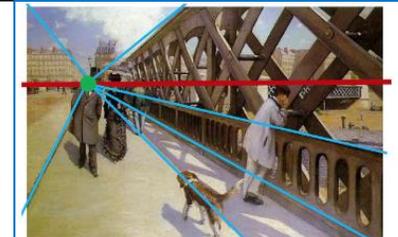
Perspective is the art of representing 3D objects on a 2D surface to create the illusion of space. Have you noticed that things look bigger if they are close to you and smaller if they are further away? This is perspective.

The invention of linear (one-point)-perspective in art is attributed to the Florentine architect **Brunelleschi** in the early 15th century. He observed that with a fixed single point of view, parallel lines appear to converge at a single point in the distance.

Depth = Depth in art refers to making objects appear closer or farther away and making a two-dimensional image seem three-dimensional.

Perspective Key Terms:

- Linear (one point) Perspective
- Vanishing Point, Horizon Line
- Parallel Lines, Converging Lines
- Depth, Distance



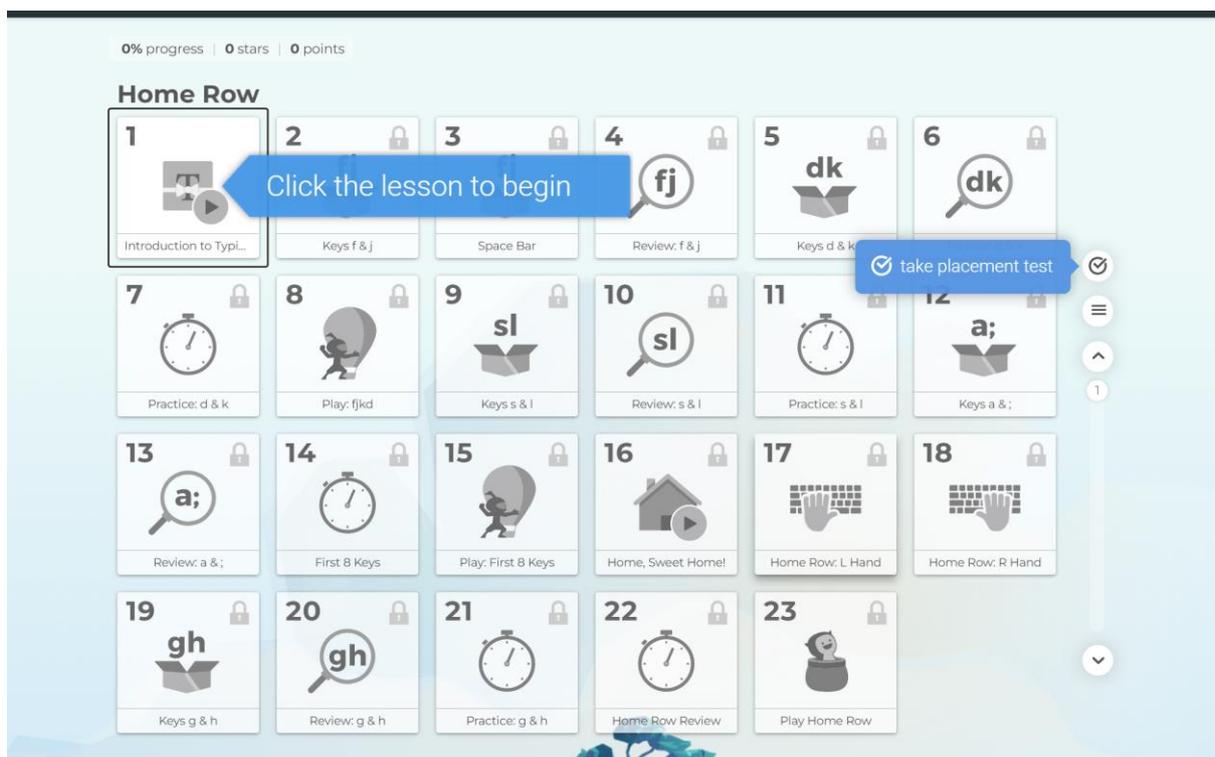
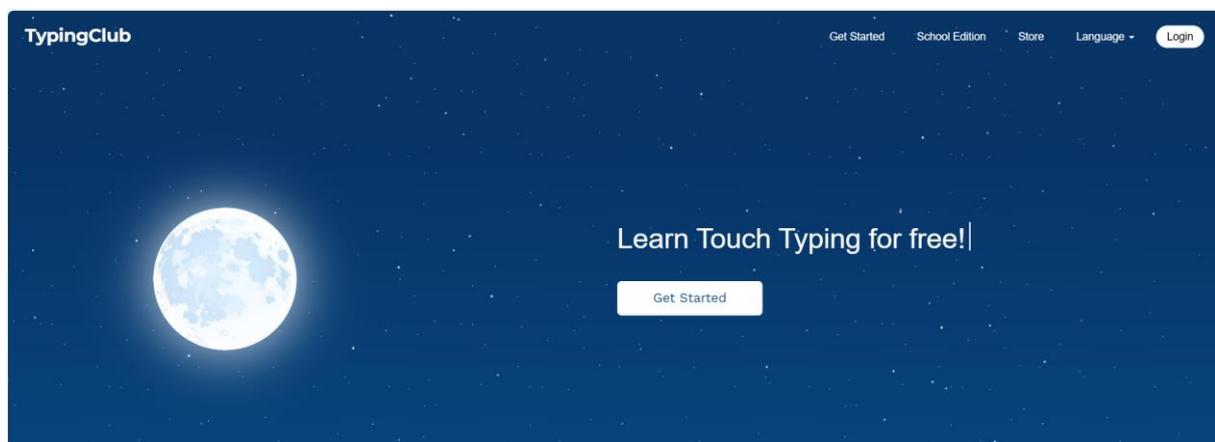
Keywords : Example
Horizon line **Vanishing point**
All lines going into the distance must intersect the vanishing point, these are called converging lines

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 6	Week 7	Week 8	Week 9	Week 10			
YEAR 8 DRAMA – CYCLE 3	Set Design Terminology	Drama Terms	Exam style questions:	Revision for Knowledge Organiser test:	Sound Glossary:			
	<p>Cloth: a piece of scenic canvas, painted or plain, which is flown or fixed to hang in a vertical position:</p> <ul style="list-style-type: none"> - A backcloth that hangs at the back of the scene - A floorcloth is painted canvas sheet placed on the stage floor to mark out the acting area or to achieve a particular affect - a frontcloth hangs downstage, often to mask a scene change. <p>Cyclorama: a fabric drop hung from a curved or segmented batten upon which light can be cast to create effects.</p> <p>Masking: flats used to mask parts of the stage from the audience.</p> <p>Tabs: curtains.</p> <p>Task: How could Frantic Assembly use a frontcloth in an interesting way? Consider the impact of physical theatre and how it would enhance the physical theatre?</p>	<p>Stage directions: instructions given by the playwright about how a play should be staged, when actors should make their entrances and exits and how lines should be delivered. Often in <i>italics</i>.</p> <p>Stock characters: characters who represent particular personality types or characteristics of human behaviour.</p> <p>Structure: the arrangement of the relationship between the scenes within a play or piece of devised theatre.</p> <p>Theatre maker: a professional who contributes to theatrical production such as performer, director or designer.</p> <p>Tragedy: a form of drama based on human suffering that invokes in its audience an accompanying catharsis.</p> <p>Turning point: the climax or high point of a story, when events can go either way.</p>	<p>Challenge question: A woman has been confronted by a male co-worker and told she cannot do her job properly because she is a woman. As a <u>director</u>, discuss how the performer playing this role might demonstrate his feelings to the audience.</p> <p>You must consider: Voice, Physicality, Stage space (Proxemics). (12 Marks)</p> <p>Challenge question: As a <i>director</i> discuss how you would use <u>one</u> of the production elements below to present ‘The office space’ to your audience, on stage. You should refer to the context of gender inequality.</p> <p>Choose one of the following: Costume, Props/Stage, Furniture or Staging (9 Marks)</p>	<p>Pick three sections you feel you need revise.</p> <p>You may choose to look over one week in particular you feel you don’t know as well.</p> <p>Use the following to support you with your revision:</p> <table border="1" style="margin: 10px auto;"> <tr><td style="background-color: #f4a460; text-align: center;">LOOK</td></tr> <tr><td style="background-color: #fff9c4; text-align: center;">COVER</td></tr> <tr><td style="background-color: #a2c4c9; text-align: center;">WRITE</td></tr> <tr><td style="background-color: #c8e6c9; text-align: center;">CHECK</td></tr> </table> <p>Draw a picture to represent your chosen word/section.</p> <p>Create flash cards that include your words/sections and their definitions.</p> <p>Put your word/section into a scenario. For example, “I used a cross tone when I told my dog off for eating my homework”.</p>	LOOK	COVER	WRITE	CHECK
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.

ENGLISH Start with Week 1. Each week, complete the next colour block. Write each word out 3 times and each definition once. Write as much of the theme/character information as you can remember. Check it all with a purple pen. Tick what is correct, fix what is wrong.

Coombeshead Academy Inspiring Excellence		English Learning Area			Year 8 key terms and Shakespeare		
wk	keyword	definition	example				
Week 1	Verb	Words that show an action, occurrence or state of being.	The man ran (action). The man became a rocket (occurrence). The man was a rocket (state of being).	Week 1	Digging Deeper: 1. Write your own sentence containing a verb that shows an action. 2. What do you notice about the ending of the adverbs? Write two of your own. 3. Copy this sentence: 'The sea attacked the shore.' Add an adjective to describe the sea and the shore. Draw a picture to show the sentence you wrote for question 3!		
	Adverb	A word that modifies a verb.	The man ran quickly . The woman ate hungrily .				
	Adjective	A word that modifies a noun.	The red door. The blue sky.				
	Exclamation marks	Punctuation used at the end of a statement	"Romeo! Humours! ...Passion! Lover!"				
	Tone	The overall attitude or mood of a text.	Using exclamation marks can create an angry or impatient tone.		indicate	To point out, show or imply	She highlighted the sentence to indicate how important it was to her argument.
	imagine	form a mental image or concept of.	she imagined him at his desk, his head in his hands		sufficient	Enough, adequate	She was concerned she hadn't provided sufficient evidence to support her theory.
Week 2	Pronoun	A word that replaces a noun.	Fred went to the shop. He bought some milk.	Week 2	Digging Deeper: 1. What other pronouns can you think of? 2. Write a simile to show the sun in Verona. 3. Write a metaphor to show how hot the weather is.		
	Simile	Where things are compared using 'like' or 'as'.	"Too rude, too boist'rous, and it pricks like thorn."				
	Metaphor	Where things are compared by saying that something 'is' something else.	"Her chariot is an empty hazelnut"				

	Semi colon	; used to join two main clauses	Obama: We are one; while we breathe, we will hope.			Draw a picture to show one of the example similes.
	Imperative sentence	An imperative sentence is a sentence that gives the reader an instruction, makes a request, or issues a command. They start with 'bossy verbs'	"Deny thy father and refuse thy name".		attain	Succeed in accomplishing something. To reach a goal. Only by sustained effort would he be able to attain his goals.
	determined	having made a firm decision and being resolved not to change it.	Romeo and Juliet were determined to be together, no matter the cost.		valid	Actually supporting the intended point of claim Having a sound basis in logic or fact She had to admit that it was a valid criticism, her work was poorly presented.
Week 3	Noun	The name of a person, thing or place.	Billy is in my class. Put the pen on the table . I am going to Exeter at the weekend.	Week 3	Digging Deeper: <ol style="list-style-type: none"> Write a sentence that contains the name of a person and place. What other texts have we looked at in Year 8? Research and write down the name of 3 other plays that Shakespeare wrote. <p>Watch this video on The Globe Theatre. Write down 3 things you learn about going to the theatre in Shakespeare's time. https://www.youtube.com/watch?v=D1rbtHchv1q</p>	
	Text	A book or other printed or written work.	'The Woman in Black' and 'Anne Frank's Diary' are both examples of texts .			
	Playwright Play/right	A person who writes plays.	Shakespeare was a playwright .			
	colon	Colon : Can be used before a list or before reported speech	There are two choices at this time: run away or fight.			
	stagecraft	The technical aspects of theatre production.	Lighting and scenery are both elements of stagecraft .		devise	To invent a plan, system or object using your intelligence and/ or imagination. They needed to devise a strategy to ensure they won the competition.
Necessary	Obligatory / required/ compulsory (never eat crisps, eat salad sandwiches and remain young)	It could be argued that what Romeo and Juliet did was necessary .		communicate	Share or exchange information or ideas As teachers they are expected to communicate quite complex	

						Convey an emotion or feelings in a non-verbal way	ideas in an easily understood and simple way.
Week 4	 Connective	A word or phrase that connects words/sentences.	Similarly, however, on the other hand.	Week 4	Digging Deeper: <ol style="list-style-type: none"> Write down 3 adjectives to describe Juliet. Now you know more about how women were viewed in Elizabethan times, how does Juliet's character fit this idea? Do you think the Capulet family are right to try and keep her from Romeo? <p>Write the first paragraph of a diary entry from Juliet, explaining her feelings.</p>		
	 Audience	The person/people a text is written for.'	'Romeo and Juliet' would have originally been performed to an Elizabethan audience.				
	Or/dee/un/s						
	Purpose	The reason a text is written.	Shakespeare would have originally written the play to entertain the monarch.				
	Elizabethan	The time period in which Elizabeth I was Queen.	The Elizabethan audience would have had very different values to a modern audience.				
	analogy	A comparison between one thing and another, typically for the purpose of explanation	Romeo uses an analogy when he compares Juliet to the sun.	invoke	1 cite or appeal to someone or something as an authority for an action or in support of an argument 2 to call on a deity or spirit in prayer, as a witness, or for inspiration	The muted colours and the quiet music were designed to invoke feelings of calm and peacefulness.	
although	in spite of the fact that; even though.	Although there was no sun, it was pleasantly warm.	implicate	Show to be involved in wrongdoing or a criminal act Convey a meaning indirectly through what one says, rather than stating it explicitly	Their close friendship meant that he was implicated in the scheme.		

Week 5	Dialogue Die/a/log	Speech between two or more characters.	There is lots of dialogue between Romeo and Juliet.	Week 5	Digging Deeper: 1. Write a small piece of dialogue between two people who realise they have feelings for each other. 2. Research 'Romeo and Juliet'. Why does it belong to the tragedy genre? 3. Write two simple sentences to describe your day. Draw a small storyboard to add an imaginary scene to 'Romeo and Juliet'.			
	Genre Shon/ra	A style or category of literature.	'Romeo and Juliet' belongs to the tragedy genre .					
	Simple sentence	A clause that contains a subject and a verb.	The woman ate the baguette. Subject Verb					
	ellipses	... Ellipses can express hesitation, changes of mood, suspense, or thoughts trailing off.	I don't know ... I'm not sure. Pride is one thing, but what happens if she ...?	Week 6				
	anecdote	a short amusing or interesting story about a real incident or person.	Juliet's nurse provides an anecdote about Juliet as a baby.			consist	To be composed of or to have as an essential feature	Computer passwords usually consist of a mixture of letters, numbers and special characters.
	History	The genre of plays about significant individuals throughout history.	Richard III is one of Shakespeare's histories .			investigate	Carry out a system or formal inquiry into an incident/ allegation so as to establish the truth Research into a subject	She has always wanted to be an investigative journalist; she wanted to uncover stories not just report on them.
Week 6	Narrative	A spoken or written telling of events; a story.	The narrative of 'Romeo and Juliet' is two people who fall in love but cannot be together.	Week 6	Digging Deeper: 1. Write the opening to a short story where someone is forbidden from doing something. 2. Go back over your opening and ensure you have included 2 compound sentences. 3. With a purple pen, add a rhetorical question to your story somewhere.			
	Compound sentence	Two main clauses joined with a connective.	The sun was shining and it was hot. Main clause / Connective					
	Persuasive	Being able to make someone do or think something in particular because of use of reasoning.	The Montague and Capulet families are unsuccessful at trying to dissuade Romeo and Juliet from pursuing each other.					



Per/swer/siv						Watch the video on this page: https://www.bbc.co.uk/bitesize/topics/zfdj6sg/articles/z7qbcmn How is Juliet different to other girls in this time period?
parenthesis	Punctuation used to separate a subordinate clause	The young people, who were protesting, wanted change.				
connotation	an idea or feeling which a word invokes for a person in addition to its literal or primary meaning.	Juliet's angel costume has connotations of purity and innocence.			conceive	To form or devise a plan or idea in the mind. To hold as an opinion Teachers are always trying to conceive innovative tasks to keep students engaged.
acceptable	1. able to be agreed on; suitable. 2. able to be tolerated or allowed.	"pollution in the city had reached four times the acceptable level"			evolve	Develop gradually Undergo slow changes With new information it is likely that her plans will change and evolve, possibly in unexpected directions.

Week 7	Complex Sentence	A main clause and a subordinate clause glued together with a comma.	Although it was raining, he went outside. Main clause Subordinate clause	Week 7	Digging Deeper: <ol style="list-style-type: none"> Write down 3 adjectives to describe Romeo. How is Romeo different to Tybalt? Write down a quotation to support your answer. Draw an image of both Tybalt and Romeo to illustrate your opinion of them. 	
	Monologue	A long speech given by one person	"What's in a name? that which we call a rose By any other name would smell as sweet"			
	Analysis Ana/la/sis	A detailed examination of something.	In English, we analyse texts to get an understanding of their deeper meaning.			
	Archetype Ar/key/type	An ideal version of something.	Juliet is portrayed as the archetypal naive young woman.			
	Comic relief	Where humour is used to lighten the tone.	Mercutio and the nurse provide humorous scenes/lines to develop Romeo and Juliet's love.			authority The power or right to give orders and enforce obedience. The power to influence other based on recognised knowledge or expertise The fathers of the Capulet and Montague families have authority over other members of the family.
	euphemism	The substitution of a rude or offensive word for a more acceptable one.	"I am fortune's fool!" (this is used instead of saying the 'victim of fate')			
Week 8	Alliteration Al/it/er/aa/shun	The same letter sound at the start of several words.	'The very pin of his heart cleft with the bow-boy's butt shaft.'	Week 8	Digging Deeper: <ol style="list-style-type: none"> Read this webpage: https://www.bbc.co.uk/bitesize/topics/zfdj6sg/articles/zxmckty What are the 3 key themes in the play? Write one sentence to summarise how each of them are important in the play. Draw an image to represent each key theme in the play. Use an image from the play itself, e.g. a character. 	
	Rhetorical Question	A question that is there to cause drama; it does not need an answer.	"What's in a name?"			
	Question mark	The punctuation that goes at the end of a sentence.	"What's in a name?"			
	Exclamation marks	Punctuation used at the end of a statement- used to show Romeo's excitement when he first sees Juliet.	"Forswear it, sight! For I ne'er saw true beauty till this night".			

	Hyperbole	Language that is exaggerated for dramatic effect.	"A plague on both your houses!" Mercutio says this after he has been injured to emphasise how much other people are being affected by the feud.		context	The circumstances that form the setting for an event, statement or idea, and in terms of which it can be fully understood.	It is important to look at the contextual clues when trying to work out the meaning of a text.
	Imagery	Use of language that is particularly descriptive or symbolic.	Romeo comparing Juliet to the sun demonstrates how beautiful and radiant he thinks she is.		modify	Make partial or minor changes	The design required a small modification to allow easy mass production.
Week 9	Protagonist	The main character in a story/narrative.	Romeo and Juliet are the protagonists in the play.		Digging Deeper:		
	Triplet/Rule of Three	When three words/phrases/ideas are used to create effect	"Romeo, Romeo, Romeo!"		<ol style="list-style-type: none"> 1. Write down everything you have learned about Friars. 2. How could the Friar's behaviour be interpreted? Hint: It could be seen as c_____ OR m_____. 3. Who do you believe is to blame for the deaths of Romeo and Juliet? 		
	Fronted Adverbial	An adverb, or phrase that works like an adverb, at the start of a sentence	As Juliet stood on the balcony, Romeo declared his love for her.				
	Irony	Where the meaning of something is the opposite of what is expected.	The Friar's suggestion that Juliet fake her own death is ironic because he is a man of God.				
	Juxtaposition	A contrast in ideas with a purpose to compare them.	The wedding of Romeo and Juliet versus the street fight that happens in the next scene.		affect	To have an effect To make a difference to	He knew that the decisions he made now would affect his future.
	satire	Where humour is used to ridicule someone's intelligence.	The feud of the Montagues and Capulets is satirical because they create huge conflict over silly things.		denote	Be a sign of/ indicate Stand as a name or symbol	The colour white is frequently used to denote peace or innocence.
Wee	Antagonist	The character that goes against the main character creating conflict.	Nearly every character in the play is an antagonist because they all stand in the way of Romeo and Juliet's love.		Digging Deeper:		
					<ol style="list-style-type: none"> 1. Research another example of a famous feud. 		

Week 1 & 2

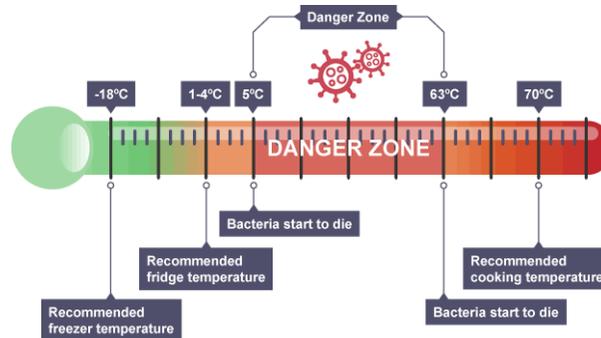
Food Poisoning bacteria, symptoms and causes

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 of bacteria	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 burger Unwashed contaminated fruit

Symptoms of food poisoning:

- Vomiting
- Diarrhoea
- Nausea
- Stomach pains
- Dehydration

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 3 & 4

Cooking of food and heat transfer

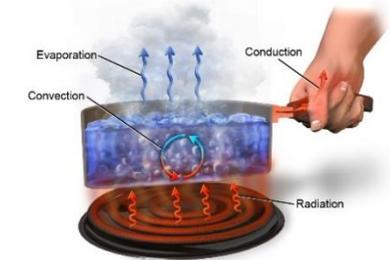
We cook foods for many different reasons including:

1. To **destroy** harmful bacteria
2. To **improve** colour, flavour, smell and texture of food
3. To make food **last longer**
4. To make the diet more **varied**

Heat is transferred to foods by **3 different methods:**

- Conduction
- Convection
- Radiation

Mechanisms of Heat Transfer



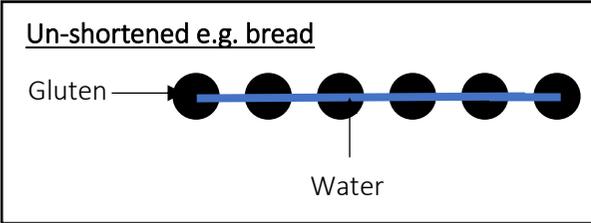
Conduction is when the heat travels through solid materials like metal as well as food. Heat is conducted from molecule to molecule in a liquid or solid. Metal saucepans usually have plastic or wooden handles so that they don't conduct too much heat when they're used.

Convection is when heat travels through air or water. The movement of heat in water or in the air is called the convection current. Boiling water is an example.

Radiation is when heat rays directly warm and cook food. Heat travels from one place to another. A microwave, grill or BBQ are good examples of radiation heat transfer

Questions:

1. Explain three reasons why we cook food.
2. What are the 3 methods of heat transfer used when cooking?
3. Name three foods that can be cooked by radiation
4. Name 3 foods that can be cooked through conduction
5. Name 3 foods that can be cooked through convection

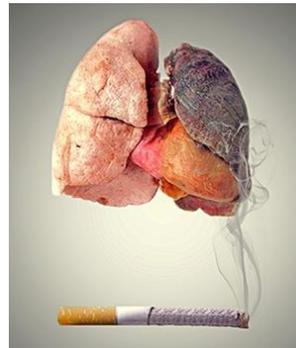
<p style="text-align: center;">Week 5 & 6 Shortening and aeration</p>	<p style="text-align: center;">Week 7 & 8 Denaturation and coagulation</p>
<p>Butter, oil and fat spreads are types of fats</p> <p>Fats have lots of different functions when used in cooking</p> <p>2 really important functions that fats have are shortening and aeration</p> <p>Adding fat to biscuits and pastries gives a crumbly texture and is called shortening.</p> <p>When fat is rubbed into the flour using the fingertips, fat surrounds the gluten in flour and creates a waterproof coating</p> <p>This will stop the water becoming absorbed into the flour creating a “short” texture and stops biscuits and pastry becoming tough</p> <div data-bbox="524 403 1115 866" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">Shortened e.g. pastry</p>  <p style="text-align: center;">Un-shortened e.g. bread</p>  </div> <p>Definitions:</p> <ul style="list-style-type: none"> • Aeration is when air is trapped in a mixture. Air needs to be added to mixtures to give a springy texture. • Stable foam = a lasting foam where the air stays trapped in the mixture until its baked • Caramelisation is when sugar is heated and starts to turn from clear to dark amber colour with a deeper flavour developing. Over-heating creates a black colour and bitter taste. <p>Questions:</p> <ol style="list-style-type: none"> 1. Describe what shortening is, how it happens giving an example 2. Describe what aeration is, how it happens giving an example 3. Describe the difference between a shortened food and an un-shortened food 4. Give 3 foods that have natural sugars that would caramelise during baking 	<p>Eggs are a really good source of protein and contain all of the essential amino acids</p> <p>In certain conditions protein can denature (change shape) and then coagulate (set)</p> <p>Denaturation: happens when long chains of amino acids that make up protein unfold. There are 3 ways to denature proteins:</p> <p>Mechanical action</p> <ul style="list-style-type: none"> • When egg whites are whisked, the protein in the egg white will denature • The protein stretches into strands and allows air to be trapped in the structure • If whisking continues, a gas-in-liquid foam is formed <p>Using an acid</p> <ul style="list-style-type: none"> • Vinegar is added to the water to speed up the denaturation of the egg protein when poaching. • Lemon juice is used in marinades. The acid will start to denature the protein before its cooked to tenderise. <p>Using heat</p> <p>Proteins denature when heated. This is the first stage of coagulation (setting)</p> <p>Coagulation:</p> <p>Coagulation happens when the protein in food sets during the cooking process.</p> <p>Eggs change at different temperatures when they're cooked:</p> <ul style="list-style-type: none"> • Egg white goes hard and coagulates (sets) at 60°C • Egg yolk coagulates and becomes hard at 70 °C <p>Questions:</p> <ol style="list-style-type: none"> 1. What is the main nutrient found in eggs? 2. What are the 3 main methods of denaturation? 3. Explain why an egg white can be set, but the yolk is still runny after cooking 4. Describe the difference between denaturation and coagulation



Lesson 1 and 2– Personal Hygiene	Lesson 3 and 4 – Mental Wellbeing
<p>Places to access support www.dentalhealth.org www.nhs.uk/change4life/food-facts/sugar</p>	<p>Places to access support https://www.youngminds.org.uk https://www.kooth.com/</p>
<p>Content: Personal hygiene is how you care for your body. This practice includes bathing, washing your hands, brushing your teeth, and more.</p> <p>Every day, you come into contact with millions of outside germs and viruses. They can linger on your body, and in some cases, they may make you sick.</p> <p>Personal hygiene practices can help you and the people around you prevent illnesses. They can also help you feel good about your appearance. For example, teenager should wash their bodies and use deodorant every day to avoid body odour.</p> <p>Personal health:</p> <ul style="list-style-type: none">• dental hygiene• sun safety• self-examination• vaccinations  <p>Tooth decay and tooth loss is the leading dental problem for children in the UK. Brush at least twice daily for about 2 minutes with fluoride toothpaste. Brush last thing at night before bed and at least on 1 other occasion.</p>	<p>Content: Mental Health- a person’s condition with regard to their psychological and emotional well-being.</p> <p>Your self-esteem is how you think and feel about yourself.</p> <p>Resilience is a skill that helps people to recover quickly from difficulties, change or misfortune; to adapt to and overcome risk and adversity; to persevere and ‘bounce back’.</p> <p>Digital resilience involves having the ability to understand when you are at risk online, knowing what to do if anything goes wrong, learning from your experiences of being online, and being able to recover from any difficulties or upsets.</p> <p>Body image is how we think and feel about ourselves physically, and how we believe others see us.</p> <p>When we talk about body image, there are lots of ways we can think about our body and the way we look. You might find that there are times when you like your body, or parts of your body, and times when you struggle with how you look.</p>
<p>Questions</p> <ol style="list-style-type: none">1. What is personal hygiene?2. Give an example of how someone can look after their personal hygiene3. How many times should a teenager wash their bodies with soap and water?4. How many times a day should you brush your teeth?5. How could you encourage someone to look after their dental health?	<p>Questions</p> <ol style="list-style-type: none">1. Define mental health2. What is self-esteem?3. If someone is resilient, what are they?4. What is body image?5. What might impact our body image?



Lesson 5 and 6– The Effects of Smoking and Vaping	Lesson 7 and 8 – The Effect of Alcohol
<p>Places to access support https://www.nhs.uk/live-well/quit-smoking/nhs-stop-smoking-services-help-you-quit/</p>	<p>Places to access support https://www.nhs.uk/live-well/alcohol-advice/alcohol-support/</p>
<p>Content: Smoking is the number one preventable cause of death, disability and ill health in the UK. It causes around 80,000 deaths a year, causes 1-in-4 of all cancer deaths and kills up to two-thirds of its long-term users</p> <p>Nicotine is an addictive stimulant found in tobacco Tobacco is a plant grown for its leaves and is used in cigarettes,</p> <p>A person who smokes throughout their life is at high risk of developing a range of potentially lethal diseases, including: cancer of the lung, mouth, nose, larynx, tongue, nasal sinus, oesophagus, throat, pancreas, bone marrow (myeloid leukaemia), kidney, cervix, ovary, ureter, liver, bladder, bowel and stomach.</p> <p>You must be over 18 to buy cigarettes in the UK. If you're under 16 the police have the right to confiscate your cigarettes. It's illegal: for shops to sell you cigarettes if you are underage.</p> <p>The government is creating a Tobacco and Vapes Law 2025 to make the UK smoke-free. It will stop kids under 15 from buying tobacco, extend the smoking ban to outdoor areas, and make public places vape-free. The Bill also bans ads for vapes, stops sales to under-18s, and creates rules for stores selling these products, with fines for breaking the law.</p>	<p>Content: It is against the law to buy alcohol under 18 years old. Under 18s can be stopped, fined or arrested by police if caught drinking alcohol in public.</p> <p>Short-term effects of alcohol could include: dehydration, lack of inhibitions and feeling sociable – leading to ‘out of character’ behaviours, feeling sick, feeling drowsy, vomiting, headache, diarrhoea, dizziness and lack of coordination, loss of personal possessions, making poor decisions such as overspending, being at greater risk in certain situations, accidents and injuries due to falling over, memory loss, a ‘hangover’ the following day and alcohol poisoning.</p> <p>Long-term effects of alcohol use (which can take many years to develop) include: health issues such as high blood pressure, stroke, cirrhosis/liver disease, effects on mood such as anxiety and depression, fertility issues, cancers including liver, bowel, breast and mouth; alcohol dependency; consequences of unwise actions while drunk including relationship changes and feelings of regret, and serious injuries.</p> <p>As well as having a significant impact on your health, alcohol misuse can also have long-term social implications. For example, it can lead to:</p> <ul style="list-style-type: none">• family break-up and divorce• domestic abuse• unemployment• homelessness• financial problems
<p>Questions</p> <ol style="list-style-type: none">1. What is nicotine?2. What is tobacco?3. How many deaths a year are caused by smoking in the UK?4. What is the new Tobacco and Vapes law coming into effect in June 2025?5. Give an example of a cancer that smokers are at risk of developing.	<p>Questions</p> <ol style="list-style-type: none">1. How old must you be to buy alcohol in the UK?2. Give a short-term effect of drinking alcohol3. Give a long-term effect of drinking alcohol4. Give an example of a social effect of drinking alcohol5. Where might someone seek support for alcohol misuse?



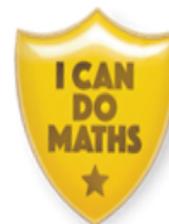


Lesson 9 and 10– First Aid	
<p>Places to access support https://www.sja.org.uk/get-advice/first-aid-advice/</p>	
<p>Content: If you find yourself in an emergency situation, try to stay calm and do what you can until emergency help arrives.</p> <p>Assess the situation Is it safe to approach the casualty? Don't put yourself in danger</p> <p>Stay calm Try to think clearly</p> <p>Comfort and reassure the casualty Give emergency help Prioritise the most life-threatening conditions Try to treat any casualties where you find them Ask bystanders to help you if they can Call 999 for emergency help</p> <div style="border: 2px solid green; padding: 10px; margin: 10px 0;"><p>Use DR ABC to identify life threatening conditions</p><p>Remember the unresponsive casualties are at greatest risk.</p><p>Danger Response Airway Breathing Circulation</p></div> <p>Calling for help in an emergency: Location. Tell them where the emergency is and where you want them to arrive. Incident. Tell them what has happened. Other services. Do you need more than one? Number of people that are involved. Extent of the injuries. What types of injuries do people have? Location. Repeat again where they need to arrive.</p>	
<p>Questions</p> <ol style="list-style-type: none">1. What should you do first when you find yourself in an emergency situation?2. Why is it important to stay calm during an emergency?3. What information should you give when calling 999 for emergency help?4. How can you help the casualty if you can't move them?5. What should you prioritise when giving emergency help to someone?	

Y8C3 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

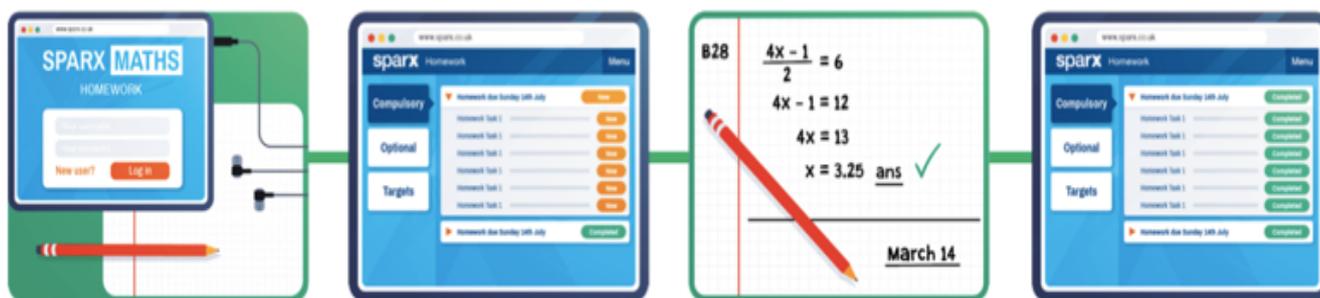
- Do Sparx on the days in the homework timetable
- **Compulsory Homework:** You must do this part of your homework every week
- **XP Boost/Target Homework:** Do this to gain loads of XP and to improve your maths!

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:

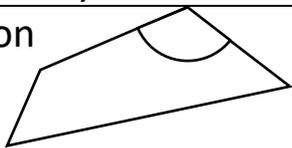
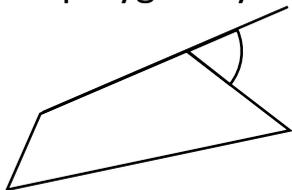
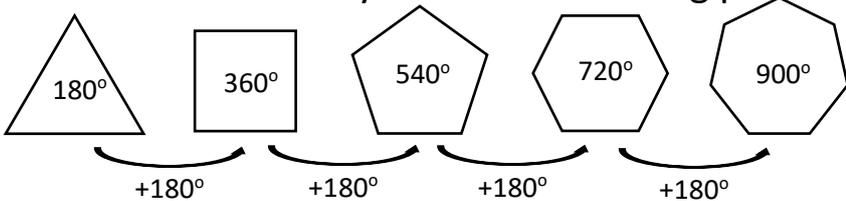
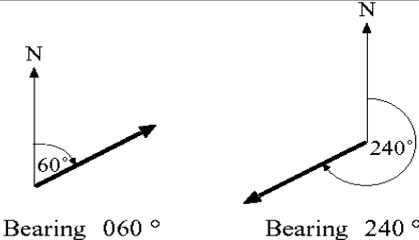
- Write down the date
- Write down your bookwork code
- Read the question carefully
- Show all your workings
- Highlight/underline your final answer
- Tick if correct/cross if wrong



We want you to do well with your maths and doing Sparx will help. If you've tried something, watched the video and are still not sure how to do something make sure you ask for help! You're expected to complete it every week and catch up if you haven't.

Your Maths Homework is to complete your sparx

Your Maths Homework is to complete your sparx

Y8C3 Maths Key knowledge	
Item	Description
Prime number	A number with exactly two distinct factors.
Product	Multiplication
Volume of a prism	$volume\ of\ a\ prism = area\ of\ the\ cross\ section \times length$
Volume of a cylinder	$volume\ of\ a\ cylinder = \pi \times radius^2 \times length$
Certain	Represented by a probability of 100% or 1
Impossible	Represented by a probability of 0% or 0
Interior angle	An angle inside a polygon 
Exterior angle	An angle formed outside a polygon by extending a side. 
The interior angle sum of a polygon	The interior angle sum for a polygon depends on the number of sides. They form the following pattern: 
The exterior angle sum of a polygon	Exterior angles always add up to 360°
Angles in a pie chart	Always add up to 360°
Bearing	A bearing is an angle measured clockwise from north 

Year 8 – Musical Theatre – Knowledge Organiser

Key Words

Opera	A play, set to music, sung and acted, with scenery, costumes and lighting.
Chorus	as well as being a part of a song, a “chorus number” in an opera or musical is a song performed by the whole cast or a number of voices together.
Musical	a drama characterised by storyline, plot and characters interspersed with dialogue and different musical numbers including solos, duets and chorus numbers and including scenery, costumes and choreography
Overture	A piece of instrumental music composed as an introduction to a musical.
Solo	A song for a single voice, with or without instrumental accompaniment
Duet	A song for a two voices, with or without instrumental accompaniment

Music Theory

Chord	a group of two or more pitched notes played at the same time.
Melody	a tune or succession of notes, varying in pitch, that have an organised and recognisable shape
Vamp	a way of performing notes of a chord in a improvisatory, yet organised style
Bass Line	The lowest sounding layer in a piece of music played by a bass instrument e.g. bass guitar, double bass, piano (left hand part)

Musical Theatre Facts

Musical Theatre combines song, spoken dialogue, acting and dance.

Musical Theatre originated in Ancient Greece.

The ‘musical’ was invented by a French composer called ‘Herve’ when he was experimenting with a form of comic musical theatre he called ‘Operette’.

The Phantom of the Opera is the most successful musical of all time.

Song Types in Musical Theatre

Solo: A solo is a song sung by only one character. Solo songs are often deeply meaningful and give an insight into what the character is thinking and feeling in the moment.

Duet: Duets are songs sung by 2 characters. These often include vocal harmonies and question and answer phrasing to suggest a certain relationship or conversation between the two characters.

Chorus: Chorus songs are often (but not always) the big, catchy songs that show what the musical is about. These are usually sung by the chorus in the show or, quite often, everyone in the cast. Chorus numbers often open or close the different acts and show major changes that affect a large number of characters.

Ensemble: Ensemble songs are usually sung by a group of the main characters. The group size can range anywhere from 3 to about 10 singers. Often different characters will have solo lines within the song, but the whole ensemble will come together to sing the chorus.

Section 4: Chords and basslines

Chord Vamp for ‘All That Jazz’



This is based on the chord of C major which uses the notes C, E and G. Here, the notes are arranged in a different order with “G” being performed lower, below “middle C”.

Bassline for ‘All That Jazz’



What Makes a Good Song?

Exploring Popular Songs and Musical Arrangements



A. Popular Song Structure

SONG STRUCTURE – How a song is made up of or divided into different sections (see below) and the order in which these sections occur. To work out the structure of a song, it's helpful to analyse the **LYRICS** and listen to a recording for the song (for instrumental sections).

INTRO – often shortened to 'intro', the first section of a song which sets the mood of the song and is sometimes, but not always, an instrumental section using the song's chord pattern.

VERSES – songs normally have several verses. Verses introduce the song's theme and have the same melody but different lyrics for each verse which helps develop the song's narrative and story. Songs made up entirely of verses are called **STROPHIC**.

LINK – a optional short section often used to join different parts of a song together, often instrumental, and sometimes joins verses together or appears at other points within a song.

PRE-CHORUS – an optional section of music that occurs before the **CHORUS** which helps the music move forward and "prepare" for what is to come.

CHORUS – occurs several times within a song and contains the most memorable **HOOK/RIFF**. The chorus relays the message of the song and is repeated with the same melody and lyrics each time it is heard. In popular songs, the chorus is often repeated several times towards the end of the song.

MIDDLE 8/BRIDGE – a section (often 8 bars in length) that provides contrasting musical material often featuring an instrumental or vocal solo using new musical material allowing the performer to display their technical skill on their instrument or voice.

CODA/OUTRO – The final section of a popular song which brings it to an end (Coda is Italian for "tail"!)

B. Key Words

LYRICS – The words of a song, usually consisting of **VERSES** and a **CHORUS**.

HOOK – A 'musical hook' is usually the 'catchy bit' of the song that you will remember. It is often short and used and repeated in different places throughout the piece. Hooks can be either **MELODIC, RHYTHMIC** or **VERBAL/LYRICAL**.

RIFF – A repeated musical pattern often used in the introduction and instrumental breaks in a song or piece of music. Riffs can be rhythmic, melodic or lyrical, short and repeated.

MELODY – The main tune of the song often sung by the **LEAD SINGER**.

COUNTER-MELODY – An 'extra' melody often performed 'on top of' the main melody that 'fits' with it a **DESCANT** or **INSTRUMENTAL SOLO**.

TEXTURE – The layers that make up a song e.g., *Melody, Counter-Melody, Hooks/Riffs, Chords, Accompaniment, Bass Line*.

C. Lead Sheet Notation and Arrangements

A **LEAD SHEET** is a form of musical **NOTATION** that contains only the essential elements of a popular song such as the **MELODY, LYRICS, RIFFS, CHORDS** (often as guitar chord symbols) and **BASS LINE**; it is not as developed as a **FULL SCORE ARRANGEMENT** and is open to interpretation by performers who need to use and adapt the given elements to create their own musical **ARRANGEMENT**: their "version" of an existing song.

COVER (VERSION) – A new performance, remake or recording by someone other than the original artist or composer of the song.

D. Conjunct and Disjunct Melodic Motion

CONJUNCT MELODIC MOTION – Melodies which move mainly by step or use notes which are next to or close to one another.

DISJUNCT MELODIC MOTION – Melodies which move mainly by leap or use notes which are not next to or close to one another.

MELODIC RANGE – The distance between the lowest and highest pitched notes in a melody.

E. Song Timbre and Sonority (Instruments that are used to Accompany Songs)

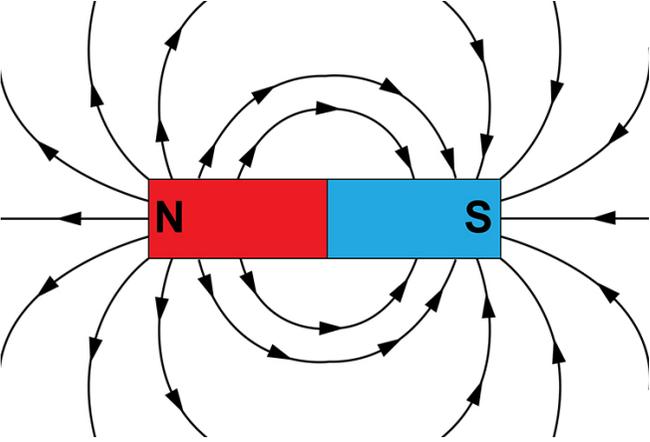
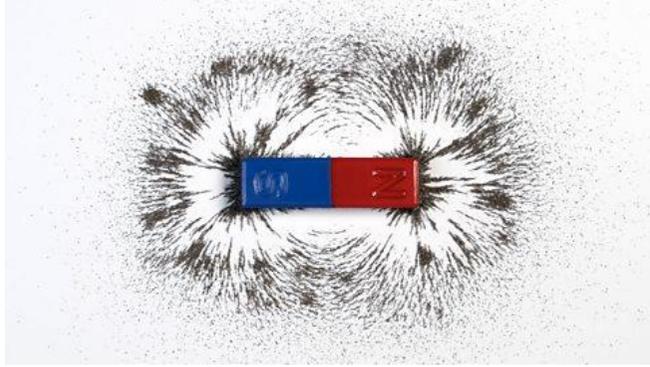
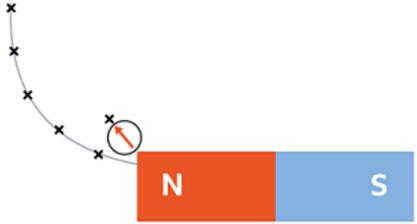


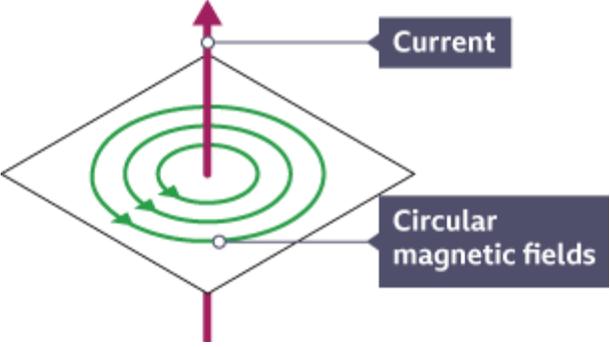
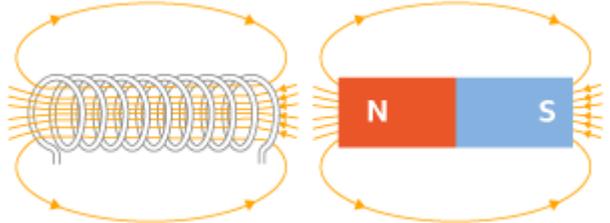
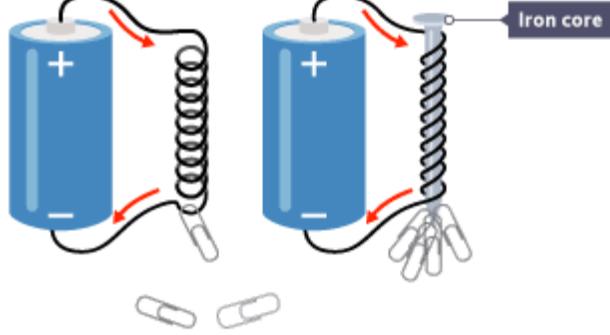
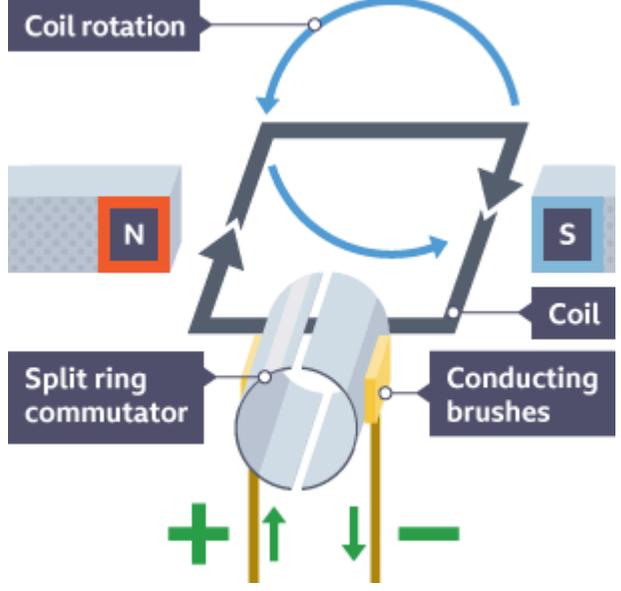
Pop Bands often feature a **DRUM KIT** and **PERCUSSION** to provide the rhythm along with **ELECTRIC GUITARS (LEAD GUITAR, RHYTHM GUITAR and BASS GUITAR)** and **KEYBOARDS**. Sometimes **ACOUSTIC INSTRUMENTS** are used such as the **PIANO** or **ACOUSTIC GUITAR**. **ORCHESTRAL INSTRUMENTS** are often found in pop songs such as the **STRINGS, SAXOPHONE, TROMBONE** and **TRUMPET**. Singers are essential to a pop song - **LEAD SINGER** – Often the "frontline" member of the band (most famous) who sings most of the melody line to the song. **BACKING SINGERS** support the lead singer providing **HARMONY** or a **COUNTER-MELODY** (a melody that is often higher in pitch and different, but still 'fits with' the main melody) and do not sing all the time but just at certain points within a pop song e.g. in the chorus.



Year 8 Cycle 3 Sport and PE Knowledge Organiser

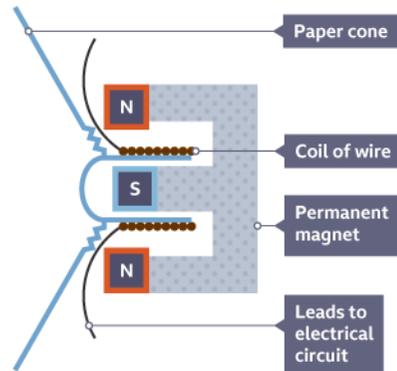
Week 1 and 2	Week 3 and 4	Week 5 and 6	Week 7 and 8	Week 9 and 10	Week 11 & 12
<p>Goal setting – performance and outcome</p>	<p><u>SMART principles</u></p>	<p><u>Information processing</u></p>	<p><u>Guidance – visual, verbal, mechanical & manual</u></p>	<p><u>Feedback – Intrinsic & extrinsic</u></p>	<p><u>Application & review</u></p>
<p>To improve, athletes and their coaches set goals to work towards. There are two types, performance goals and outcome goals.</p> <p>Setting goals help athletes physically & mentally.</p> <p>Performance goals – These are personal benchmarks that athletes use to improve small aspects of their own performance. e.g. A cyclist may try to change their position slightly to be more aerodynamic or a golfer may try to relax her/his grip ever so slightly in the swing.</p> <p>Outcome goals – These form actual data, where the end result is all that matters. e.g. The actual time the athlete finished in or the distance the athlete threw. e.g. The actual % possession the team had in offence.</p> 	<p>Once goals are set, the following principles should be followed:</p> <p>S – Specific – The goals should be targeted towards the actual sport, the actual skill needed or the type of fitness required.</p> <p>M – Measurable – The goal will need to be recorded and compared against data to see if it is working?</p> <p>A – Accepted – Do the athlete and coach agree to the goal?</p> <p>R – Realistic – is it possible? Can the goal be completed in the time given?</p> <p>T – Time-bound – There must be a time given to achieve this goal.</p> 	<p>Information processing – the process an athlete/performer goes through when they make and act upon a decision.</p> <p>There are 4 parts:</p> <ol style="list-style-type: none"> Input – this is what the performer sees, feels, hears from their environment. The performer ‘chooses’ which input to focus on. Decision-making – the performer selects a response, a movement or a skill from memory. Output – the skill/movement specific muscles are selected and activated. Feedback – the performer feels, sees or receives the feedback from the output; was it successful or not? 	<p>This is the method used to give information to the athlete/performer.</p> <p>Visual – we can give information through videos, pictures, court/pitch markings or by live demonstrations.</p> <p>Verbal – A coach or captain describes how to perform a skill or set of skills.</p> <p>Mechanical – these are aids/tools used to help the performer e.g. harnesses in climbing or floats in swimming.</p> <p>Manual – This is where the coach physically supports the athlete/performer to show them the correct movement pattern.</p> 	<p>Feedback is the information a performer/athlete receives during or after a performance.</p> <p>Intrinsic – This is feedback the athlete receives from within i.e. he/she just ‘knows’ based on previous performances. This can be positive and/or negative.</p> <p>Extrinsic – This is feedback received from coaches, fellow athletes, video or spectators.</p> 	<p>Athletes are motivated by different things, from within themselves and/or by external factors.</p> <p>Goal setting is the outcomes of SMART principles are dependent upon the athlete’s motivation to succeed. Coaches, team-mates and other support systems can help.</p> <p>As a performer becomes more experienced, he/she is able to draw upon more feedback to help the information processing (4 part) sequence.</p> 

<p align="center">Lesson 1 Magnetic Fields</p>	<p align="center">Lesson 2 Experimenting with Magnets</p>	<p align="center">Lesson 3 Interacting Magnets</p>
<p>Magnetism is a non-contact force that can act at a distance</p> <p>A magnetic field is the region around a magnet where a force may be felt</p> <p>Every magnet has a North and South pole</p>  <p>A magnetic field is shown by drawing lines showing the direction the magnetic force would act in</p> <p>Magnetic field lines are drawn going from North to South</p>	<p>Iron filings can be used to show the shape of a magnetic field</p>  <p>We can also use small compasses called plotting compasses to find the direction of the magnetic field at different points around a magnet</p> 	<p>Magnetic materials like Iron, Nickel and Cobalt are always attracted towards a magnet</p> <p>A magnet may be either attracted or repelled by another magnet</p>  <p>Poles of the same type (North-North or South-South) will repel</p> <p>Poles of the opposite type (North-South or South-North) will attract</p> 

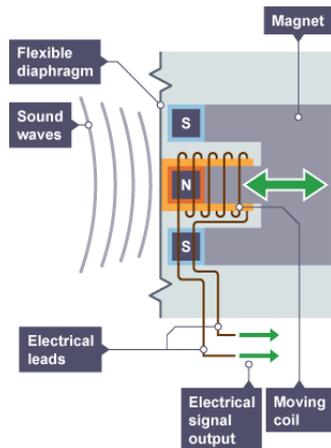
<p align="center">Lesson 4 Electromagnets</p>	<p align="center">Lesson 5 & 6 Investigating the Strength of an Electromagnet</p>	<p align="center">Lesson 7 The Motor Effect</p>
<p>An electric current flowing in a wire creates a magnetic field:</p>  <p>The magnetic field gets weaker as you get further from the wire.</p> <p>If we coil the wire up into a solenoid, the shape of the magnetic field around it is very similar to a bar magnet:</p> 	<p>Hypothesis: An idea that can be tested by experiment</p> <p>Independent Variable: The one thing you change in an experiment.</p> <p>Dependent Variable: The thing you measure in an experiment.</p> <p>Control Variable: All of the things you keep the same in an experiment.</p> <p>3 main factors affect the strength of an electromagnet:</p> <ul style="list-style-type: none"> • The number of turns of wire • The size of the current • Adding an iron core 	<p>If a current carrying wire is in a magnetic field, it experiences a force. This is called the motor effect.</p>  <p>We can use this effect to make an electric motor:</p> <ul style="list-style-type: none"> • The current flows in the coil giving it a magnetic field • The magnetic field of the coil interacts with the magnetic field of the permanent magnet • This causes the coil to feel a force and rotate • The rotation is the output of the electric motor

**Lesson 8
Uses of Electromagnets**

The motor effect is used in speakers and headphones to generate movement and sound waves from electrical current

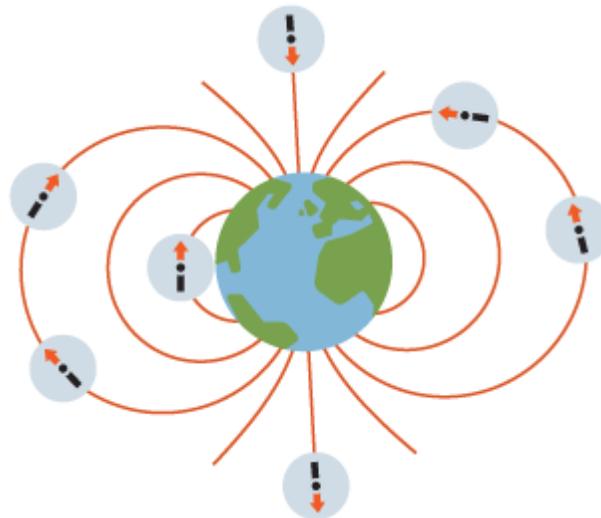


In a microphone, the soundwaves move a magnet in a coil of wire inducing a current



**Lesson 9
The Earth's Magnetic Field**

The Earth has a magnetic field caused by the movement of liquid iron in its core



The Earth's magnetic field causes the aurorae and protects us from the charged particles from the Sun that cause them

Without the Earth's magnetic field, we wouldn't have an atmosphere

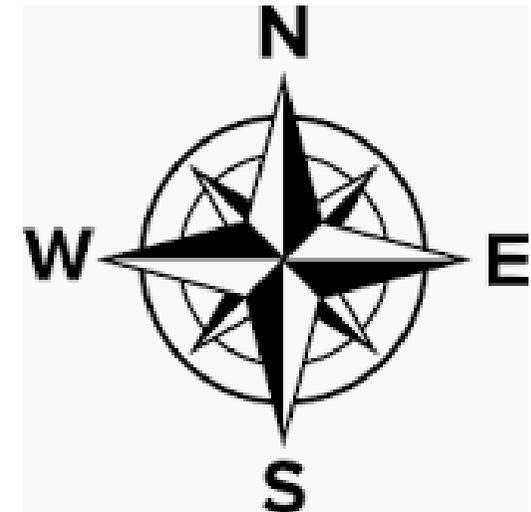
**Lesson 10
Making a Magnetic Compass**

A magnetised needle that is free to move will follow the lines of the Earth's magnetic field

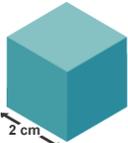
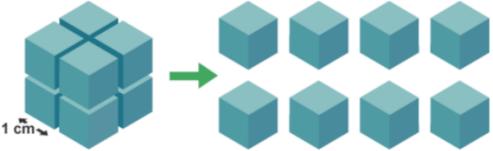
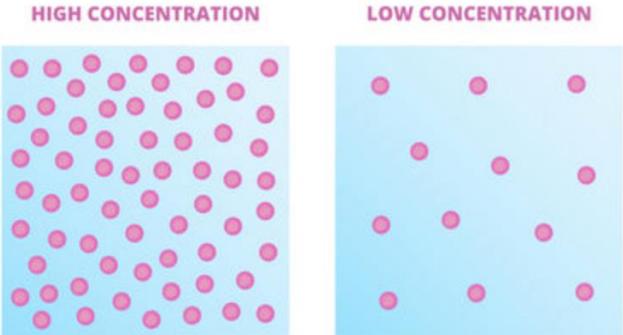
We can make a compass by floating a magnetised needle on a piece of cork so it is free to move

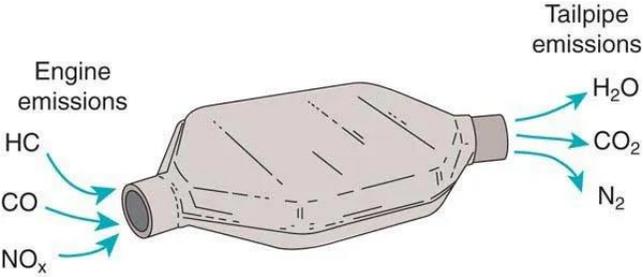
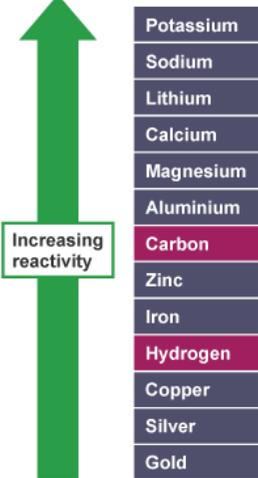
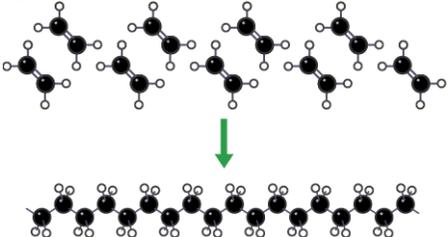
The compass will align along a line from North to South

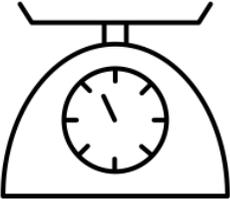
Even with GPS, magnetic compasses are still used today for navigation by ships and planes



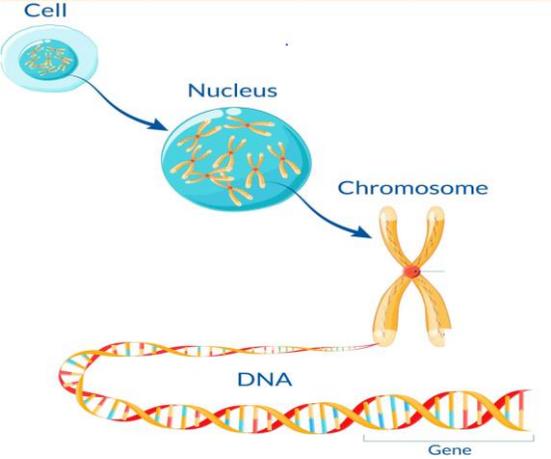
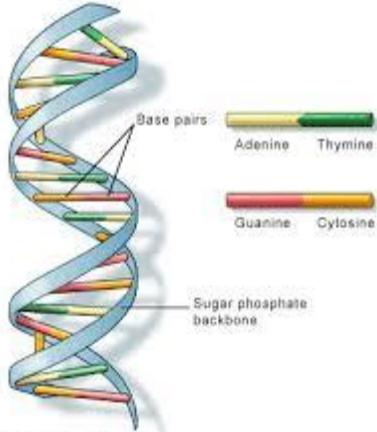
<p>Lesson 1:</p> <ol style="list-style-type: none"> 1. What type of force is magnetism? 2. What is a magnetic field? 3. Name the 2 poles of a magnet 4. Draw the shape of the magnetic field around a bar magnet 5. Which direction do the arrows on magnetic field lines follow? 	<p>Lesson 2:</p> <ol style="list-style-type: none"> 1. Filings of which type of metal are used to show the field pattern of a magnet? 2. Describe how they can be used to do this 3. What is a plotting compass? 4. Describe how to use a plotting compass to show the shape of a magnetic field 	<p>Lesson 3:</p> <ol style="list-style-type: none"> 1. Name 3 magnetic materials 2. Describe how the following combinations of magnetic poles would interact (attract or repel) <ol style="list-style-type: none"> a) North and North b) North and South c) South and South 3. Would a piece of iron be attracted or repelled by a magnet? 	<p>Lesson 4:</p> <ol style="list-style-type: none"> 1. Describe the shape of the magnetic field around a current carrying wire 2. What is the name given to a coil of wire? 3. Sketch the shape of the magnetic field around a coil of wire 4. What is this shape similar to? 	
<p>Lesson 5 &6:</p> <ol style="list-style-type: none"> 1. What is an independent variable? 2. What is a dependent variable? 3. What is a control variable? 4. Name 3 factors that affect the strength of an electromagnet 	<p>Lesson 7:</p> <ol style="list-style-type: none"> 1. What is the motor effect? 2. Fill in the missing words: The c_____ flows in the coil giving it a magnetic field The magnetic f_____ of the coil interacts with the magnetic field of the permanent m_____ This causes the coil to feel a f_____ and rotate The rotation is the output of the electric m_____ 	<p>Lesson 8:</p> <ol style="list-style-type: none"> 1. Which effect is used in loudspeakers to generate sound? 2. Which part of a loudspeaker causes the air to vibrate? 3. True or false – a microphone works in the same way as a loudspeaker 4. What is the output of a microphone? 	<p>Lesson 9:</p> <ol style="list-style-type: none"> 1. What causes the Earth’s magnetic field? 2. Name an effect produced by the Earth’s magnetic field 3. What does the Earth’s magnetic field protect us from? 4. What would be lost without the Earth’s magnetic field? 	<p>Lesson 10:</p> <ol style="list-style-type: none"> 1. Describe how to make a magnetic compass 2. Will a magnetic compass align north to south, or east to west? 3. Which magnetic field does a compass align with? 4. Suggest a use for a magnetic compass 5. Suggest a job where you might use a compass

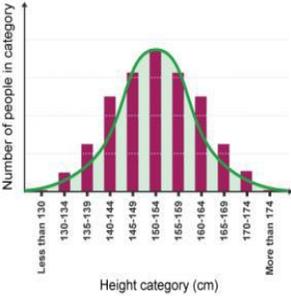
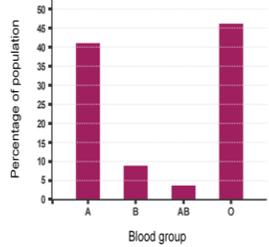
<p align="center">Lesson 1 Rates of Reaction – Surface Area</p>	<p align="center">Lesson 2 Rates of Reaction – Temperature</p>	<p align="center">Lesson 3 Rates of Reaction – Concentration</p>
<p>Surface Area: The total area of an object.</p> <p>For a given mass of a solid:</p> <ul style="list-style-type: none"> large lumps have smaller surface area to volume ratios than smaller lumps or powders. <p>If a large lump is divided or ground into a powder:</p> <ul style="list-style-type: none"> its total volume stays the same the area of exposed surface increases the surface area to volume ratio increases  <ul style="list-style-type: none"> The area of one face of the cube will be: $2 \times 2 = 4 \text{ cm}^2$. The cube has six faces, so the total surface area is: $4 \text{ cm}^2 \times 6 = 24 \text{ cm}^2$.  <ul style="list-style-type: none"> Each of the small cubes has a face area of: $1 \text{ cm} \times 1 \text{ cm} = 1 \text{ cm}^2$. The six faces give a total surface area for each smaller cube of: 6 cm^2. There are eight cubes so the total surface area is: $6 \text{ cm}^2 \times 8 = 48 \text{ cm}^2$. <p>The larger the surface area the faster the rate of reaction.</p>	<p>The temperature of an object can be measured using a thermometer.</p> <p>At higher temperatures, particles have more energy and move more.</p> <p>At lower temperatures, particles have less energy and move less.</p>  <p>The higher the temperature the faster the rate of reaction.</p>	<p>The higher the concentration, the more particles of the substance are present.</p>  <p>A higher concentration solution can be created by dissolving more solute in a certain volume of solvent.</p> <p>Or</p> <p>A higher concentration solution can be created by dissolving a certain amount of solute in a smaller volume of solvent.</p> <p>The higher the concentration the faster the rate of reaction.</p>

Lesson 4 Catalyst	Lesson 5 Extracting Iron with Carbon	Lesson 6 & Ceramics & Polymers
<p>A catalyst:</p> <ul style="list-style-type: none"> increases the rate of a reaction does not alter the products of the reaction is not chemically changed or used up at the end of the reaction <p>Catalysts are useful because they can allow reactions to happen at lower temperatures.</p>  <p>The exhaust systems of cars are fitted with catalytic converters. These help reduce the release of toxic gases from the exhaust pipe. They contain platinum and rhodium, which act as catalysts.</p> <p>Enzymes are biological catalysts. They occur naturally in the body and help with digestion.</p>	<p>Iron is found as a compound within rocks. Iron is generally found bonded to oxygen as a called iron oxide.</p> <p>Iron is extracted using carbon in a displacement reaction. This is because carbon is cheap and readily available.</p> <p>iron oxide + carbon → iron + carbon dioxide</p> <p>This is a type of displacement reaction. The more reactive element (carbon) is displacing the less reactive element (in this iron) from its compound.</p>  <p>A chemical reaction where oxygen is removed from a compound is called reduction.</p> <p>This method is called reduction with carbon.</p>	<p>Ceramics: Materials formed from a soft substance which are heated to become hard and durable.</p> <p>Ceramics are baked in a very hot oven called a kiln. The temperature of kilns can reach temperatures of over 1300 °C.</p> <p>The starting materials are soft and malleable, meaning they can be shaped.</p> <p>These new hard ceramic materials have a fixed shape and cannot be bent.</p>  <p>A polymer is a very long molecule. Polymers are made up of many repeating units.</p> <p>Synthetic polymers are manufactured using chemical reactions that join lots of small molecules together to make long molecules.</p> 

<p align="center">Lesson 7 Polymers investigation</p>	<p align="center">Lesson 8 Recycling</p>	<p align="center">Lesson 9 Composites: Making Concrete</p>
<p>Independent Variable: The one thing you change in an experiment.</p> <p>Dependent Variable: The thing you measure in an experiment.</p> <p>Control Variable: All of the things you keep the same in an experiment.</p> <p>Mass is measured with a top pan balance and its units are grams (g) or kilograms (kg)</p>  <p>Length is measured with a ruler and its units are centimetres (cm) or meters (m)</p> 	<p>Lots of the resources that humans use are finite.</p> <p>This means their supply is limited and they will eventually run out.</p> <p>Recycling is one way that we can reduce the amount of finite resources being extracted from the Earth.</p>  <p>Recycling an aluminium can into usable aluminium is much simpler and uses less energy (in the form of electricity) than extracting more aluminium.</p> <p>Recycling is even more important for materials that are scarce.</p>	<p>Composite A material that is made from two or more different types of material</p> <p>The materials for a composite material are chosen because they have different properties that combine to make a more useful material.</p> <p>The properties of each material in the composite are described as complementing each other.</p> <p>Reinforced concrete Reinforced concrete is a composite material. It is made by pouring concrete around a mesh of steel cables.</p> <ul style="list-style-type: none"> • strong when stretched (because of the steel) • strong when squashed (because of the concrete) <p>Fibreglass Fibreglass is made from a mesh of glass fibres set in a tough polymer. Strong (glass fibres) Lightweight (polymer)</p>  <p>Many kayaks are made from fibreglass.</p>

<p>Lesson 1:</p> <ol style="list-style-type: none"> 1. What is surface area? 2. What happens to the surface area of a substance when it is ground into a powder? 3. How do you calculate the area of a square? 4. How do you calculate the surface area of a cube? 5. How does surface area affect the rate of reaction? 	<p>Lesson 2:</p> <ol style="list-style-type: none"> 1. What instrument is used to measure the temperature of an object? 2. How can you increase the movement of particles? 3. How can you decrease the energy of particles? 4. Draw a diagram showing gas particles at low and high temperatures. 5. How does temperature affect the rate of reaction? 	<p>Lesson 3:</p> <ol style="list-style-type: none"> 1. What is the relationship between concentration and the number of particles? 2. Draw a diagram showing particles in a high and low concentration. 3. State two ways you can increase the concentration of a solution. 4. State two ways you can decrease the concentration of a solution. 5. How does concentration affect the rate of reaction? 	<p>Lesson 4:</p> <ol style="list-style-type: none"> 1. How does a catalyst affect the rate of reaction? 2. True or False: Catalysts are used up in a chemical reaction? 3. Why are catalysts useful? 4. How are catalysts used in cars? 5. What are enzymes? 	
<p>Lesson 5:</p> <ol style="list-style-type: none"> 1. Where is iron found? 2. What is used to extract iron? 3. Iron oxide + carbon → 4. What happens in a displacement reaction? 5. What is reduction? 	<p>Lesson 6:</p> <ol style="list-style-type: none"> 1. What is a ceramic? 2. What is the name of the oven ceramics are baked in? 3. Why can the starting materials be shaped? 4. Why can the hard ceramic not be bent? 5. What is a polymer? 	<p>Lesson 7:</p> <ol style="list-style-type: none"> 1. What is an independent variable? 2. What is a dependent variable? 3. What is a control variable? 4. What do you use to measure mass? 5. What do you use to measure length? 	<p>Lesson 8:</p> <ol style="list-style-type: none"> 1. What does finite mean? 2. How does recycling benefit our dependence on finite resources? 3. State 2 ways recycling is better than extracting finite resources? 4. What does scarce mean? 5. Name all the materials you recycle at home. 	<p>Lesson 9:</p> <ol style="list-style-type: none"> 1. What is a composite? 2. Why are composites made? 3. What is reinforced concrete made from? 4. What is fibreglass made from? 5. What property does steal have?

<p align="center">Lesson 1 Inheritance</p>	<p align="center">Lesson 2 Discovering DNA</p>	<p align="center">Lesson 3 Extracting DNA</p>
<p>The genetic information of all organisms is contained in the nucleus of cells, in chromosomes, made of DNA.</p> <p>Keywords in order of size (biggest to smallest): Cell, nucleus, chromosome, DNA, gene</p>  <p>Gene: A section of DNA which codes for a particular characteristic.</p>	<p>DNA – Deoxyribonucleic Acid</p> <p>DNA contains coded information that determines inherited characteristics.</p> <p>DNA is found in the nucleus of cells.</p> <p>The shape of DNA is a double helix (a spiral made of two strands).</p>  <p>There are 4 DNA bases which hold the two strands together A (adenine), T (Thymine), C (cytosine) and G (guanine).</p> <p>A always pairs with T, C always pairs with G.</p>	<p>In the practical you will extract DNA from bananas.</p> <p>Method</p>  <ol style="list-style-type: none"> Put the banana into the plastic bag, seal it and crush for about 2 minutes. Add 10 cm³ of the buffer solution to the bag with the banana and mix together for 1 minute. Filter the banana mixture. Pour 10 cm³ of ice-cold 90% ethanol down the side of the beaker into the banana mixture, do not mix or stir. Within a few seconds you should see a white cloudy substance form in the clear layer above the banana mixture. Use a wooden splint to pull strands of this out of the top layer. This is the banana DNA.

<p style="text-align: center;">Lesson 4 The Human Genome</p>	<p style="text-align: center;">Lessons 5, 6 and 7 Variation</p>	
<p>Chromosomes:</p> <ul style="list-style-type: none"> The genetic information of all organisms is contained in the nucleus, in chromosomes, made of DNA. Chromosomes are arranged in pairs; in humans we have 46 chromosomes arranged in 23 pairs. <p>The Genome: The complete set of genes in an organism.</p> <p>The Human Genome Project Scientists have sequenced the order of bases in all of the 30,000 genes of human DNA. The project started in 1990 and was completed in 2001.</p> <p>Advantages of the project:</p> <ul style="list-style-type: none"> People's genes can be analysed for any mutations which may cause disease. The gene that causes breast cancer was found. Improves understanding of how medicines work in the body. Helps us to understand evolution of organisms. <p>Disadvantages of the project:</p> <ul style="list-style-type: none"> May lead to 'designer babies.' People may be under pressure not to have children or terminate pregnancies. Could affect insurance (life, car, medical etc.) Personal information is stored on databases. 	<p>Variation: The differences which occur between different species and within species.</p> <p>The differences are inherited through genes.</p> <p>Half an organism's DNA comes from the father, half from the mother.</p> <p>Each chromosome may have a different version of a gene. E.g. a gene for blue eyes, a gene for brown eyes.</p> <p>Alleles: Different versions of a gene, that code for different versions of a characteristic.</p> <p>Identical twins are the only organisms which have identical DNA so no variation.</p> <p>Inherited variation: Variation in characteristics that is a result of genetic information from parents. Examples include:</p> <ul style="list-style-type: none"> •Eye colour •Hair colour •Lobed or lobe less ears •Ability to roll your tongue. <div style="text-align: center;">  </div>	<p>Environmental variation: Characteristics of animal and plant species can be affected by factors such as climate, diet, accidents, culture and lifestyle. If you eat too much food then you will become heavier. Variation caused by the surroundings is called environmental variation. Examples include your language and religion.</p> <div style="text-align: right;">   </div> <p>Continuous variation: Human height is an example. It ranges from the smallest person on Earth to the tallest. Continuous variation shows characteristics that change gradually over time. Data is plotted on a line graph.</p> <div style="text-align: right;">  </div> <p>Discontinuous variation: A characteristic of any species with only a limited number of possible values. Eye colour and blood group are examples. Data is plotted on a bar graph.</p> <div style="text-align: right;">  </div>

<p style="text-align: center;">Lesson 8 Natural Selection</p>	<p style="text-align: center;">Lesson 9 Extinction</p>	<p style="text-align: center;">Lessons 10 & 11 Biodiversity</p>
<p>Scientists believe that the organisms which we see on Earth today have gradually developed over millions of years, this is known as evolution.</p> <p>Charles Darwin came up with the concept of natural selection, he said that only the best adapted animals will survive to pass on their genes, weaker animals will die out.</p> <div data-bbox="129 667 784 833" data-label="Diagram"> </div> <p>One example of natural selection can be seen in giraffes.</p> <p>Only the giraffes with the longest necks would be able to eat from trees The ones with shorter necks would not be able to eat and die out. This would mean that only the gene for long necks would be passed on, leading to all giraffes having long necks</p> <div data-bbox="219 1150 649 1302" data-label="Image"> </div>	<p>A species will become extinct when all of a species die out.</p> <p>The fossil record shows us that animals have existed in the past which have now become extinct</p> <div data-bbox="1211 528 1424 730" data-label="Image"> </div> <p>Extinction can be caused by:</p> <ul style="list-style-type: none"> • Changes to the environment • Destruction of habitat • New diseases • Introduction of new predators • Increased competition <div data-bbox="1189 1078 1417 1297" data-label="Image"> </div>	<p>Biodiversity is the range of different living things in an ecosystem or on Earth.</p> <p>The greater the biodiversity the more stable the ecosystem.</p> <p>The more diverse a population is, the more likely they are to survive environmental changes</p> <p>When a species becomes extinct, the variety of species within an ecosystem is reduced, this is also known as a reduction in biodiversity</p> <p>Scientists try to prevent extinction by:</p> <ol style="list-style-type: none"> 1. Conservation 2. Gene banks 3. Captive breeding <div data-bbox="1585 1018 2018 1305" data-label="Image"> </div>

Answer these questions in full sentences in your homework book:

<p>Lesson 1</p> <p>Draw and label a diagram to show the relationship between a cell, nucleus, chromosome, DNA and genes</p>	<p>Lesson 2</p> <ol style="list-style-type: none"> 1. What does DNA stand for? 2. Where is DNA found? 3. What shape is a DNA molecule. 4. How many bases are in DNA? 5. Which base pairs with C? 	<p>Lesson 3</p> <p>Write a method step by step method to describe how you would extract DNA from strawberries</p>	<p>Lesson 4</p> <ol style="list-style-type: none"> 1. Define Genome 2. What is the human genome project? 3. When did the Human genome project finish? 4. List 2 benefits of carrying out the Human genome project. 5. List 2 arguments against carrying out the Human genome project. 	<p>Lesson 5</p> <ol style="list-style-type: none"> 1. Define variation 2. What % of your DNA comes from your mum? 3. What is an allele? 4. Which organisms show no variation? 5. List 3 characteristics you inherit from your parents
<p>Lessons 6 & 7</p> <ol style="list-style-type: none"> 1. Which type of variation is caused by your surroundings? 2. Give an example of discontinuous variation. 3. What type of graph should you use to display discontinuous variation? 4. Give an example of continuous variation. 5. What type of graph should you use to display continuous variation? 	<p>Lesson 8</p> <ol style="list-style-type: none"> 1. Define evolution 2. Who suggested the theory of Natural Selection? 3. What is Natural selection? 4. Why did short necked giraffes die out? 5. What happened to the number of long necked giraffes? 	<p>Lesson 9</p> <ol style="list-style-type: none"> 1. Define extinction 2. How do we know that some animals did exist? 3. Give 3 reasons why extinction occurs. 4. Name 2 animals that have become extinct. 5. Why did they become extinct? 	<p>Lesson 10</p> <ol style="list-style-type: none"> 1. Define biodiversity 2. How do we make an ecosystem more stable? 3. What effect does extinction of a species have on biodiversity? 4. List 3 ways scientists try to prevent extinction 	<p>Lesson 11</p> <p>Research 1 animal that has become extinct.</p> <ol style="list-style-type: none"> 1) What was it called? 2) Where did it live? 3) What did it eat? 4) Why did it become extinct?