

Knowledge Organiser

Year 8

Cycle 2

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.

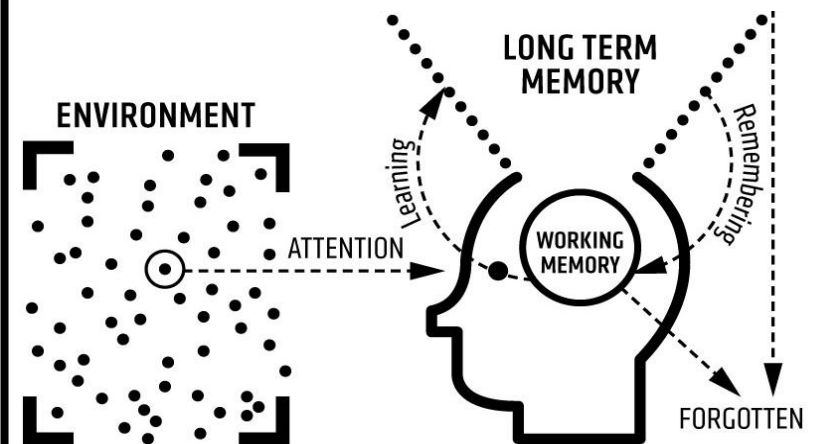
Each cycle there is an assessment in every subject and you will be assessed on the knowledge from your Knowledge Organiser; the more you revisit information the more likely it will be remembered for lessons, assessments and exams.

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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Industrial Revolution consolidation

Empire

Focus -

Task 1: Look back through your work on the Industrial Revolution. Create a glossary of 5 keywords, defined for the topic in your homework book.

Task 2: Create a timeline of the key events that took place in your homework book.

Criteria:

- Create a timeline with a labelled start and end date
- Describe 5 events, including the date and specific information about what happened

Key vocab

empire	A group of countries (colonies) that are ruled or controlled by another country
humanity	The concept of humanity describes the human race, which includes everyone on earth.
reasonable	Having a sound, fair, and sensible judgement
mutiny	A revolt or uprising, especially by the military.
interpretation	An historian's view of the past. E.g. Richard Gott has a negative interpretation of the British Empire .
colony	The countries that are controlled by an empire
legacy	A legacy is what is left behind after something ends of someone dies.
The Commonwealth	Name given to a group of former British colonies who chose to remain allies with the British after the British empire ended
scramble for Africa	The name given to a fight between European empires to gain control of large parts of Africa.

Task 3: Use each of these words in a sentence that makes sense, to show your understanding of their definition.

15th Jan
Do all tasks

Topic: Empire

Topic - Why did Britain want an empire?

imperialism	Imperialism is a belief in empire. It describes an economic, political, and social system in which one country takes others, and brings them under its power and control.
power	Power means the right or ability to govern, rule, or strongly influence people or situations. Power is a general word that suggests the ability to control or influence what is done and felt. If a country has "power" (as influence) in military, diplomatic, cultural, and economic spheres, it might be called a "power" (as status).
civilisation	A society with a system of government and writing. A civilization is often defined as a complex culture with five characteristics: advanced cities, specialized workers, complex institutions, record keeping, and advanced technology.

Context:

The British Empire is a term used to describe all the places around the world that were once ruled by Britain. Built over many years, it grew to include large areas of North America, Australia, New Zealand, Asia and Africa, as well as small parts of Central and South America, too.

At its height in 1922, it was the largest empire the world had ever seen, covering around a quarter of Earth's land surface and ruling over 458 million people.

The 16th Century is often referred to as the 'Age of Discovery' - new thinking about the world and better shipbuilding led to more exploration and the discovery of new lands.

England wanted more land overseas where it could build new communities, known as colonies. These colonies would provide England with valuable materials, like metals, sugar and tobacco, which they could also sell to other countries.

The colonies also offered money-making opportunities for wealthy Englishmen.

Task 1:

1. Use each of the above words in a sentence that makes sense.

Task 2:

1. What is the British Empire?
2. Name 3 countries that were British colonies.
3. In 1922 how much of the world did England rule over?
4. Why was empire building possible?
5. Why did Britain want an empire?

29TH Jan

Do all tasks

Topic - China	Topic - Britain and India
<p>Context - The first Opium War was fought between China and Great Britain from 1839 to 1842. In the second Opium War, from 1856 to 1860, a weakened China fought both Great Britain and France. China lost both wars.</p> <p>What happened?</p> <ul style="list-style-type: none"> • Britain wanted to trade with China • China was reluctant - only had one open port • Britain wanted Chinese goods - Tea, silk, porcelain • Britain didn't really have anything China wanted, therefore had to pay silver • Britain started selling opium in China • Lots of people got addicted, now Britain had a product they could trade with • China tried to ban the sale of opium • Chinese authorities seized and destroyed about a year's supply of opium from British traders • In response Britain sent an army and the Opium War began. • Britain quickly forced China to surrender due to their superior weapons and ships • Britain forced China to sign the first of a series of harsh treaties - the 'Unequal Treaties'. <p>Trade: the action of buying and selling goods and services.</p>	<p>Context -</p> <ul style="list-style-type: none"> • From 1757, Britain increased its control of India through the <i>East India Company</i>. • From 1858 onwards, the British government directly ruled India, and it became known as the British Raj. • The British Raj had a significant impact on people living in India. Many Indians suffered from extreme poverty and famines during British rule. • The British government and British individuals gained a lot of wealth from trade with India, which they used in part to fund the <u>Industrial Revolution</u>. <p><u>How did the East India Company take control?</u></p> <p>Initially English traders were welcomed by the Mughal rulers. Both sides realised that there would be benefits for each of them if they traded with each other. In exchange for trading rights the English brought European products to India. Throughout the 1600s English trade in India expanded and English traders built many <i>trading posts</i> and factories across India. However, by the end of the century relations with the Mughal rulers had worsened. When further English requests for trading privileges were turned down, the East India Company <i>blockaded</i> ports and fought battles against the Mughal army. This conflict became known as the Anglo-Mughal War, and it lasted from 1686 to 1690.</p> <p>The English lost when the <i>Mughal emperor</i>, Aurangzeb, defeated the English merchants. He did not think the merchants were a serious threat and was satisfied with the English apologising and paying a fine. Aurangzeb was much more worried about fighting off the <i>Maratha Empire</i> and so did not impose any harsher punishments on the English.</p> <p>1757 was a turning point for the East India Company for three main reasons:</p> <ul style="list-style-type: none"> • The Battle of Plassey was fought and Siraj ud-Daulah, who preferred the French to the British, was defeated. • Competition from the French East India Company was removed. • The East India Company established a puppet ruler in Bengal, Mir Jafar, to allow them to control India.
<p>Task 1:</p> <ol style="list-style-type: none"> 1. When were the opium wars? 2. What caused the opium wars? 3. Define trade. 4. What was the result of the opium war? 	<p>Task 2:</p> <ol style="list-style-type: none"> 1. What was the East India Company? 2. What was the British Raj? 3. Summarise how the East India Company took control of India, in a short paragraph.

12th Feb
Do all tasks

Topic - How did the East India Company change India?

Context -

In the 1700s much of India was divided into individual principalities and different empires. Following the British victory at the Battle of Plassey, some Indian princes were removed from their positions of power by the East India Company's private army. This army was largely made up of Indian soldiers called *sepoys*.

However, other Indian princes kept their positions if they promised to support the East India Company and favour British interests.

Some ordinary Indians turned British control to their financial advantage, such as shipbuilder Jamsetjee Bomanjee Wadia. He became wealthy by building ships for the British East India Company.

However, for many Indians, life under the control of the East India Company meant poverty and violence from British merchants. Indian workers were forced to sell their goods to the British at very low prices and were then made to buy British products at much higher prices.

High levels of poverty and high taxes left Indians particularly vulnerable when famines hit the region, as they struggled to afford food.

Task 1:

1. How were Indian Princes affected?
2. How were ordinary Indians affected by the British Raj?
3. How did Britain affect trade and production in India?
4. What is famine?

Topic - The Indian Mutiny

Context:

From 1757, the East India Company began to control the government, economy and education system of India.

By 1857, the sepoys in the East India Company's army began a rebellion after a rumour spread about a new rifle they would be receiving. To load the rifle soldiers believed they would have to bite off the end of a cartridge which was covered in pigs' and cows' grease. This would have been an insult to both Muslims and Hindus, as it is against the religious beliefs of Muslims to eat pig products and it is against the religious beliefs of Hindus to eat cow products. These events increased the feeling that the British were not respecting Indian values.

In March 1857 a sepoy named Mangal Pandey attacked his British officer and was executed. By May, the rebellion spread as tens of thousands of other sepoys turned on their officers, in some cases killing them. Although the sepoys initially had some successes and took some territory, the British defeated the rebellion after 18 months of fighting. In August 1858, the Government of India Act was passed and direct British rule of India began.

It is estimated that several thousand British were killed during the rebellion, while the estimates for the Indian death toll are in the hundreds of thousands. Many British and Indian civilians were also killed in the violence, and many lives were also lost to a famine that occurred at the same time as the rebellion.

Task 2:

1. Why did many sepoys refuse to use the new rifles given to them by the East India Company?
2. Who was Mangal Pandey, and what happened to him in March 1857?
3. What happened after the British defeated the rebellion in India?

5th March
Do all tasks

Topic - How did the British Raj affect England?

Context -

The **British Raj** was the period when Britain ruled India directly, from **1858 to 1947**. This rule didn't just change life in India — it also had a big impact on **England**.

India became known as the “**jewel in the crown**” of the British Empire because it provided so many valuable goods. Items like **tea, cotton, spices, and indigo dye** were shipped to Britain, helping its economy grow. Many British businesses made large profits by trading with or investing in India.

The Raj also influenced **British culture**. Tea drinking became a national habit, Indian words like *bungalow* and *pyjamas* entered the English language, and Indian food inspired new dishes in Britain.

However, not everyone in Britain agreed with how India was ruled. Some people criticised the unfair treatment of Indians and wanted reforms. Others believed the empire showed Britain's power.

By the early 1900s, people in Britain began to hear more about Indian leaders who wanted **independence**, and this debate helped shape modern British ideas about freedom, equality, and empire.

Topic - Britain leave India

Context -

By the early 1900s, many Indians were unhappy with British rule. They wanted to make their own laws and run their own country. The **Indian National Congress**, formed in **1885**, became an important group that called for independence.

One of the most famous leaders of the movement was **Mahatma Gandhi**. He believed in **non-violent protest**, meaning people should fight unfair laws through peaceful actions like marches, boycotts, and refusing to cooperate with British officials. His ideas inspired millions of Indians. After **World War II**, Britain was weaker and could no longer afford to keep control of such a large country. At the same time, pressure from Indian leaders and the Indian people for freedom grew stronger.

In **1947**, Britain agreed to leave India. The country was divided into two new nations — **India** and **Pakistan**. This event is known as **Partition**. Unfortunately, it caused great sadness and violence as millions of people had to move across the new borders to join the country that matched their religion.

Still, **15 August 1947** became a day of celebration — the day India finally became **independent** after almost 200 years of British control.

Task 1:

1. What kinds of goods did Britain get from India during the British Raj?
2. How did Indian culture influence life in Britain?
3. What did some people in Britain think about the way India was ruled?

Task 2:

1. Who was Mahatma Gandhi, and what type of protest did he believe in?
2. What happened to India in 1947 when Britain left?
3. Why was the end of British rule both a time of celebration and sadness?

Topic - Australia

Context -

Australia was a collection of British colonies from 1788 until 1901. The first colonies were established as places where criminals were sent to live and work. These were known as convict settlements or penal colonies. Convicts were sent to Australia to work as a form of punishment. Later, colonies were established by free settlers.

The arrival of Europeans significantly changed the Australian environment. As soon as they landed, colonists began clearing land so they could grow food to feed themselves.

European colonization also had a negative impact on the lives of Aboriginal and Torres Strait Islander peoples. The Indigenous peoples were affected in several different ways. Europeans took over the land that the Indigenous peoples had lived on for thousands of years. The Indigenous peoples had to move somewhere else and often had no access to good water or food. They had to change their style of life to adapt to the new land. Some Aboriginal people tried to fight the Europeans, but many died as a result. Other Indigenous people died from diseases that were introduced by the Europeans.

Task 1:

1. When was Australia a British colony?
2. What is a 'penal colony'?
3. How did Europeans cause change to Australia?
4. Who were the Aboriginals?
5. How were the Aboriginals lives impacted?

Topic - Scramble for Africa

Context -

The Scramble for Africa is the name given to the way in which European countries brought nearly all of the African continent under their control as part of their separate empires.

The Scramble for Africa began in the 1880s. By 1914 the only African countries not controlled by a European power were Liberia and Ethiopia.

In the 1870s Africans controlled 90 percent of Africa. Any areas that were controlled by European countries were on the coast. However, that began to change once missionaries, explorers, and traders reported on the interior of Africa and the riches of raw materials there. Europeans wanted these materials for their industries. Slowly, countries such as Great Britain, France, Spain, Germany, Belgium, and Italy began to claim land in Africa.

The African continent was changed completely by the Europeans. Africans lost control of most of their own affairs. They were affected by new diseases that were introduced, they fought many wars, and their traditional ways of life were changed forever.

Task 2:

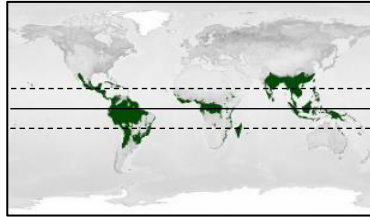
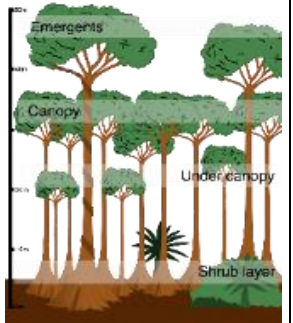
1. What was the scramble for Africa?
2. When was the scramble for Africa?
3. What is a missionary?
4. Why did European countries want control of Africa?
5. How did the scramble for Africa impact Africa?



Year 8 Cycle 2 Geography Knowledge Organiser – Contrasting Ecosystems




Thursday 18th December 2025

Lesson 1 – Amazing Asia's biomes	Lesson 2 – Rainforest's features	Lesson 3 – Plant Adaptations
<p>Key Terms:</p> <p>Biome: An area of the planet that can be classified according to the plants and animals that live in it.</p> <p>Coniferous: Trees that grown needles instead of leaves and cones instead of flowers.</p> <p>Deciduous: Trees that shed their leaves annually.</p>	<p>Key Terms:</p> <p>Insolation: The amount of solar radiation received in the Earth's atmosphere or at the Earth's surface.</p> <p>Evapotranspiration: The process by which water is transferred from the land to the atmosphere by evaporation and by transpiration from plants.</p>	<p>Key Terms:</p> <p>Adaptation: The process of change by which an organism or species becomes better suited to its environment.</p>
<p>Content:</p> <p>There are 8 major biomes across Asia:</p> <ul style="list-style-type: none"> • Tundra: Furthest north, cold and dry. The ground frozen most of the year. • Taiga: Thick coniferous forests. Winters are cold and long. • Steppes: Plains of grassland. Hot summers and cold winters. • Cold desert: Dry and cold. • Temperate forest: Deciduous trees with hot summers and cold winters. • Hot desert: 30° latitude and very hot during the day. Little vegetation. • Mountain ranges: Higher you go the colder it gets. • Tropical rainforests: Close to the equator. Hot and wet all year round. 	<p>Content:</p> <p>Located along the equator and between the tropic lines.</p>  <p>High levels of insolation and creates convectional rainfall.</p> <p>Receive 12hrs of sunlight 365 days a year and there are no seasons.</p> <p>The trees loose water through a process of evapotranspiration. 70% of the rain has come from the trees</p> <p>Soil is infertile, stores carbon and trees stabilise the soil with their roots.</p>	<p>Content:</p> <p>Structure of the rainforest:</p> <ul style="list-style-type: none"> • Emergents are the top layer/tallest trees. • Canopy is the thickest layer • Under canopy dark layer where leaves grow large. • Shrub layer thick and dark. Only 2% of light reaches here. Plants are a dark green.  <p>Plant adaptations:</p> <ul style="list-style-type: none"> • Epiphytes grow without soil and grow on other plants. • Drip tips allow heavy rain to run off easily • Buttress roots are wide so they can support the trees.
<p>Questions:</p> <ol style="list-style-type: none"> 1. What is a biome? 2. How many major biomes are there? 3. List the different biomes 4. What's the difference between coniferous and deciduous? 	<ol style="list-style-type: none"> 5. Where are rainforests located? 6. What is insolation? 7. What is evapotranspiration? 8. What happens in the soil? 	<ol style="list-style-type: none"> 9. What does adaptation mean? 10. Name the 4 layers of the rainforest 11. Give a fact about each layer 12. Give 3 plant adaptations?



Year 8 Cycle 2 Geography Knowledge Organiser – Contrasting Ecosystems





Thursday 15 th January 2026		
Lesson 4 – Resources of the rainforest	Lesson 5 – Russia's biomes	Lesson 6 – Threats to the tundra
<p>Key Terms: Resource: Any aspect of the environment that can be used to meet human needs.</p> <p>Hydroelectric Power (HEP): Generating electricity through the power of moving water.</p>	<p>Key Terms: Deforestation: Removal of forest for non-forest use.</p> <p>Permafrost: Soil or sediment which continuously remains below 0°C.</p> <p>Desertification: The process whereby the land becomes drier and degraded.</p>	<p>Key Terms: Tundra: Treeless regions found in the Arctic and on the tops of mountains, where the climate is cold and windy, and rainfall is low.</p> 
<p>Content: Malaysia: Southeast Asia. \$28,150 GNI per capita (UK \$49,420). Life expectancy of 75 years. Exports palm oil, natural gas, rubber and wood.</p> <p>Electricity by HEP: Bakun Dam flooded 700km² of land creating ecological damage. 9,000 residents relocated. Generates renewable energy for the whole of Malaysia.</p> <p>Palm Oil: World's second largest producer. Provides people with jobs. Used in food, cosmetics and biofuel.</p> <p>Mining: Tin, gold, bauxite and copper. Provides jobs and income.</p>	<p>Content: Taiga Resources: Timber, coal, oil, gas and other metals. Taiga Services: Carbon is stored in the leaf litter. Taiga Threat: Deforestation and forest fires</p> <p>Tundra Resources: Huge quantities of natural gas, oil and coal. Tundra Services: The permafrost holds a lot of carbon and methane. The ice/snow reflect the sun's light keeping the planet cool. Tundra Threat: Climate change and melting.</p> <p>Grasslands Resource: Farmland Grasslands Threats: Grasslands to farmland. Desertification.</p>	<p>Content: Environmental impacts:</p> <ul style="list-style-type: none"> • Arctic ice decreasing at 13% every 10 years • Forest fires when it reaches 38°C. • Reindeer can no longer feed on lichen. <p>Social impacts:</p> <ul style="list-style-type: none"> • Increase in mosquitos and malaria. • Melting permafrost causes flooding. In 2019, 400 people injured & 10,150 homes flooded. <p>Economic impacts:</p> <ul style="list-style-type: none"> • Damage could cost 9 trillion Rubles (£75 million) by 2050. • Cost of clear up and loss of diesel when tank toppled due to melting permafrost.
<p>Questions:</p> <ol style="list-style-type: none"> 1. What is a resource? 2. Where is Malaysia? 3. What is happening with electricity? 4. What is happening with palm oil? 	<ol style="list-style-type: none"> 5. What is deforestation? 6. What are Taiga's resources, services and threats? 7. What are Tundra's resources, services and threats? 8. What are Grasslands' resources and threats? 	<ol style="list-style-type: none"> 9. What is the Tundra? 10. What are the 2 environmental impacts? 11. What are the 2 social impacts? 12. What are the 2 economic impacts?



Year 8 Cycle 2 Geography Knowledge Organiser – Contrasting Ecosystems



Thursday 29th January 2026


Lesson 7 – Opening up the Arctic	Lesson 8 – Future of the Arctic	Lesson 9 – Africa's grasslands
<p>Key Terms: Arctic: Refers to anywhere inside the Arctic Circle which is 66° North of the equator.</p>  	<p>Key Terms: Exclusive Economic Zone (EEZ): An area of the ocean, generally extending 200 nautical miles (230 miles) beyond a country's territorial sea, which they have control over.</p> <p>Exploitation: Making use and benefiting from a resource.</p>	<p>Key Terms: Grasslands: An area in which the vegetation is dominated by a nearly continuous cover of grasses. Found in Africa, South America and northern Australia.</p> <p>Herbivorous: An organism that mostly feeds on plants.</p>
<p>Content: Physical features:</p> <ul style="list-style-type: none">• There is no landmass• It is surrounded by 8 countries• Floating sea ice which is 2m thick• Animals use sea ice to migrate and hunt• The ice sheet reduces in size during the summer melt• Scientists have predicted it will be ice free by 2040 <p>Animal adaptations: They have adapted to the cold & windy climate by:</p> <ul style="list-style-type: none">• Thick layers of blubber• Wide paws/hooves• Small ears/short legs	<p>Content: No treaty protecting Arctic. 8 countries can exploit their 200 nautical mile EEZ.</p> <p>Threats and impacts:</p> <ul style="list-style-type: none">• Fishing: Overfishing (taking too much) can disrupt ecosystems.• Tourism: Disrupt animals breeding and hunting.• Political tension: Competition for resources and increasing conflict.• Resource extraction: Oil, gas and precious metals that can be mined will disrupt ecosystems especially if there are leaks or spillages.• Climate change: Ice continues to melt which means species such as polar bear can't hunt and seals have no resting place.	<p>Content: The largest grassland biome is in Africa covering nearly half of the continent.</p> <p>It is hot all year round with a rainy/wet season. In the wet season, vegetation grows. In the dry season, vegetation begins to brown and dies.</p> <p>Plant adaptations: The Baobab: Stores water in its thick and corky trunk up to 120,000 litres which is also fire-resistant.</p> <p>The Umbrella Thorn Acacia: Deep roots to get water, small leaves to prevent water loss, thorns to protect from herbivorous animals.</p>
<p>Questions:</p> <ol style="list-style-type: none">1. What is the Arctic?2. State 5 physical features of the Arctic3. When will the Arctic be ice free?4. State 3 animal adaptations in the Arctic	<ol style="list-style-type: none">5. What is the Exclusive Economic Zone (EEZ)?6. List the 5 threats to the Arctic7. How can fishing impact the Arctic?8. How can climate change impact the Arctic?	<ol style="list-style-type: none">9. What are Grasslands?10. Where is the largest grassland biome?11. What happens in the wet and dry season?12. Describe 2 plant adaptations



Year 8 Cycle 2 Geography Knowledge Organiser – Contrasting Ecosystems





Thursday 12th February 2026

Lesson 10 – Life on the edge	Lesson 11 – Causes of desertification	Lesson 12 – Solutions to desertification
<p>Key Terms: Deserts: An arid (dry) or semi-arid area that receive less than 250mm of rain each year and can be hot or cold.</p> <p>Nomadic: People that travel from place to place to find fresh pasture for their animals and have no permanent home.</p>	<p>Key Terms: Humus: Dark organic material that forms soil.</p> <p>Decomposers: Organisms that break down dead organic material.</p> <p>Desertification: Where fertile land becomes like a desert, usually through misuse.</p>	<p>Key Terms: Irrigation: The large-scale watering of crops usually using pipes and sprinkler or channels.</p> 
<p>Content: The Sahara is the largest hot desert. It receives between 20mm and 100mm annually. Temperatures are 37°C to 25°C in the winter. However, at nighttime it can drop below freezing.</p> <p>Adaptations of people:</p> <ul style="list-style-type: none"> • Live on the edge, such as the Sahel. • Many societies are nomadic. • People use camels to migrate and transport various resources, such as salt. <p>Sahel: Important region that stretches across Africa from the Atlantic to the Red Sea and includes 14 countries.</p>	<p>Content: Formation of soil:</p> <ol style="list-style-type: none"> 1. Parent rock weathered by rain 2. Dead plants and animals decay creates humus 3. Decomposers breakdown matter into nutrients 4. Plants absorb nutrients and grow 5. Animals eat the plants, and they then die. <p>It repeats so forms a nutrient cycle.</p> <p>Human causes of desertification: Overgrazing and deforestation.</p> <p>Physical causes of desertification: Climate change – increases temperature and decreased rainfall.</p>	<p>Content: Great Green Wall: 11 countries are working together to plant, 11 million trees, 15km wide and 8000km long. They shelter soil from wind and sun and help rain soak into the soil.</p> <p>Zai Pits: Holes lined with leaves, vegetable scraps or manure. Fertilises plants and stores a bit of water.</p> <p>Smart Irrigation: Reduces waste from evaporation but they need a water source.</p> <p>Rotate grazing: Animals graze for a short time and vegetation allowed to regrow.</p>
<p>Questions:</p> <ol style="list-style-type: none"> 1. What are deserts? 2. What is the Sahara like? 3. How do people adapt to living in deserts? 4. What is the Sahel? 	<ol style="list-style-type: none"> 5. How is soil formed? 6. What is desertification? 7. State 2 human causes of desertification 8. State 2 physical causes of desertification 	<ol style="list-style-type: none"> 9. What is the Great Green Wall? 10. What are Zai Pits? 11. What is Smart Irrigation? 12. What is Rotate Grazing?



Year 8 Cycle 2 Geography Knowledge Organiser – Contrasting Ecosystems



Thursday 5 th March 2026		
Lesson 13 – Mangroves	Lesson 14 – Oil spill in Ogoni	Lesson 15 – Importance of oceans
<p>Key Terms: Mangroves: Forests of salt-tolerant trees that grow in the warm shallow tidal tropical waters.</p> 	<p>Key Terms: Nigeria: A country on the western coast of Africa. Capital city of Abuja and 34% are subsistence farmers. In the top 20 oil producing countries in the world.</p> <p>Subsistence farmers: Someone who grows enough for themselves and their family.</p>	<p>Key Terms: Coral: Formed by multiple small, soft organisms known as polyps growing on rocks.</p> 
<p>Content: Services:</p> <ul style="list-style-type: none"> • They remove up to 6-8 times more CO₂ from the atmosphere than rainforests • Prevent coastal erosion. • Reduce wave height by up to 66% during storm events. • Act as a sink absorbing pollutants from sewage and water wastes. <p>Threats:</p> <ul style="list-style-type: none"> • 30-50% are lost due to shrimp farming, tourism and other developments. • Pollution; for example, oil and other industrial pollutants. • Increased storm frequency will damage them. 	<p>Content: Environmental effects:</p> <ul style="list-style-type: none"> • 20km² of mangroves have been degraded or polluted. • There has been a 90% reduction in the number of species of fish, crab and snails Including the rare red colobus monkey. <p>Social & economic effects:</p> <ul style="list-style-type: none"> • The Ogoni Periwinkle catch has been reduced by 90%. • People have reported sinus problems and increase in the rates of mouth ulcers and cancer. • Fishermen now have to travel over 40 miles away to fish. 	<p>Content: Layers of the ocean (shallow to deepest): Sunlight, Twilight and Midnight zone.</p> <p>Importance of the oceans:</p> <ul style="list-style-type: none"> • Produces over half the world's oxygen • Covers 70% of the Earth's surface • 76% of trade is via marine transport <p>Coral bleaching: When corals are stressed, the microscopic algae (which is the coral food source) leave, making them more at risk of starvation and disease.</p>
<p>Questions:</p> <ol style="list-style-type: none"> 1. What are mangroves? 2. How much CO₂ do mangroves remove? 3. State 3 services that mangroves provide 4. State 3 threats to mangroves 	<ol style="list-style-type: none"> 5. Where is Nigeria? 6. What are subsistence farmers? 7. State 2 environmental effects 8. State 3 social and economic effects 	<ol style="list-style-type: none"> 9. State the 3 layers of the ocean 10. State 3 reasons why oceans are important 11. What is coral? 12. What is coral bleaching?

Year 8 French

Cycle 2



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 – Tu es allé(e) à Paris ? LC2

FRANCAIS	ANGLAIS
1. L'année dernière je suis allé(e) à Paris	Last year I went to Paris
2. L'été dernier je suis allé(e) à Londres	Last summer I went to London
3. Récemment j'ai visité la tour Eiffel	Recently I visited the Eiffel Tower
4. Hier j'ai mangé au restaurant- c'était cher	Yesterday I ate in a restaurant – it was expensive
5. Je suis allé(e) à Paris et j'ai vu la Joconde – ce n'était pas fabuleux	I went to Paris and I saw the Mona Lisa – it wasn't fabulous
6. J'ai acheté des souvenirs mais je n'ai pas pris des photos	I bought souvenirs but I didn't take photos
7. On a fait les magasins – c'était barbant	We went shopping – it was boring
8. On s'est promenés pourtant on n'a pas fait un tour en bus	We went for a walk however we didn't do a tour by bus
9. J'ai pris des photos cependant je n'ai pas admiré Big Ben	I took photos but I didn't admire Big Ben
10. La semaine dernière je suis allé(e) à Londres. On a fait une balade en bateau	Last week I went to London. We did a trip by boat
11. Récemment je suis allé(e) à Paris. On a fait les magasins	Recently I went to Paris. We went shopping
12. L'année dernière je suis allé(e) à Londres. J'ai admiré Big Ben. C'était passionnant	Last year I went to London. I admired Big Ben. It was exciting.

Gapfill (Complete in your homework book)

1. Je _____ à Londres = I went to London
2. L'été dernier _____ Big Ben = Last summer I visited Big Ben
3. _____ j'ai vu la Joconde = Yesterday I saw the Mona Lisa
4. _____ la tour Eiffel = I didn't see the Eiffel Tower
5. _____ les magasins = we went shopping
6. _____ = It was exciting
7. _____ = It was not boring
8. _____ = I bought souvenirs

Test 2 – Tu as voyagé comment ? LC2

FRANCAIS	ANGLAIS
1. L'été dernier je suis allé(e) en avion car c'était rapide	Last summer I went by plane because it was fast
2. Hier je suis allé(e) à Paris en voiture	Yesterday I went to Paris by car
3. La semaine dernière je suis allé(e) à Londres en car	Last week I went to London by coach
4. Je suis allé(e) en bateau car c'était plus tranquille qu'en métro	I went by boat because it was calmer than by underground
5. Je suis allé(e) en voiture car c'était moins cher qu'en train	I went by car because it was less expensive than by train
6. Je suis allé(e) à vélo parce que c'était sain	I went by bike because it was healthy
7. Récemment je suis allé(e) à Paris à pied car c'était plus lent qu'en bus	Recently I went to Paris on foot because it was slower than by bus
8. Je suis allé(e) à Londres à moto car c'était plus facile qu'à vélo	I went to London by motorbike because it was easier than by bike
9. L'année dernière je suis allé(e) à Paris en bus	Last year I went to Paris by bus
10. L'été dernier je suis allé(e) à Paris en car parce que c'était moins cher	Last summer I went to Paris by coach because it was less expensive
11. Récemment je suis allé(e) à Paris en bateau et c'était tranquille	Recently I went to Paris by boat and it was calm
12. Je suis allé(e) en avion car c'était plus facile qu'en bus	I went by plane because it was easier than by bus

Gapfill (Complete in your homework book)

1. je suis allé(e) _ _ _ _ _ = I went by boat
2. J _ _ _ _ _ en avion = I went by plane
3. _ _ _ _ _ je suis allé(e) à Paris = Recently I went to Paris
4. _ _ _ _ _ moins cher que le train = It was cheaper than the train
5. c'était _ _ _ _ _ facile _ _ 'en bus = it was easier than by bus
6. _ _ _ _ _ j'ai voyagé en moto = last week I travelled by motorbike
7. _ _ _ _ _ = It was healthy
8. _ _ _ _ _ = It was slower than by bike

Test 3 – Qu'est-ce qu'on peut faire à Paris ? LC2

FRANCAIS	ANGLAIS
1. À Paris il y a la tour Eiffel où on peut profiter de la vue	In Paris there is the Eiffel Tower where you can enjoy the view
2. Il y a la Musée du Louvre où on peut voir la Joconde	There is the Louvre museum where you can see the Mona Lisa
3. Il y a l'Avenue des Champs-Élysées où on peut faire des courses	There is the Champs-Élysées Avenue where you can go shopping
4. Il y a les Catacombes où on peut voir les squelettes	There is the Catacombs where you can see the skeletons
5. Il y a le Centre Pompidou où on peut voir l'art moderne	There is the Pompidou Centre where you can see the Modern Art
6. À mon avis c'est bizarre	In my opinion it is bizarre
7. Je pense que c'est assez cher	I think that it is quite expensive
8. Je crois que c'est très intéressant	I believe that it is very interesting
9. Selon moi c'est vraiment marrant	According to me it is really funny
10. Il y a le Sacré Coeur où on peut admirer l'architecture	There is the Sacre Coeur where you can admire the architecture
11. À Paris il y a la Cathédrale Notre Dame de Paris. Je pense que c'est génial	In Paris there is the Notre Dame Cathedral. I think that it is great
12. À Paris il y a le Palais Garnier. Je trouve que c'est fabuleux.	In Paris there is the Garnier Palace. I find that it is fabulous.

Gapfill (Complete in your homework book)

1. ____ voir les squelettes = Where you can see the skeletons
2. ____ la Musée = There is the museum
3. ____ c'est marrant = In my opinion it is funny
4. je pense que ____ = I think that it's fabulous
5. ____ il y a ____ = In Paris there is the Eiffel Tower
6. ____ c'est intéressant = according to me it is interesting
7. ____ = You can go shopping
8. ____ = You can admire the architecture

Test 4 – Ordering food : vous désirez ? LC2

FRANCAIS	ANGLAIS
1. Je voudrais un sandwich au fromage	I would like a cheese sandwich
2. Je prends le jus d'orange s'il vous plaît	I'll take the orange juice please
3. Je voudrais une salade et des frites	I would like a salad and some chips
4. Je prends une glace au chocolat s'il vous plaît	I'll take a chocolate ice cream please
5. Je voudrais un gateau et un café. Merci.	I would like a cake and a coffee. Thank you.
6. Je prends des macarons et des bonbons	I'll take some macaroons and some sweets
7. Je voudrais une soupe à la tomate s'il vous plaît	I would like a tomato soup please
8. Je voudrais un sandwich au jambon et un thé	I would like a ham sandwich and a tea
9. Je prends un jus de pomme et des escargots s'il vous plaît	I'll take an apple juice and some snails please
10. Je voudrais une glace à la fraise s'il vous plaît	I would like a strawberry icecream please
11. Ça fait combien ?	How much is it?
12. Ça fait Euros. Merci.	It is Euros. Thank you.

Gapfill (Complete in your homework book)

1. _____ un sandwich au fromage = I'd like a cheese sandwich
2. _____ une glace = I'll take an icecream
3. Je voudrais _____ = I'd like a tomato soup
4. _____ = Please
5. _____ ? = How much is it?
6. _____ douze Euros. Merci = That's 12 Euros. Thank you.
7. _____ = I'll take a coffee
8. _____ = I'd like an apple juice

Test 5 – Dans quel pays francophone vas-tu aller ?

FRANCAIS	ANGLAIS
1. La semaine prochaine je vais aller en France	Next week I'm going to go to France
2. Le mois prochain on va aller en Suisse	Next month we are going to go to Switzerland
3. Dans le futur nous allons aller à la Martinique	In the future we are going to go to Martinique
4. Je vais aller à la plage. Je suis un peu nerveux/se	I'm going to go to the beach. I'm a bit nervous
5. On va aller au centre-ville. J'ai hâte d'y être	We are going to go to the town centre. I can't wait to be there.
6. Nous allons aller au lac. Je suis très impatient(e)	We are going to go to the lake. I'm very excited.
7. Je vais faire du vélo. Ce sera genial	I'm going to do cycling. It will be great.
8. On va faire de l'escalade. Je suis un peu nerveux/se	We are going to do climbing. I'm a bit nervous
9. Nous allons faire des randonnées. J'ai hâte d'y être	We are going to do hiking. I can't wait to be there.
10. À l'avenir je vais aller au Canada. Je vais aller à la montagne	In the future I'm going to go to Canada. I'm going to go to the mountains
11. L'année prochaine je vais aller au Mali et je vais faire de la natation	Next year I'm going to go to Mali and I'm going to go swimming
12. Dans le futur on va aller au Cameroun. Je suis très impatient(e)	In the future we are going to go to Cameroon. I'm very excited.

Gapfill (Complete in your homework book)

1. _____ = next month
2. _____ **en France** = we are going to go to France
3. _____ = I'm very excited
4. _____ = I can't wait to be there
5. **L'année prochaine** _____ **au Mali** = Next year we're going to go to Mali
6. _____ **des randonnées** = We're going to do hiking
7. _____ **de la natation** = I'm going to go swimming
8. _____ = It will be great

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 French menu for a restaurant.
2. Work with a partner – create a small scene in your French restaurant where someone orders food. Work out the price of their meal
3. Write the itinerary for a week stay in either Paris or London. Plan what you're going to visit / see / eat. Write it up in French.
4. Watch your favourite film in French or with French subtitles
5. Imagine you've just been on holiday. Write a postcard to someone you know describing (in French!) all the things you did/saw/visited.
6. Find a song you like by a French speaking artist
7. Draw a map of Paris or London and label all the landmarks in French
8. Research a Francophone festival or landmark that interests you and present in a poster / presentation.

Year 8 Spanish

Cycle 2



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 – ¿Por qué lees? LC2

Español	Inglés
1. Leo novelas	I read novels
2. Leo revistas	I read magazines
3. Leo blogs todos los días	I read blogs every day
4. Mi padre lee periódicos a veces	My dad reads newspapers sometimes
5. Nosotros leemos libros todos los días	We read books everyday
6. Mis amigos leen revistas	My friends read magazines
7. Nunca leo libros porque me aburren	I never read books because they bore me
8. Me inspiran los blogs	Blogs inspire me
9. Me interesan los periódicos	I'm interested in newspapers
10. A veces leo revistas porque me fascinan	Sometimes I read magazines because they fascinate me
11. Cada día mi madre lee novelas	Each day my mum reads novels
12. A menudo leo libros	Often I read books

Gapfill (Complete in your homework book)

1. **las novelas** = I'm interested in novels
2. **periódicos** = My friends read newspapers
3. **Mi madre** **todos los días** = My mum reads blogs every day
4. leo libros = I never read books
5. **leemos novelas** = Sometimes we read novels
6. **mi padre lee libros** = Every day my dad reads books
7. **me gusta leer** = Often I like to read
8. = My friends never
read magazines

Test 2 – ¿Qué música escuchaste? LC2

Español	Inglés
1. Ayer	Yesterday
2. Anoche	Last night
3. Recientemente	Recently
4. Escuché pop	I listened to pop music
5. Mi madre escuchó musica latina	My mum listened to latin music
6. Mi padre escuchó de todo	My dad listened everything
7. Porque...	Because
8. El ritmo es bastante bueno	The rhythm is quite good
9. La letra es muy deprimente	The lyrics are depressing
10. La melodía es más alegre	The melody is happier
11. El ritmo es menos repetitivo	The rhythm is less repetitive
12. Ayer escuché la música de ... porque la letra es guay	Yesterday I listened the music of... because the lyrics are cool

Gapfill (Complete in your homework book)

1. _____ **escuché pop** = Recently I listened to pop
2. _____ **es bastante buena** = The melody is quite good
3. La letra _____ = The lyrics are happier
4. Mi madre _____ **rap** = My mum listened to rap
5. **Anoche** _____ = Last night I listened to latin music
6. **Ayer** _____ = Yesterday I listened to everything
7. _____ = Because the rhythm is good
8. _____ = Last night my dad listened to pop

Test 3: ¿Qué viste en la tele anoche?

Español	Inglés
1. Ayer vi...	Yesterday I watched
2. Anoche vi...	Last night I watched
3. Normalmente veo...	Normally I watch
4. Los programas de música	Music programmes
5. Los programas de deporte	Sports programmes
6. Los programas de tele-realidad	Reality TV programmes
7. Las telenovelas	Soap operas
8. Las noticias son más emocionantes que los documentales	News are more exciting than documentaries
9. Las series son más graciosas que los concursos	Series are funnier than quizzes
10. Los programas de deporte son menos emocionantes que los concursos	Sports programmes are less exciting than quizzes
11. Ayer vi los programas de tele-realidad porque son emocionantes	Yesterday I watch reality TV programmes because they are exciting
12. Normalmente veo las series	I normally I watch series

Gapfill (Complete in your homework book)

1. ____ un programa de música = yesterday I watched a music programme
2. ____ son más guay que ____ = Soap operas are cooler than series
3. ____ = Reality shows
4. ____ = Documentaries are exciting
5. ____ = Normally I watch the news
6. ____ = Sports programmes
7. ____ las series = They are less interesting than series
8. ____ = Gameshows are funnier than the news

Test 4 – ¿Te gustó la película? LC2

Español	Inglés
1. Ayer	Yesterday
2. Hace dos días	Two days ago
3. Vi ‘Voces Inocentes’	I watched ‘Innocent voices’
4. Para mí, fue emotivo	For me, it was emotional
5. Para mí fue deprimente	For me, it was depressing
6. Creo que fue educativo	I think it was educational
7. Creo que fue triste	I think it was sad
8. Lo mejor fue el argumento	The best thing was the plot
9. Lo mejor fue el ambiente	The best thing was the atmosphere
10. Lo peor fue la banda sonora	The worst thing was the soundtrack
11. Ayer vi ‘voces inocentes’ y creo que fue alegre	Yesterday I watched ‘Innocent Voices’ and I thinkg it was happy
12. Ayer vi una película y para mí fue educativo	Yesterday I watched a film and for me, it was educational

Gapfill (Complete in your homework book)

1. **Ayer** _____ = Yesterday I watched a film
2. _____, _____ = For me. It was educational
3. _____ = The worst thing was the plot
4. _____ = Two days ago
5. _____ = I think it was sad
6. _____ = The best thing was the soundtrack
7. _____ = I think it was educational
8. _____ = For me it was happy

Test 5 – ¿Cuándo usas la tecnología? LC2

Español	Inglés
1. Todos los días	Everyday
2. Cada día	Each day
3. Dos veces a la semana	Twice a week
4. Tres veces al mes	Three time a month
5. De vez en cuando	From time to time
6. Uso el móvil para chatear	I use my mobile phone to chat
7. Uso la tableta para compartir videos	I use the tablet to share videos
8. Mi madre usa el ordenador para ver películas	My mum uses the computer to watch films
9. Mi padre usa el ipad para jugar	My dad uses the ipad to play
10. Mis amigos usan el móvil para hacer compras	My friends use the mobile phone to do shopping
11. Nunca uso el móvil para ver películas	I never use the mobile phone to watch films
12. Normalmente uso la tableta para leer	I normally use the tablet to read

Gapfill (Complete in your homework book)


1. Cada día ____ = Each day I use my mobile
2. Uso el tableta ____ = I use the tablet twice a week
3. ____ = My mum uses the computer
4. Nunca ____ = I never use the Ipad to play
5. ____ el móvil siempre = My friends use the mobile always
6. Normalmente ____ = Normally they use the computer
7. ____ = I use the computer to share photos
8. ____ = My sister uses the tablet

MFL challenges




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

1. Research a Spanish speaking author – see if you can read a book / poem by them in Spanish!
2. Look up the most popular Spanish singers – find a song you like
3. Create a poster advertising your favourite singer / group in Spanish
4. Watch your favourite film in Spanish or with Spanish subtitles
5. Write a short review in Spanish of a film you've seen recently
6. Find a song you like by a Spanish speaking artist
7. Create a poster to help you remember all the vocab to do with technology in Spanish
8. Research a Spanish/Latin American festival or landmark that interests you and present in a poster / presentation.

RPE

11 th December		8 th Jan	
What is the purpose of life?	The Arrow of Aquinas	Humanism	The Categorical Imperative
Key Terms: Purpose: a person's central goals and motivations that give meaning to their life 	Key Terms: Aquinas Arrow: An arrow, an unintelligent object, cannot achieve its end goal, of hitting the target without something guiding it. Therefore, the archer must direct the arrow to fulfil its end goal of hitting the target. Duty: a moral obligation or responsibility.	Key Terms: Humanism: a system of thought that focusses on the importance to human rather than divine or supernatural matters. Responsibility: the state or fact of having a duty to deal with something or of having control over someone. Freedom: the power or right to act, speak, or think as you wants.	Key Terms: Categorical Imperative: A rule of conduct that must be followed by all people. It's not a command to perform specific actions, but rather a formal procedure for evaluating actions based on their universality, impartiality, and rationality. Moral: being concerned with the principles of right and wrong behaviour
Content: What is the meaning of life is one of the most important ultimate questions. There is a huge number of possible responses to the question, such as to enjoy ourselves, to earn and spend money or to have ultimate experiences. Followers of religion might say to reach enlightenment or to worship their God. Other things that this unit will focus on is how our purpose can change or how we might have more than one purpose at any point in time.	Content: Our purpose in life can have a significant impact on how we live our lives. If we say that our purpose is to worship God then we might spend much of our time living in a way that we think pleases Him/Her. A Sikh would say that their purpose is to follow Waheguru (their God) in their life, looking at the actions they do and how they live their life.	Content: Humanists do not believe in a god. They believe it is possible to live a good and fulfilling life without following a religion. They do not follow a holy book either. Instead, they value traits like reason and rely on science to explain the way things are. Humanists believe that people have one life to live - there is no afterlife. As a result, they focus on being happy and making the most of their life.	Content: Immanuel Kant did not believe in a predetermined purpose from God. Instead, he argued that individuals should act according to their moral duty, guided by reason. His <i>Categorical Imperative</i> directs people to act in such a way that their actions could be universalized (applied to all), and he saw fulfilling one's moral duties as the purpose of rational beings.
Questions: What is the purpose of life? What is the meaning of life?	Questions: How might your purpose impact how you live your life?	Questions: What is Humanism? What is a Humanists response to key questions?	Questions: Is there a moral principle that we should live our life by?

RPE

22 ND		5 th Feb	
Helping the World	Telos	Islam	The 5 Pillars
Key Terms: Global Warming: Climate change refers to long-term shifts in temperatures and weather patterns. These shifts may be natural, but since the 1800s, human activities have been the main driver of climate change Environmentalism: concern about and action aimed at protecting the environment. Dominion: To look after something	Key Terms: Telos: An end or a purpose. The Afterlife: A term used to describe a life that begins when we die. 	Key Terms: Allah: The Muslim name for their God. Tawhid: Faith in the oneness of Allah The Quran: The Muslim holy book Mosque: Place of worship for a Muslim Muslim: A Follower of Islam Muhammed: The Final Prophet of Allah	Key Terms: Shahadah: Declaration of Faith Salah: Praying 5 times a day Zakat: Donating a % of your money to the poor Sawm: Fasting during the month of Ramadan Hajj: A Pilgrimage to the Holy city of Mecca.
Content: A core belief for most of the main religions is that our planet is a gift from God and we are instructed by God to look after it. We know that things like Global Warming are currently taking place and therefore are we failing in our duty to look after the world? 	Content: Aristotle introduced the concept of <i>telos</i> , meaning an end or purpose. He believed that everything in nature has a purpose, including human beings. For humans, there are many different ideas about the highest purpose, but a belief in the afterlife will often lead people to live a life that is aimed towards this.	Content: Islam is the 2 nd largest religion in the world. Followers of Islam are known as Muslims, and they worship their God Allah. Muslims believe Muhammed was his final messenger (prophet). Muslims worship in a Mosque, led by an Imam. The Muslim and Friday is their holy day.	Content: The Five Pillars are a visible sign of the Muslim way of life and a demonstration of Muslims' unity with each other. They are accepted by Muslims globally, regardless of ethnic, regional, or sectarian differences 
Questions: What do religions believe about looking after the world?	Questions: If there is an afterlife, how might that impact our purpose in life?	Questions: What are some of the basic ideas about Islam?	Questions: What are the 5 pillars of Islam? Why are they important?

RPE

Is it our duty to be environmental and look after the world?		What does a Muslim call their God?	How does a Muslim follow them?
--	--	------------------------------------	--------------------------------

26 th Feb		12 th March	
Lesson 9 – The Day of Judgment	Lesson 10 – Revise from your KO	Lesson 11 – End of Cycle Assessment	Lesson 12 – Assessment Repair Work
Key Terms: Yawm Ad-Din: The Day of Judgement Barzakh: A state of waiting the soul goes to after we die. Akhirah: Life after death Nafs: The Muslim word for the Soul		Write your own definitions for: Purpose Aquinas’ Arrow Duty Humanism Responsibility Freedom Categorical Imperative Global Warming Telos	
Content Muslims believe that when we die our souls are taken by an angel and enter Barzakh - a waiting stage until the day of judgement. On this day all souls will be judged by Allah. On the day of judgement Allah will add up all our good and bad deeds – almost on a scale. If the good outweighs the bad we will go to paradise to be with him.			
Questions: What is the Day of Judgement?			

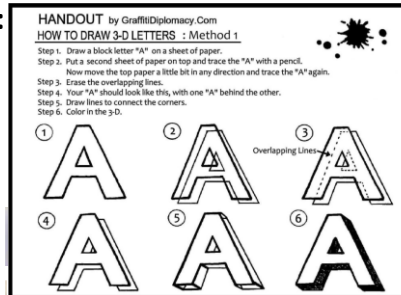
A. Visual Elements Keywords

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:

Use this guide to help practice your 3D lettering

Practice drawing letters 3D – try a variety of curved and straight letter forms



E. Expert Modelling:



What Visual Elements can you see in this work?
What equipment is needed to create a 3D letter?

CREATIVE ARTS

3D DESIGN – YR 8 – 3D LETTERS

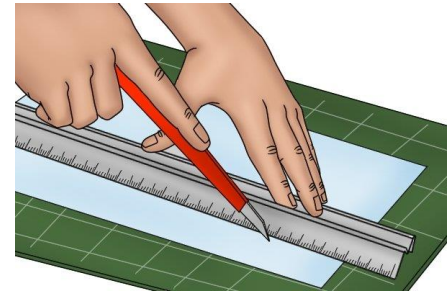
C. Key Knowledge 2: HEALTH & SAFETY RULES

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



D. Key Knowledge 3: Using a craft knife safely

- Use a metal safety ruler
- Hold ruler firmly with fingers in the middle away from the edge
- Keep the blade against the ruler when cutting



F. Wider thinking / further reading:

<https://www.youtube.com/watch?v=BfL5m9epBxg>

Check out this tutorial on drawing 3D letters

A. Visual Elements Keywords

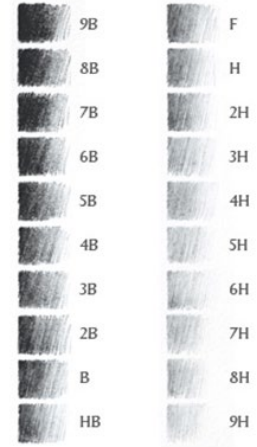
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Colour	Red, yellow and blue are primary colours, which means they can't be mixed using any other colours.

B. Key Knowledge 1: Tonal Drawing

Create different tones by using different grades of pencil
HB means 'hard black' this is a standard pencil.

H pencils are lighter as the number gets higher
B pencils are darker as the number gets higher

You can use pencils to make a variety of marks and tones by how much pressure you apply when using them



E. Expert Modelling:



Rachel Jaques



Karl Blossfeldt



Helen Wells



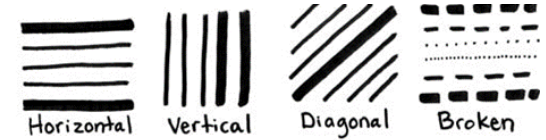
ART & DESIGN

Project – YEAR 8 ART & CRAFT

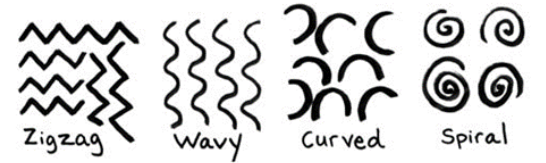
Threshold Concept #5 Artists use traditional craft techniques to create work with different forms and functions.

C. Key Knowledge 2: Types of Line

Experiment with drawing different types of line in your sketchbook:



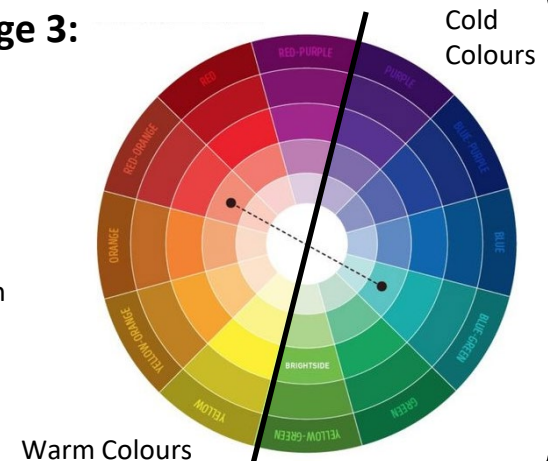
Straight, curved, vertical, horizontal, diagonal, messy, continuous, jagged, broken, thick, thin, bold, freehand



D. Key Knowledge 3: Colour Theory

Complimentary colours sit opposite each other on colour wheel.

The combination of such colours creates a **vivid and energizing** effect, especially at their highest saturation.



F. Wider thinking / further reading:

Look at the work of Andy Goldsworthy- Have a go at creating your own piece of land art using nature as your medium



Knowledge Organiser: Programming

Data Types		
1	Integer	An integer is a whole number (not a fraction) it is positive, negative, or zero.
2	Real/Float	is written with a decimal point dividing the integer and fractional parts.
3	Boolean	has two possible values: true or false (yes or no)
4	Character	any letter, number or symbol on a computer.
5	String	a sequence of characters, a constant or a variable.

Key Vocabulary		
1	Algorithm	is a sequence of steps that can be followed to complete a task
2	Sequence	A set of logical steps carried out in order.
3	Selection	where a decision must be made in programming using IF statements.
4	Iteration	repeatedly executes a section of code
5	Variable	is a storage location paired with a name, which contains a value.
6	Constant	a value that cannot be altered by the program during normal execution
7	Data types	an attribute of data which tells the computer how the programmer intends to use the data
8	Comment	annotation in the code of a computer program

Practice your skills here!



Algorithm: remember this unit builds on key learning from last year! You can recap on algorithms here.

Variables

Creating an integer variable

```
age = 25
```

Creating a string variable

```
goal = 'Commit to CS mastery!'
```

Creating a float variable

```
pi = 3.14
```

Variables:

Values can change



Comparison Operators:	Comparison operators are symbols that allow you to make comparisons between data, and to evaluate whether the comparison is true or false.
Concatenation:	Concatenation means to join strings, or to place them side by side using the + operator. For example 'foot' + 'ball' becomes 'football'.
Casting:	Casting means to convert one data type to another. We use Python functions to do this. For example, int("32") converts the string 32 to the integer 32.

comparison operators

Operator	Meaning	Example	Evaluates to
==	equal to	7==7	True
!=	not equal to	6!=7	True
>	Greater than	7>6	True
<	Less than	5<8	True
>=	Greater than or equal to	6>=8	False
<=	Less than or equal to	7<=7	True

Pseudocode:

This is how programmers plan their code.



Algorithms

Algorithms can be represented as pseudocode or a flowchart, and programming is the translation of these into a computer program.

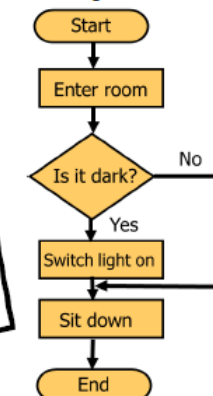
Pseudocode

How to make a cup of tea

1. Put teabag in cup
2. Fill kettle
3. Boil kettle
4. Pour water into cup
5. Add milk
6. Stir
7. Give cup of tea to person

Flowchart

Entering a room



Programming Constructs

1	Sequence	A set of logical steps carried out in order.
2	Selection	where a decision must be made in programming using IF statements.
3	Count controlled iteration	repeatedly executes a section of code a fixed number of times
4	Condition controlled iteration	repeatedly executes a section of code until a condition is met - or no longer met

User input and output

Printing to the screen

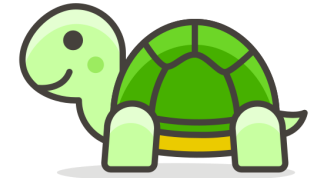
```
print('Hello, World!')
```

Printing a variable

```
name = 'Karim'
print('Hello, ' + name + '!')
```

Reading user input

```
country = input('where are you from? ')
age = int(input('what is your age?'))
```



Lists

Creating a list

```
L = [1, 2, "abc", True]
```

Append to a list

```
L.append(10)
```

Creating a list of lists

```
L = [[1, 2], ["abc"], [True, 15.2, x, "item"]]
```

Remove from a list

```
L.remove("abc")
```

List contains item

```
L = [1, 2, "abc", True]
2 in L #True
"xyz" in L #False
```

Get the index of an item

```
L = [1, 2, "abc", True]
idx = L.index("abc")
# idx is 2
```

Reverse a list

```
L.reverse()
```

Sort a list

```
L.sort()
```

Did you know that Python is free to download? The best way to improve in it is to practice!

<https://www.python.org/downloads/>



SCAN ME



SCAN ME

Get free tutorials here

Arithmetic Operations

Basic arithmetic

```
5 + 2 - (4 * 3)
# result is -5
```

Integer division

```
5 // 2
# result is 2
```

Real division

```
5 / 2
# result is 2.5
```

Modulus

```
5 % 2
# result is 1
```

Power

```
5 ** 2
# result is 25
```

LOOPING (For loop)

Repeating a block 5 times

```
sum = 0
for i in range (5):
    sum = sum + i
print(sum)
# result = 10
```

Conditional Statements

If statements

```
if x > 5:
    print("x is greater than 5")
```

If else statements

```
if age < 12:
    print("child")
else:
    print("adult")
```

If elif else statements


```
if grade >= 85:
    print('Excellent')
elif grade >= 75:
    print('very good')
elif grade >= 65:
    print('good')
elif grade >= 50:
    print('pass')
else:
    print('failed')
```

Turtle Programming cheat sheet

<code>import turtle</code>	Makes the turtle commands available for our program.
<code>shape("turtle")</code>	Set the shape. It can be turtle, circle, arrow, classic.
<code>speed(4)</code>	Sets the animation speed. 1 = slowest, 10-fastest.
<code>forward(distance)</code>	Move forward by distance steps. E.g. forward(100)
<code>backward(distance)</code>	Move backward by distance steps. E.g. backward(100)
<code>right(angle)</code>	Turn right (clockwise) angle degrees. E.g. right(120)
<code>left(angle)</code>	Turn left (anticlockwise) angle degrees. E.g. left(72)
<code>goto(xy)</code>	Go to the x , y position in the grid. E.g. goto(100,120)
<code>color("colour")</code> American spellings are used!!	Set the drawing colour of the shape to "colour". E.g. color("red")
<code>fillcolor("colour")</code>	Set the fill colour of the shape to "colour". E.g. fillcolor("orange")
<code>begin_fill()</code>	Sets the starting position of the shape to fill.
<code>end_fill()</code>	Sets the ending position of the shape to fill.
<code>penup()</code>	Picks the pen up from the screen to stop drawing.
<code>pendown()</code>	Places the pen down on the screen to start drawing.
<code>stamp()</code>	Makes a stamp of the turtle's shape on the screen.


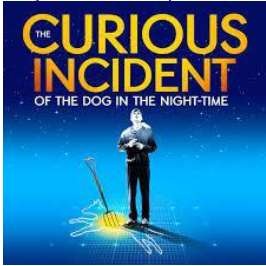
YEAR 8 DRAMA – CYCLE 2	Week 6	Week 7	Week 8	Week 9	Week 10
	<u>Set Design Terminology</u>	<u>Drama Terms</u>	<u>Exam style questions:</u>	<u>Revision for Knowledge</u> <u>Organiser test:</u>	<u>Sound Glossary:</u>
	Back Projection: a method of projecting images onto a translucent screen from behind. Often used for projected scenery or special effects.	Acting style: a particular manner of acting that reflects cultural and historical influences.	Challenge question: Jake has just been dangled over the edge of a building. Polly manages to save him. As a <u>director</u> , discuss how the performer playing this role might demonstrate his feelings to the audience.	Pick three sections you feel you need revise.	Amp: Abbreviation for amplifier used to amplify sound.
	Book flat: a hinged flat.	Aside: lines spoken by a performer to the audience and not supposed to be overheard by other characters on stage.	You must consider: Voice, Physicality, Stage space (Proxemics). (12 Marks)	You may choose to look over one week in particular you feel you don't know as well.	Build: increase sound levels.
	Light Set: a term used to describe a situation where no physical set is used. The set is created entirely by means of lighting.	Characterisation: how a performer uses body, voice and thought to develop and portray a character.	Challenge question: As a <i>director</i> discuss how you would use <u>one</u> of the production elements below to present 'The rooftop' to your audience, on stage. You should refer to the context of Sparkle Shark.	Use the following to support you with your revision:	Channel: connected circuit in sound system.
	Breaking Down: Artistic process of aging costume, props or scenery.	Focus: in acting, the act of concentrating or staying in character.		<div>LOOK</div> <div>COVER</div> <div>WRITE</div> <div>CHECK</div>	Cross-fade: bringing another sound state up to replace the current sound state.
	Practical: a working object onstage such as a door or window.	Improvisation: the spontaneous use of movement and speech to create a character or object in a particular situation.		Draw a picture to represent your chosen word/section.	Diegetic sound: sound heard by characters on stage e.g. music played on a radio on the set.
	Ground-plan: technical drawing of the stage.	Inflection: change in pitch or loudness in voice.	Choose one of the following: Costume, Props/Stage, Furniture or Staging (9 Marks)	Create flash cards that include your words/sections and their definitions.	Feedback: when a mic picks up its own signal from a speaker.
	Lose: to remove from set.	Movement: stage locking or the movements of the performs on stage during performance.		Put your word/section into a scenario. For example, "I used a cross tone when I told my dog off for eating my homework".	Float mics: microphones placed along front of stage.
	Task: What 'back projections' might you use on the set of Sparkle Shark? How would this compare to using a 'light set'?				Non-diegetic sound: sound not heard by the actors and designed to create mood/atmosphere/impact on the audience.
					PA system: the public address system or any other sound system.
					Pan: to move sound from one place to another.

- Speak to your teacher in the first instance. Ensure that your login details are copied down somewhere accurately. IT services are available during breaktimes. You can also use the school computers at breaktimes should you wish to.

Coombeshead Academy Inspiring Excellence			English Learning Area		Monologues and Voices	
wk	keyword	definition	example			
Week 1	Voice	The voice is the person or character behind the words in a text, and the way that person or character sounds.	Reynolds used the voice of Will as the narrator in 'Long Way Down.'	Week 1	Key Historical Event: Second World War (1939-1945) This is relevant when you study the Diaries of Anne Frank. On 1 September 1939, when Anne was 10 years old, Nazi Germany invaded Poland, and so the Second World War began. Not long after, on 10 May 1940, the Nazis also invaded the Netherlands. Five days later, the Dutch army surrendered. Slowly but surely, the Nazis introduced more and more laws and regulations that made the lives of Jews more difficult. This resulted in the continued persecution of the Jews and the use of concentration camps such as Bergen Belsen and Auschwitz. 	
	Informal Language	Informal language is more commonly used in situations that are more relaxed and involve people we know well. Informal language is more common when we speak.	Informal language is common amongst teenagers.			
	Formal Language	We use formal language in situations that are serious or that involve people we don't know well. Formal language is more common when we write.	We use formal language in our academic writing.			
	Monologue (Mono-log)	A monologue is an extended speech by one person . It is a speech given by a single character in a story.	Doris' monologue helped reveal her character.			
	Tone	Tone typically refers to the mood implied by an author's word choice and the way that the text can make a reader feel.	The character used a tone of frustration when describing the events.			
Week 2	Declarative	Declarative sentences are simply statements that relay information. They are the most common type of sentences in the English language	Doris uses the declarative 'It's such a silly thing to have done'	Week 2	Alan Bennett: Talking Heads	



	Flashback	Flashback is a device that moves an audience from the present moment in a chronological story to a scene in the past.	The use of flashback revealed more about Doris' past.		<p>The <i>Talking Heads</i> monologues have a reputation as one of the finest collections of television plays ever created. Each episode has the same format; a single actor performing a dramatic monologue directly to the audience. The monologues themselves are the stars of the show, providing memorable characters, featuring both disturbing glimpses into the darker side of human nature and emotional but warm commentaries on an old-fashioned world gradually fading into unimportance. There have been several remakes of the monologues since the 1980s; you will focus on the series from 1998.</p> 
	Imperative	Imperative sentences , or imperatives, make commands or requests	The imperative 'Get out!' showed how she was commanding the boy.		
	Motif (Mo/teef)	A motif is a repeating image in a text that suggests, represents or symbolises something else.	The motif of the cream cracker suggested how Doris was neglected.		
	Stereotype	A stereotype is a set idea that people have about what someone or something is like, especially an idea that is wrong.	The stereotype of old people was clearly used in the scene.		
Week 3	Ellipsis (punctuation)	An ellipsis (plural: ellipses) is a punctuation mark consisting of three dots. Ellipses can express hesitation, changes of mood, suspense, or thoughts trailing off.	The writer used ellipsis to show the characters hesitation.		<p>Dennis Kelly: DNA</p> <p>Key themes presented in DNA are explored using a mixture of short dramatised sequences, narration and monologues with some of the key characters. The main themes of the play are bullying, gang membership, social responsibility, morality and leadership. The action sequences illustrate the three main settings through the use of symbolic elements designed to demonstrate the wood, the street and the field.</p> 
	Ellipsis (grammar)	Ellipsis happens when we leave out (in other words, when we don't use) items which we would normally expect to use in a sentence if we followed the grammatical rules	The ellipsis in the sentences helped us understand the way Doris spoke.		
	False Start	False starts include both sentences and words that are cut short before they are finished.	Leah's use of false starts shows she keeps changing her mind.		
	Fillers	A filler is a word or short phrase such as "er", "well", or "you know", used	Leah used several fillers to show she was unsure of what to say ₄₁		


		when a person pauses to think about what to say next.				
	Stage Directions	Stage directions are an instruction in the text of a play indicating the movement, position, or tone of an actor, or the sound effects and lighting, often shown in italics.	The stage directions revealed how Phil was ignoring Leah.			

Week 4	Diary	A diary is a type of autobiographical writing – this means it is written personally about your own experiences, thoughts and feelings.	Anne kept a diary for two years whilst in the secret annexe.	Week 4	<p>Anne Frank: Diaries of a Young Girl</p> <p>These diary entries were created by Anne when she was in hiding in the ‘Secret Annexe’ in Amsterdam. She was hiding as she was a Jew in German-occupied Europe. She was there for 761 days before German soldiers discovered her family and friends and she was taken to a concentration camp. Her diary contains her innermost thoughts and feelings about being stuck in the annexe for two years whilst the world continued around her. It was Anne’s ambition to become a writer, and this came true when her father was given the diary and finally brought himself to read it. He persisted in trying to get it published until it was in 1947.</p> 
	Persecution	Persecution is cruel and unfair treatment of a person or group, especially because of their religious or political beliefs, or their race.	The Frank family left their home to escape persecution by the Nazi’s .		
	Complex Sentence	A complex sentence contains a main clause and a subordinate clause. (It can also include other fragments).	Anne uses complex sentences as her writing is more formal.		
	Infer	To infer is to derive from evidence or by reasoning, rather than from explicit statements.	We can infer that Anne is afraid through her tone.		
	Autism	Autism is a condition where an individual experiences difficulties in social communication and may show restricted and repetitive patterns of behaviour.	Christopher’s autism is revealed through the way he speaks and behaves.		
Week 5	Matter of fact language	Matter of fact language is an unemotional and practical way of speaking or writing.	Christopher’s language was very matter of fact when describing the events.	Week 5	<p>Mark Haddon: The Curious Incident of the Dog in the Night-time</p> <p>This book has proved very popular because of the support it shows to individuals who are on the autistic spectrum. Its main character, and the narrator of the book, is Christopher Boone, a 15 year old with Asperger’s Syndrome. Mark Haddon, the author of The Curious Incident, never lets Christopher stray from his unique interpretation of the world around him, which is what allows the readers to feel they are within his mind. Christopher’s autism means he struggles to understand the world around him; he prefers things which are predictable and truthful. He is brilliant at maths because there is always a concrete answer at the end.</p> 
	Paragraph	A paragraph is a short part of a text, consisting of at least one sentence and beginning on a new line. It usually deals with a single event, description, idea, etc.	Haddon uses short paragraphs to show the build up of Christopher’s emotions.		

	Peril	Peril is being in serious or immediate danger	Joe was in considerable peril during his time in the Peruvian Andes.			
	Viewpoint	Viewpoint is a person's opinion or point of view	Simon and Joe had different viewpoints on his accident.			
	Perspective	A particular way of viewing things that depends on one's experience and personality.	The characters perspectives were different because of their ages			
Week 6	Dramatic	If something is sudden and striking, it is dramatic .	The decision Joe has to make creates a very dramatic atmosphere.		Week 6	<p>Joe Simpson: Touching the Void</p> <p><i>Touching the Void</i> is the heart-stopping account of Joe Simpson's terrifying adventure in the Peruvian Andes. He and his climbing partner, Simon, reached the summit of the remote Siula Grande in June 1985. A few days later, Simon staggered into Base Camp, exhausted and frost-bitten, with news that that Joe was dead.</p> <p>What happened to Joe, and how the pair dealt with the psychological traumas that resulted when Simon was forced to cut the rope, makes not only an epic of survival but a compelling test of friendship.</p>
	Savage	Being fierce or cruel; being primitive or uncivilised.	The weather conditions in 'Touching the Void' are savage .			
	tone	The way that something is said.	* angry * sad * morose * excited * wary * cautious *			
	Evil	Morally bad, cruel or very unpleasant.	Her actions were so cruel, so wicked that there was only one word to describe them: _____.			
	Fear	An emotional response to a situation	Terror dread anxiety horror alarm			



Week 7	A construct	Something that is made or created.	Characters aren't real – they're _____.	Week 7	Captain Scott: Captain Scott's Diaries Captain Scott (1868–1912), is perhaps the most famous Arctic explorer in British history. He was the leader of the failed 1912 South Pole expedition, and has become legendary both for his heroic endurance and sense of commitment. After a gruelling journey, Scott's team arrived to find they had been beaten to the pole by the Norwegian team. The remainder of the British team would all die on their return journey due to short supplies of food, appalling weather conditions and sickness. His last words in his dairy were: 'For God's sake, look after our people'. He was heavily criticised after his death because some people thought that at least some members of the group could have lived if different decisions had been made by Scott. 
	function	The purpose of a character; why a writer has included a character.	If someone asks you about _____, they want to know why a writer has included a character in a narrative.		
	Protagonist	The main character in a narrative.	Arthur Kipps is the _____ in TWIB because he's the character that we follow throughout.		
	Antagonist	The character that goes against the main character creating conflict.	The Woman in Black is a very obvious _____.		
	Tension	The feeling of nervousness or worry about what may happen in a story.	Scott's diary introduces _____ because it hints that his death might be imminent.		
Week 8	Contrast	An obvious difference between two or more things.	There is a _____ between the tones of Scott and Murphy's diaries.	Week 8	Dervla Murphy: Full Tilt Dervla was gifted a bicycle and atlas aged 10 and began planning a trip from Ireland (where she was from) to India. She made the trip when she was 31. At some point in her journey, she decided to write a journal instead of sending letters; her bike was called 'Roz'. In her diaries, she describes fighting off thieves with a pistol, meeting lots of people from different cultures and receiving lots of injuries along the way. She took part in many fundraising campaigns around the world and also travelled with her daughter when she was a young child. 
	Character development	The changes a character experiences in a story.	'Talking Heads' characters develop throughout the monologues.		
	Writer	The author or person who wrote the text. We use their second name.	Captain Scott was a Naval Officer, writer and explorer.		
	Superlatives	of the highest quality or degree - The MOST the LEAST Bigg EST small EST	Rescue is the most important thing.		
	juxtaposition	When two things are in contrast to each other	A juxtaposition is a form of contrast.		
Week 9	Craft	The use of skill in making something.	Writers _____ monologues to explore ideas about society.	Week 9	Format of a monologue

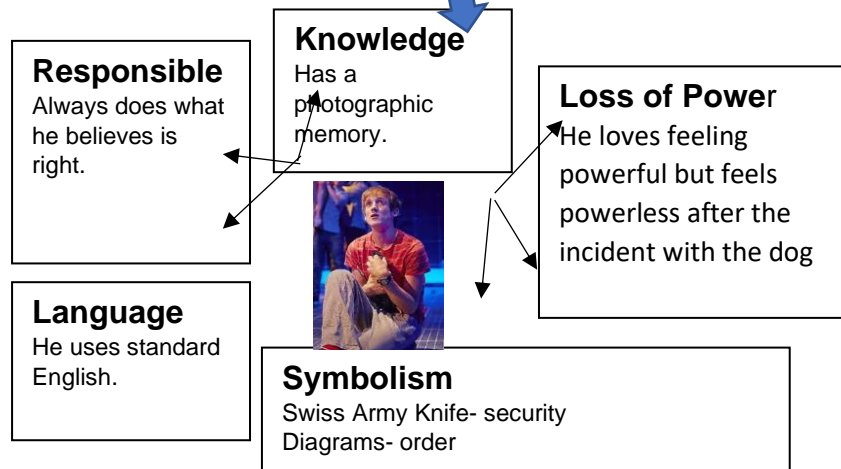
	Thesis	An idea or theory that is put forward and supported by an explanation.	To set out our argument in an introduction, we can start with a _____ statement.		<p>Monologues are different to other text types because they are for dramatic purposes, however they don't use any action or dialogue. Instead, they rely totally on the words of a single character to create meaning and effect.</p> <p>TASK: Research 'monologues for children'. Read or watch a couple that you find that interest you. Print and annotate/make some notes on how each one makes you feel as a reader/viewer and why.</p> 
	Annotation	Where we make notes on a piece of text.	Before we start writing our response to an question we might want to annotate the text to help us organise our ideas.		
	Pathetic fallacy	When the weather or setting reflect the mood of a scene	TWIB often described gloomy weather over the marsh.		
	Semantic field	When words that could be grouped together are used in a passage of writing.	Bit, tore, struck, ripped could be described as a semantic field of violence.		
uWeek 10	Formal	Very correct and serious rather than relaxed and friendly.	Anne Frank writes in a more formal style.		<p>Consolidation Task:</p> <p>Draw up a table of all of the monologues you have studied this cycle.</p> <ol style="list-style-type: none"> Sort them into formal and informal. Decide what tone each one creates. Pick your favourite. Have a go at writing the next section of the monologue- what would the individual say next? What tone will you create? How?
	genre	The category or type of text.	Monologues are one genre of literature.		
	First person	When you express your opinion	All monologues are written in first person .		
	Third person	When you write from a wider perspective. This develops your academic voice	Monologues are not written in third person because this would not give an insight into a character's innermost thoughts.		
	connotation	What is suggested by a word, image or action.	The colour red connotes danger.		
				Week 10	



Key Characters

- (pick 1)
- ☐ Create a character sheet
 - ☐ Plot their activities and actions
 - ☐ Draw what you think they look like using your inference skills
 - ☐ Write a letter home from their perspective
 - ☐ Write what happens to a character when they get home

Anne Frank * Christopher Boone * Joe Simpson * Captain Scott * Dervla Murphy



Developing Cultural Capital - Themes

Read an article on one of the key themes from these monologues.

- Tasks:
- ☐ Print them out and highlight literary techniques.
 - (pick 1) ☐ Write a summary of the article
 - ☐ Find two conflicting articles

Example:

Bullying – An article on the impact of bullying on young people

Leadership – Where a young person has taken on leadership

Gang Membership- Where a young person has become a gang member

Social Responsibility – Young carers

A03 – Social Context – (*Influences on the book and author*)

- The people of Britain had **just been through the Second World War** when Anne Frank's diary was published. Anne wrote about her experiences of the war in Amsterdam.
- Alan Bennett tackles lots of issues within his monologues. These include **social class, poverty and family relationships** to prompt topics of debate amongst viewers.
- DNA explores modern topics of **bullying and gang culture**- it is written to prompt discussion of how responsible we are for each other and how self-centredness can lead to poor choices.
- It does not explicitly say in 'Curious Incident' that Christopher is **autistic**. Mark Haddon clarified this after publication in the hope that it would shed more light and support on the population with autism.
- Joe Simpson and Captain Scott both had to make difficult decisions in their monologues- they had a responsibility to other people and to themselves. The decisions they made are often debated.
- Dervla described being 'freed' by her mother's death. After this, she was able to go on her long-planned journey.

YOU COULD DO A RESEARCH LEAFLET ON THESE TOPICS!

PLACES IN THE MONOLOGUES:

Think about places in the monologues. Find descriptions and events that link to these 3 main places.

South Pole India Secret Annexe

BIG WRITE: Write your own description of these locations in **first person** (you are there)



Week 1 & 2

Nutrition recall

Balanced diet definition: Eating a wide variety of foods in the right proportions, and the right amount of food and drink to achieve and maintain a healthy body weight.

8 tips for a healthy diet

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

VITAMINS AND THEIR FUNCTIONS

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

MINERALS AND THEIR FUNCTIONS

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

Questions:

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

Week 3 & 4

Diet, nutrition & Health

Over vs under-nutrition

Over-nutrition – eating too much food, or too much of a certain food.

Under-nutrition - eating too little food or too little of a particular nutrient

Definitions:

- Obesity, or being obese, means being very overweight.
- Cardiovascular disease covers a group of diseases, including diseases of the heart and blood vessels.
- CHD (coronary heart disease) occurs when blood vessels to the heart become blocked with fatty deposits.
- Type 2 diabetes is the most common type of diabetes in the UK. It causes the sugar in the blood to get too high.

The main health problems linked to **obesity**?

- Type 2 diabetes
- Coronary heart disease
- Stroke
- Cancers
- Arthritis
- Depression



The main the risk factors are for **CHD**

- High blood pressure
- Smoking
- High cholesterol
- Diabetes
- Not exercising enough
- Being overweight or obese
- DNA
- Ethnic background

The signs of **type 2 diabetes**

- Feeling tired all the time
- Feeling thirsty
- Passing more urine than normal

Normal



Blocked



Questions:

1. What are the main health problems associated with obesity?
2. What is coronary heart disease? Explain
3. What is the difference between type 1 and 2 diabetes?
4. How can you treat type 2 diabetes?

Week 5 & 6

Allergies and intolerances

Definitions:

Allergen – a substance or food that may cause an allergic reaction.

Allergic reaction – Where the body reacts suddenly and often seriously to certain foods.

The 14 allergens

Consumers may be allergic or have intolerance to other ingredients, but only the 14 allergens are required to be declared as allergens by food law.



In the worst cases of food allergies, some people suffer severe reactions which can stop them breathing. They will need an injection of adrenaline from an **EpiPen** to help them recover.

Allergy information should be clearly shown on any ingredients list by **highlighting the ingredient in bold**.

The 2 main types of intolerance are **lactose intolerance** (dairy) and **coeliac disease** (gluten).

- Lactose intolerance = one of the **most common**. People who cannot digest lactose (**natural sugar** found in **milk** and other **dairy foods**).
- Intolerance to gluten is known as **coeliac** disease. Symptoms include Diarrhoea, Bloating and Weight loss

Questions:

1. What is the difference between a food allergy and intolerance?
2. Name 5 foods that could cause a food allergy?
3. What can happen to somebody who accidentally eats a food that they are severely allergic to e.g. nuts?

Plan a meal for a teenager who is a Coeliac. Explain what you would substitute and for what?

Week 7 & 8

Seasonality and food waste

Some foods are seasonal. This means that they are only available and grown at certain times of the year.

How is food wasted?

There are 2 main reasons we waste food at home:

1. We make too much
2. We don't use food before it goes off

Using leftovers

You could use leftover food to make another dish such as:

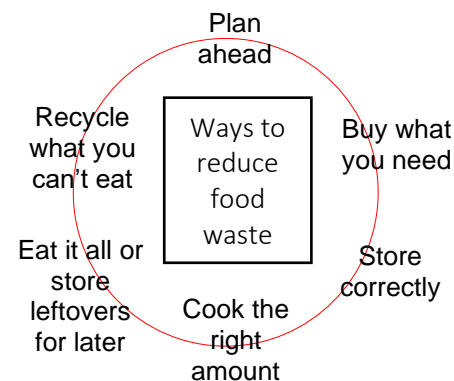
- Rice and pasta in salads
- Bread for breadcrumbs. Used to coat fishcakes, chicken goujons
- Potatoes used for bubble and squeak or frittata
- Chicken used in chicken curry or pie

Advantages of seasonal foods

- More likely to be grown in the UK
- Reduced food miles and carbon footprint
- Supports local businesses
- Can be fresher than buying out of season
- More available which makes them cheaper

Disadvantages of seasonal foods

- They can be used a lot during some seasons which means people could become bored of them
- There can be too much of some foods that will be wasted if they are not eaten



Questions:

1. What does 'seasonal' mean?
2. Give 2 advantages and 2 disadvantages of seasonal foods
3. What are the 4 seasons in the UK?
4. Create a meal that could be made using leftovers from a roast chicken dinner.

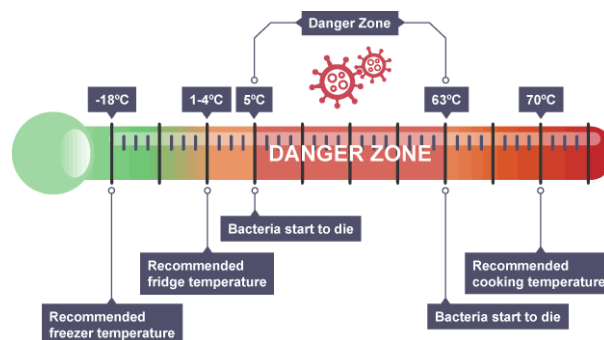
Week 1 & 2

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
- Stomach pains
- Diarrhoea
- Dehydration
- Nausea

Questions:

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

Week 3 & 4

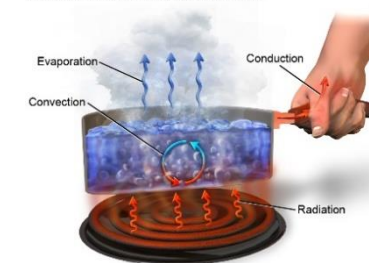
Cooking of food and heat transfer

We cook foods for many different reasons including:

- To **destroy** harmful bacteria
- To **improve** colour, flavour, smell and texture of food
- To make food **last longer**
- To make the diet more **varied**

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

- Conduction
- Convection
- Radiation

Mechanisms of Heat Transfer


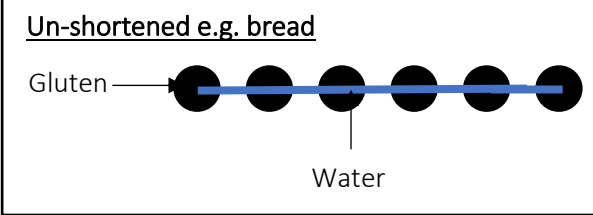
Conduction is when the heat travels through solid materials like metal as well as food. Heat is conducted from molecule to molecule in a liquid or solid. Metal saucepans usually have plastic or wooden handles so that they don't conduct too much heat when they're used.

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:

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

<p>Week 5 & 6</p> <p>Shortening and aeration</p>	<p>Week 7 & 8</p> <p>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"> <p><u>Shortened e.g. pastry</u></p>  <p><u>Un-shortened e.g. bread</u></p>  </div> <p><u>Definitions:</u></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><u>Questions:</u></p> <ol style="list-style-type: none"> Describe what shortening is, how it happens giving an example Describe what aeration is, how it happens giving an example Describe the difference between a shortened food and an un-shortened food 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><u>Mechanical action</u></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><u>Using an acid</u></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><u>Using heat</u></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><u>Questions:</u></p> <ol style="list-style-type: none"> What is the main nutrient found in eggs? What are the 3 main methods of denaturation? Explain why an egg white can be set, but the yolk is still runny after cooking Describe the difference between denaturation and coagulation



Lesson 1 and 2– Managing Money	Lesson 3 and 4 – Understanding Fraud and Scams
Where to access support https://barclayslifeskills.com/	Where to access support The police: If you feel threatened or if you're in immediate danger, call 999. If it's not an emergency, call 101. Your bank Action Fraud Online Citizens Advice Online
Content: A budget is a financial plan for a defined period. It includes income and expenditure Income - money received, especially on a regular basis, for work or through investments Expenditure - an amount of money spent. A debit card lets you spend and withdraw money straight from your current account. You can use it to pay in shops and online. A credit card lets you borrow money to spend, up to an agreed limit, and pay it back later. Budgets should be: <ul style="list-style-type: none">• Comprehensive and honest – they should include all the ways they might receive or spend money, however small• Accurate – they need to make sure nothing is forgotten and identify their spending priorities• Cover a set period – usually a week or a month to allow comparison	Content: Digital literacy means being able to understand and use technology. Digital literacy skills allow you to find, use & create info online in a productive & useful way. Having an understanding about digital literacy means you're able to use technology safely and it helps you avoid its dangers Fraud - Wrongful or criminal deception intended to result in financial or personal gain. Scam - an illegal plan for making money, especially one that involves tricking people Victim - someone or something that has been hurt, damaged, or killed or has suffered, either because of the actions of someone or something else, or because of illness or chance. Perpetrator - someone who has committed a crime or a violent or harmful act. Can victims get their money back? Unfortunately, there is no straightforward answer to this question. Whether or not your bank will refund scammed money depends on various factors — such as the bank's policies, the type of scam, how you paid, and how quickly you reported the fraud.
Questions <ol style="list-style-type: none">1. What is a budget?2. What is the difference between income and expenditure?3. What is a debit card used for?4. What must you do with a credit card balance at the end of each month?5. How do you budget your money?	Questions <ol style="list-style-type: none">1. Who should you contact if you think you have been scammed?2. What is the definition of fraud?3. What is the definition of a scam?4. How might a victim feel if they have been scammed?5. Can victims of scams get their money back?



Lesson 5 and 6 – Skills for the Workplace	Lesson 7 and 8 – Employment and Self Employment
Where to access support https://www.indeed.com/career-advice/career-development/workplace-skills	Where to access support https://nextstepsw.ac.uk/careers https://nationalcareers.service.gov.uk/
Content: Soft skills are the skills you need to enable you to study, learn efficiently and you can apply them to many job roles. These are sometimes called transferable skills, employability skills or competencies . Here are some examples: Communication skills, Leadership, Problem solving Hard skills are the abilities you learn and improve through practice, repetition, and education. Here are some examples: computer skills or being able to speak another language.	Content: Employment most generally means the state of having a paid job—of being employed. To employ someone is to pay them to work. An employer provides employment to employees. Employee rights include: <ul style="list-style-type: none">• statutory Sick Pay• statutory maternity, paternity, adoption and shared parental leave and pay (workers only get pay, not leave)• minimum notice periods if their employment will be ending, for example if an employer is dismissing them• protection against unfair dismissal• the right to request flexible working• time off for emergencies• Statutory Redundancy Pay Self-employment- the term ‘self-employed’ means that someone earns money by working for themselves i.e running their own business. Voluntary Work- Volunteering is described as an unpaid activity where someone gives their time to help a not-for-profit organisation or an individual who they are not related to.
Questions <ol style="list-style-type: none">1. What is a soft skill?2. Give an example of a soft skill.3. What is a hard skill?4. Give an example of a hard skill.5. List your hard and soft skills!	Questions <ol style="list-style-type: none">1. What is the definition of employment?2. Give three rights that employees are entitled too.3. What does it mean when you are self-employed?4. Define voluntary work.5. Give an example of a volunteering role in your local community.



Lesson 9 and 10– Unifrog	
Where to access support https://www.unifrog.org/sign-in	
Content: Aspirations- Your hopes or ambitions of achieving something. Searching the Careers library on Unifrog https://www.unifrog.org/sign-in Enter your school email and click re-set password- A link will be sent to your school email to re-set your password. Log in to Unifrog and begin exploring different jobs and careers using the Careers Library Each profile will have all the information you need to see whether a job or career area is right for you! - Day-to-day tasks - Skills needed to do the job - Career progression - Rate of growth in the industry or career area - Qualifications needed - Working hours and salary	
Questions <ol style="list-style-type: none">1. What is the name of the career’s website?2. Why is it useful to research possible careers?3. Why is it important that we revisit these ideas each year?4. What career path would you like to take?5. What qualifications do you need to achieve this career goal?	

Your Maths Homework is to complete your sparx

Y8C2 Key knowledge

Item	Description						
Gradient	The amount a straight line goes up or down for every unit it moves to the right.						
Gradient	$\text{gradient} = \frac{\text{change in } y}{\text{change in } x}$						
Y intercept	The place where a line crosses the y axis.						
The general equation of a straight line	$y = mx + c$ <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">m is the gradient</div> <div style="font-size: 2em;">↗</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">c is the y intercept</div> </div>						
Reciprocal	<p>The reciprocal of a number is 1 divided by that number.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Number</th><th>The reciprocal</th></tr> </thead> <tbody> <tr> <td>5</td><td>$\frac{1}{5}$</td></tr> <tr> <td>$\frac{3}{5}$</td><td>$\frac{5}{3}$</td></tr> </tbody> </table>	Number	The reciprocal	5	$\frac{1}{5}$	$\frac{3}{5}$	$\frac{5}{3}$
Number	The reciprocal						
5	$\frac{1}{5}$						
$\frac{3}{5}$	$\frac{5}{3}$						
Parallel	Parallel lines have the same gradient.						
Perpendicular	Perpendicular lines are at right angles to each other.						
Quadratic	Quadratic refers to expressions or equations where the highest power is a square (for example x^2)						
‘Expand’ or ‘multiply out’	A process that removes brackets from an expression Eg. $(x + 5)(x - 2) = x^2 + 3x - 10$						
Factorise	A process that separates the factors of an expression Eg. $x^2 + 8x + 12 = (x + 2)(x + 6)$						
The general formula for the volume of a prism	$\text{Volume of a prism} = \frac{1}{3} \times \text{base area} \times \text{height}$						

KNOWLEDGE ORGANISER - Rock'n'Roll - Year 8

1. HISTORICAL CONTEXT

2.. Rock'n'Roll developed in the **southern states** of America in the **late 1940s** and **early 1950s**.

3. **African Americans** moved to **urban areas**, which meant that black and white people were living closer together than every before.

4. Their styles of music **mixed** and **evolved**, creating **new genres** of music.

5. Rock'n'Roll was a mix of **rhythm'n'blues** (which came from The Blues) and **country and western** music. But also had influences of **gospel**, **folk** and **jazz**.

6. Typical songs were a **faster** version of the **12-bar blues** with the **distinctive twang** of country and western **singing**.

7. Civil Rights:

The Civil Rights movement was a struggle for **social justice** that took place mainly during the **1950s** and **1960s** for black people to gain equal rights under the law in the United States.

The Civil War had officially **abolished slavery**, but it didn't end discrimination.

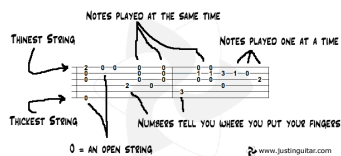
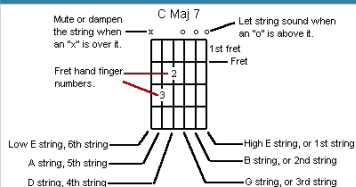
In the **Civil Rights Act of 1964** the President John F Kennedy was witnessed signing the act by many activists. The law guaranteed **equal employment** for all and allowed the authorities to ensure **public facilities** were **integrated**.

8. Famous Leaders:

8.a. **Martin Luther King** was a social activist and Baptist minister who played a key role in the American Civil Rights movement from the mid-1950s until his assassination in 1968. He is famous for his **'I have a dream** speech.

8.b **Rosa Parks** helped initiate the Civil Rights movement in the US by refusing to give up her seat to a white man on an Alabama city bus in 1955.

46. UNDERSTANDING GUITAR NOTATION



9. KEYWORDS

10. 12-Bar Blues	The 12-note chord pattern repeated in Blues and Rock'n'Roll Music (see no.10 of 'Blues' KO).
11. Bass Line	Root notes of a chord which are played at a low pitch.
12. Walking Bass	Walks through the notes of each chord (see no.11 of 'The Blues' Knowledge Organiser).
13. Ensemble	A group of musicians playing together.
14. Accompaniment	Supports the melody line but is played in the background, e.g. ostinato or chords.
15. Lyrics	The words in a song.
16. Rhyme	Where are word or syllable corresponds with each other at the end of a line.
17. Civil Right Movement	To achieve equality between which and black people in the 1950s and 1960s in America.

18. KEY FEATURES OF 1950S ROCK'N'ROLL MUSIC

19. **Up-tempo** (140bpm) & **4/4** time signature.

20. Based around **primary chords** (I, IV and V).

21. Male **Lead singer** + electric **guitars**, **bass** guitar, **drum** kit.

22. Additional instruments include **piano**, **saxophone** or **double bass**.

23. **Lyrics** appealed to teenagers - the **hook** is repeated throughout.

24. Simple structures including: verse-chorus / **AABA** / instrumental section / **call & response** / **12-bar blues**.

32. TECHNOLOGY & PRODUCTION

33. **Live recording**, direct to tape

34. **Loud guitars** and **drums**.

35. **Vocals overdubbed** later to improve clarity.

36. Use of **slap-back delay** on vocals and guitars.

37. Use of **echo chambers** added to the backing mix.

38. Use of **overdriven** valve amplifiers (hinting at distorted sound of rock guitar that would soon become popular).

25. KEY FEATURES OF 1960S ROCK'N'ROLL MUSIC

26. **Up-tempo** (140 bpm) & **4/4** time signature.

27. Mostly based around **primary chords** + chord **vi**.

28. **Lead** electric **guitar** (often using **power chords**), **rhythmic guitar**, **bass** guitar, lead **singer** and **drum** kit.

29. Additional instruments include strings, brass and/or woodwind, **effects** on **electric guitar**.

30. **Lyrics** were based on religious themes, political beliefs, **personal experiences** of love and song told stories.

31. **Verse-chorus** structure.

39. KEY MUSICIANS & SONGS

40. Bill Haley & The Comets	'Rock Around the Clock'
41. Chuck Berry	'Johnny B. Goode'
42. Elvis Presley	'Hound Dog', 'Jailhouse Rock'
43. Jerry Lee Lewis	'Great Balls of Fire'
44. Buddy Holly	'That'll Be The Day'
45. The Beatles	'Twist & Shout', 'Money'



SCAN ME

HISTORICAL CONTEXT

Reggae is a slow, rhythmical style of music that originated in Jamaica in the 1960s. It developed from Ska which an early form of fast dance music in Jamaica. Reggae is closely linked to Rastafarianism, a religion founded in Jamaica. The most notable Reggae artist is Bob Marley who took over Western culture by storm with his powerful songs.

KEY FEATURES OF REGGAE MUSIC

Off-beat	Guitar & Piano emphasise chords on beats 2 & 4 or on the second weaker quaver e.g. 1+ 2+. This is called chop .
Organ Shuffle/Bubble	Left hand plays offbeat quavers whilst the right hand plays the offbeat chop .
Staccato	When notes are played short and detached.
Riff	Repeated music pattern. Often the bass-line will be based around a riff.
Chord Pattern	Often quite simple, repeated chord patterns used throughout a song.
Rim Shot	Where the drum stick hits the rim and the skin of the snare drum simultaneously.
Political Lyrics	Songs often critical of politics and raise awareness of social issues such as racism and poverty
Horn Stabs	Short interjecting melodies played by the 'horn section'
Skank	Chords on beats 2 and 4

REGGAE INSTRUMENTATION

Vocals – Lead singer

Backing Vocals – often 2 or 3 backing singers would be in the band. Often sing responses to the lead vocal line and sometimes add harmonies.

Guitar – electric guitar, often quite thin sounding playing 'chop' chords

Piano – often doubling the chop chords played on guitar. Played staccato.

Organ – plays the 'Bubble' – quite a tricky part to master. The

'Hammond' organ was popular with artists in the 1970s.

Bass Guitar – played with a heavy and deep sound by boosting the low frequencies.

Horn Section – usually comprise of trumpet, saxophone & trombone. They often play introductions and 'stabs'.

DEVELOPMENT OF REGGAE**MENTO:**

- Jamaican folk music popular in the 1950s
- Used guitar, banjo & drums
- Featured lots of verses (Strophic Form)
- Light-hearted lyrics of everyday life

SKA:

- Fast dance music that emerged in the late 1950s
- Fuses American Rhythm & Blues with Mento rhythms
- Uses electric guitars and jazzy horn sections (trumpets, saxophones & trombone)
- Uses offbeat jumpy rhythms
- Has lyrics about local issues

REGGAE:

- Slower than Ska and emerged in the 1960s
- Amplified bass guitar riffs
- Associated with **Rastafarianism** (a religious movement worshipping Haile Selassie)
- Characteristic rhythm in 4/4 with missing beat emphasis
- Repeated off beat quavers
- Verse & Chorus form

ROCK STEADY:

- Dance music that emerged in the mid-1960s
- Rhythms more relaxed than Ska
- Loud bass guitar playing steady 4/4 beat
- Political themes in lyrics

DUB:

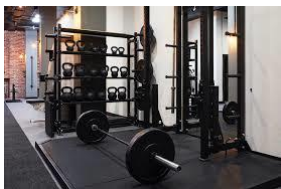
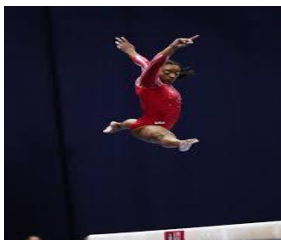


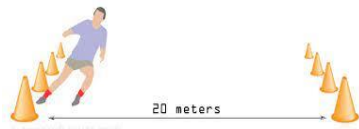
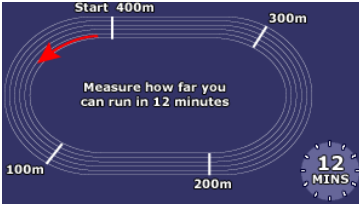




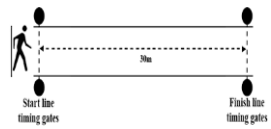
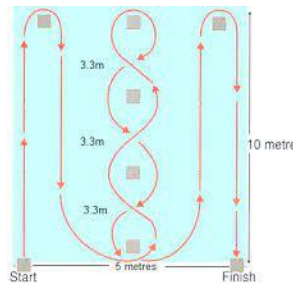

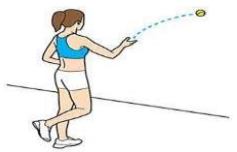

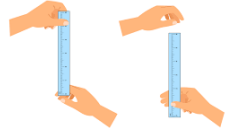
- Popular in the 1970s
- Instrumental remixes of existing reggae tracks
- Most of the vocals would be removed
- Drum and bass parts emphasised
- Effects such as echo delay and reverb added.
- Early form of popular electronic music.


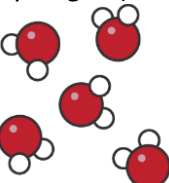
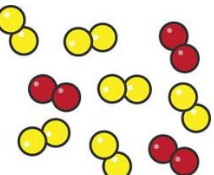
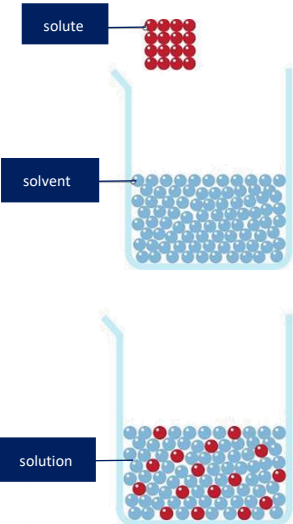

REGGAE DRUM GROOVES

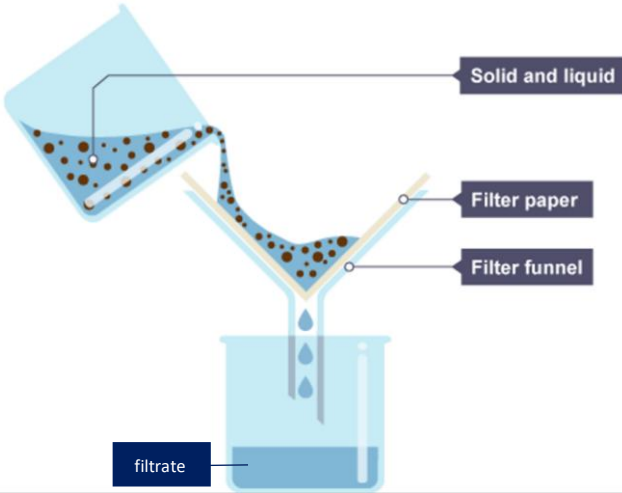
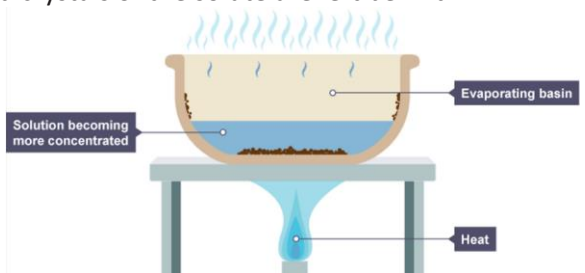








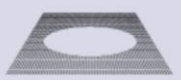
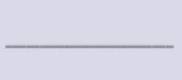










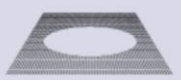
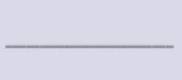










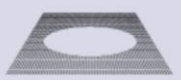
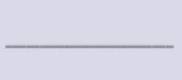


Have a listen.....

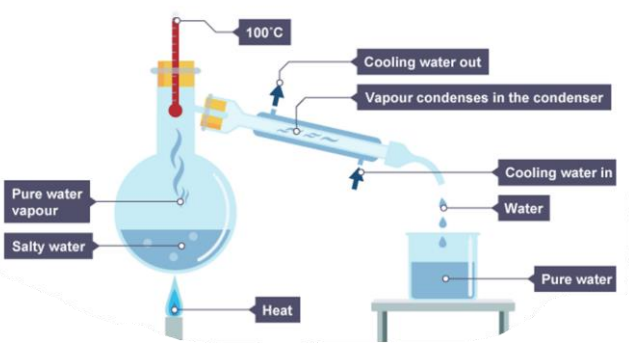
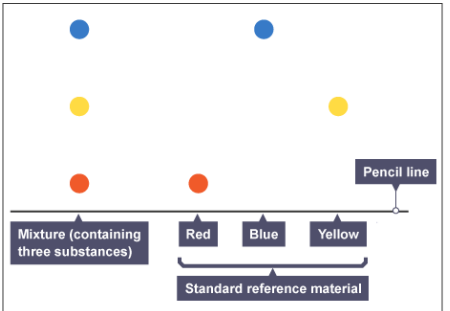
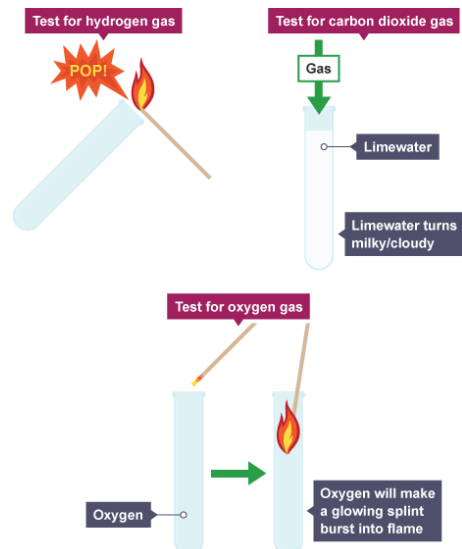
One Drop	You don't hit on beat 1. You play the kick drum on beat 3.	'One Drop' – Bob Marley
Stepper	The kick drum is played on all 4 beats, which gives a strong driving rhythm.	'Exodus' – Bob Marley
Rocker	Beats 1 and 3 are emphasised	'Night Nurse' – Gregory Issacs

Year 8 Cycle 2 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 and 12
Components of Physical Fitness:	Components of Skill-related Fitness:	Tests for Physical fitness:	Tests for Physical fitness:	Tests for skill-related fitness:	Tests for skill-related fitness:
<p>Aerobic Endurance – The ability of the heart, lungs and blood to transport oxygen to the working muscles whilst exercising.</p> <p>Muscular Endurance – The ability to use voluntary muscles repeatedly without tiring.</p> <p>Strength – The amount of force a muscle can exert against a resistance</p>  <p>Flexibility – The range of movement at a joint</p> 	<p>Agility – The ability to change the position of the body quickly and control the movement.</p> <p>Balance – The ability to maintain the body's centre of mass above the base of support.</p> <p>Co-ordination – The ability to use two or more body parts together.</p> <p>Power – The ability to perform a strength exercise quickly.</p>  <p>Reaction Time – The time taken to respond to a stimulus.</p>  <p>Speed – The ability to put body parts into motion quickly.</p>	<p>PHYSICAL</p> <p>Aerobic Endurance – Multi-Stage Fitness Test/Cooper Run</p>   <p>Muscular Endurance – 60 seconds sit up Test/Press up test</p>  <p>Research the methods for these on BBC Bitesize</p>	<p>Strength – Hand Grip Dynamometer Test/ 1 rep max</p>   <p>Flexibility – Sit and Reach Test</p>  <p>Research the methods for these on BBC Bitesize</p>	<p>SKILL</p> <p>Speed – 30 metre Sprint Test</p>  <p>Agility – Illinois Test</p>  <p>Balance – Standing Stork Test</p>  <p>Research the methods for these on BBC Bitesize</p>	<p>Co-ordination – Alternate Hand Wall Toss Test</p>  <p>Power – Vertical Jump Test</p>  <p>Reaction Time – Ruler Drop Test.</p>  <p>Research the methods for these on BBC Bitesize</p>

Lesson 1 Pure and impure substances	Lesson 2 Solutions	Lesson 3 Solubility
<p>Pure</p> <p>An element is made from just one type of atom.</p>  <p>A compound is a pure substance that is made from more than one element. In a compound, elements are chemically bonded together</p> <p>Water molecules are made up of two elements - hydrogen (white atoms) and oxygen (red atoms).</p>  <p>Compounds have a specific ratio of atoms. Water has a ratio of two hydrogen atoms to one oxygen atom.</p> <p>Impure</p> <p>A mixture is formed when two or more elements or compounds are present without being chemically bonded together. Mixtures are impure.</p>  <p>This particle diagram shows air.</p> <p>Air is a mixture which is made mainly of nitrogen molecules (yellow) and oxygen molecules (red).</p>	<p>Dissolve:</p> <p>The process when a solute is mixed with a solvent and the solute breaks into much smaller particles and spreads out.</p> <p>Solute:</p> <p>The solid (or occasionally a gas) which dissolves into a solvent (liquid) in order to make a solution.</p> <p>Solvent:</p> <p>The liquid in a solution which dissolves the solute.</p> <p>Solution:</p> <p>Made when a solute dissolves into a solvent.</p> 	<p>Soluble</p> <p>If a solid does dissolve in a specific solvent.</p> <p>Insoluble</p> <p>If a solid does not dissolve in a specific solvent.</p> <p>Solubility measures how much solute can dissolve in a volume of solvent at a specific temperature.</p> <p>Sugar has a higher solubility in water than salt. Therefore, more sugar than salt can dissolve in a volume of water at a specific temperature.</p> <p>The solubility of a solid solute usually increases when the temperature increases.</p> <p>Saturation</p> <p>There is a limit to the mass of solute that will dissolve in a particular volume of the solvent. When no more solute dissolves, the solution is saturated.</p> 

Lesson 4 Filtration	Lesson 5 Evaporation/Crystallisation	Lesson 6 &7 Separating Rock Salt-Plan & Investigation																							
<p>Filtration is used to separate an insoluble solid from a pure liquid or a solution.</p> <p>The filtrate is the liquid which passes through the filter paper and the residue is the solid left on the filter paper.</p> <p>Filtration usually involves a circle of filter paper folded to make a cone and placed into a filter funnel.</p> <p>When a mixture of sand and water is filtered:</p> <ul style="list-style-type: none">the sand stays behind in the filter paper, it becomes the residue.the water passes through the filter paper, it becomes the filtrate.	<p>Evaporation occurs when a liquid slowly turns into a gas below its boiling point.</p> <p>Evaporation occurs at all temperatures, boiling happens at a fixed temperature depending on the liquid.</p> <p>Puddles dry up because of evaporation. Puddles do not boil because the temperature on earth is always below 100°C - the boiling point of water.</p> <p>Crystallisation is a separation technique used to obtain crystals of a solid solute from a solution.</p> <p>When a solution is heated, the solvent evaporates and crystals of the solute are left behind.</p>	<p>A method describes how an experiment is carried out. It should contain a set of written instructions with numbers or letters to show the order in which the steps are carried out.</p> <p>A diagram can be included to show how the experiment should look when it's set up.</p> <p>Diagrams make it clear how pieces of apparatus are linked together.</p>																							
		<table><tr><th>Name of apparatus</th><th>Drawing</th><th>2D cross section diagram</th></tr><tr><td>Bunsen burner</td><td></td><td></td></tr><tr><td>Evaporating basin</td><td></td><td></td></tr><tr><td>Filter funnel</td><td></td><td></td></tr><tr><td>Tripod</td><td></td><td></td></tr><tr><td>Gauze</td><td></td><td></td></tr><tr><td>Beaker</td><td></td><td></td></tr></table>			Name of apparatus	Drawing	2D cross section diagram	Bunsen burner			Evaporating basin			Filter funnel			Tripod			Gauze			Beaker		
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<h3>Lesson 8 Distillation</h3>	<h3>Lesson 9 Chromatography</h3>	<h3>Lesson 10 Testing for Gases</h3>
<p>Distillation is a separation technique used to separate a solvent from a mixture.</p> <p>For example, water can be separated from salt solution by distillation.</p> <p>Distillation involves boiling the mixture and then condensing the gas to produce a liquid.</p>  <ol style="list-style-type: none"> 1. The salt solution is placed into a flask and heated until it boils. 2. The water turns into a gas but the salt stays behind in the flask. 3. The steam passes into the condenser. The condenser is a tube which is surrounded by a layer of cold water. This cools the steam, which turns it back into a liquid. 4. The distillate is pure water. 	<p>Chromatography is a separation technique used to separate mixtures of soluble substances.</p> <p>Chromatograms can be used to match known pigments with those in a mixture.</p> <p>On a chromatogram, one spot means that the substance is pure. An impure substance produces two or more spots.</p>  <p>From the chromatogram above, three conclusions can be drawn:</p> <ol style="list-style-type: none"> 1. The mixture contained three substances because it separated into three spots in a vertical column. 2. The mixture contained the same red, blue and yellow pigments as the standard reference pigments because the coloured spots were the same height for each colour. 3. All of the pigments on the chromatogram were soluble in water, because they all moved up from the start line. 	<p>Hydrogen, oxygen and carbon dioxide can be identified using different tests.</p> <p>Hydrogen Putting the flame of a lighted wooden splint in a test tube of hydrogen makes a 'squeaky pop' sound.</p> <p>Oxygen Putting a glowing wooden splint in a test tube of oxygen, causing the splint to relight.</p> <p>Carbon dioxide Bubbling carbon dioxide through limewater changes it from colourless to 'milky'.</p> 

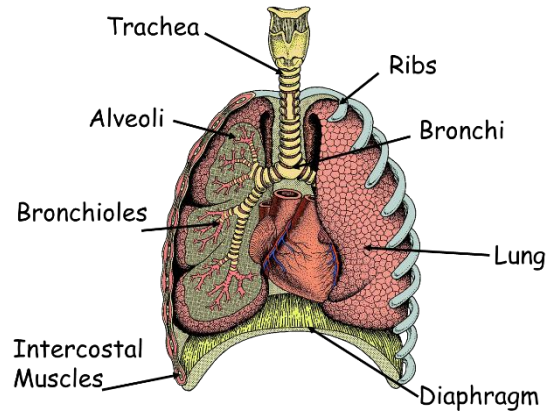
Answer these questions in full sentences in your homework book:

<p>Lesson 1</p> <p>1. What is an element?</p> <p>2. What is a compound?</p> <p>3. What is a mixture?</p> <p>4. Draw a diagram showing a pure substance.</p> <p>5. Draw a diagram showing an impure substance.</p>	<p>Lesson 2</p> <p>1. What is dissolving?</p> <p>2. What is a solute?</p> <p>3. What is a solvent?</p> <p>4. What is a solution?</p> <p>5. Draw a diagram showing a solute dissolving in a solvent.</p>		<p>Lesson 3</p> <p>1. What does soluble mean?</p> <p>2. What does insoluble mean?</p> <p>3. What is meant by solubility?</p> <p>4. What is saturation?</p> <p>5. How does temperature affect solubility?</p>	<p>Lesson 4</p> <p>1. What is Filtration used for?</p> <p>2. What is the filtrate?</p> <p>3. What is the residue?</p> <p>4. Draw a labelled diagram showing filtration.</p>	<p>Lesson 5</p> <p>1. What is Evaporation?</p> <p>2. How is boiling different to evaporation?</p> <p>3. How is crystallisation different to evaporation?</p> <p>4. Draw a labelled diagram showing crystallisation/evaporation.</p>
<p>Lesson 6/7</p> <p>1. What is a method?</p> <p>Draw and label a 2D cross section diagram for:</p> <p>2. Evaporating basin</p> <p>3. Tripod</p> <p>4. Filter funnel</p> <p>5. beaker</p>		<p>Lesson 8</p> <p>1. What is distillation?</p> <p>2. Give an example of a mixture distillation can separate.</p> <p>3. What cools the vapour during distillation?</p> <p>4. What is the name for the change in state when a gas turns to a liquid?</p> <p>Why does the salt stay in the flask?</p>		<p>Lesson 9</p> <p>1. What is chromatography used for?</p> <p>2. If a substance is pure how many spots does it produce?</p> <p>3. If a substance is impure how many spots will it produce?</p> <p>4. How can you tell if a substance is soluble?</p> <p>5. How can you tell if a substance is insoluble?</p>	<p>Lesson 10</p> <p>1. What is the test for hydrogen?</p> <p>2. What is a positive result for testing hydrogen?</p> <p>3. What is the test for carbon dioxide?</p> <p>4. What is a positive result for testing carbon dioxide?</p> <p>5. What is the test and result for oxygen?</p>

Lesson 1

Human Breathing System

Humans breathe to ensure that oxygen enters the body and carbon dioxide leaves the body.



Structure	Function
Trachea	Also called your windpipe carries air into and out of lungs.
Alveoli	Found at the end of the bronchioles, they are tiny air sacs. This is where gas exchange happens.
Bronchioles	The bronchi branch in to smaller and narrower airways. These are too small to be seen with the naked eye.
Intercostal muscles	Muscles found between the ribs which are involved in moving the rib cage up and out during breathing
Ribs	Bones which form a cage which protect the breathing system.
Bronchi	There are two, the windpipe/trachea divides in to two smaller branches.
Lungs	There are two, protected by the ribs, air moves in and out of them.
Diaphragm	A sheet of muscle, involved in moving air in to and out of the lungs.

Lesson 2

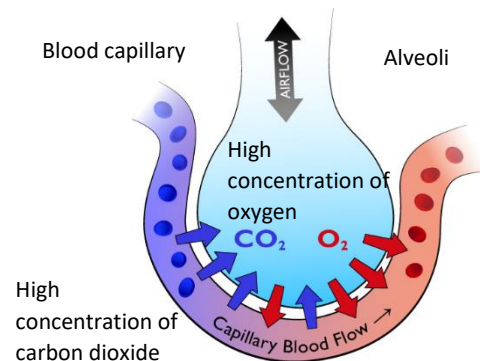
Alveoli

When blood arrives at the lungs it is deoxygenated, When the blood leaves the lungs, it is oxygenated.

Oxygenated – Blood which is high in oxygen.

Deoxygenated – Blood which is low in oxygen.

Gas exchange at the alveoli:



- Oxygen diffuses from the alveoli into the red blood cells in the blood.
- Oxygen moves from where it is high concentration (alveoli) to where it is in low concentration (capillary).
- Carbon dioxide moves from where it is in high concentration (capillary) to where it is in low concentration (alveoli).

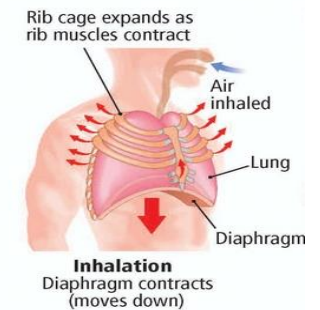
Oxygen travels in the red blood cells in the blood around the body where it diffuses into cells to be used.

Lessons 3 & 4

Ventilation

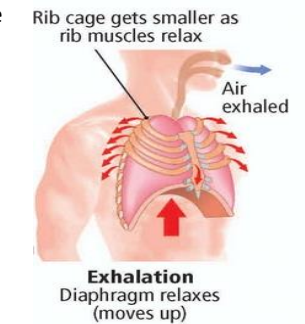
Inhalation:

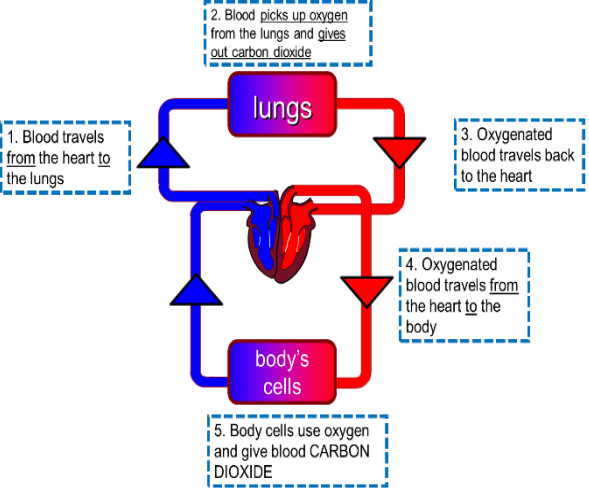
- The intercostal muscles between the ribs contract pulling the ribs up and outward.
- At the same time, the diaphragm contracts and flattens.
- The volume inside the thorax increases and the pressure decreases. Atmospheric pressure is now greater than inside.
- *As a result, air moves through the nose, mouth, bronchus and bronchioles gushes inside the lungs filling the alveoli with fresh air.*



Exhalation:

- The intercostal muscles relax, meaning the ribs return back to their normal position, down and in.
- The diaphragm relaxes and returns to its normal structure, dome shaped.
- The thoracic volume is decreased, the pressure increases, atmospheric pressure is now less than pressure inside.
- The air in alveoli is pushed out through the bronchioles, bronchus and finally out by nasal cavity.



<p>Lesson 5 Lung Diseases</p>	<p>Lesson 6 Heart and Circulation</p>	<p>Lesson 7 Aerobic Respiration</p>
<p><u>Smoking:</u></p> <ul style="list-style-type: none"> • Cigarettes contain nicotine, tar and carbon monoxide. • Nicotine – Highly addictive drug that acts directly on the brain. • Tar – black sticky substance that clogs the lungs and makes lung infections more likely. • Carbon monoxide – Reduces the amount of oxygen that is carried in your red blood cells. <p>Lung cancer – Tar in cigarettes contains carcinogens. They change the DNA in cells in the lungs causing tumours.</p> <p>Bronchitis – Tar in cigarettes leads to a build-up of extra mucus in the bronchioles which stops the cilia from functioning. The airways become inflamed and air flow is reduced.</p> <p>Emphysema – When lungs are inflamed, the alveoli can become damaged or burst. Blood becomes less oxygenated so sufferers have trouble breathing.</p> <p>Asthma – A condition which affects the bronchioles. During an asthma attack:</p> <ul style="list-style-type: none"> • The lining of the airways becomes inflamed. • Fluid builds up in the airways • The muscles around the bronchioles contract, which narrows the airways 	<p>Circulation: The movement of blood around the body.</p> <p><u>Circulatory system:</u></p> <p> ● = Oxygenated blood ● = Deoxygenated blood </p>  <p>The Heart The heart is an organ which pumps blood around the body by contracting.</p>	<p>The body needs a constant supply of energy which comes from digested food. Glucose from digested carbohydrate is a source of stored chemical energy.</p> <p>Respiration - the process that the body uses to release energy from digested food (glucose)</p> <p>Aerobic means with oxygen</p> <p>Aerobic respiration takes place in the mitochondria.</p> <p>Aerobic respiration equation</p> <p style="color: red;">Glucose + Oxygen → Carbon dioxide + Water (+ energy)</p> <p>Combustion – the scientific name for burning</p> <p>Combustion equation: Fuel + Oxygen → Carbon dioxide + water (+ energy)</p>

Lesson 8 Anaerobic Respiration in Animals	Lesson 9 Anaerobic Respiration in Plants and Micro-organisms	Lesson 10 Comparing Aerobic and Anaerobic Respiration
<p>When the body cannot supply the cells with the oxygen needed to break down glucose (e.g. during exercise), then it has to carry out anaerobic respiration.</p> <p>Anaerobic means without oxygen</p> <p>Anaerobic respiration takes place in the cytoplasm</p> <p>Anaerobic respiration equation</p> <p>Glucose → Lactic Acid (+ energy)</p> <p>The lactic acid produced by anaerobic respiration causes muscle fatigue and cramps. The lactic acid must be removed after anaerobic respiration.</p> <p>Oxygen Debt – The amount of oxygen needed to remove the lactic acid built up in the muscles following anaerobic respiration.</p>	<p>Anaerobic respiration in plant and yeast cells is different to animals.</p> <p>Anaerobic respiration in plants & yeast: Glucose → ethanol + carbon dioxide</p> <p>Fermentation - Using Yeast micro-organisms to breakdown glucose without oxygen, releasing ethanol and carbon dioxide.</p> <p>Yeast fermentation is used to make beer and wine, it is also used in baking, the carbon dioxide bubbles produced by anaerobic respiration makes bread rise.</p> <p>Rate of fermentation can be increased by:</p> <ul style="list-style-type: none"> • Increasing the amount of glucose • Increasing the amount of yeast • Increasing the temperature 	<p>Comparing aerobic and anaerobic respiration in animals</p> <p>Aerobic Respiration</p> <ul style="list-style-type: none"> • Produces carbon dioxide • Water is a product • Requires oxygen as a reactant • Takes place in the mitochondria <p>Anaerobic Respiration</p> <ul style="list-style-type: none"> • Produces lactic acid • Is the main cause of oxygen debt • Causes muscles to become tired quickly • Can be switched on suddenly • Takes place in the cytoplasm <p>Both</p> <ul style="list-style-type: none"> • Use glucose • Produce energy

Lesson 11
Effects of Exercise

What happens during exercise?

Heart rate increases to supply the cells of the body with **more oxygen and glucose** for respiration.

Breathing rate increases to supply the blood with **more oxygen** to take to the cells of the body for respiration.

Exercise causes the **frequency and depth of breathing** to increase. This can be measured by looking at the following:

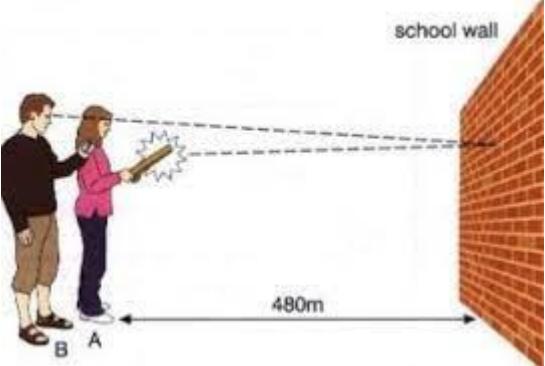
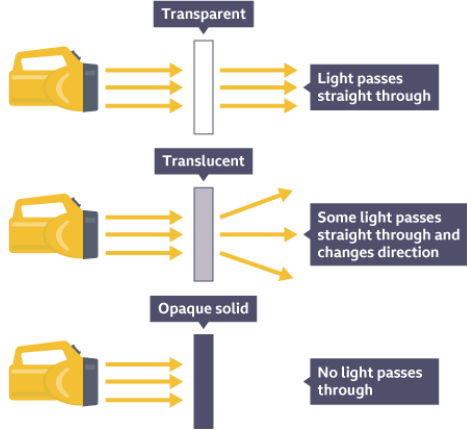
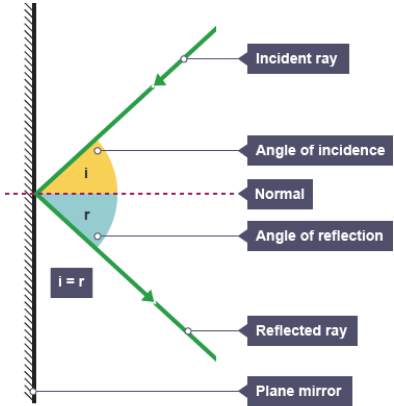
- **Breathing rate** (the number of breaths you take per minute)
- **Tidal volume** (the volume of air breathed in and out in one breath)

Increasing the intensity of exercise will mean that the cells in your body are respiring more aerobically so will require more oxygen to be delivered to them, hence the increase in your breathing.

Answer these questions in full sentences in your homework book:

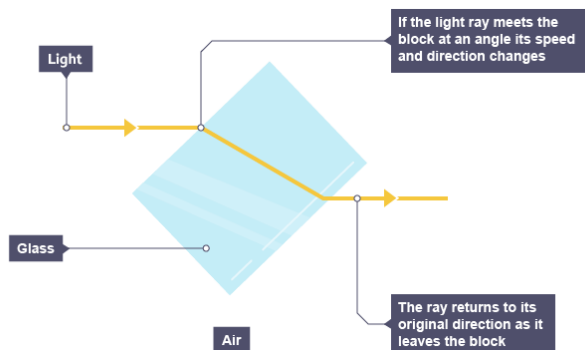
<p>Lesson 1</p> <ol style="list-style-type: none"> 1. Why do humans breathe? 2. Which bones protect the lungs? 3. What is the role of the trachea? 4. Where are alveoli found? 5. Which muscles contract to make the ribs move? 	<p>Lesson 2</p> <ol style="list-style-type: none"> 1. What do we call blood high in oxygen? 2. How is deoxygenated blood different? 3. What are the tiny air sacs in the lungs called? 4. How do oxygen and carbon dioxide move in and out of the alveoli? 5. How does oxygen travel around the body? 	<p>Lessons 3 and 4</p> <ol style="list-style-type: none"> 1. During inhalation do the ribs move in or out? 2. During inhalation does the diaphragm move up or down? 3. During inhalation does air move in or out? 4. During exhalation do the ribs move in or out? 5. During exhalation does the diaphragm move up or down? 	<p>Lesson 5</p> <ol style="list-style-type: none"> 1. What is the addictive chemical in cigarettes? 2. What effect does carbon monoxide have on your blood cells? 3. Which chemical in cigarettes clogs up the lungs? 4. Name 2 diseases caused by smoking. Name a lung condition not caused by smoking. 	<p>Lesson 6</p> <ol style="list-style-type: none"> 1. Which organ pumps blood around the body? 2. Where does the blood pick up oxygen? 3. Where does oxygenated blood go when it leaves the heart? 4. Which gas is given to the blood by the body cells? 5. What type of blood travels from the heart to the lungs?
<p>Lesson 7</p> <ol style="list-style-type: none"> 1. Define respiration 2. What does aerobic mean? 3. Where does aerobic respiration take place inside cells? 4. What gas is made during aerobic respiration? 5. What else is produced during respiration? 	<p>Lesson 8</p> <ol style="list-style-type: none"> 1. What does anaerobic mean? 2. Write out the word equation for anaerobic respiration 3. Where does anaerobic respiration take place inside cells? 4. How does lactic acid affect your muscles? 5. What is used to get rid of lactic acid? 	<p>Lesson 9</p> <ol style="list-style-type: none"> 1. Write out the word equation for anaerobic respiration in plants and yeast. 2. What drinks are made using fermentation? 3. Which gas makes bread rise? 4. If we increase the amount of yeast the rate of fermentation goes.... If we decrease the temperature the rate of fermentation goes.... 	<p>Lesson 10</p> <p>Choose which type of respiration (aerobic or anaerobic) does the following...</p> <ol style="list-style-type: none"> 1. Produces carbon dioxide and water? 2. Takes place in the cytoplasm? 3. Needs oxygen? 4. Produces lactic acid? 5. Produces energy? 	<p>Lesson 11</p> <ol style="list-style-type: none"> 1. What happens to your heart rate during exercise? 2. What happens to breathing rate during exercise? 3. Why do heart rate and breathing rate change? 4. How do you measure breathing rate? 5. How does your tidal volume change during exercise?

<h3>Lesson 1</h3> <h4>Types of Wave</h4>	<h3>Lesson 2</h3> <h4>Sound</h4>	<h3>Lesson 3</h3> <h4>Human Hearing</h4>
<p>Waves transfer energy from one place to another.</p> <p>Some waves move through a substance because the particles vibrate at right angles to the direction that the wave is moving in, these types of waves are called transverse waves.</p> <p>Other waves travel because the particles move backwards and forwards a short distance in the same direction as the wave is moving in. These types of waves are called longitudinal waves.</p> <div data-bbox="141 727 770 903" data-label="Image"> </div> <p>The following types of waves are transverse waves:</p> <ul style="list-style-type: none"> ocean waves light waves microwaves radio waves <p>The following types of waves are longitudinal waves:</p> <ul style="list-style-type: none"> sound waves pressure waves 	<p>A sound wave is a vibration that travels through a solid, liquid or gas such as the air or water.</p> <p>A loud sound has a large amplitude, a high pitched sound has a high frequency.</p> <p>Musicians and scientists record and analyse sounds using wave traces.</p> <div data-bbox="801 616 1397 954" data-label="Figure"> </div>	<p>We can hear sounds because our ears turn sound vibrations from the air, into signals that are sent to our brain.</p> <p>We can't hear all levels of sounds. Sound waves with very high frequencies are called ultrasound and our ears can't detect them.</p> <p>The range of frequencies for human hearing is 20Hz – 20000Hz</p> <div data-bbox="1487 660 2092 1072" data-label="Image"> </div>

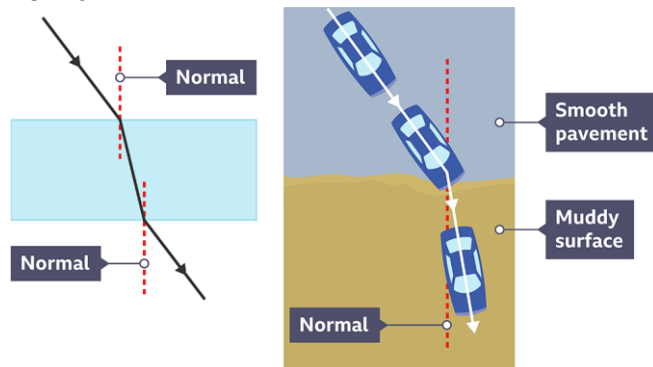
<h3>Lesson 4</h3> <h3>Speed of Sound</h3>	<h3>Lesson 5</h3> <h3>Properties of Light</h3>	<h3>Lesson 6</h3> <h3>Reflection</h3>
<p>Sounds travel at different speeds through gases, solids and liquids.</p> <p>Sound waves are vibrations that are passed on between particles. The speed of sound is the distance a sound travels divided by the time it takes.</p> <p>Speed = distance ÷ time</p> <p>How quickly sound travels depends on how close together the particles are.</p> <p>The particles in gases are further apart than liquids, and so sound travels slower in a gas than a liquid. The particles in a solid are closer still and so sound travels fastest in solids</p> <p>An experiment to calculate the speed of sound in air:</p> 	<p>Light is an electromagnetic wave and travels at an extremely high speed: the speed of light. The speed of light in a vacuum is around 300,000,000 metres per second</p> <p>Light travels as a transverse wave and moves in straight lines.</p> <p>Unlike sound waves, light waves can travel through a vacuum – they do not need a substance to travel through.</p> <p>Light can pass through transparent and translucent materials, but not opaque materials</p> 	<p>Light travels as a transverse wave and can be reflected by surfaces and objects.</p> <p>Smooth, shiny surfaces produce specular reflections, and rough surfaces produce diffuse reflections.</p> <p>Ray diagrams are used to show the path of light rays which are reflected and how images are formed in a mirror</p> 

Lesson 7 Refraction

Light is **refracted** when it enters a material like water or glass. Depending on the density of the material, light will reduce in speed as it travels through, causing it to change direction.



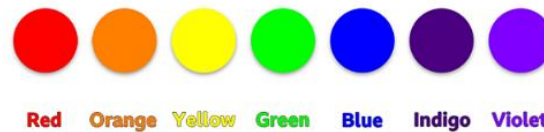
The car on the right hits the mud at an angle, so the front right wheel hit the mud first and slows down, causing the car to turn clockwise – towards the **normal**.



Lesson 8 Colour & Dispersion

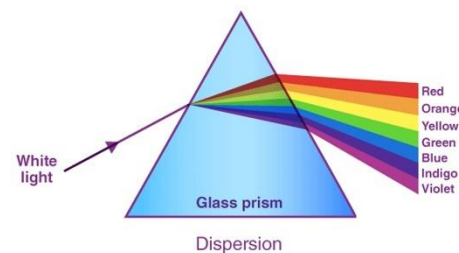
White light is made of a **spectrum** of different colours.

Richard Of York Gave Battle In Vain



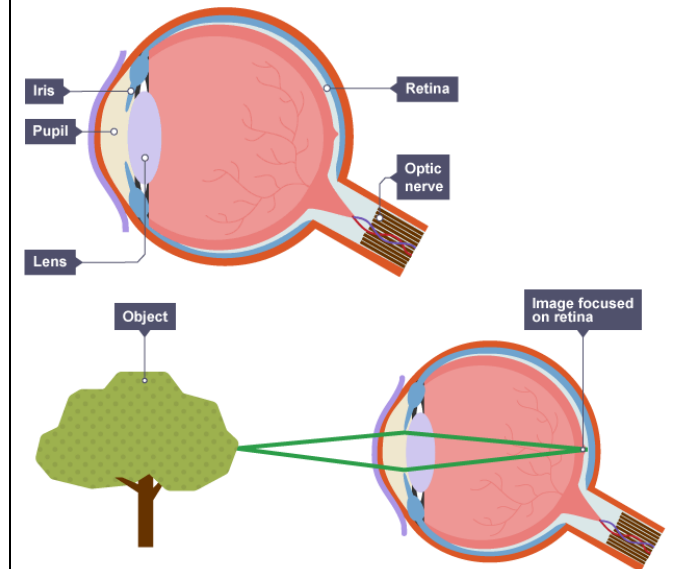
White light can be split up into a spectrum of these colours using a triangular block of glass or acrylic, known as a prism.

Light is refracted when it enters the prism, and each colour is refracted by a different amount. This means that the light leaving the prism is spread out into its different colours, a process called **dispersion**.



Lesson 9 The Human Eye

Cameras and eyes both detect light. Both cameras and the human eye use lenses to focus light.



Iris – The coloured part of the eye, which contains muscles that control the size of the pupil. The purpose of the iris is to regulate the amount of light that enters the eye.

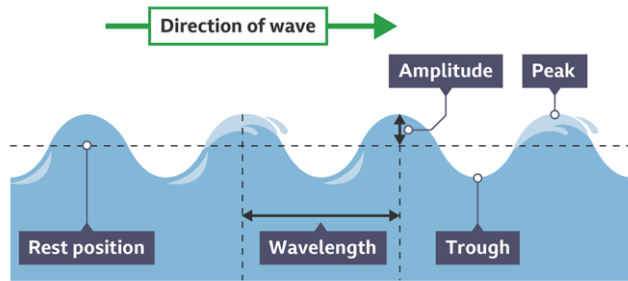
Pupil – The pupil is the hole located at the centre of the iris. Its function is to let in light and focus it on the retina.

Lens – The purpose of the lens is to focus light on the retina.

Lesson 10 Water Waves

Water waves are ripples that travel through water.

Water waves are **transverse** waves and can be **reflected** from surfaces



Water waves can reflect or 'bounce off' a surface.

For example, ocean waves are reflected when they hit a harbour wall, just like light waves reflect when they hit a mirror and waves in washing-up water are reflected off the sides of the sink.

Answer these questions in full sentences in your homework book:

<p>Lesson 1</p> <ol style="list-style-type: none"> 1. What is a wave? 2. What are the 2 types of wave? 3. Give 2 examples of each type of wave 4. What are the differences between the two types of wave? 	<p>Lesson 2</p> <ol style="list-style-type: none"> 1. What is a sound wave? 2. How is the volume of a sound related to its amplitude? 3. Sketch the wave trace of a loud, high pitched sound 4. Sketch the wave trace of a quiet, low pitched sound 	<p>Lesson 3</p> <ol style="list-style-type: none"> 1. What is the range of human hearing? 2. What is ultrasound? 3. Which part of the ear funnels sound waves into the ear canal? 4. Describe how the ear converts sound waves into electrical signals to send to the brain 	<p>Lesson 4</p> <ol style="list-style-type: none"> 1. What is the speed of sound in air? 2. Why does sound travel at a different speed in water to compared to air? 3. Will the speed of sound in a solid be faster or slower than the speed of sound in air? 4. Describe an experiment to measure the speed of sound in air using echoes 	<p>Lesson 5</p> <ol style="list-style-type: none"> 1. Which type of wave, light or sound, can travel in a vacuum? 2. What is the speed of light? 3. Which type of wave is light? 4. Which type of material allows some light to pass through, but not all? 5. Which type of material does not allow light to pass through at all?
<p>Lesson 6</p> <ol style="list-style-type: none"> 1. What are the two types of reflection? 2. Which type of reflection produces an image in a mirror? 3. What is a normal? 4. “$i = r$” summarises the law of reflection. What is the law of reflection? 5. If a ray of light hits a mirror at 30 degrees to the normal, what angle will it reflect at? 	<p>Lesson 7</p> <ol style="list-style-type: none"> 1. What happens to light when it enters a dense material like glass? 2. What happens to light when it travels from a dense material like glass to a less dense material like air? 3. What happens to the speed of travel of light as it passes from air to glass? 	<p>Lesson 8</p> <ol style="list-style-type: none"> 1. Name the colours of the spectrum of light 2. What is a prism? 3. Describe the process of dispersion 4. Which colour of light has the shortest wavelength? 5. Which colour of light has the longest wavelength? 	<p>Lesson 9</p> <ol style="list-style-type: none"> 1. Draw a labelled diagram showing the parts of the eye 2. What is the function of the pupil? 3. What is the function of the lens? 4. Which part of the eye controls the amount of light that enters the eye? 5. How are eyes and cameras similar? 	<p>Lesson 10</p> <ol style="list-style-type: none"> 1. Which type of wave are water waves? 2. What is the difference between the peak and the trough of a water wave? 3. Give 2 examples of the reflection of water waves