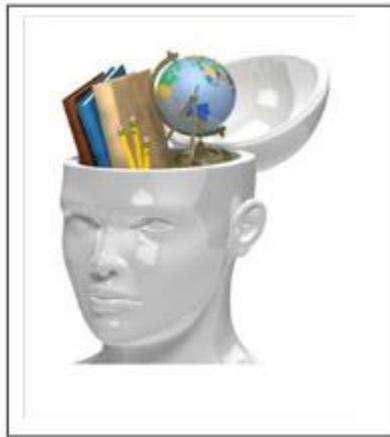




# Year 8 Knowledge Organiser Summer Term



# Instructions for using your Knowledge Organiser

## Self-testing

You can use your knowledge organisers and exercise book in a number of different ways but you should not just copy from the Knowledge Organiser into your book.

**Below are some possible tasks you could do in your workbooks**

- Ask someone to write questions for you
- Write your own challenging questions and then leave it overnight to answer them the next day
- Create mindmaps
- Create flashcards
- Put the key words into new sentences
- Look, cover, write and check
- Mnemonics
- Draw a comic strip of a timeline
- Use the 'clock' template to divide the information into smaller sections. Then test yourself on different sections
- Give yourself spelling tests
- Definition tests
- Draw diagrams of processes
- Draw images and annotate/label them with extra information
- Do further research on the topic
- Create fact files
- Create flowcharts

# Presentation

You should take pride in how you present your work; each page should be clearly labelled with underlined title and date. There should be an appropriate amount of work.

The Knowledge Organisers are designed to help you learn a wide range of knowledge which in turn will mean you are more prepared for your lessons as well as the new style GCSEs that you will sit in the future.

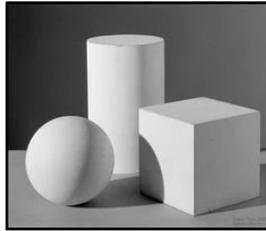
To get the most out of your Knowledge Organiser, you should be learning sections and then self testing in your workbook.

**Do not just copy into your workbook**

**Always check and correct!**

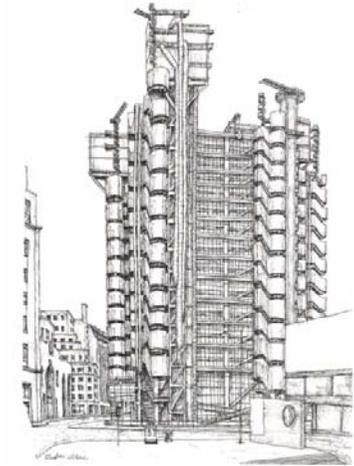
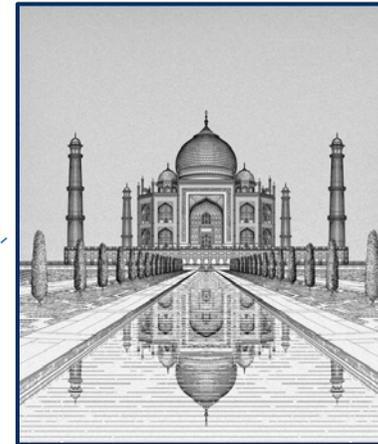
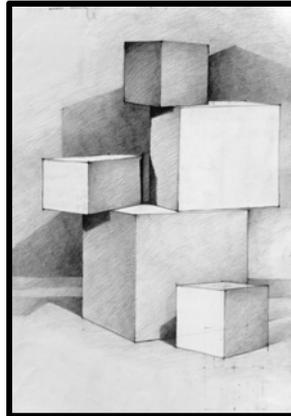
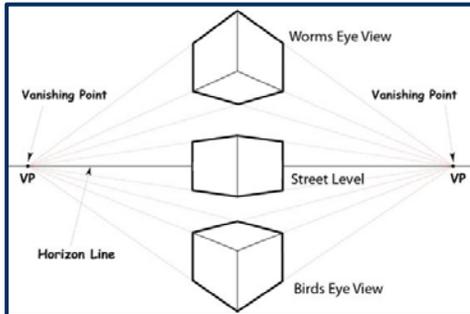
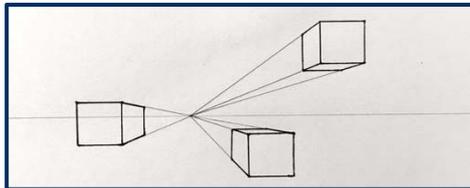
In this project you will learn observe and replicate both One and Two Point Perspective, step-by-step.

Students will select a Famous Landmark/building and make it using the Clay tile relief effect



## Famous Landmarks

Roman Colosseum, Gherkin, Islamic, London Eye  
Taj Mahal, Kremlin, Sydney Opera House.



## Key Words

- ✓ Vanishing Point
- ✓ Vertical Line
- ✓ Horizontal Line
- ✓ Relief
- ✓ Buttering
- ✓ Scoring/scaring
- ✓ Architecture



## Key Skills & Knowledge

By the end of the project you should have gained the skills and knowledge to be able to do the following:

1. Understand how apply One and Two Point Perspective.
2. Can demonstrate how to manipulate clay and use a range of tools.
3. Successfully use resources to create a range of art works.
4. Present your work to a high standard.
5. Work in accordance to Health and Safety procedures.
6. Have written in more than **30 words** on why you have done a piece of work.

Summer Term	
Summer 1	Summer 2
CSD - Web Development	CSD Unit 3 - Animations and Games
<p>Create and share the content of own web pages. After deciding what content to share with the world, learning how to structure and style web pages using HTML and CSS. Also practicing valuable programming skills such as debugging and commenting.</p>	<p>Build on previous coding experience to program animations, interactive art, and games in Game Lab. The unit starts off with simple shapes and builds up to more sophisticated sprite-based games.</p>
Formative Assessment	Summative Assessment
<p>An extended project to assess progress - the ability of creating and sharing the content of their web pages as well debugging the program</p>	<p>A summative written assessment (Synoptic) - Exam style question covering fundamentals of programming.</p>
<p><b>A02 - Apply knowledge, understanding and skills</b></p>	<p><b>A02 - Apply knowledge, understanding and skills</b> <b>A03 - Analyse and evaluate</b></p>

## Animations & Games/Web Development:

### Key Learning

- To discuss what makes a good animated film or cartoon.
- To learn how animations are created by hand.
- To find out how 2Animate can be created in a similar way using the computer.
- To learn about onion skinning in animation.
- To add backgrounds and sounds to animations.
- To be introduced to 'stop motion' animation.
- To share animation on the class display board and by blogging.

### Key Vocabulary

- Animation – A process by which still pictures appear to move.
- Flipbook – A book with pictures drawn in a way that makes them appear to move when the pages are flicked.
- Frame – A single image in an animation.
- Onion skinning – A process where the shadow image of the previous frame is present to help you line up the objects of the animation correctly.
- Background – A non-moving image that appears behind the animated images.
- Play – Press this button to make the animation start.
- Sound – Music or oral effects that can be added to the animation.
- Stop motion – A technique whereby the camera is repeatedly stopped and started, for example to give animated figures the impression of movement.
- Video clip – A short piece of film or animation.

## Animations & Games/Web Development:

HTML Tag	Definition – what does it do?
<html>	Root of a HTML document
<body>	Contents of the page
<head>	Information about a page
<title>	Tab title / defines title
<h1>, <h2>, <h3>	Headings
<p>	Paragraph
<img>	Image
<a>	Anchor (used in hyperlinks with href)
<ol>, <ul>	Ordered/unordered list
<li>	List item
<table>	Creates and defines table
<tr>	Table row
<td>	Table data
<strong>	Bold
 	Linebreak
<div>	Divider
<!-- -->	Comment
CSS script	Definition – what does it do?
color	Font colour
text-align	Horizontal alignment
background-color	Changes background colour
background-image	Change background image
background-repeat	Changes the background to stay in place or move when scrolled

## Year 8 Too Much Punch for Judy

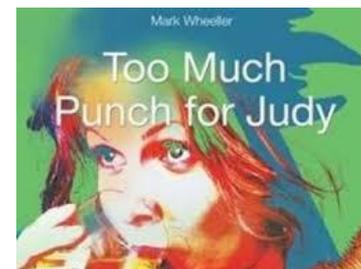
Key Terminology	Definition
Facial Expression	Using your facial features to show emotion to the audience.
Gesture	A hand or head movement that signals an emotion or information to the audience.
Proxemics	Use of stage space.
Mime	Using gestures to signal to a prop or character that isn't on stage.
Posture	The alignment of your body/back to show emotion and status.
Connotation	The meaning behind what something could represent. For example, the connotations of the colour red are love, fear or danger.
Stage Directions	<i>Italic</i> writing on a script that tells the actor how to act or explains the setting.

### The Plot:

- In 1983 Jo and her older sister Judy went on a night out.
- That night they both got drunk and argued over who should drive.
- Judy (drunk) drove them both home.
- Judy clipped the roundabout at scratch bridge which sent the car into scaffolding.
- Jo died almost instantly on impact.
- Judy had to overcome the loss of her sister.

### Assessment Task:

Create a performance that tells the story of Too Much Punch for Judy through a combined use of scripted and devised performance.



## SUBJECT: Romantic Poetry

Context	Romanticism
William Blake lived from 28 November 1757 until 12 August 1827.	Romanticism is a movement, something that a group of people believed in and lived their lives by.
At this time, Britain was undergoing huge change, mainly because of the growth of the British Empire and the start of the Industrial Revolution.	Romanticism began in the late 18 <sup>th</sup> Century and ended in the early 20 <sup>th</sup> Century.
The Industrial Revolution was a time when factories began to be built and the country changed forever.	Art, literature, music and philosophy all began to be Romantic, this means that they all believed similar things:
The countryside, natural and rural settings were particularly threatened	1. That the modern world was changing in ways that were not good for the majority of people
many people did not believe natural and rural settings were important anymore because they wanted the money and the jobs in the city.	2. That people needed to go “back to nature” in order to be happy.
The population of Britain grew rapidly from around 5 million people in 1700 to nearly 9 million by 1801.	Romantics were concerned about the people in Britain who were marginalised and oppressed – pushed to one side and pushed down – during the Industrial Revolution.
Many people left the countryside to seek out new job opportunities in nearby towns and cities.	Blake was radical [extreme] in his political views, frequently addressing social issues in his poems
As cities expanded, they grew into centres of pollution and poverty.	William Wordsworth wanted to write poetry for ordinary people and said that poetry should be written in ‘the language really spoken by men’.
The rich factory owners and international traders began to make huge sums of money, and the gap between rich and poor began to widen	Romantics wanted an egalitarian world – one where everyone is equal.

What the world at the time was interested in during the Industrial Revolution:	What the Romantics stood for:
Rationality (wanting to know things for sure)	Imagination
Science	Emotion
Order and rules	Liberty (freedom)
Strict class system	Egalitarianism
Society (behaving as a group)	Individual (doing what <i>you</i> feel is right)

# Year 8 Summer Term 1 English Knowledge Organiser

Key Vocabulary	How Blake saw God
<b>Egalitarianism:</b> doctrine that all people are equal and deserve equal rights and opportunities.	Blake did not believe that God was some great giant or superhuman old man up in the sky.
<b>The sublime.</b> This term conveys the feelings people experience when they see awesome landscapes, or find themselves in extreme situations which elicit both fear and admiration.	He saw God as like an “ordinary” human being except that he is a perfect one (and therefore completely kind, good, and unselfish).
When someone <b>rebels</b> , they start to behave differently from other people and reject the values of society or of their parents.	When Blake was 23, he made friends with people who were interested in religious mysticism.
<b>Religious mysticism</b> is a type of Christianity which does not just rely on the Bible for guidance.	People who follow religious mysticism believe that they can experience god as an individual directly and without the help of the Bible or the Church.
If someone or something <b>complies with</b> an order or set of rules, they are in accordance with what is required or expected	Blake had visions throughout his life and these influenced him greatly in his art and poetry.
. If someone is <b>innocent</b> , they have no experience or knowledge of the more complex or unpleasant aspects of life.	the world of angels and dreams made its way into Blake's highly artistic life—his poetry, engravings, and watercolours.

Songs of Innocence and of Experience	Symbols and themes
In Songs of Innocence and of Experience, Blake investigates, as he put it in the subtitle, 'the two contrary states of the human soul'.	Often, writers use something real or concrete to represent or symbolise an idea or emotion.
Often, interpretations of this collection centre around two worlds, where "Innocence" represents the "unfallen world" or the perfect world and "Experience" represents the "fallen world" or the world that is full of sin.	Blake hated oppressive institutions and organised religion.
Blake seems to argue that childhood is a state of protected innocence, but it can be affected by the fallen world.	In 'The Chimney Sweeper' religion is used to oppress and force conformity – to make Tom “good” and do his “duty”.
The fallen world sometimes affects childhood itself, and becomes known through "experience", losing childhood innocence through fear, social and political corruption and the oppression of Church, State and the ruling classes.	In The Chimney Sweeper, Blake seemed to be scornful about the way that religion can be used to oppress people and force them into doing their “duty” like the angel tried to do to Tom Dacre.
Songs of Innocence was originally a complete work first printed in 1789. It is a conceptual collection of 19 poems, engraved with artwork.	In 'The Chimney Sweeper, Blake also seems to treat conformity with scorn.
Songs of Experience is a poetry collection of 26 poems forming the second part of William Blake's Songs of Innocence and of Experience. The poems were published in 1794.	In 'Nurse's Song', the “sun” going “down” perhaps represents the end of childhood and innocence.
Despite the simple rhythms and rhyming patterns and the images of children, animals and flowers, the Songs are often troubling or argumentative, and reflect Blake's deeply held political beliefs and spiritual experience.	In <i>Little Boy Lost</i> and <i>Little Boy Found</i> , Blake suggests that religion can help us to <b>transcend</b> feelings of abandonment, confusion and sadness in the physical world and can provide <b>salvation</b> .
Blake's vision embraces radical subjects such as poverty, child labour and abuse, the repressive nature of state and church, as well as the right of children to be treated as individuals with their own desires	Blake uses the image of the lamb to show how we sacrifice innocence.
Many of the poems in Songs of Experience respond to counterparts in Songs of Innocence.	Symbolically, in <i>Little Boy lost</i> Blake uses the “mire” to represent incorrect or damaging beliefs that we can hold.

## NATURE OF GOD

Christians believe God is:

**Omnipotent** (all powerful)

**Omniscient** (all knowing)

**Omnipresent** (everywhere)

**Benevolent** (loving)

**Transcendent** (beyond understanding)

**Immanent** (personal)

**Eternal** (no beginning and no end)

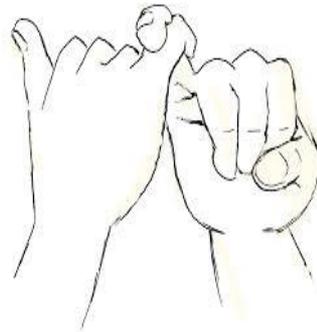
**Forgiving** (he will forgive sins)

## Keywords

**Anti Semitic**- hostility toward or discrimination against Jews as a religious, ethnic, or racial group.

**Persecution**- a program or campaign to exterminate, drive away based on their religion, race or ethnic social group.

Absolutely central to Jewish belief is the idea that in the first book of the Old Testament, God is said to have **specifically chosen** the Jewish nation to be in **special relationship** with him. From that time, Jews believe that they are a chosen people, with a special **purpose** in God's plan for the world.



Special promise with God that they will be his chosen people. But why did all this suffering happen to Jew?

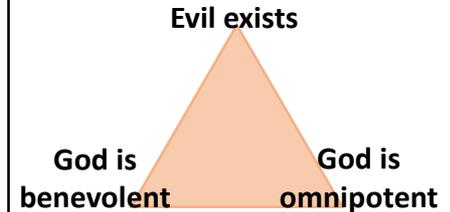
## HOLOCAUST FACTS

The Holocaust was the **mass murder** of **Jewish people** and other **"undesirables"** (Gypsies, homosexuals, Jehovah's Witnesses, and the disabled) by the Nazis.

7 out of every 10 **European Jews** died and **1.1 million children** were murdered.

**11 million** people were killed. **6 million** of these were **Jews**.

## The problem of evil



**Moral evil** = suffering caused by humans

**Natural evil** = suffering caused by nature

### Responses:

1. Suffering is a **necessary** part of life
2. Suffering is **temporary**
3. Suffering is a punishment for **sin**
4. Suffering is caused by humanity's **free will**
5. Suffering is a part of God's **plan**
6. Suffering is a **test of faith**

Christians believe they will be **judged** on their actions in this life on judgement day - **Parousia**.



## Christian Concepts

**C**ompassion *like Jesus*

**O**bserve the Sanctity of Life

**N**ever be *bitter*, forgive and be *better*

**C**reated in the 'Image of God' (*Humans are special*)

**E**veryone: Love God & Love your neighbour

**P**ractice Justice (*fairness – 'need not greed'*)

**T**emple of the Holy Spirit: respect your body

**S**tewardship: be responsible (*'use, don't abuse'*)

### Key quotes

"Do not Kill' Exodus 20:13

This quote show that the events of the Holocaust were wrong. Murder is a sin in the Bible therefore there will be punishments for the persecuting in this life or on judgement day.

### Christian teachings

How can we use these Christian concepts to disagree with the events of the holocaust.

### Key quotes

*"This is the everlasting covenant: I will always be your God and the God of your descendants after you..."*  
(Genesis 17:7)

### Explanation

This quote means that God will always protect his people and provide for them as he has promised to blessed them.

### Key quotes

Sanctity of life, all life is precious and holy and belongs to God so this shows that the events of the Holocaust are wrong. There were millions of innocent people killed.

In this project you will learn to use **The practical activities** which involve food preparation and cooking will give student an insight into the role of different types of **chefs**. For example, within the kitchen brigade, they are the **executive head chef, sous chef, chefs de partie, commis chef, butcher, vegetable chef, fry chef, cold food and pantry chef, grill chef, pastry chef, fish chef, roast chef and sauté chef**. Some of the job roles (e.g. executive chef and sous chef) are suited for the higher attainers in the subject and these student will be given leadership responsibilities. These skills required by chefs will be developed by students following recipes to make dishes using a variety of commodities. These activities will be supported by teacher demonstrations and video clips.

Weighing and measuring are skills needed by **food scientist** and **chefs** and are practised during the mise en place stage of cooking. This is facilitated by teacher demonstrations and students following recipes. The investigative work done on the impact of cooking methods on nutritional value also links to the job role of a **food scientists**.

By studying about nutrients and healthy eating using the Eat well guide as a framework, students are to the role of a **dietitian** and a **nutritionists**. These lessons will be delivered through home learning, group work activities, power points presentations and a visiting speaker.

Researching where our food comes from give students the opportunity to hone the skills of a **food writer, culinary librarian and food journalist**. This piece of work will be done through classwork (market place activity and home learning).

Food presentation skills are encouraged by adding a finishing technique to dishes made. This is within the remit of a **food stylist, food photographer, food artist** as well as a **molecular gastronomist**.

Students practise being a **health and safety officer** when conducting risk assessment of the food room before their practical tasks. Through role play, students will study the role of an **Environmental Health Officer**. Linked to these two careers, is the unit of work on health and safety and bacteria and food poisoning.

Conducting sensory analysis gives students insights into the job of a **food taster** and a **quality assurer**. This activity is conducted after practical activities in class as well as at home.

Careers in the hospitality industry include managers, administrators, front house staff as well as back house staff. These careers are studied at KS4 through power point presentations, trips, role plays, independent work and home learning activities.

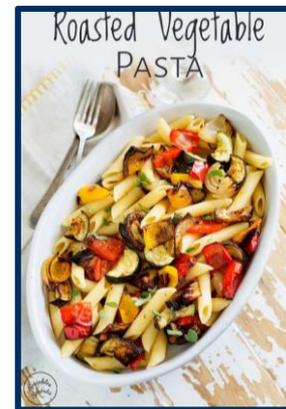
## Key Vocabulary

Equipment	Food Safety
Knife	Use by date
Table spoon	Best before date
Butter Knife	Frozen Food
Measuring Jug	Chilled Food
Chopping Board	High risk foods
Saucepan	Low risk foods
Mixing Bowl	Salmonella
Wooden Spoon	E Coli
Frying pan/Wok	Vitamins & Minerals
Food Mixer	Carbohydrates
Baking tray	Gluten in
Rolling Pin	Gluten

## Key Skills & Knowledge

By the end of the project you should have gained the skills and knowledge to be able to do the following:

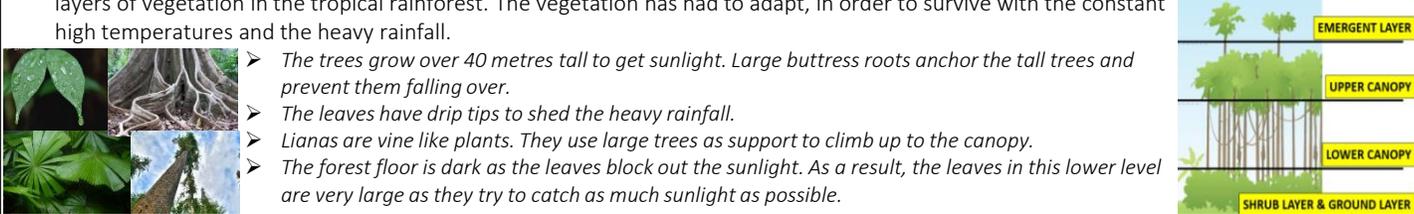
- Nutrients**
- Bacteria and food poisoning**
- Food labelling and traffic light system**
- Where does our food come from**
- Practical activities – making food dishes**
- Food presentation techniques**



## Influential Chefs Gordon Ramsey, Jamie Oliver

The Enfield Way is to LEARN

An ecosystem is an area, within which plants and animals interact with each other and their non-living environment (rock, soil, climate). They can be as small as a hedgerow or pond. Larger ecosystems are known as biomes (tropical rainforest, the desert).

<b>Rainforest</b> <ul style="list-style-type: none"> <li>Location</li> <li>Climate</li> <li>Vegetation</li> </ul>	<ul style="list-style-type: none"> <li>Along the equator in central Africa (Nigeria, Congo), south-east Asia (Malaysia, Indonesia), north Australia and South America (Brazil, Peru).</li> <li>Humid (hot &amp; wet). The average daily temperature is 28°C. It t never goes below 20°C. and rarely above 35°C. It receives at least 2000mm of rain each year. There are no real seasons.</li> <li>Very dense vegetation. There are over 1,000 different types of trees including hardwoods such as mahogany and greenheart. There are four layers of vegetation in the tropical rainforest. The vegetation has had to adapt, in order to survive with the constant high temperatures and the heavy rainfall.</li> </ul>  <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The trees grow over 40 metres tall to get sunlight. Large buttress roots anchor the tall trees and prevent them falling over.</li> <li>The leaves have drip tips to shed the heavy rainfall.</li> <li>Lianas are vine like plants. They use large trees as support to climb up to the canopy.</li> <li>The forest floor is dark as the leaves block out the sunlight. As a result, the leaves in this lower level are very large as they try to catch as much sunlight as possible.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Animals</li> </ul>	<ul style="list-style-type: none"> <li>Millions of species (e.g. jaguar, alligator, monkeys, apes). It is believed that in the Amazon Rainforest there are over 2,000 species of birds and 1,500 species of fish. There is also thought to be 50,000 kinds of insects in a single square mile. Animals have to adapt to survive in the rainforest (see adaptations section).</li> </ul>

<b>Producer</b>	Organisms that get their food from the natural environment ( <i>photosynthesis</i> ) e.g. vegetation
<b>Consumer</b>	Organisms that feed on other organisms (producers and consumers). <ul style="list-style-type: none"> <li>herbivores (only eats plants)</li> <li>carnivores (eat only animals)</li> <li>omnivores (eats animals and plants)</li> </ul>
<b>Decomposer</b>	Decomposers (fungi, bacteria) feed on dead producers & consumers. This dead material is known as litter. They break down the litter and recycle the nutrients back to the soil.
<b>Food Chain</b>	A food chain is a single line of linkages between producers and consumers. It shows what eats what.
<b>Nutrient Cycle</b>	The movement of nutrients around an ecosystem. e.g. when dead material is decomposed, nutrients are released into the soil. The nutrients are then taken up from the soil by plants. The nutrients are then passed to consumers when they eat the plants. When the consumers die, decomposers return the nutrients to the soil.

<b>Savannah</b> <ul style="list-style-type: none"> <li>Location</li> <li>Climate</li> <li>Vegetation</li> </ul>	<ul style="list-style-type: none"> <li>The savannah ecosystems is located between the rainforests found at the equator and deserts found along the tropic lines. More precisely, they are located between 23.5° north and 23.5° south of the equator. The largest expanses of savannah are in Africa, for example <b>Kenya</b> and <b>Tanzania</b>, consists of tropical grassland. They are also located in South America, Africa, Asia and Australia.</li> <li>The savannah has two seasons: a wet season and dry season. Its annual precipitation is between 100-150cm of rain, however most of this falls in the wet season. The temperature is warm throughout the year, with a temperature range between 25°C to 30°C across the year.</li> <li>The main type of vegetation is grass, which grows very tall. There are also occasional scattered trees such as the Baobab tree and Acacia tree. These have adapted to survive in the savannah.             <ul style="list-style-type: none"> <li><b>The Baobab Tree:</b> it only produces leaves in the wet season and their leaves are very small. These both reduce the rate of transpiration = less water lost. They are also able to store water in their tree trunk to help it survive in the dry season.</li> <li><b>The Acacia Tree</b> it has long roots that travel deep underground to search for groundwater. To avoid water loss they have small waxy leaves which prevents transpiration. To protect against predators, it has sharp thorns and a chemical defence system where it secretes a poisonous fluid into its leaves. This prevents it being eaten by giraffes.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Animals</li> </ul>	<ul style="list-style-type: none"> <li>Lots. Most are fast with strong legs (zebra, giraffe). There are many herbivores due to the high amount of grass, however carnivores (lions, cheetahs) are also found in the savannah due to the high number of herbivores.</li> </ul>

**Animals adapt to survive in the ecosystem they live in. Adaptation = changing to suit the surrounding environment.**

<b>Camel (desert)</b>	<ul style="list-style-type: none"> <li>Long eyelashes which keep sand out of their eyes.</li> <li>Camouflage - their colour helps them blend in.</li> <li>They store fat in their hump which can be used for energy. Therefore they can go months with no food.</li> </ul>
<b>Giraffe (savannah)</b>	<ul style="list-style-type: none"> <li>Long necks help them to reach tall trees for food.</li> <li>Long legs help them run very fast.</li> <li>Camouflage: their colour helps them blend in.</li> </ul>
<b>Cheetah (savannah)</b>	<ul style="list-style-type: none"> <li>Spots help them stay camouflaged.</li> <li>Paws help them to run quietly so they are able to sneak up on their prey.</li> <li>Large nostrils and enlarged hearts and lungs help them to circulate oxygen efficiently = they can run fast.</li> </ul>
<b>Spider monkey (rainforest)</b>	<ul style="list-style-type: none"> <li>Their long limbs (arms and legs) allow spider monkeys to swing through the trees with ease.</li> <li>Their strong tails allow them to hang suspended up in the trees and aids their swinging.</li> <li>90% of their diet comes from nuts, seeds, fruit and insects.</li> </ul>
<b>Poison Dart Frog (rainforest)</b>	<ul style="list-style-type: none"> <li>Is very small to prevent being eaten</li> <li>Has skin that releases poison when touched</li> </ul>

<b>Desert</b> <ul style="list-style-type: none"> <li>Location</li> <li>Climate</li> <li>Vegetation</li> <li>Animals</li> </ul>	<ul style="list-style-type: none"> <li>Near the Tropic of Cancer and Tropic of Capricorn at 23. 5°C north and 23. 5° south of the equator</li> <li>Arid (hot with very little rain). The average temperature is 40°C in the day and average annual rainfall is 250mm.</li> <li>Sparse (e.g. cactus, Joshua tree)</li> <li>Very few. Scorpions have adapted</li> </ul>
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<b>Tundra</b> <ul style="list-style-type: none"> <li>Location</li> <li>Climate</li> <li>Vegetation</li> <li>Animals</li> </ul>	<ul style="list-style-type: none"> <li>North (arctic circle) and south poles</li> <li>Very cold, very dry, soil is permanently frozen (permafrost). Winters are cold, dark and long, with an average temperature is -30°C. In mid-December it is dark all day. In the summer temperatures vary between 0-10°C.</li> <li>Sparse – usually small bushes and flowers. The top layer of soil only thaws during 2-3 months in the summer.</li> <li>Few (e.g. penguin, polar bear).</li> </ul>
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<b>Polar Bear (tundra)</b>	<ul style="list-style-type: none"> <li>Thick white fur to help camouflage help them keep warm.</li> <li>Layer of fat under their skin helping them stay warm.</li> <li>Large feet help to spread their weight over a larger surface area. This prevents the ice breaking beneath them.</li> </ul>
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Malaysia is a country in South East Asia. It is made up of Peninsular Malaysia and East Malaysia. 67% of Malaysia is covered in tropical rainforest.

Humans use the tropical rainforest in Malaysia for a number of economic industries = more jobs, income and taxes which the government can spend on improving the country (*education, healthcare, transportation*). Unfortunately it also causes deforestation. The rate of deforestation in Malaysia is increasing faster than in any tropical country in the world. Between 1990 and 2010, Malaysia lost over 1.9 million hectares of rainforest, which has a number of further impacts (see below).



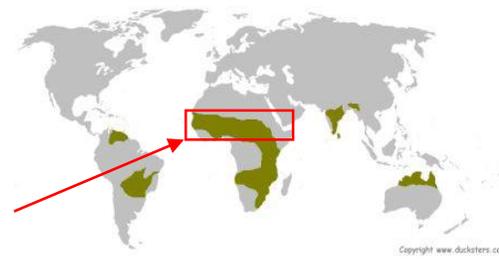
## ECONOMIC DEVELOPMENT IN THE RAINFOREST & ITS IMPACT

Cattle Farming	Large areas of the rainforest are cleared for cattle ranches. In 2017, 744,000 cows were sold for their meat. <b>Good:</b> jobs, better income, government gets more taxes = money for development (improve healthcare, education...etc.) <b>Bad:</b> deforestation, habitat loss, less photosynthesis = more global warming
Palm Oil Production	In the 1970s large areas of the rainforest were cleared and made into massive palm oil plantations (farms). Their fruit gives palm oil which we use in cooking oil, bread, cake, chocolate & candles. <b>Good:</b> jobs, better income, government gets more taxes = money for development (improve healthcare, education...etc.) <b>Bad:</b> deforestation, habitat loss, less photosynthesis = more global warming
Logging	In 1980, Malaysia became the world's largest exporter of tropical wood (ebony and mahogany). <b>Good:</b> jobs, better income, government gets more taxes = money for development (improve healthcare, education...etc.) <b>Bad:</b> deforestation, habitat loss, less photosynthesis = more global warming, trees can take 100s of years to regrow.
Mining	There are huge deposits of minerals (copper, tin) in the Malaysian rainforest. Land is cleared and mined to access these minerals which are then sold to other countries. Roads are created to improve access to the mines. <b>Good:</b> jobs, better income, government gets more taxes = money for development, better transport routes. <b>Bad:</b> deforestation, habitat loss, less photosynthesis = more global warming, pollution from machinery, chemicals used in mining poison ecosystem.
Hydro-electric power	The high quantity of water in the rainforest can be used to create cheap energy in hydro-electric power stations. The Bakun Dam is a dam in Malaysia that generates electricity for its people. It is the highest dam outside of China (205m). <b>Good:</b> jobs, income, money for development, provide sustainable clean energy to locals and industries. <b>Bad:</b> when you build a dam, a massive reservoir (lake) is created behind it, which floods large areas of land = loss of habitats/settlements. Tribes lose their homes, land and culture. The Bakun Dam flooded over 700km <sup>2</sup> of forest.

## SUSTAINABILITY IN THE RAINFOREST. Sustainability: meeting the needs of today without harming the environment in the future.

Selective logging	Only some trees that have been selected are cut down rather than cutting down all the trees in an area. Malaysia implemented a Selective Management System in 1977 which identifies which trees are to be cut down and implements strict fines for illegal logging.
Afforestation	Afforestation is when new trees are planted as others are cut down. Trees stabilize the soil, replenish lost nutrients and provide habitats for wildlife.
National parks	Areas are protected from development and deforestation. There are more than 30 national parks in Malaysia, including Taman Negara National Park, which protects 4344km <sup>2</sup> from development and deforestation.
Coppicing	Coppicing is when you only cut trees down halfway. This means you get the wood you need to make furniture, fuel or paper, however the trees can regrow quickly. This means there is a constant supply of wood.
Raising awareness & education	Educate people and companies on how they are harming the rainforest and provide ideas of how they can make money in the rainforest, however in a more sustainable way. The World Wildlife Fund (WWF) works with governments to better create and protect National Parks. It also helps to identify the most suitable areas to build dams or roads to have minimal impact on the rainforest and its people.

The savannah ecosystem is located between the Tropic of Cancer and Tropic of Capricorn, in South America, Africa, Asia and Australia. Almost 65% of Africa is covered by savannah grasslands, in countries such as Tanzania, Nigeria, Uganda and Kenya. Humans use the rainforest for a number of economic activities, including safaris (tourism), cattle farming and growing crops. These activities bring a lot of economic advantages with jobs and money for development, however they are also causing desertification. **This is happening today in the Sahel – the area covering Africa's northern savannah, just south of the Sahara Desert.**



**Desertification: the process where land gradually turns into a desert. It becomes drier, less fertile and vulnerable to erosion.**

## CAUSES OF DESERTIFICATION IN THE SAHEL

Climate change	Climate change results in extreme weather, such as droughts. Lack of rainfall = not enough rain for the soils to have moisture and stay healthy. Also plants die due to lack of water = roots no longer hold the soil together = vulnerable to erosion. High temperatures = any water is immediately evaporated leaving the soil very dry. Also salts in the water are left on the soil after the water is evaporated = salty, dry soil that is vulnerable to erosion.
Over-grazing	Animals remove vegetation cover, when they eat. This leaves the ground bare and unprotected. Wind and rain can then easily carry off the loose soil. It also reduces the soil's ability to carry moisture, making it dry and vulnerable to desertification.
Over-cultivation	Population growth in the Sahel = more demand for food. As a result land is being over-farmed. This uses up all the nutrients in the soil, leaving it dry and exposed to erosion. Often people in the Sahel cannot afford fertilisers to replace the removed nutrients.
Deforestation	Population growth = increased demand for fuel wood = increased deforestation. The roots of trees previously would bind the soil together, preventing soil erosion. Therefore, without any trees the soil is more vulnerable to erosion. Furthermore, if the trees are removed their nutrients are not returned to the soil by decomposers = soil becomes less fertile.

## RESPONDING TO DESERTIFICATION: how can we reduce the risk of desertification in the Sahel?

Afforestation (planting trees)	<ul style="list-style-type: none"> <li>The roots also help to hold the soil together and prevent erosion.</li> <li>When the plants/leaves die, their nutrients are giving back to their soil.</li> <li>They act as windbreakers and therefore reduce wind erosion.</li> </ul>
Crop Rotation	When farmers allow a field to rest between farming. This allows the soil time to repair and get their nutrients back. This prevents over-cultivation.
Grazing Rotation	Move the animals from place to place to reduce the amount of vegetation eaten or reduce the number of farm animals. This prevents over-grazing.
Coppicing	Coppicing is when you only cut trees down halfway. This means you get the wood you need to make furniture, fuel or paper, however the trees can regrow quickly. This means there is a constant supply of wood.
Plant hedges	Hedges trap dry soil from being blown away by the wind. This stops the land turning into a desert.
Store water for irrigation	Earth Dams: collect and store water in the wet season. The stored water is then used to irrigate crops in the dry season.

A NATURAL RESOURCE is something that occurs naturally and we can make use of.

A Renewable resources is one that will not run out.

A Non-renewable resource is finite and will run out.

Resource	Renewable/Non-renewable	Uses	Problems
Coal	Non-Renewable	heating our homes (open fires), creating electricity and steel production.	Very dirty and pollutes the atmosphere
Oil	Non-Renewable	We use it in lots of ways such as; to run cars, ships, planes and create electricity. It is also used to produce plastics, such as plastic bottles and in fertilizers for farmers	One day it will run out and there will be none left When we burn it greenhouses gas are released.
Gas	Non-Renewable	We can't see natural gas because it is a gas, but we use it in lots of ways such as; cooking in gas ovens, central heating in our homes and also to power vehicles instead of petrol.	One day it will run out and there will be none left When we burn it greenhouses gas are released.
Water	Renewable	ludes water for washing clothes and personal washing, cooking, drinking, washing up and outdoor use. wave energy from the oceans (waves making turbines spin)., this helps to produce electricity.	Whilst we have lots of water, fresh water is limited and this freshwater can be polluted by humans
Geothermal	Renewable	Geothermal Energy is used to heat homes, water and create electricity.	This only occurs in places that have volcanic activity such as Iceland.
Soil	Renewable	Growing food Soil is very precious because without it we cannot grow any crops for food as soil provides the nutrients needs to grow plants.	Soil is not a renewable resource as there is only so much of it on the earth. It is also not equally shared as some places have lots of good quality soil and others have landscapes that does not allow this..

### Water as a Resource

<b>Physical scarcity</b>	Where there is not enough water to meet the needs of everyone there.	
<b>Economic scarcity</b>	People cannot afford the infrastructure such as pumps and pipes to bring fresh water to the people living in that area	
<b>Water facts and location</b>	<ul style="list-style-type: none"> <li>✓ water and it is our basic need.</li> <li>✓ 97% of the earth's water is salty so we cannot use it (for drinking, agriculture or industry)</li> <li>✓ 3% of the earth's water is fresh water</li> <li>✓ 2/3 of this is frozen in ice sheets and glaciers,</li> <li>✓ Less than 1% of the fresh water we can use</li> <li>✓ most of this is underground, so we must pump it out it use it.</li> </ul>	

### The problems with water

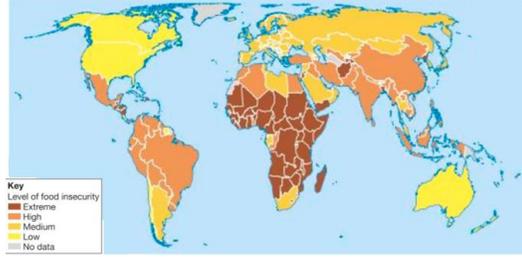
<b>Water disease and pollution</b>	<ul style="list-style-type: none"> <li>• In some countries that experience economic water scarcity they have little sanitation facilities (clean water and toilets).</li> <li>• This might mean human waste is dumped into rivers and contaminate drinking water which can cause diseases such as Cholera.</li> </ul>
<b>Water conflict</b>	<ul style="list-style-type: none"> <li>• Water is shared between countries this is because some rivers flow through several countries such as the Nile and Danube rivers.</li> <li>• This means that some countries are able to take more water than others and this can lead to conflicts over water and physical water scarcity.</li> </ul>
<b>Food production</b>	<ul style="list-style-type: none"> <li>• Agriculture (farming) uses 70% of the global amount of water.</li> <li>• Areas where not a lot of rain falls are at risk because if there is water scarcity it means that food may not be able to grow and we won't be able to feed a growing population.</li> <li>• Some countries such as the USA provide 30% of the world's wheat (makes bread and cereals), so this would have a huge negative impact on food production.</li> </ul>

### Solutions to the water challenge

<b>Water Transfer</b>	<ul style="list-style-type: none"> <li>✓ Some areas have more water than is needed (surplus) and this can be transferred by pipes to areas where there is less water (deficit).</li> <li>✓ This is done through pipelines and canals..</li> <li>✓ In China, there is a huge project that aims to bring water from the South to the dry North.</li> </ul>
<b>Desalination</b>	<ul style="list-style-type: none"> <li>✓ Salt can be removed from ocean water</li> <li>✓ It is only used if there is a severe shortage or water.</li> <li>✓ There are some major environmental concerns, such as salt being dumped back into the sea.</li> <li>✓ Not everyone can uses this method but an example of somewhere that does this is Saudi Arabia</li> </ul>
<b>Recycling water</b>	<ul style="list-style-type: none"> <li>✓ People can think more wisely about water use and can use less to save more water.</li> <li>✓ We can also recycle water, by using <b>grey water</b> (<i>water already used in baths and showers</i>) to flush toilets and water plants and garden.</li> </ul>
<b>Dams and reservoirs</b>	<ul style="list-style-type: none"> <li>✓ A dam is a large structure that holds water and a reservoir is an area where water is stored.</li> <li>✓ When there is lots of rainfall, the rain can be collected and stored and released into the rivers when there is little rainfall.</li> <li>✓ Water can then be used for many different reasons including watering of crops (irrigation).</li> </ul>

### Chambamontera – Micro-Hydro Scheme Case Study

<b>Why</b>	<ul style="list-style-type: none"> <li>✓ Rural village, high in Andes Mountains (Peru)</li> <li>✓ No access to electricity</li> <li>✓ Very underdeveloped</li> </ul>
<b>How it works</b>	<ul style="list-style-type: none"> <li>✓ Water is used to create electricity (Practical Action, a charity implemented this scheme)</li> <li>✓ Steep slopes and high rainfall make this an ideal location</li> </ul>
<b>Benefits to people</b>	<ul style="list-style-type: none"> <li>• Healthcare has improved because refrigeration allows storage of medicines</li> <li>• Street lights allow people to go outside after dark</li> <li>• Electricity is available when heating demands are high.</li> <li>• Improved school facilities and the possibility of doing schoolwork at home after dark</li> </ul>

Oil as a Resource		Food as a Resource	
<b>Oil reserves</b>	The proven amount of oil a country has.	<b>Food insecurity</b>	<i>Not enough access to safe, affordable and nutritious food.</i>
<b>Oil facts and location</b>	<ul style="list-style-type: none"> <li>Oil is a fossil fuel which means it's formed from fossils of tiny oceans creatures millions of years ago.</li> <li>This becomes oil and is then extracted from the ground (<b>this is known as crude oil</b>) and brought to an oil refinery.</li> <li>It is then separated into refined oil and other raw materials.</li> <li>Oil is used to fuel cars, ships, planes and to generate electricity.</li> <li>It is also used to produce plastics, fertilizers and even clothes.</li> <li>Oil is a very valuable resource</li> </ul> 	<b>Food facts and location</b>	<ul style="list-style-type: none"> <li>Food consumption (how much people eat) varies across the world.</li> <li>The recommended daily calories intake is 2000-2400 per day.</li> <li>This is met and exceeded in continents such as North America and Europe, but in much of Africa is well below this level.</li> <li>Whist global food consumption is increasing due to increasing development (people are becoming richer), population is increasing and developments in transport and storage of food there are still many countries that face <b>FOOD INSECURITY</b></li> </ul> 
The Problems with Oil		Reasons for Food Insecurity	
<b>Climate Change:</b>	<ul style="list-style-type: none"> <li>When oil burns it releases carbon dioxide (GHG) into the atmosphere adding to global warming leading to climate change.</li> <li>Increased temperatures can cause glaciers and ice sheets to melt leading to sea level rise and loss of polar habitats.</li> <li>Many species of plants and animals becoming extinct and their habitats are damaged or altered by climate change.</li> </ul>	<b>Climate Change</b>	<ul style="list-style-type: none"> <li>Extreme temperatures and low rainfall due to climate change = struggle to produce food</li> <li>Climate change affects global farming patterns and productivity (how much)</li> <li>Weeds and pests such as locusts = consume whole crops</li> </ul>
<b>Oil Conflict:</b>	<ul style="list-style-type: none"> <li>Some oil producing countries are politically unstable so we may not want to or be able to buy oil from them.</li> <li>Conflicts can happen between those who have oil and those that want oil.</li> <li>An example of this is conflict in the Niger Delta (Nigeria) between big oil companies (such as Shell Oil) and minority ethnic groups who feel that they are being exploited by these big oil companies.</li> </ul>	<b>Access to technology</b>	<ul style="list-style-type: none"> <li>Food production can be increased by investing in new technology and machinery.</li> <li>Poorest people cannot afford any form of technology, irrigation or fertilisers.</li> <li>Unskilled use of technology e.g. poor use of irrigation = damage the land, meaning its harder to grow food in the future.</li> </ul>
<b>Environmental Disaster</b>	<ul style="list-style-type: none"> <li>Oil spills can happen on oil platforms, oil tankers or as oil is transported from one place to another.</li> <li>In April 2010 a large oil spill happened due to an explosion at an oil rig in the Gulf of Mexico, known as the <b>Deepwater Horizon Oil Spill</b>.</li> <li>More than 200 million gallons of crude oil was spilled into the Gulf of Mexico during accident.</li> <li>Over 16,000 miles of coastline was affected</li> <li>over 8,000 animals were reported dead 6 months after the spill.</li> </ul>	<b>Wars and conflicts</b>	<ul style="list-style-type: none"> <li>Conflicts can lead to the destruction of land, crops and livestock</li> <li>Food can be used as a weapon, with enemies cutting off food supplies in order to gain ground = famine/death.</li> <li>During war transport links can be destroyed e.g. ports = imported food is not able to reach the people in that country.</li> </ul>
Solutions to Using Oil (Renewable Energies)		Increasing Food Supply	
HEP (Hydro-Electric Power)	This uses fast flowing water to turn generators to produce electricity. <i>Good: This type of energy makes little pollution.</i> <i>Bad: Dams are needed and can be very expensive, flood farmland and people's homes.</i>	<b>GM Foods</b>	Certain crops can be modified to increase the amount of food that is produced. <ul style="list-style-type: none"> <li>By genetically modifying foods it means they can grow bigger, they can produce higher yields (more food)</li> <li>In the Philippines maize (corn) has given a 24% increase in yields. This is used in many of the foods we eat today (bread, cereal, popcorn)</li> </ul>
Solar Power	Solar power is the conversion of the sun's energy into electricity through a solar cell. <i>Good: instant electricity and no harmful gases are produced so there is no pollution</i> <i>Bad: less effective in areas that have lots of cloudy days. In some places such as the UK there are large fields of solar panels that take up lots of space. It can be very expensive as the cells cost lots to make.</i>	<b>Appropriate Technology</b>	Using skills or materials that are cheap and easily available to increase output without putting people out of work. <ul style="list-style-type: none"> <li>This can involve small scale water harvesting equipment, irrigation methods or farming techniques, this works especially well for farmers in poorer parts of the world.</li> </ul>
Biomass	Biomass burns plants, trees and organic matter to heat steam to drive turbines. <i>Good: sources are always available, it is a much cheaper source of energy compared to fossil fuels and whilst it does release Carbon Dioxide, it produces less than fossil fuels.</i> <i>Bad: As it uses trees it can lead to deforestation.</i>	<b>Irrigation</b>	Irrigation is the artificial watering of land. <ul style="list-style-type: none"> <li>This is needed especially when there has not been much rain to help the crops grow.</li> <li>Can increase global food supply especially for commercial farming.</li> </ul>
Wind power	Wind turns large turbine blades to generate electricity <i>Good: Electricity produced is cheap in the long run, produced clean energy, can be very effective in places with high winds</i> <i>Bad: Negative visual impact on the landscape and can create nuisance (noise and light) for people living near them. Birds can also fly into the blades and die. Wind farms can be very expensive to build</i>	<b>Pesticides and fertilisers</b>	A <b>fertiliser</b> is: a chemical or natural substance added to soil or land to increase its fertility. A <b>pesticide</b> is: Pesticides are substances that are meant to control pests, including weeds. <ul style="list-style-type: none"> <li>Fertilizer is added to soil to make sure that crops get the nutrients that they need to grow.</li> <li>This ensures that farmers are able to continue growing food without using up all the nutrients in soil.</li> </ul>
Nuclear Power	Nuclear energy is not renewable but is recyclable and a nuclear reaction releases energy. <i>Good: little pollution is produced.</i> <i>Bad: The power plants are expensive to build and there are social and environmental concerns if an accident happened</i>	Reducing the environmental impact of our use of resources	
		<b>Problem:</b> Global Warming = burning fossil fuels = Greenhouse Gases released.	<b>Solution:</b> turn heat down, buy local food, plant more trees.
		<b>Problem:</b> Plastic Pollution – 12.7m tonnes of plastic in oceans each year	<b>Solution:</b> buy less single use plastic, more reusable. Government laws
		<b>Problem:</b> Destroying Habitats – cut down forests for palm oil production	<b>Solution:</b> Consider what we buy, adopt a species, set aside land.

Industrial revolution	A time of great change in Britain between 1750 to 1900
Revolution	Instance of great change in affairs
Change	Make something different; alter or modify.
Continuity	Staying the same; an uninterrupted succession or flow
Chartists	In reference to the reform political party (Chartism). They believed in Universal suffrage (vote), abolition of property qualification for serving in Parliament, and equal representation.
Poverty	Being extremely poor
Countryside	An area of rural landscape. This might be farm land or untouched environment
Factories	Building for making goods
Inventor	Someone who creates something new. Can be an object or an idea
Living Conditions	The circumstances affecting the way in which people live, especially with regard to their well-being
Public Health	The health of the population as a whole, especially as the subject of government , regulation and support.
Population	The number of people living in a particular place
Working Class	The social group consisting of people who are employed for wages, especially in manual or industrial work.

### Changes during the industrial revolution

**Work** - In 1750 most work was in farming and manufacturing was done at home. By 1900 most work was done in factories. More goods were produced such as such as wool, cotton and coal. Most farmers used machines. Steam power was widespread.

**Population** - In 1750 the population of the UK was 11 million. By 1900 it was 42 million.

**Education** - Most children did not go to school and could not read or write. There were two universities in England, four in Scotland and one in Ireland. By 1825 not middle and upper class boys went to school. By 1900 school was compulsory for all boys ages 5-12. Many more could now read and write. There were now ten universities in England, five in Scotland and one in Wales.

**Health and Medicine** - People did not know that germs caused disease. Many people died from diseases, or injuries as there were no anaesthetics. By 1825 disease were spreading quickly due to overcrowding in cities. By 1900 Louis Pasteur had discovered germs. Vaccinations and anaesthetics had been developed. Sewers had been created and local councils were now more involved in public health.

**The vote** - In 1750 only 5% of the population were allowed to vote (wealthy men with property), and no women. By 1900 most men could vote but women were still not allowed.

**Transport and communications** - Roads, canals and railways were built.



### Opposition during the Industrial Revolution

The **Luddites** were skilled cloth finishers who were gradually being replaced by machinery. They began breaking the machines, but the government cracked down on the Luddites. If they were caught they were executed or transported to Australia.

### Causes of the Industrial Revolution

**More people** - As the population grew, it meant there were more people available to work in factories, and more people to demand the goods that were produced.

**British Empire** - Goods taken from the Empire were used in factories, and sold back to people the empire, driving profit.

**Entrepreneurs** - These were investors who put money into factories, driving the industrial revolution to make profit.

**Inventors** - They were responsible for inventing the technology, like steam power, that powered the factories, and for some of the products that were made.

**Coal and iron** - The availability of this powered the factories.

The **Swing Riots** broke out after farm-workers in the south lost their jobs, when machines were introduced. The rioters wrote threatening letters to farmers, telling them not to use machinery. They burned down farm buildings and smashed machines. 19 people were executed, including a 12 year old boy. Over a thousand were transported or jailed.

**The Tolpuddle Martyrs** - The martyrs were a group of poor farm-workers. They joined the trade union, the Grand National Consolidated Trade Union, to try and improve their working conditions. They swore an oath to keep the secrets of their Union. But the workers were charged with "administering illegal oaths", and the workers were transported to Australia for 7 years. The GNCTU collapsed.

**The Chartists** - In 1832 the Government passed a Reform Act, but only Middle Class men got the vote, so the Chartists were set up. They were a group of ordinary working class men who presented petitions to Parliament, asking for Equal Electoral Districts, the vote for all men, yearly parliaments, vote by secret ballot and the payment of MPs. The government ignored the Chartists. The movement failed to gain the vote for workers, but it did raise awareness of the unfairness.

**The Rebecca Riots** - These riots took place in Wales as a protest at the high rates being charged to travel on the roads by the Turnpike Trusts. The poorer farm-workers could not afford them. The rioters dressed as women, 'Rebecca and her daughters, and smashed up the toll stations on the roads. Those who were caught were executed or transported

### Factory working conditions

**Long working hours:** 12-14 hours a day

**Low wages:** For men 15 shillings (75p) a week. For children, 3 shillings (15p).

**Cruel discipline:** Frequent discipline of children - hitting with a leather strap. Other punishments included nailing children's ears to the table.

**Accidents:** Children had to crawl into dangerous, unguarded machinery, leading to many accidents and deaths.

**Health:** The air was full of dust, leading to chest and lung diseases. Hearing could be damaged by machines.

### Robert Owen

Factory owner involved in campaigning for improvement in factory conditions. This contributed to the Factories Act which restricted the number of hours that children could work as well as increasing their age.

### Florence Nightingale

Involved in improving hospital conditions during the Crimean war, saving soldiers lives. Improvement were brought back to hospitals in the UK. Mary Seacole made a similar contribution.

### Important individuals of the Industrial Revolution

#### John Snow

Snow was an English physician who discovered that the water in his local area was making everyone ill with cholera. His work led to improved fresh water for thousands, and saved many lives from cholera.

#### Louis Pasteur

Discovered that germs caused disease through scientific experiments. He also developed the first vaccine, which led to the developments of more vaccines by Robert Koch's team.

#### Edwin Chadwick

Wrote a report linking poor living conditions to poor health. This contributed to Public Health Acts, forcing the government to improve condition, and build sewers.

#### Thomas Crapper

Popularised the flushing toilet that developed public health and hygiene.

Timeline of Key Events	
28 June 1914	Assassination of Arch-Duke Franz Ferdinand
4 August 1914	Britain declares war on Germany
August-December 1914	Germany's Schlieffen Plan fails to defeat France and Britain quickly; system of trenches is dug from Switzerland to the English Channel
April 1915	Second Battle of Ypres – poison gas used for the first time
31 May-1 June 1916	Battle of Jutland – the only major sea battle of the war proves inconclusive
1 July – Nov 1916	Battle of the Somme
6 April 1917	USA declares war on Germany; enters WW1
March 1918	Russia signs an Treaty of Brest Litovsk with Germany after the Bolshevik Revolution
9 Nov 1918	Kaiser Wilhelm abdicates
11 Nov 1918	Germany signs armistice, ending the war

Long-Term Causes of World War One
<ul style="list-style-type: none"> <li><b>Militarism</b> - the arms race between Britain and Germany to build Dreadnaughts resulted in increasing tension and conflict between them</li> <li><b>Alliances</b> – the <b>Triple Alliance</b> (Germany, Austria-Hungary and Italy) and <b>Triple Entente</b> (Britain, France and Russia) had agreed to support each other if a war started</li> <li><b>Imperialism</b> – Britain and France both had large empires overseas. Germany wanted an empire too, but most of the available land had already been taken, resulting in <b>tension</b> between the 'great powers'</li> </ul>

Short-Term Causes of World War One
<ul style="list-style-type: none"> <li><b>Assassination of Franz Ferdinand</b> – Serbian nationalist <b>Gavrilo Princip</b> shot and killed the heir to the Austro-Hungarian throne, along with his wife, while was visiting Sarajevo. This caused Austria to declare war on Serbia, which led to Russia attacking Austria, etc.</li> </ul>

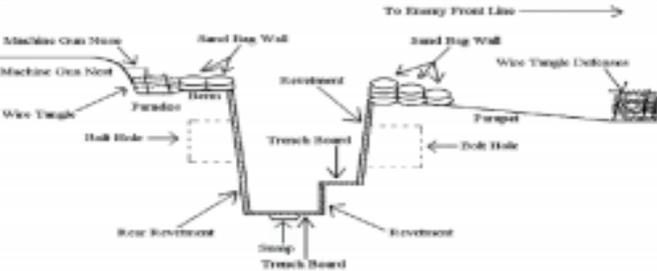


## Year 8 History – WW1 Knowledge Organiser

Is it fair to criticise the generals at the Somme?	
Yes	No
Casualties were appalling on the 1st July – 60,000 men	Many lessons were quickly learned (e.g. creeping barrages, attacking at different times, etc)
Some future battles were equally bloody, including Passchendaele in 1917	The Somme relieved pressure on the French army at Verdun
Plans made for the 1st July frequently failed on the day	Germany lost more soldiers than it could afford

Why did British men join up in 1914?	
<b>Patriotism</b>	British men were brought up to love their King and country
<b>Social pressure</b>	Fear of being called a coward or being given a white feather by a woman
<b>Sense of adventure</b>	Many British men had never travelled abroad – this was a chance to see the world!
<b>Propaganda</b>	British propaganda posters used very persuasive techniques
<b>Belief in a quick victory</b>	Many men thought that the war would be 'over by Christmas'

Which new weapons helped Britain to win the war?	
<b>Tanks</b>	First used in 1916, they broke through German defences and sheltered British troops
<b>Poison gas</b>	Although cruel and at the mercy of the weather, it instilled fear into soldiers on both sides
<b>Aeroplanes</b>	Very useful for reconnaissance and bombing / preventing bombing raids
<b>Artillery</b>	The 'creeping barrage' first used in 1916 forced Germans to remain in their shelters while the British advanced



Year 8 – French – Mes vacances

1	La France	France	16	Le train	Train
2	Le Sénégal	Senegal	17	Le bus	Bus
3	Le Canada	Canada	18	Le car	Coach
4	La Belgique	Belgium	19	Le métro	Underground
5	La Suisse	Switzerland	20	Le camping	Campsite
6	La Côte d'Ivoire	Ivory Coast	21	Le bord de la mer	Seaside/coast
7	Le Luxembourg	Luxemburg	22	Le bateau de croisière	Cruise ship
8	Le Cameroun	Cameroon	23	La montagne	Mountain
9	L'Haïti	Haiti	24	La campagne	Countryside
10	Le Bénin	Benin	25	Visiter	To visit
11	L'Algérie	Algeria	26	Nager	To swim
12	La voiture	Car	27	Acheter	To buy
13	L'avion	Plane	28	Se bronzer	To sunbathe
14	Le vélo	Bike	29	Plonger	To dive
15	Le bateau	Boat	30	Manger	To eat

## Year 8 – Summer 1 - Spanish – Chico & Rita

1	Bailar	To dance	16	Morir	To die
2	Cantar	to sing	17	Voy a cantar	I am going to sing
3	Besar	to kiss	18	Va a cantar	He/she is going to sing
4	Tocar (el piano)	To play (piano)	19	Vamos a cantar	We are going to sing
5	Conducir	To drive	20	Van a cantar	They are going to sing
6	Beber	To drink	21	canté	I sang
7	Comer	To eat	22	cantó	He/she sang
8	Traicionar	To betray	23	Cantamos	We sang
9	Fumar	To smoke	24	Cantaron	They sang
10	Gritar	To shout	25	Me gustaría cantar	I would like to sing
11	Mirar	To look at/ watch	26	Me hace reír	it makes me laugh
12	Matar	To kill	27	Me hace sonreír	it makes me smile
13	Ganar	To win	28	Me hace llorar	it makes me cry
14	Llorar	To cry	29	Me hace sentir feliz	it makes me feel happy
15	Soñar	To dream	30	Me pone nervioso/a	it makes me feel nervous

## Year 8 – Summer 2 - French

1	Porter	To wear	18	Grand(e)	Tall
2	Je porte / je mets	I wear	19	Petit(e)	Short
3	Je vais porter	I am going to wear	20	Le temps-libre	Free time
4	Hier j'ai porté	Yesterday I wore	21	Jouer de (+ instrument)	To play (an instrument)
5	Confortable	Comfortable	22	Écouter	To listen
6	C'est à la mode	It is fashionable	23	Nager	To Swim
7	Ma tenue préférée	My favourite outfit	24	Une piscine	Swimming pool
8	Le look chic	The elegant style	25	Lire	To read
9	La mode gothique	The gothic style	26	Chanter	To sing
10	La mode sportive	The sporty look	27	Aller (au cinema)	To go (to the cinema)
11	Avoir	To have	28	Danser	To dance
12	J'ai	I have	29	Manger au restaurant gastronomique	To eat in a gourmet restaurant
13	Il/elle a	He/she has	30	Sortir	To go out
14	Une barbe	Beard	31	Aller au studio	to go to the studio
15	Les lunettes	Glasses	32	Être	To be
16	Mince	Skinny	33	Je suis	I am
17	Potelé(e)	Chubby	34	Tu es	You are

## Year 8 – Summer 2 - French

35	Il/elle est	He/she is	52	Moins le quart	Quarter to
36	Ils/elles sont	They are	53	À dix heures moins le quart	At quarter to ten
37	Je me réveille	I wake up	54	À dix heures et quart	At quarter past ten
38	Je me lève	I get up	55		
39	Je prends le petit déjeuner	I have breakfast	56		
40	Je me douche	I shower	57		
41	Je me brosse les dents	I brush my teeth	58		
42	Je mets mon uniforme	I put on (my uniform)	59		
43	Je m'habille	I get dressed	60		
44	Je vais au collège	I go (to school)	61		
45	Le temps	Time	62		
46	À quelle heure ?	What time?	63		
47	Juste / exactement	On the dot	64		
48	À une heure	At one o'clock	65		
49	À deux heures	At two o'clock	66		
50	Et demie	Half past	67		
51	Et quart	Quarter past	68		

## Year 8 – Summer 2 - Spanish

1	Llevar	To wear	18	Alto/a	Tall
2	Yo llevo	I wear	19	Bajo/a	Short
3	Voy a llevar	I am going to wear	20	El tiempo libre	Free time
4	Ayer llevé	Yesterday I wore	21	Tocar	To play (an instrument)
5	Cómodo	Comfortable	22	Escuchar	To listen
6	Está de moda	It is fashionable	23	Nadar	To Swim
7	Mi prenda favorita	My favourite item	24	Piscina	Swimming pool
8	El estilo elegante	The elegant style	25	Leer	To read
9	El estilo gótico	The gothic style	26	Cantar	To sing
10	El estilo deportivo	The sporty look	27	Ir (al cine)	To go (to the cinema)
11	Tener	To have	28	Bailar	To dance
12	Tengo	I have	29	comer en un restaurante de alta comida	To eat in a gourmet restaurant
13	Tiene	He/she has	30	Salir	To go out
14	Barba	Beard	31	ir al estudio	to go to the studio
15	Gafas	Glasses	32	Ser	To be
16	Delgado/a	Skinny	33	Soy	I am
17	Gordo/a	Chubby	34	Eres	You are

## Year 8 – Summer 2 - Spanish

35	Es	He/she is	52	En punto	On the dot
36	Son	They are	53	A eso de	Around / at about
37	Estar	To be	54	A la una	At one o'clock
38	Estoy	I am	55	A las dos	At two o'clock
39	Estás	<b>You are</b>	56	A la una y cinco	At five past one
40	Está	He/she is	57	A la una y cuarto	Quarter past one
41	Están	They are	58	A la una y media	Half past one
42	me despierto	I wake up	59		
43	me levanto	I get up	60		
44	Desayuno	I breakfast	61		
45	Me ducho	I shower	62		
46	Me lavo los dientes	I brush my teeth	63		
47	Me visto	I get dressed	64		
48	Me pongo (el uniforme)	I put on (my uniform)	65		
49	Voy (al colegio)	I go (to school)	66		
50	El tiempo	Time	67		
51	¿A qué hora?	What time?	68		

## Unit 8 – presenting data

No.	Question	Answer	Example												
8.1	What three things must a pictogram include?	<ul style="list-style-type: none"> <li>A heading column</li> <li>A sensible picture</li> <li>A key</li> </ul>													
8.2	What four things must a bar chart have?	<ul style="list-style-type: none"> <li>An x-axis representing frequency</li> <li>A y-axis representing the groups</li> <li>The bars must be the same width</li> <li>The axis must go up in equal increments</li> </ul>													
8.3	What are grouped frequency tables?	<p>A way of recording large data sets</p> <p>The categories are a set of data values represented using inequalities</p>	<table border="1"> <thead> <tr> <th>Weight of box (w kg)</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td><math>0 &lt; w \leq 4</math></td> <td>11</td> </tr> <tr> <td><math>4 &lt; w \leq 8</math></td> <td>16</td> </tr> <tr> <td><math>8 &lt; w \leq 12</math></td> <td>29</td> </tr> <tr> <td><math>12 &lt; w \leq 16</math></td> <td>26</td> </tr> <tr> <td><math>16 &lt; w \leq 20</math></td> <td>20</td> </tr> </tbody> </table>	Weight of box (w kg)	Frequency	$0 < w \leq 4$	11	$4 < w \leq 8$	16	$8 < w \leq 12$	29	$12 < w \leq 16$	26	$16 < w \leq 20$	20
Weight of box (w kg)	Frequency														
$0 < w \leq 4$	11														
$4 < w \leq 8$	16														
$8 < w \leq 12$	29														
$12 < w \leq 16$	26														
$16 < w \leq 20$	20														
8.3	What must grouped frequency tables include?	<ul style="list-style-type: none"> <li>A heading column</li> <li>A frequency column</li> <li>Sometimes a tally column</li> </ul>													
8.4	How many degrees in a pie chart?	360°													
8.5	How do you calculate each angle in a pie chart?	Divide by the total frequency and multiply by 360													

## Unit 10 – accuracy

No.	Question	Answer	Example
15.1	What are significant figures?	All digits of a number that express a degree of accuracy, starting with the first non-zero digit	<p>358.06 rounded to 2.s.f. is 360</p> <p>0.0971 rounded to 2.s.f is 0.097</p>

## Unit 9 - correlation

No.	Question	Answer
21.1	What does positive correlation mean?	As one variable <u>increases</u> the other variable <u>increases</u> , this looks like: 
21.2	What does negative correlation mean?	As one variable <u>increases</u> the other variable <u>decreases</u> , this looks like: 
21.3	What does no correlation mean?	There is <u>no relationship</u> between the two variables, this looks like: 
21.4	What is a line of best fit?	A straight line drawn with a ruler that goes through the data with roughly the same number of points on each side of the line
21.5	What does interpolation mean?	Estimating a value within a given data set
21.6	What does extrapolation mean?	Estimating a value outside the give date set by assuming a trend

## Unit 8 – interpreting data

No.	Question	Answer	Example
8.6	How do you calculate the mean?	Add up all the data sets Divide by how many pieces of data there are	<p>6, 3, 4, 7</p> $\frac{6 + 3 + 4 + 7}{4} = 5$
8.7	How do you calculate the median?	Put all the data in ascending order and find the middle value.	<p>7, 2, 4, 8, 3, 9, 1</p> <p>1, 2, 3, <b>4</b>, 7, 8, 9</p> <p>4 is the median as it is in the middle</p>
8.8	How do you calculate the mode?	Find the value that occurs the most	<p>7, 2, 4, 8, 3, 9, 1, 9, 9</p> <p>9 is the mode as it appears the most</p>
8.9	How do you calculate the range?	Subtract the smallest value from the largest	<p>7, 2, 4, 8, 3, 9, 1, 9, 9</p> <p><math>9 - 1 = 8</math> therefore 8 is the range</p>

No.	Question		Example	
16.1	What is the radius?			
16.2	What is the diameter?			
16.3	What is the arc?			
16.4	What is a sector?			
16.5	What is a segment?			
16.6	What is a tangent?			
16.7	What is a chord?			
16.8	What is the circumference of a circle?			
16.9	What is the area of a circle?			
16.10	What is the formula for the circumference?	$\times D$		A circle has diameter 3cm, what is the circumference? $\pi \times 3 = 9.42\text{cm}$
16.11	What is the formula for the area?	$\times r^2$		A circle has radius 4cm, what is the area? $\pi \times 4^2 = 50.27\text{cm}^2$
16.12	What is a semi-circle?			

No.	Question	Answer	Example
17.1	What are 3D shapes?		
17.2	What is a prism?	A solid 3D shape with the same 2D shape running all the way through it	
17.3	What is an edge?	The lines when 2 faces meet on a 3D shape	
17.4	What is a face?	An individual 2D surface of a 3D shape	
17.5	What is a vertex?	A corner of a 3D shape (where 3 edges meet)	
17.6	What is the plan view?	The 2D view of a 3D shape from above	
17.7	What is the front elevation?	The 2D view of a 3D shape from the front	
17.8	What is the side elevation?	The 2D view of a 3D shape from the side	
17.9	What is the net?	A pattern you can fold to make a 3D solid shape	

## Unit 13 – volume

No.	Question	Answer
18.1	How do you find the volume of a cuboid?	Length x width x height
18.2	How do you find the volume of cylinder?	Area of the cross section x depth <i>The formula is <math>\pi r^2 \times \text{height}</math></i>
18.3	How do you find the volume of a prism?	Area of the cross section x depth
18.4	How do you convert from $\text{m}^2$ to $\text{cm}^2$ ?	Multiply by $100^2$
18.5	How do you convert from $\text{cm}^2$ to $\text{m}^2$ ?	Divide by $100^2$
18.6	How do you convert from $\text{cm}^2$ to $\text{mm}^2$ ?	Multiply by $10^2$
18.7	How do you convert from $\text{mm}^2$ to $\text{cm}^2$ ?	Divide by $10^2$
18.9	How do you convert from $\text{km}^2$ to $\text{m}^2$ ?	Multiply by $1000^2$

We will need to demonstrate all of the following in our tracks...

<p><b>DANCE MUSIC (EDM)</b></p>	<p>Music has been composed for people to dance to for centuries. Contemporary dance music is usually composed using technology and is known as EDM - Electronic Dance Music</p> 
<p><b>MUSIC SOFTWARE</b></p>	<p>EDM is composed on a variety of Music software such as Garageband, Logic, Pro Tools, FL Studio, Ableton etc. In live settings, EDM artists often mix their music using mixing decks and turntables. Many EDM pieces are instrumental, but some have singers.</p>
<p><b>BPM</b></p>	<p>Different genres of EDM have different tempos. These are measured in BPM (Beats Per Minute). Most EDM is at least 150 bpm</p>
<p><b>'DROP'</b></p>	<p>Most EDM builds up to a DROP. This usually at the climax of the music and is a slight pause in sound created by sudden fading of dynamics</p>
<p><b>LOOPS</b></p>	<p>Loops are repeated patterns or OSTINATI which can be achieved using technology</p>
<p><b>SAMPLES</b></p>	<p>Samples are short clips of other music or sound that are inserted into the EDM piece</p>

**Section 1: Nutrients**

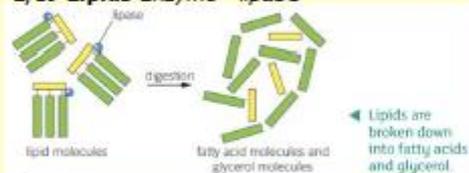
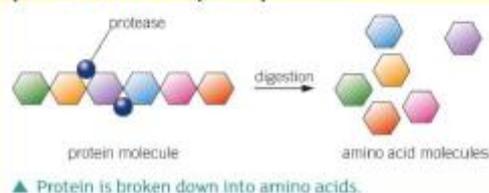
Nutrient	Function
1 Carbohydrates	Provides <b>energy</b> . Found in sugary foods and bread and pasta.
2 Lipids	Provides you with a store of <b>energy</b> and keeps you warm.
3 Proteins	Are used for <b>growth and repair</b> . Found in <b>meat and dairy</b> .
4 Vitamins and Minerals	Keeps you healthy (needed for normal function). Found in <b>fruit and veg</b> .
5 Water	Needed in all cells and body fluids.
6 Fibre	Not a <b>nutrient</b> but important for a healthy diet. Keeps food moving through gut. Found in <b>carbohydrates</b> .

**Section 2: Food Tests**

Nutrient	Chemical Used	Colour Change if Present
7 Starch	Iodine	Turns blue-black
8 Lipids	Ethanol	Solution turns cloudy
9 Sugar	Benedict's Solution	Turns brick-red
10 Protein	Copper Sulphate and Sodium Hydroxide	Turns purple

**Section 4: Digestion**

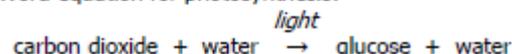
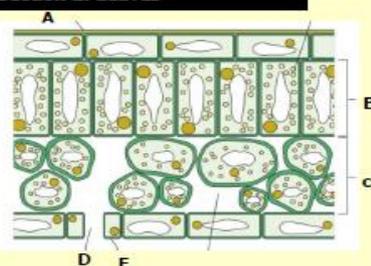
11 Digestion	Large molecules being broken down into smaller molecules.
12 Mouth	Food is chewed and mixed with saliva
13 Gullet	Food passes down this tube.
14 Stomach	Food is mixed with digestive juices in and acids.
15 Small Intestine	Small food molecules absorbed into the bloodstream.
16 Villi	Small structures the line the intestine, increasing <b>surface area</b> and maximising <b>absorption</b> .
17. Large Intestine	Water absorbed leaving undigested food called faeces.
18. Rectum	Faeces stored here.
19. Anus	Where faeces leave the body.
20. Enzymes	Special proteins that break large molecules into smaller molecules for absorption. Found in the mouth, stomach and small intestine

**1/19 Carbohydrates Enzyme - carbohydrase****2/19 Lipids Enzyme - lipase****3/19 Proteins. Enzyme - protease****Section 5 unhealthy diets**

21. Starvation	Energy eaten in food is less than the energy used
22. Obese	Extremely overweight - Energy eaten in food is more than the energy used; stored as fat under skin and around organs;
23. Deficiency	When a person does not have enough of a vitamin, mineral of food group.

**Section 1: Photosynthesis****Key word Definition**

1. Producer	An organism that makes its own food using photosynthesis
2. Consumer	An organism that eats other organisms as food
3. Photosynthesis	The process plants use to make their own food, glucose.
4. Chlorophyll	Green pigment that absorbs light for use in photosynthesis
5. Word equation for photosynthesis:	

**Section 2: Leaves**

	Letter	Part of leaf	Function
6	A	Waxy layer	Reduces the amount of water evaporating
7	B	Palisade layer	Packed with chloroplasts to enable photosynthesis
8	C	Spongy layer	Contains air spaces to enable gases to diffuse throughout of the leaf
9	D	Stomata	Allows gases to diffuse into and out of the leaf
10	E	Guard cell	Open and close stomata

**Section 1: levels of organisation**

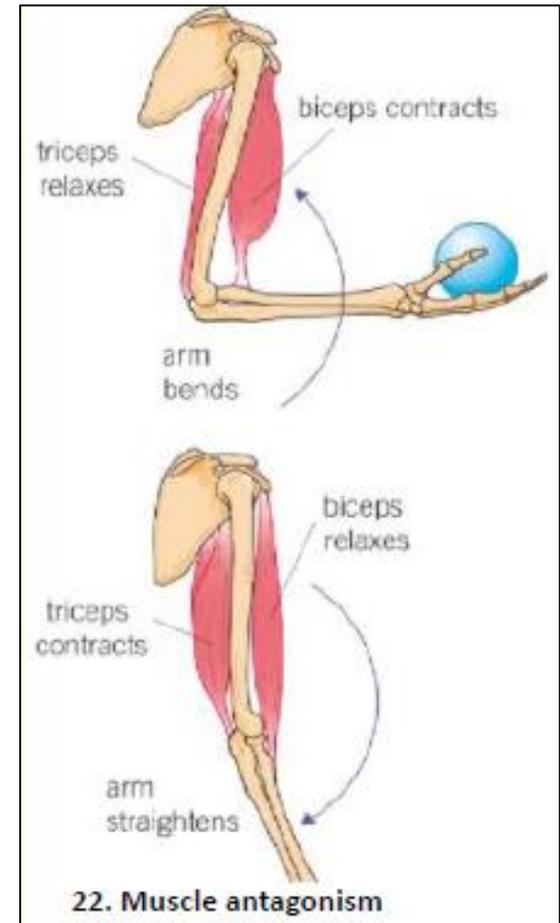
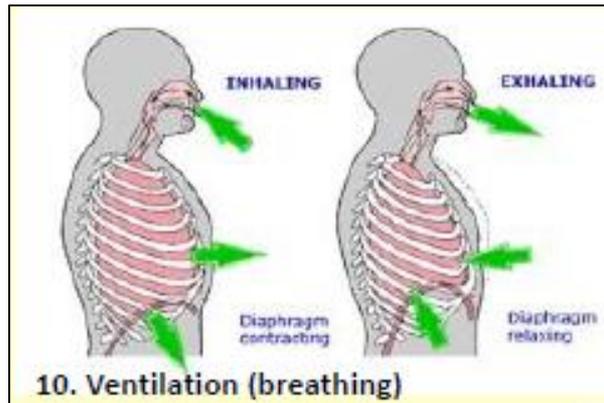
Cell Structure	Function
1 Cell	Building block of life
2 Tissue	Group of cells of the same type
3 Organ	Group of different tissues working together
4 Organ System	Group of organs working together

**Section 4: Movement**

10 Bones	Tissue that forms a hard structure used to protect organs and for movement
11 Skeleton	All the bones in the skeleton
12 Cartilage	The strong smooth tissue that covers the end of <b>bones</b> to prevent them rubbing together
20 Ligaments	Tissue that joins two <b>bones</b> together
21 Tendons	A <b>tissue</b> that joins a <b>muscle</b> to a <b>bone</b>
22 Antagonistic Muscle	A pair of muscles that work together to control movement at a joint – as one muscle <b>contracts</b> the other relaxes

**Section 2: Gas exchange and breathing**

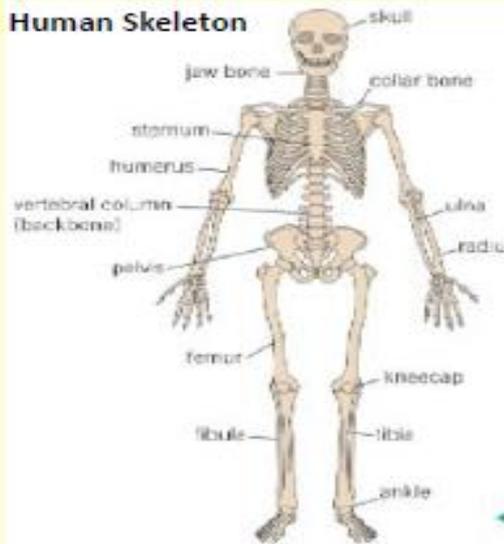
Specialised Cell	How structure relates to function
8 Inhale	Breathing in, filling the lungs with air – taking in oxygen
9 Exhale	Breathing out – removing carbon dioxide
10 Ventilation	Breathing in and out
11 Respiration	A chemical reaction where sugar and <b>oxygen</b> are converted into energy, water and <b>carbon dioxide</b>
12 Diaphragm	A sheet of muscle used in breathing: contraction draws air in

**Section 3: Respiratory system**

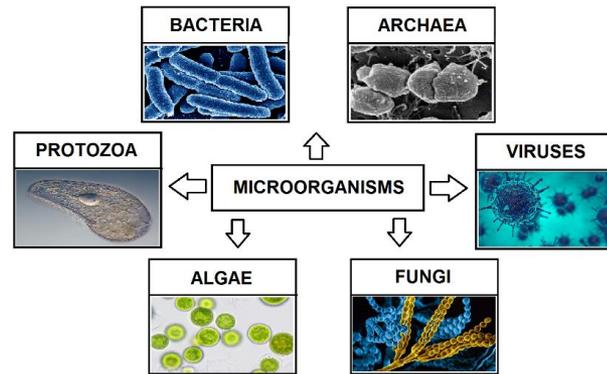
10 Trachea	Large tube that air moves down into the lungs (Windpipe)
11 Bronchus	Smaller tubes that branch into the Lungs
12 Alveolus	Structure found in the <b>lungs</b> where gas exchange takes place
20 Lungs	The <b>organ</b> where gas exchange takes place
21 Lung volume	The amount of air <b>lungs</b> can hold.
22 Respiratory system	<b>Organs</b> involved in gas exchange

**Section 5: Respiration**

<b>Aerobic respiration</b>	Glucose + oxygen → carbon dioxide + water (+ energy)
<b>Anaerobic respiration</b>	Glucose → lactic acid (+ energy)
<b>Fermentation</b>	Glucose → ethanol + carbon dioxide (+ energy)

**11. Human Skeleton**

1. Keywords	
Communicable (infectious) disease	A disease which can be spread to others.
Pathogen	Micro-organisms that cause infectious disease (eg bacteria, protists, fungi and viruses).
Bacteria	Prokaryotic cells. Some can cause disease by making toxins.
Protists	Eukaryotic cells. Some can cause disease.
Fungi	Class of organisms that includes mushrooms. Some can cause disease.
Virus	The smallest organisms. Much smaller than bacteria. They reproduce inside host cells damaging them and causing disease.



3. Non-specific defence systems	
Skin	Physical barrier
Nose	Hairs trap pathogens
Trachea and bronchi	Mucus traps pathogens
Stomach	Acid destroys pathogens

5. Vaccination	
Vaccine	Small amount of dead or inactive pathogen to stimulate white blood cells to produce antibodies
How vaccines work:	
1	Weak or dead pathogen injected
2	White blood cells generate antibodies to destroy pathogen
3	White blood cells that make those antibodies remain and make you immune to future infections

4. Specific defence by white blood cells	
Phagocytosis	Ingesting (take in) pathogens digesting and destroying them
Antibody production	Target a specific pathogen. Stick them together and target them for destruction. Gives you a 'memory' of that pathogen so you can fight it more quickly next time
Antitoxin production	Cancel out toxins released by pathogens

