

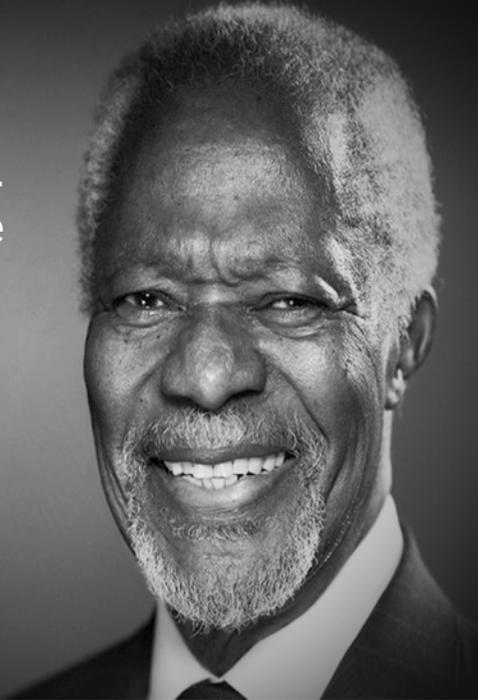


Queen Elizabeth's *School*

Year 8 Knowledge Organiser Home Learning Booklet

“Knowledge is power.
Information is liberating.
Education is the premise
of progress, in every
society, in every family.”

Kofi Annan
1938-2018



Learning Cycle 2 2022-2023

Name:

Tutor Group:

Respect

We are considerate and we help each other. Treating everyone equally and understanding our differences **makes our world stronger.**

Reflection

We progress by giving careful consideration to what we do. Thinking about our actions in a positive way guides us as we **move forward.**

Resilience

We overcome difficulties and work on things to get better at them. Embracing challenges **helps us to learn.**



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How do I use the Knowledge Organiser booklet for independent home learning?

As a minimum expectation, **every** school day you should be studying from your Knowledge Organiser (KO) booklet for home learning. The timetable on Page 4 in this KO booklet tells you which subjects you should be studying and on which days (it doesn't matter if you have that subject on that day or not, you should follow the timetable).

Produce your KO independent home learning in your home learning exercise book.

- Start a **new page** for each day.
- **Bring** your KO booklet and KO exercise book to school with you **every day**. They are part of your school equipment.
- Your **parents/carers** should sign completed home learning every evening at the top of each KO exercise book page.
- Your KO exercise book will be checked regularly in lessons, with your **teacher signing** alongside your parents/carers.
- Failure to complete KO home learning will result in you having to attend **catch up sessions**.

You will be **quizzed** in your **lessons** on knowledge from the KO to support the retention of knowledge over time.

How does Knowledge Organiser Independent Learning work?

The KO for each subject has the **foundation knowledge** that is required for that topic, for that specific part of the year. Your aim is to make sure that by the end of the topic, you are able to retain all of the knowledge from each subject's KO.

For each subject, you should follow the methods explained in the box opposite, and you should do at least **one A4 page** of KO independent home learning **per night**. You are **self-quizzing** and **self-assessing** your knowledge against that in the KO booklet for each subject. **You are not just taking notes/copying.**

If you are unsure as to how to use the KO booklet or the KO exercise book, please speak to your form tutor for further guidance.



Methods

Look - Cover - Write - Check

Focus on a specific section/s of the KO.

If there are key terms write them out first, but leave space to add **definitions**.

Study the KO (this could be in silence, reading out loud, asking a friend/parent/sibling to test you, or using a voice recorder of some kind).

Write down as much as you can remember in **blue/black** pen.

You could do this all in one go, or a bullet point or key term at a time.

Add any content/words that you weren't able to remember in **PURPLE** pen.

Correct anything that you got wrong in **PURPLE** pen.

You could also:

- Create mindmaps
- Put the key words into new sentences
- Create quiz questions
- Draw images and annotate/label
- Create flowcharts
- Do further research on the topic
- Spelling tests
- Mnemonics
- Definition tests
- Draw diagrams of processes
- Create fact files
- Create flash cards

To see how this to use some of these techniques watch the short videos at:

https://www.youtube.com/watch?v=LLZvCymL4rU&list=PLJ8K_5RbGziy3GTA9hUBPK_e8nKfVaH7

Presentation

You should take **pride** in how you present your work:

Each page should be clearly **dated** at the top left hand side with **Subject 1** written in the middle and **underlined**. When you have finished your learning and notes for this subject, rule a line under and do the same for the other subjects on your home learning timetable. Spend at least 15 minutes on **each of the subjects** on your home learning timetable for that day.

Make sure that your work shows that you are trying hard and taking a pride in what you are learning.

Home Learning Timetable

You are expected to study the subjects shown on your timetable each day. Use at least a page of your home learning exercise book to evidence your work. When you have completed your home learning for each subject, **you must ask a parent or carer to sign the page to show that they have seen it**. It is also good if you talk to your parents/carers about what you are learning. Your class teachers will also check and sign it off as complete.

Monday	Tuesday	Wednesday	Thursday	Friday
English	Principal's Page	Biology	Chemistry	Art
Physics	History	Geography	MFL	PE
RE	Drama	Music	Tech	Maths



Read this page. Write out the key words (underlined). For each give the meaning and write a sentence using the key word.

For Example: **laureate** - person who is honoured with an award for outstanding creative or intellectual achievement.

Kofi Annan

- Occupation: Diplomat. Secretary-General of the United Nations.*
- Born: Kumasi, Ghana on 8th April 1938. Died: 14th March 2018
- Best known for: Being a Nobel Peace Prize laureate

Kofi Annan was born in Ghana in 1938. He graduated from university in 1957 with a degree in economics and also went on to study international relations in Geneva and management in America.

In 1962, he joined the United Nations working for the World Health Organisation in Geneva. He had several roles at the UN, including High Commissioner for Refugees and head of the UN's peacekeeping efforts. Annan led peacekeeping operations in several countries, including Burundi, Somalia and Zaire (now the Democratic Republic of the Congo). He also served as special UN representative to the former Yugoslavia.

Annan was appointed as Secretary-General to the UN in 1997. He worked to improve relationships between all the member countries of the UN and to tackle human rights abuses throughout the world.

In June 2001 Kofi Annan and the UN were jointly awarded the Nobel Peace Prize. Following his work with the UN Annan founded the Kofi Annan Foundation, and continued his work with poverty, human rights, and climate change.

*The United Nations is an international organisation founded in 1945 after the Second World War. There are now 193 Member States. The United Nations (UN) takes action on issues facing people in the 21st century including human rights, peace and security, terrorism and climate change.



Improving Your Vocabulary

Choose words from the vocabulary list below.

For each give the meaning and write a sentence using the key word.

For example: There was a **decline** in the number of people who were unemployed.

- alter • stability • energy • aware • licence • enforcement • draft • styles •
- precise • medical • pursue • symbolic • marginal • capacity • generation •
- exposure • decline • academic • modified • external • psychology •
- fundamental • adjustment • ratio • whereas • enable • version • perspective •
- contact • network • facilitate • welfare • transition • amendment • logic •
- rejected • expansion • clause • prime • target • objective • sustainable •
- equivalent • liberal • notion • substitution • generated • trend • revenue •
- compounds • evolution • conflict • image • discretion • entities • orientation •
- consultation • mental • monitoring • challenge •



'10 a day' CHOICES TOWARDS BALANCING OUR MENTAL HEALTH.

It is important that we all take care of our health, including our mental health. **The Ten a Day Choices** approach can really help us to think about this and reminds us what we can do each day to help balance our mental health.

Spend some time thinking about your week. Write notes about the things that you did to help balance your mental health. How did that work out?

What are you going to focus on doing in the week to come?



1 Talk about your feelings



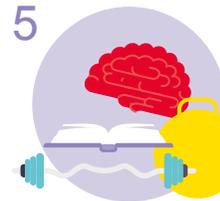
2 Do something you enjoy and are good at



3 Keep yourself hydrated



4 Eat well



5 Keep active in mind and body



6 Take a break



7 Stay connected to those you care about



8 Ask for help



9 Be proud of your very being



10 Actively care for others



Weeks 7 and 8 Othering	Weeks 9 and 10 Analysing and Manipulating
<p>Tone - The general character or attitude piece of writing: Humorous vs Serious Admiration vs Disgust Respectful vs Contemptuous Compassionate vs Detached Optimistic vs Pessimistic</p> <p>Class (social) (n) - A system of ordering society whereby people are divided into sets based on perceived social or economic status.</p> <p>Othering - View or treat (a person or group of people) as intrinsically different from and alien to oneself.</p> <p>Orientalism - A patronising attitude by the West towards other cultures.</p>	<p>Simile - A descriptive technique that compares one thing with another, usually using 'as' or 'like'.</p> <p>Emotive Language - Language intended to create an emotional response.</p> <p>Imagery - Using language to convey an atmosphere.</p> <p>Allusion - A reference to another literary or religious work.</p> <p>Metaphor - A descriptive technique that names a person, thing or action as something else.</p> <p>Hyperbole - A use of obvious exaggeration for rhetorical effect.</p> <p>Repetition - When a word or phrase is repeated continuously.</p> <p>Rhetorical Question - A question asked in order to create a dramatic effect or to make a point rather than to get an answer.</p>



Your teacher will use Sparx Maths to...

- Set you questions on the topics you are learning at school
- See how well you understand the maths topics given to you
- Decide what to teach you next to help you to make progress

What you will need to do:

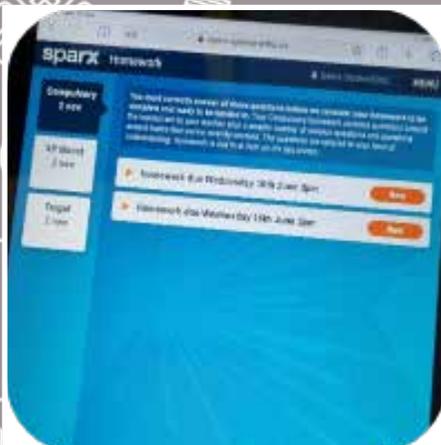
- Log in to Sparx Maths from a computer or tablet at home
- Answer the questions your teacher has set you
- If you are stuck, use the videos to help you



How to log in to Sparx - new students

- Go to www.sparx.co.uk, click Log in and choose Student login
- Start typing the name of your school in the **Select Your School** box. Click Continue.
- Click the **New Sparx User?** button at the bottom of the box.
- Fill in your **Name and Date of Birth** and click **Submit**.
- You will be asked to create a password.
- Click **Finish**.

Now you can log in with your Username and Password.

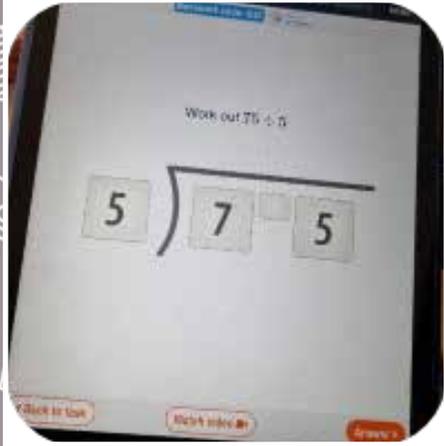


Answering your homework questions.

- Once logged in, you will see your Compulsory Homework.
- Click on the orange arrow and your homework tasks will appear.
- You need to complete these before the due date your teacher has set.

Answering your homework questions: Bookwork Checks

- Just like your teacher, Sparx will check whether you are writing down your answers.
- In a Bookwork Check you will have to input the answer that you wrote down for a particular Bookwork Code.
- If you fail the Bookwork Check, you will have to do the question again.



Example of a Sparx question

Can you see:

- The Bookwork Code?
- Where the help video is?
- Where to enter your answer to the question?

What does good Bookwork look like?

- Clear titles and workings alongside the correct Bookwork code in the margin.
- Remember, you must write down the Bookwork code and the answer you gave.
- Please do not cross out wrong answers!

Answering your homework questions.

- You will immediately see if you have got a question right as Sparx will mark it for you.
- If you get a question wrong you can try a similar question again, and use the videos to help you.
- Try to work independently and not rely on help as this could mean your homework gets harder!

What is XP?

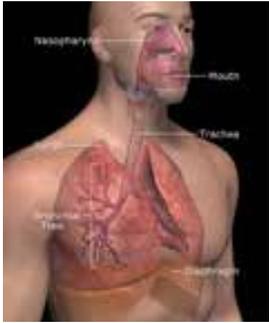
- XP (Sparx Experience Points) are earned for completing questions in your homework.
- You also get twice as much XP for completing XP Boost and Target homework tasks.

Finally, remember that...

It is important that your answers are yours and yours alone. Sparx creates homework that is just right for you.

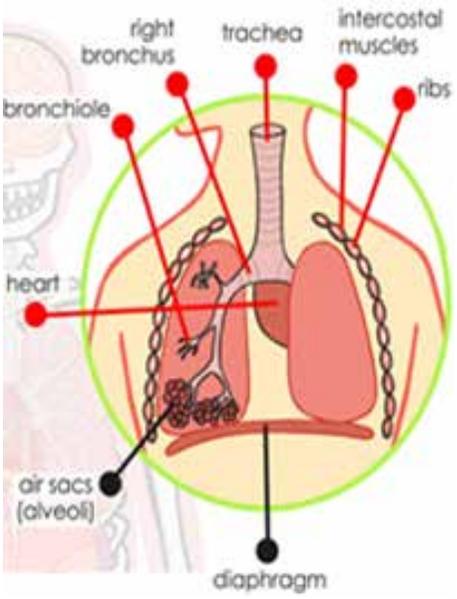
If someone else:

- Does your work for you
 - Tells you the answers
 - Helps you too much
- you will probably get homework that is too hard for you!



Key Concepts
Respiration occurs in the mitochondria found in cells.
Anaerobic respiration occurs when oxygen is not used, Aerobic respiration uses oxygen.
Animals and plants need to respire to produce energy for the cells activities.

Key Vocabulary	
Anaerobic	Respiration without oxygen.
Respiration	Using oxygen to release energy for use in the organism.
Aerobic	Respiration with oxygen.
Exchange	Has a special shape so it can carry out a specific function.
Ethanol	Alcohol in its pure form.
Fermentation	A type of anaerobic respiration carried out by micro-organisms.
Trachea	Scientific name for the windpipe.
Alveoli	Small air sacs where gaseous exchange takes place.



Aerobic respiration releases more energy than anaerobic respiration.
Anaerobic respiration can result in the build-up of lactic acid - which gives us a stitch.
Examples of food produced by fermentation are: beer, bread and wine.

Cross Curricular Links
English: Key words and definitions.
Maths: Measuring scales, drawing graphs.
PE: Exercise and health.

The equation for **aerobic respiration:**

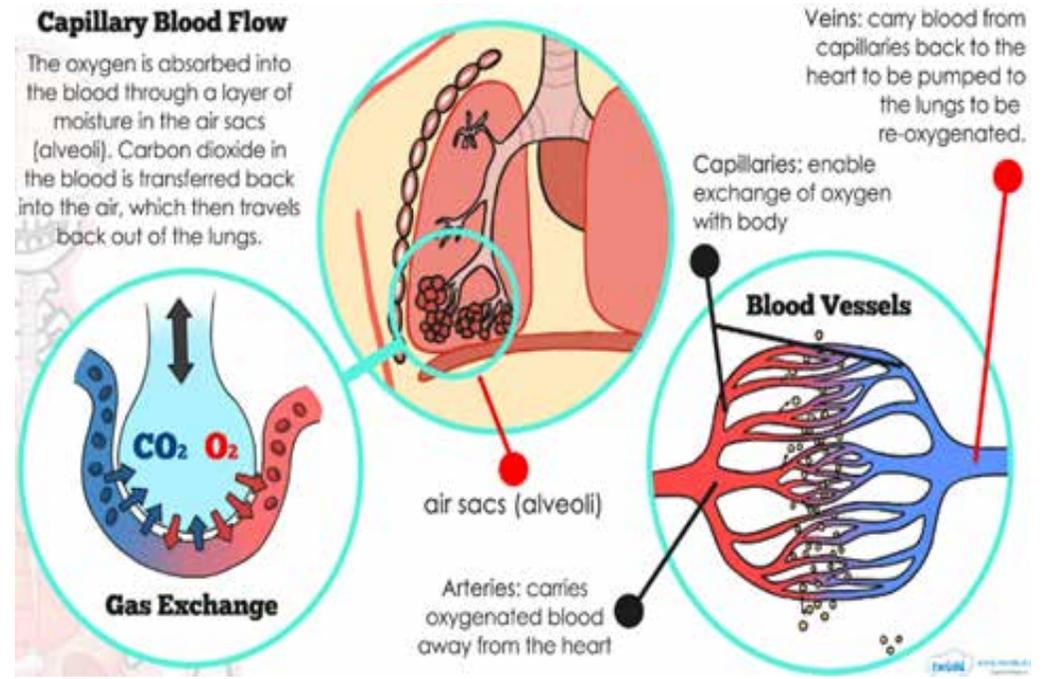
$$\text{glucose} + \text{oxygen} \longrightarrow \text{carbon dioxide} + \text{water} + \text{ENERGY}$$

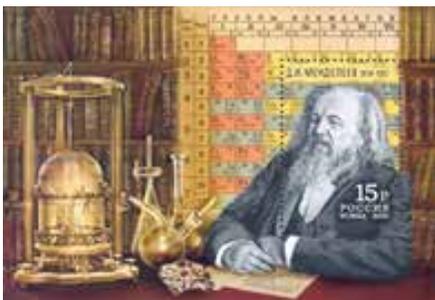
The equation for **anaerobic respiration:**

$$\text{glucose} \longrightarrow \text{lactic acid} + \text{ENERGY}$$

The equation for **fermentation:**

$$\text{glucose} \longrightarrow \text{ethanol} + \text{carbon dioxide} + \text{ENERGY}$$





The Modern Periodic Table

Elements are in order of **atomic mass/proton number**. It shows where the metals and non-metals are. **Metals** are on the left and **non-metals** on the **right**. The **columns** show the groups. The **group number** shows the number of **electrons** in the outer shell. The rows are periods - each **period** shows another full shell of electrons.

The periodic table can be used to predict the reactivity of elements.

Key Concepts

Metals are found in the left hand part of the periodic table and make up most of the elements.

Non-metals are a much smaller group and are found on the right hand side of the table.

Dimitri Mendeleev (in 1869) organized elements into the periodic table and even left gaps for undiscovered elements.

The alkali metals are soft and very reactive. They form hydroxides with water and metal salts with the halogens.

The Noble gases are in Group 8 and are unreactive. They were the last group of elements to be discovered.

The halogens are non metals. As you go down the group they get less reactive and the melting and boiling points get higher.

Key Vocabulary

Element	Pure substance where all the atoms have the same atomic number.
Compound	Two or more elements chemically joined together.
Mixture	Compounds or elements not chemically joined.
Alkali metal	Group 1 of the periodic table. React with water to create an alkali solution.
Halogens	Group 7 of the periodic table. Very reactive.
Reactivity	The measure of how likely a substance is to undergo a chemical reaction.
Exothermic	Reaction giving off energy in the form of heat.
Endothermic	Reaction that takes in heat from its surroundings.

Cross Curricular Links

English: Key words and definitions.
 Maths: Measuring scales, interpreting graphs.
 History: Understanding and ideas over time.
 DT: Creating new materials.

Chemical Equations

A chemical reaction can be shown by using a **word equation**,

e.g: magnesium + oxygen \longrightarrow magnesium oxide

On the left-hand side are the reactants, and the right-hand side are the products.

They can also be shown by a **symbol equation**, e.g: $2\text{Mg} + \text{O}_2 \longrightarrow 2\text{MgO}$

Equations need to be balanced, so the same number of atoms are on each side. To do this, numbers are put in front of the compounds. $\text{CH}_4 + 2\text{O}_2 \longrightarrow 2\text{H}_2\text{O} + \text{CO}_2$



H
Hydrogen

He
Helium

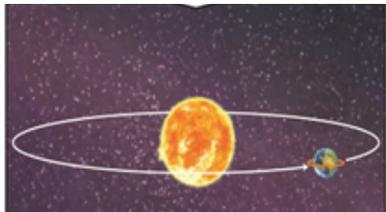
Li Lithium	Be Beryllium											B Boron	C Carbon	N Nitrogen	O Oxygen	F Flourine	Ne Neon
Na Sodium	Mg Magnesium											Al Aluminium	Si Silicone	P Phosphorus	S Sulfur	Cl Chlorine	Ar Argon
K Potassium	Ca Calcium	Sc Scandiumn	Ti Titanium	V Vanadium	Cr Chromium	Mn Manganese	Fe Iron	Co Cobalt	Ni Nickel	Cu Copper	Zn Zinc	Ga Galium	Ge Germanium	As Arsenic	Se Selenium	Br Bromine	Kr Krypton
Rb Rubidium	Sr Strontium	Y Yttrium	Zr Zirconium	Nb Niobium	Mo Molybdenium	Tc Technetium	Ru Ruthenium	Rh Rhodium	Pd Palladium	Ag Silver	Cd Cadmium	In Indium	Sn Tin	Sb Antimony	Te Tellerium	I Iodine	Xe Xenon
Cs Cesium	Ba Barium	57-71	Hf Hafnium	Ta Tantalum	W Tungsten	Re Rhenium	Os Osmium	Ir Iridium	Pt Platignum	Au Gold	Hg Mercury	Tl Thallium	Pb Lead	Bi Bismuth	Po Polonium	At Astatine	Rn Radon
Fr Francium	Ra Radium	89-103	Rf Ruther- fordum	Db Dubnium	Sg Seaborgium	Bh Bohrium	Hs Hassium	Mt Meitnerium	Ds Darmst- adtium	Rg Roentgenium							

Metals

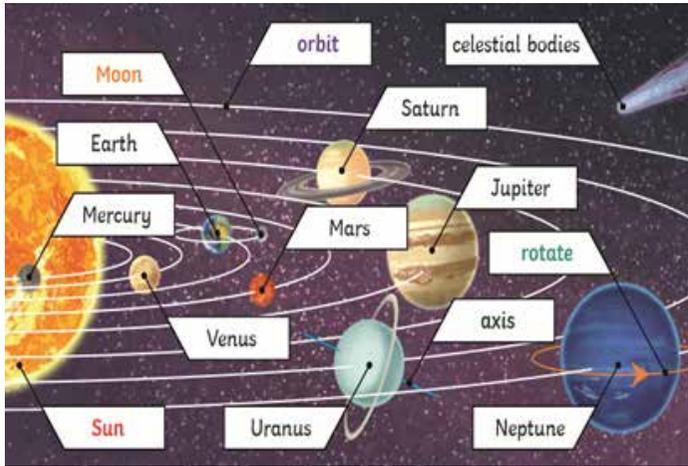
Non-Metals



Earth rotates (spins) on its axis. It does a full rotation once in every 24 hours. At the same time that Earth is rotating, it is also orbiting (revolving) around the Sun. It takes a little more than 365 days to orbit the sun. Daytime occurs when the side of the Earth is facing towards the Sun. Night occurs when the side of the Earth is facing away from the Sun.



Key Concepts	
The geocentric model of the universe where the Earth is at the centre and the Sun and other planets orbit it was believed for hundreds of years.	
A planet has to orbit a star and have cleared its orbital path of debris. Pluto is not a planet as it hasn't cleared its path.	
Mercury, Venus, Earth and Mars are rocky planets while the others are gas planets (with rock and metal cores).	



The **Moon orbits** Earth in an oval-shaped path while spinning on its axis. At various times in a month, the **Moon** appears to be different shapes. This is because as the **Moon rotates** round Earth, the **Sun** lights up different parts of it.

Key Vocabulary	
Orbit	Move in a regular repeating path around another object.
Rotate	To spin (on its own axis). The Earth rotates once every 24 hours (roughly).
Axis	An imaginary line that a body rotates around.
Sun	Our star and the centre of our solar system. It is a mass of gas undergoing nuclear fusion.
Moon	A natural satellite that orbits a planet.
Star	A mass of gas held together by its own gravity emitting heat and light.
Satellite	Any object that orbits something else. They can be natural or man made.
Year	The length of time taken to orbit the sun once. The Earth's year is 365 and ¼ days.

Cross Curricular Links
English: Key words and definitions.
Maths: Measuring scales, interpreting graphs.
History: Understanding and ideas over time
DT: Creating new materials.

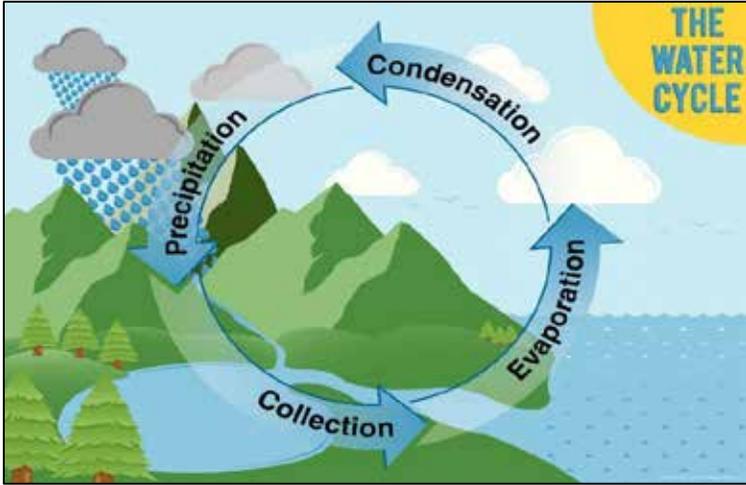


The work and ideas of many **astronomers** (such as Copernicus and Kepler) combined over many years before the idea of the **heliocentric model** was developed. Galileo's work on gravity allowed astronomers to understand how **planets** stayed in **orbit**.





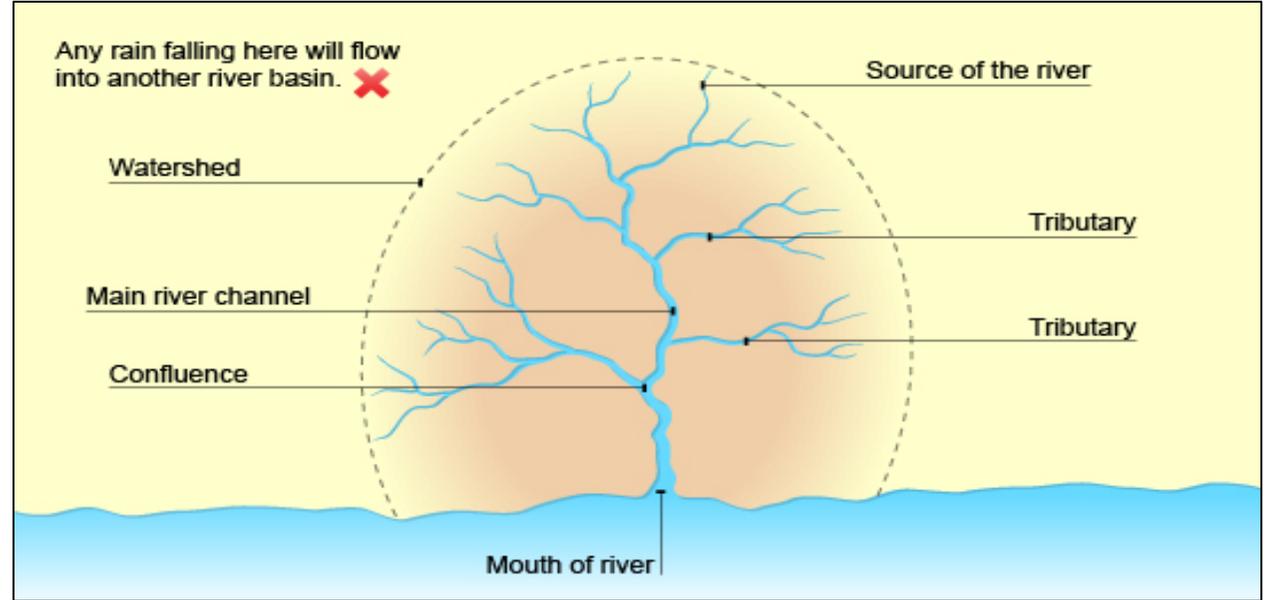
What is the Water Cycle? (Hydrological Cycle).



Water on Earth is constantly moving. It is recycled over and over again. This recycling process is called the water cycle.

1. Water **evaporates** into the air. The sun heats up water on land, in rivers, lakes and seas and turns it into water vapour. The water vapour rises into the air.
2. Water vapour **condenses** into clouds. Water vapour in the air cools down and changes back into tiny drops of liquid water, forming clouds.
3. Water falls as **precipitation**. The clouds get heavy and water falls back to the ground in the form of rain or snow.
4. Water returns to the sea. Rain water runs over the land and collects in lakes or rivers, which take it back to the sea. The cycle starts all over again.

What is a drainage basin?

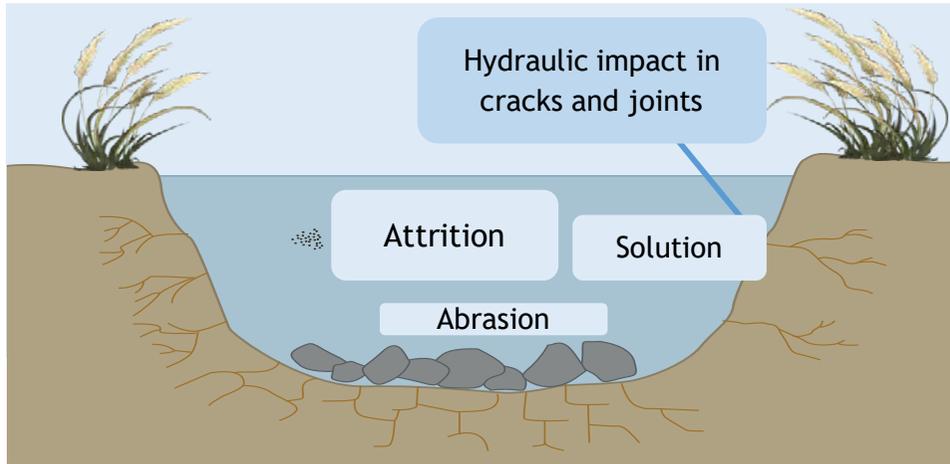


DRAINAGE BASIN:	The catchment area of land drained by a river.
SOURCE:	Where the river begins.
MOUTH:	Where the river meets the sea.
CONFLUENCE:	The point at which two rivers meet.
TRIBUTARY:	A small river or stream that joins a larger one.
WATERSHED:	The area of highland forming the edge of the river basin.
CHANNEL:	This is where the river flows.

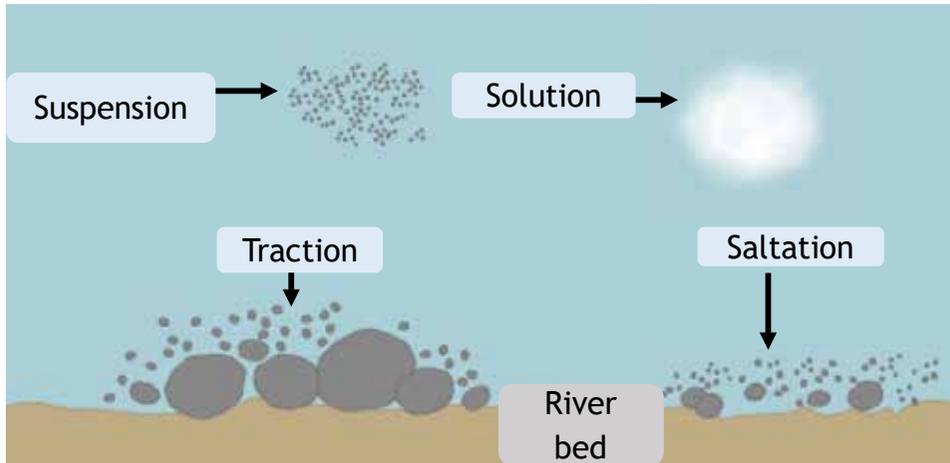


What processes happen along the course of the river?

EROSION: When land is worn away by another material. It's a natural process that's been going on for millions of years and it continues to shape our planet's landscape today.



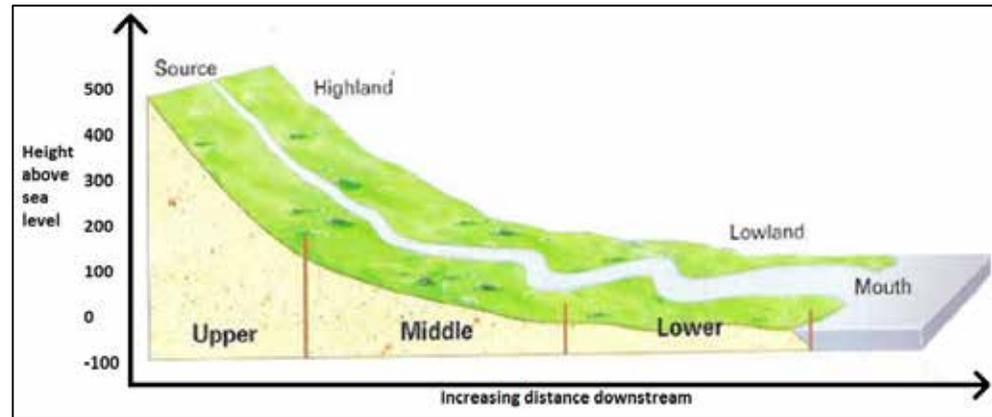
TRANSPORTATION: Rivers pick up and carry material as they flow downstream.



DEPOSITION: When a river loses energy, it will drop or deposit some of the material it is carrying.

How do rivers change from source to mouth?

The diagram below shows the **LONG PROFILE** of a river from its source to the mouth.



UPPER COURSE	MIDDLE COURSE	LOWER COURSE
V-Shaped Valley: Where the valley has a narrow floor and steep sides.	Meanders: A wide bend in a river. The current is fastest on the outside and slower on the inside.	Deltas: Form when a river deposits its load too fast for the sea to remove it e.g The Nile.
Interlocking Spurs: Outcrops of hard rock that interlock, as a river winds around them.	Ox-Bow Lakes: An arc shaped lake on a floodplain formed by a cut-off meander.	Estuary: Funnel shaped river mouths - where the river meets the sea.
Waterfalls and Rapids: Found where there are alternative bands of hard and soft rock.	Gentle Gradients: The river now has a large discharge and erodes sideways (Laterally).	Floodplain: The wide valley floor found in the lower stage of the river.



What factors can affect flood risk?

FOR MORE INFORMATION:

<https://www.bbc.co.uk/bitesize/guides/zgycwmn/revision/1>

PHYSICAL:

- 1) **RELIEF:** The shape of the land. Steep land increases surface runoff.
- 2) **HEAVY RAINFALL:** Water arrives too quickly to infiltrate.

HUMAN:

- 1) **LAND USE:** Impermeable surfaces such as concrete can increase surface runoff.
- 2) **DEFORESTATION:** Trees intercept and store rainwater. **Cutting** them down increases surface runoff.

What are the impacts of flooding in a HIC - Boscastle?



Boscastle is a village and fishing port on the North coast of Cornwall, England, UK.
Heavy rainfall on 16 August 2004 caused extensive damage to the village.

CAUSES: 89mm of rain fell in an hour on **ground saturated** from previous rainfall. Boscastle is located within a **steep sided valley** which increased **surface runoff** into the village. Boscastle is located at the confluence of three rivers, which increased the **river discharge**.

EFFECTS: About 115 vehicles were swept away. Homes and businesses were damaged and destroyed.

RESPONSES:

£45 million has been spent on a flood defence scheme. Boscastle car park has been raised in height, which will stop the river from bursting its banks so easily. The river channel has been **dredged** to make it deeper and wider so that it can accommodate more water.

What are the impacts of flooding in a LIC - Bangladesh?



Bangladesh is located in Southern Asia. Bangladesh is bordered by the Bay of Bengal to the South, Myanmar (Burma) to the East, and India to the East, North, and West.

CAUSES: Much of Bangladesh lies on a **floodplain**, so regularly floods. Over half the country lies 6m below sea level. There are three major rivers - the Ganges, Brahmaputra and Meghna. **Deforestation** of the Himalayas.

EFFECTS: 2004 floods: The floods cost the economy 2.2 billion US dollars and over 700 people were killed.

RESPONSES: People repaired embankments and helped to rescue people. Flood satellite imaging systems – allow more warning to be given to Bangladeshis.

FOR MORE INFORMATION:

<https://www.bbc.co.uk/bitesize/guides/zgycwmn/revision/4>



What are hydrographs?

A hydrograph shows how discharge at a certain point in a river changes over time in relation to rainfall.

RIVER DISCHARGE: The volume of water flowing per second. Measured in cumecs (cubic metres per second).

PEAK DISCHARGE: Highest discharge in time period.

LAG TIME: Delay between peak rainfall and peak discharge.

RISING LIMB: Increase in discharge as rainwater flows into the river.

FALLING LIMB: Decrease in discharge as the river falls to its normal level.

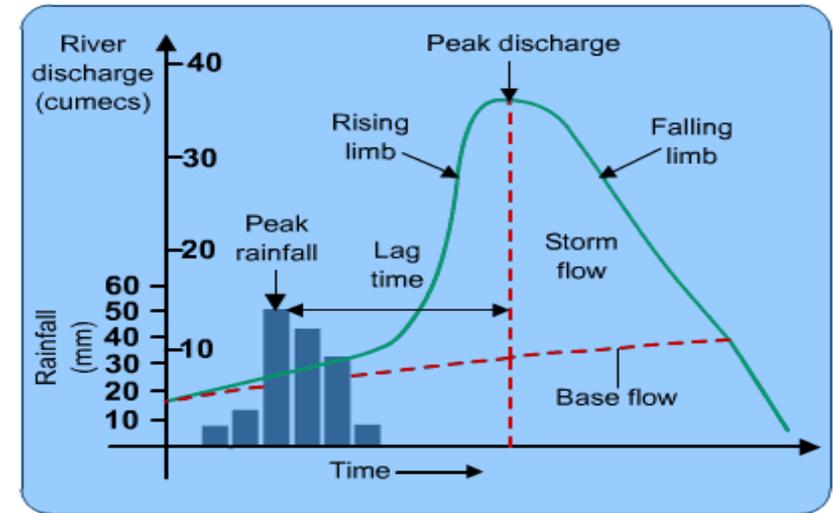
How can we manage flooding?

HARD ENGINEERING: Structures built to control the flow of rivers and reduce flooding.

METHOD:	BENEFITS:	DISADVANTAGES:
DAMS AND RESERVOIRS:	Control water flow-potential for HEP.	Dams are expensive.
CHANNEL STRAIGHTENING:	Water leaves area faster - less build up.	Flooding may happen downstream.
EMBANKMENTS:	River capacity increased.	Expensive. Can overflow/break.
FLOOD RELIEF CHANNELS:	Control over diverted area.	Increased discharge where relief channel re-joins river.

SOFT ENGINEERING: Schemes set up using knowledge of a river and its processes.

METHOD:	BENEFITS:	DISADVANTAGES:
FLOOD WARNINGS and PREPARATION:	Gives people time to evacuate.	Not preventative. Gives a false sense of security.
FLOOD PLAIN ZONING:	Fewer impermeable surfaces reduces flood risk and impacts.	Can't help existing settlements.
PLANTING TREES:	Less discharge and soil erosion.	Less farmland available.
RIVER RESTORATION:	Requires little maintenance/Better for habitats.	Local flood risk can increase.





What was the Slave Trade?

The Slave Trade was the forced movement of people from the African kingdoms, such as Benin, in return for goods from Europe, such as textiles, brandy and weapons. The slaves would then be traded with America for natural resources such as sugar, coffee and tobacco, much of which would be produced by slaves living on plantations. This was known as the Slave Trade Triangle.



What impact did the Slave Trade have on Africa?

Many of the strongest and healthiest African people were traded to Europe and America. This meant that African kingdoms found it difficult to produce the goods they needed. Large parts of Africa became poorer and poorer as they did not have enough workers to produce food or work in their home areas.

In addition to this, slavery increased the number of wars between the African people themselves. In order to gain wealth, the tribes would attack one another to gain prisoners, who would then be sold to slave traders.

Many people fled their homes in fear of this.

What was a Slave Auction?

After arriving in America, slaves were brought to auction by slave traders and sold to the highest bidder.

During the auction, families were often split up, even parents and children.

During the sale, potential buyers could inspect the slaves like 'stock' at a market or butchers.

All slaves were then branded with a hot iron after the sale.

What was a Plantation?

A plantation was an estate of land whereby coffee, tobacco and sugar are grown. Slaves would work for up to 18 hours per day and up to ten slaves shared a small hut on the slave owner's land. Living and working conditions were appalling.

Key Words

Tier 2

Racism: The deliberate mistreatment of a person or group based on their race.

Slavery: When someone is forced to become the legal property of another and work for them.

Auction: A type of sale where people bid for a product, which goes to the highest price offered.

Plantation: An estate where slaves were used to grow the produce, such as cotton.

Abolition: To put an end to a system or practice.

Tier 3

Middle Passage: The name given to the journey from Africa to America.

Slave Triangle: The trade triangle from Europe, to Africa to America.



What is Racism?

Racism is the deliberate mistreatment of a person or group based on their race.

What does racial inequality look like in Britain today?

Black men are five times more likely to be stopped and searched than white men in England, Scotland and Wales.

Black school leavers with A-Levels are (on average) paid 14.3% less than their white peers.

Black women are five times more likely to die in pregnancy than white women.



Historical Racism - Windrush Scandal

The British government encouraged people from the West Indies to seek work in Britain between 1948-71 and stated that they could stay as British citizens; however no paperwork was given to prove this.

In 2012, Theresa May's Hostile Environment Policy meant that thousands faced deportation because of this failure to provide paperwork.



What is the 'BLM' movement?

The Black Lives Matter movement seeks to highlight racism, discrimination and inequality facing black individuals. The movement was made famous after the wrongful death of George Floyd in May 2020.

Who was George Floyd?

On May 25th 2020, Minneapolis police officers arrested George Floyd, a 46-year-old black man after a shop assistant called them to report that he had used a counterfeit (fake) \$20 bill.

Seventeen minutes after the first squad car arrived, Mr. Floyd was unconscious at the scene, pinned beneath three police officers.

These officers were fired from their jobs the day after this incident, as it resulted in Mr. Floyd's death.

On May 29th, Derek Chauvin, one of the officers involved, was accused of third degree murder and second degree manslaughter as he had pinned Mr. Floyd on the ground for 8 minutes and 15 seconds, and did not remove his knee, even when Mr. Floyd lost consciousness.

Key Dates

1450-1600 - Enslaved people exported from Africa

1526 - First transatlantic slave voyage

1525-1866 - 12.5 million slaves taken from Africa to Caribbean and America

1807 - Slave Trade Act 1833 - Slave Abolition Act (UK)

1865 - Slavery abolished in the USA.

1948-1971 - Windrush Generation

1958 - Notting Hill Race Riots

1963 - Birmingham Bus Boycott

May 2020 - George Floyd death

2020 - BLM protests restart

2020 - Edward Colston's statue torn down

A. Key Terms

Line	Line is the path left by a moving point. For example, a pencil or a brush dipped in paint. A line can be horizontal, diagonal or curved and can also change length.	Tone	This refers to the lightness or darkness of something. This could be a shade or how dark or light a colour appears. Tones are created by the way light falls on a 3D object. The parts of the object on which the light is strongest are called highlights and the darker areas are called shadows.
Texture	This is to do with the surface quality of something, the way something feels or looks like it feels. 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.	Lino	A lino block consists of a thin layer of linoleum (a canvas backing coated with a preparation of solidified linseed oil) sometimes mounted on wood.
Shape	A shape is an area enclosed by a line. It could be just an outline or it could be shaded in. Shapes can be geometric or irregular.	Mono chrome	A piece of Artwork developed or executed in black and white.
Intaglio	A design incised or engraved into a material - for example, a design cut into lino or wood, or etched into metal.	Balance	In Art this refers to a comfortable and visually pleasing distribution (or balance) of formal elements- specifically tone and texture in lino printmaking.

John Muafangejo



John Ndevasia Muafangejo was born 5 October 1943 in Angola, and died in 1987 in Windhoek. He was a Namibian artist who became internationally known as a maker of woodcut prints. He created linocuts, woodcuts and etchings.

Wider Thinking www.artcyclopedia.com

Stretch & Challenge Include text and/or historical content in your print. Develop a pictorial storyboard. Narrative in Art. Tell the story of the life of your animal.



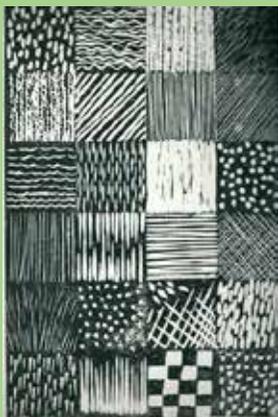
Expert modelling example

There is a good balance of tone and texture that makes the print pleasing to look at.

The artist has used a variety of textures so that the different parts of the peacock are easily seen.

Notice the different textures for the smaller feathers, the larger feathers and the tiny head feathers.

How has the artist defined the peacock's head?



Making the right mark in your print is the real challenge. Choose the right lino tool for the job. Think carefully about how you are going to cut the lino to create the right effect.

Here is a series of lino cut textures to get you started.....but there are many MANY more.....

Health and Safety



Moving around the room

- No Running.
- Stop immediately and listen when your teacher asks for your attention.

Using lino cutters

- Carry cutters with the blade pointing down.
- Only use the cutter for the job it was intended for.
- Work away from your hands when cutting.
- If working with lino, use a bench hook.



KEY WORDS

- Sikh** - Someone who learns.
- Guru** - Religious teacher - 'gu' means darkness, 'ru' means light.
- Khalsa** - "Pure ones", Sikh brotherhood.
- Langar** - Free kitchen in a gurdwara where people eat together.
- Kaur** - 'Princess', female baptised Sikh name.
- Kangha** - Small comb.
- Kachera** - Short underwear/trousers.
- Nishan Sahib** - Sikh flag.
- Khanda** - Sikh symbol showing they must fight for justice.
- Waheguru** - Wonderful teacher/lord.

- Karah Prashad** - Sweet food offered at the end of gurdwara services.
- Guru Granth Sahib** - Holy book for Sikhs, "eternal Guru" (GGS).
- Caste System** - Class system based on the family you are born into.
- Sewa** - Selfless service.
- Singh** - "Lion", male baptised Sikh name.
- Gurdwara** - Sikh place of worship, "Guru's door."
- Ik Onkar** - Sikh symbol representing the oneness of God.
- Amrit** - Sugar water used in initiation ceremony.
- Reincarnation** - Death is just a sleep and we wake in a new life.
- Panj Piare** - 'Beloved ones' - first five members of the Khalsa.

Sikhism:

Name of the religion: Sikhism
 Name of followers: Sikh
 Name of God: Waheguru
 Date founded: 1469 CE (AD)
 Where it was founded: Punjab
 Founder: Guru Nanak
 Holy Book: Guru Granth Sahib
 Holy Building: Gurdwara

Symbol: **Khanda**.

It is made up of a double edged sword, a circle representing God without beginning or end and reminding Sikhs to remain within the rule of God.



Key Beliefs - The five Ks are five items that Guru Gobind Singh commanded Khalsa Sikhs to wear at all times in 1699 to show devotion to Sikhism.

1. **Kesh** - The Kesh or uncut, long hair.
2. **Kangha** - A Kangha is a small wooden comb that Sikhs use twice a day.
3. **Kara** - The Sikhs wear an iron bracelet.
4. **Kachera** - The Kachera is an undergarment with a tie-knot worn by baptized Sikhs.
5. **Kirpan** - The Kirpan is a dagger which symbolises a Sikh's duty to come to the defence of those in peril.

The Panj Piare

Guru Gobind Singh explained to Sikhs, who had come to celebrate Vaisakhi, that they were living in a dangerous time and it was important the community be unified and strong enough to defend itself. He drew his sword and asked the crowd, 'Who will die for God and his Guru?' At last one Sikh came forward and was led into the Guru's tent. There was a swish of the sword followed by a thud, and the Guru emerged from the tent with blood on his sword. He asked the same question and another Sikh came forward. He also went into the tent. The noise was heard and the Guru came out again with blood on his sword. This happened three more times and some people began to leave, feeling confused and frightened. Then the Guru came out of the tent with the five men, dressed in special clothes. They had shown absolute loyalty to the Guru and his beliefs. They were then given Amrit, a mixture of water and sugar crystals prepared by the Guru and his wife, in an iron bowl, stirred with a two-edged sword.



What are Sikh beliefs about creation?

Sikhs believe that God created everything in the universe and any other universes that might exist. However, there are no creation stories in Sikhism. God brought everything into being and he sustains all life today. Sikhs accept scientific views about how life was created, such as the theory of evolution, but believe that this was done through God's will. They think things were created slowly - from air came water, from water came lower life forms, from these came plants, birds, fish, animals and then eventually humans. God wills the universe to exist and gives order to everything.

God is separate from the universe

Sikhs understand the God is beyond human names. God has never taken any physical form, nor does he have qualities, although many human qualities are used to try to describe him. God was not created. He has no limits and is free and therefore different to the rest of creation. He is timeless and 'spaceless', that is, he does not occupy any space. He was present before creation when there was nothing else.

God shown in and through the universe

Sikhs believe that every part of the universe tells us about God. Humans are considered 'the crown' of God's creation as they are the only creation who can distinguish between right and wrong (morality). The soul is the piece of God inside all humans which will be re-absorbed into God when we finish the cycle of rebirth. We take many forms before we become human and this gives us a connection with the rest of God's creation. God's presence in everything shows his love for the creation. This is how God can be understood by humans, in addition to being understood through the teachings of the Gurus, through the word of God (the Mool Mantra) as well as through creation.

Reincarnation

Sikhs believe in reincarnation, which means that when a human being dies, their soul is reborn into another body. Death is the will of God and therefore part of life. Death is just like sleep; we go to sleep and then we awake in a new life. The cycle will keep repeating itself until the soul is freed from this pattern and becomes united with God. Sikhs believe that all animals, including human beings, have a divine spark inside us, our soul. Our souls are a small part of God inside of us, and at death, the soul begins a new life, which may be any life form. However, the goal is to achieve freedom from reincarnation.

Karma is a term which Hindus and Buddhists use as well. It is the total of a person's actions and words, which will affect both their future and the kind of existence they have in their next life. Good actions will produce good karma and bad actions will create bad karma. Karma means that for Sikhs, rebirth is not a random event, but something that depends on what they have done previously. Unfairness and suffering in life are because of the things you did in your past life. Sikhs believe only humans are capable of loving and knowing God. We can only break free by doing good and behaving well towards others and by receiving God's grace. The things which cause us to have bad karma are pride, lust, desire, anger, greed, being too attached to the world, ignoring God, being manmukh (self-centred) and being materialistic. To break free of the cycle, we must avoid these bad influences, devote our lives to sewa and focus on God's name.

Mukti means 'liberation', 'freedom' or 'release' from reincarnation. This is the point at which the soul rejoins God and becomes reunited with him. To achieve mukti, a person must rid themselves of bad influences and respond to God with love. No one can describe what this is like because no one can describe what it would be like to be united with and within God. Mukti will just need to be experienced but Sikhs know that this is ultimate bliss, happiness, contentment and peace.



Ce que je fais

French Cycle 8 Learning Cycle 2

Week 1	
Français	Anglais
l'automne (m)	autumn
l'été (m)	summer
l'hiver (m)	winter
le musée	museum
le printemps	spring
la place	(town) square
la saison	season
belge	Belgian (m/f)
dernier	last (m)
dernière	last (f)
pendant	during

Week 2	
Français	Anglais
traverser	to cross
voyager	to travel
la frontière	border
la forêt	forest
la montagne	mountain
la vue	view
Suisse	Swiss (m/f)
la Suisse	Switzerland
il y avait	there was/ were
emporter	to take

Week 3	
Français	Anglais
gérer	to manage
proposer	to suggest
Noël	Christmas
l'anniversaire (m)	birthday
août (m)	August
décembre (m)	December
juillet (m)	July
septembre (m)	September
octobre (m)	October
novembre (m)	November
chacun	each person

Week 4	
Français	Anglais
l'espace (m)	space
le gout	taste
la langue	language, tongue
le plat	dish
la recette	recipe
le repas	meal
d'abord	first of all
puis	then
par	by
puisque	as, because
le Réveillon	Christmas Eve

Week 5	
Français	Anglais
la carte	menu
à côté de	next to
le foot, le football	football
la guitar	guitar
l'instrument (m)	instrument
le piano	piano
droit	right
à droite	on the right
gauche	left
à gauche	on the left

Week 6	
Français	Anglais
acheter	to buy
coûter	to cost
peser	to weigh
je pèse	I weigh
Il/elle pèse	he/she weighs,
l'eau (f)	water
l'euro (m)	euro
l'exercice2	exercise
le fromage	cheese
la glace	ice cream
la natation	swimming

Week 7	
Français	Anglais
boire	to drink
il/elle boit	he/she drinks
gagner	to win, to earn
l'argent (m)	money
la chance	luck
le lait	milk
le café	café, coffee
le thé	tea
la viande	meat
le verre	glass
un peu	a little (bit)

Week 8	
Français	Anglais
venir	to come
dormir	to sleep
devenir	to become
revenir	to come back
dehors	outside
loin	far
en retard	late
partir	to leave
vieux	old
heureux	happy
le bâtiment	the building

Week 9	
Français	Anglais
dernier	last
cette semaine	this week
un peu de	a bit of
il a mangé	he ate
elle a fait	she did
le bruit	noise
une bouteille	a bottle
de l'eau	some water
j'ai travaillé	I worked
ti as joué	you played
la cuisine	cooking

Week 10	
Français	Anglais
sortir	to go out
vous	you (plural), you (formal)
la maman	mum
le papa	dad
possible	possible
seul	alone
sans	without
salut	hi / bye
s'il te plaît	please (informal)
s'il vous plaît	please (formal)



FRENCH français

TIME FRAME	OPINION	ACTIVITY		BECAUSE	JUSTIFICATION
Le weekend (at the weekend) En été (in the summer)	j'aime (I like) j'adore (I love) je préfère (I prefer) je n'aime pas (I do not like)	jouer (to play)	au foot (football) au tennis (tennis) aux jeux vidéo (video games)	parce que c'est (because it is) car c'est (because it is)	relaxant (relaxing) amusant (fun) mon sport préféré (my favourite sport) mon activité préférée (my favourite activity)
		jouer (to play)	de beaucoup d'instruments (a lot of instruments) de la guitare (the guitar) du piano (the piano) de la batterie (the drums)		
		faire (to do)	de l'équitation (horse riding) de la natation (swimming) de la lecture (reading) de l'escalade (climbing)		
Hier (yesterday) Le weekend dernier (last weekend)	j'ai (I have)	joué (played)	au foot (football) au tennis (tennis) de la guitare (the guitar) du piano (the piano)	parce que c'était (because it was) car c'était (because it was)	relaxant (relaxing) amusant (fun)
		fait (did)	de l'équitation (horse riding) de la natation (swimming)	mais c'était (but it was)	nul (rubbish) barbant (boring)



Physical Theatre

(300 minutes, 5hrs of lesson time)

Drama Year 8 Learning Cycle 2

A. Key Terms

Choreograph - Plan and create a sequence (of movement).

Physical Theatre - The use of physical skills to represent an idea/theme/object.

Representation - A presentation of idea, taking key aspects so it's recognisable as that object/item (a representation of a bicycle created using people - you need to have specific features represented to make it clear that is what it is, rather than something else: two wheels, pedals and handlebars).

Symbolism - Creating a position or shape can help to symbolise something.

A symbol communicates and carries meaning.

Organic - Fluid quality of movement. Used to represent a natural process.

Mechanic - Rigid and isolated quality to movement.

Used to represent a mechanical process/a machine.

Freeze Frame - A still image that depicts a key moment from the story.

Multi-role - When one actor plays more than one role - adapting their vocal and physical skills to clearly show a change in character.

Sound Scape - The actors onstage use their voices to create the sounds required to set the scene.

E.g: a storm or busy street.

Non-naturalistic Device - A device we use that is not something we would see in real life/realistic Drama (freeze frame/narrator etc).

Narration - Often spoken in the third person, the narrator directly addresses the audience to give them information about the unfolding story.

Transitions - A link from the end of one scene/moment to the beginning of the next - allowing the performance to continue smoothly.

B. Creating a Representation

What does this image look like to you? Why? What suggests this?



When you create a representation you think about

what you want to show, think about the minimum you need to make it clear what you are representing, and then try it out. Get someone to take a look and see if it needs to be clearer. Then work out how to make it clearer, still. The audience need to be able to see the image you create and make a connection to what you are trying to show.

D. Homework Tasks

As well as completing homework tasks suggested at the front of this booklet, other tasks that could be done are:

- Draw a mind map of your ideas for your piece exploring Metamorphosis. How would you represent some of the key ideas presented in the text?
- Rehearse your performance with your group.
- Learn your lines and actions to ensure the piece flows, well.

C. What is Physical Theatre?

At its simplest, you could define Physical Theatre as a form of theatre that puts emphasis on movement rather than dialogue, but remember there are a huge number of variations as the genre covers a broad range of work.

Essentially, Physical Theatre is anything that puts the human body at the centre of the storytelling process. As a result it's often abstract in style, using movement in a stylised and representational way. With the expression of ideas choreographed through movement, such performers use very little or no dialogue at all.

E. How to improve your Final Performance:

Make sure that you are considering these things in relation to your final performance:

Clear representations of Gregor's story created physically in performance with commitment and energy.

Effective use of organic and mechanical movement in performance. Quality of movement sustained.

Storytelling (vocally, physically and visually) is clear and effective.

Transitions are smooth and audience awareness is good (positioning, clarity, projection, focus).

Performers are focused and committed.

Imaginative and creative response to the stimulus.

Lifts used appropriately, safely and effectively.



Physical Theatre

(300 minutes, 5hrs of lesson time)

Drama Year 8 Learning Cycle 2

A. Key Terms

Stimulus - A starting point which gives you inspiration and ideas. This could be a song, a poem, an object, an image etc.

Devising - The process of planning and creating something original.

Freeze Frame - A still image that depicts a key moment from the story.

Multi-role - When one actor plays more than one role - adapting their vocal and physical skills to clearly show a change in character.

Sound Scape - The actors onstage use their voices to create the sounds required to set the scene. E.g: a storm or busy street.

Non-naturalistic device - A device we use that is not something we would see in real life/ realistic Drama (freeze frame/narrator etc).

Narration - Often spoken in the third person, the narrator directly addresses the audience to give them information about the unfolding story.

Transitions A link from the end of one scene / moment to the beginning of the next - allowing the performance to continue smoothly.

B. Marking a Moment?

This is a way of highlighting the most important moment in a scene in order to draw the audience's attention to its significance. There are various ways of marking the moment:

A **Freeze Frame** might be used. Freezing the action at a particular moment fixes it in the minds of the audience and ensures its significance is not lost.

The **key moment** may be repeated or played 'on a loop'.

Slow motion could be used to highlight a key moment, so that it is not lost on an audience.

Narration or a **thought-track** could be added as a commentary on what has just occurred.

Zoom in - Like a Camera lens zooming you can "spotlight" a specific moment by directing the audience's focus towards it. (E.g everything else onstage freezes except one character).

Marking the moment is useful in rehearsal as it helps actors consider the most important moments to communicate to the audience.

C. Have you tried?

Developing your character:

Imagine your character in the future:

- One year
- Five years
- Ten years

from now.
 What would they say to your character about the current situation they are in?
IMAGINE: Their birthday at 5 yrs, 10 yrs, 16 yrs and 18 yrs old. What was it?

E. How to improve your Final Performance:

- Make sure that you are considering these things in relation to your final performance:
- You have a clear structure to your piece.
- You have a clear message for the audience.
- You know what you are doing, your lines and actions.
- You are able to run the piece without laughing.
- Your story is clear for the audience.

D. Homework tasks

As well as completing homework tasks suggested at the front of this booklet, other tasks that could be done are:

- Draw a mind map of your ideas for your piece exploring The Identification.

Write a script for one of your scenes.

Rehearse your performance with your group.

Learn your lines and actions to ensure the piece flows well.

Wider Reading: Explorative Techniques

<https://www.bbc.co.uk/bitesize/guides/zxpc2hv/revision/1>

<https://www.bbc.co.uk/bitesize/guides/ztfk6sg/revision/1>

<https://www.youtube.com/watch?v=63cQJLW5YqI>



Variations Knowledge Organiser – Year 8 Music

Theme	The main musical or melodic idea in a piece of music.	
Variation	When one or more of the musical elements are manipulated to produce a different version of the theme.	
Harmonisation	The compositional process of adding chords to a melody.	
Tonality	The character of a piece of music as determined by the key in which it is played or the relations between the notes of a scale or key (usually major or minor).	
Retrograde	When the theme is played backwards (from end to beginning, instead of beginning to end).	
Sequence	Where all or part of the theme is played a step higher or lower than the original. This example is one step higher each time.	
Inversion	When descending intervals in a melody are turned into ascending intervals, and vice versa.	
Augmentation	When the note values in a theme are made longer – often they are doubled. For example, crotchets become minims, minims become semibreves etc.	
Diminution	When the note values in a theme are made shorter – often they are halved. For example, crotchets become quavers, quavers become semiquavers etc.	

Musical Elements – revision time!

Test yourself on these simple definitions of the musical elements – can you remember all of them?	
Pitch	How high or low a note or piece of music is.
Rhythm/Duration	How long or short the notes are in a piece of music.
Dynamics	How loud or quiet a piece of music is.
Tempo	The speed of a piece of music.
Texture	How many different parts or layers there are in a piece of music.
Timbre	The sounds or instruments used in a piece of music.
Structure	How many different sections there are in a piece of music?



The 4Cs

Cleaning:

- Keep yourself and your hands clean.
- Keep work surfaces and equipment clean.
- Make sure cloths and cleaning equipment are cleaned.

Cooking:

- Food (especially meat) needs to be cooked thoroughly.
- Cook raw foods to 75°C at the core. Check this using a food probe.
- Reheat foods to 75°C, never reheat foods more than once!

Cross-Contamination:

- Always prevent cross-contamination.
- Always separate raw-food from ready-to-eat food.
- Use separate equipment, chopping boards and utensils for raw-food and ready-to-eat.
- Wash hands thoroughly after handling raw food before ready-to-eat food.

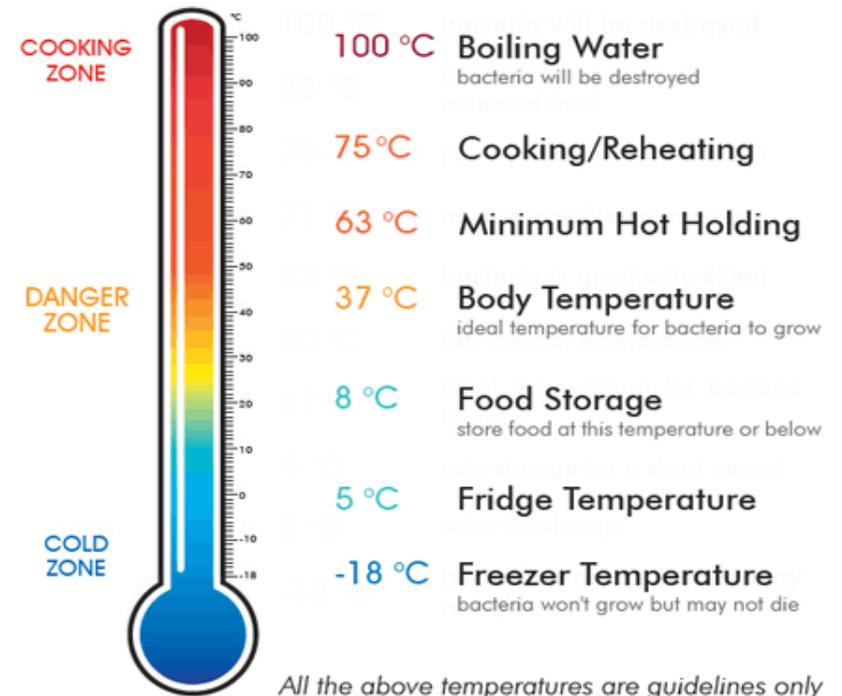
Chilling:

- Cool cooked foods as quickly as possible to 5°C.
- The core temperature of foods must reach below 10°C within 150mins of end of cooking.
- Foods must be protected from contamination during cooling.

Tips to Reduce Food Waste

- Buy or make smaller portions or freeze leftovers.
- 'Best before' refers to the quality NOT the safety of food.
- Shop smart. Plan meals in advance (this reduces over buying food).
- Keep your fridge below 5°C.
- Compost your food waste.
- Eat the leftovers for your lunch the next day.

Critical Temperatures





Key Words

Cross-contamination - The transfer of bacteria from one food to another, from humans, animals, other food or equipment.

Danger Zone - The temperature range within which bacteria can grow rapidly (8°C-63°C).

Gelatinisation - The thickening of a mixture, in the presence of heat, due to the swelling of starch grains.

Seasonal Food - The time of year when the harvest or flavour of food is at its peak.

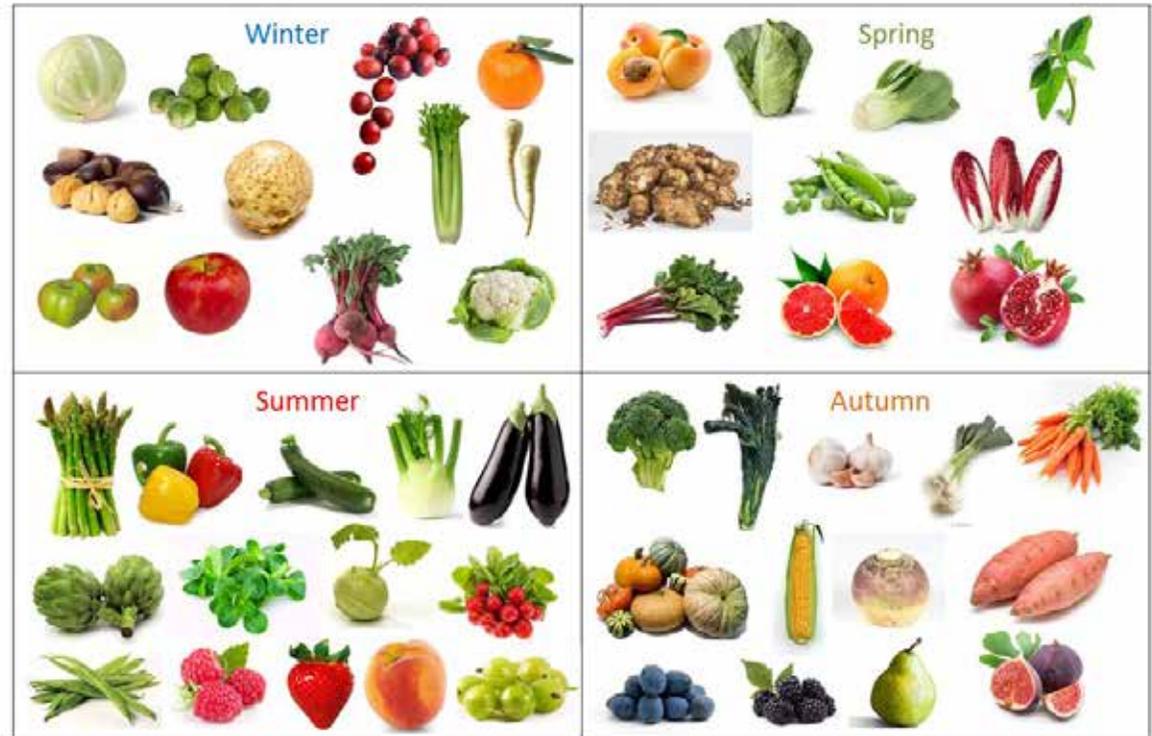
Enrobing - Coating a food in breadcrumbs to protect it from heat in the oven.

Raising Agents - A substance added to a food product that makes them rise when cooked.

Fermentation - A chemical process where yeast gives off carbon dioxide to help bread rise.

Kneading - A process in bread making to develop gluten.

Seasonal Foods



Food Poisoning Bacteria

Salmonella, Campylobacter, Listeria, E.coli





Keywords		Tenon saw	A saw with a deep blade that is used to cut a straight line	Coping saw	A saw with a very thin blade and a deep throat that can be used to cut curved lines through timber.
Hardwood	Hardwood comes from deciduous trees, which usually grow slowly with a tight dense cell structure.	Softwood	Softwood comes from coniferous trees that usually grow rapidly with a less dense structure than hardwood.	Finishes	There are a range of different finishes that can be applied to the surface of timber such as varnish, wax and paints. This can change the aesthetic qualities and protect from degradation
Radius	The measurement from the centre of the circle to the outer edge.	Circumference	The measurement around the outer edge of a circle.	CAD	Computer Aided Design. Designing and drawing using a software package to produce precise and accurate drawings.
Sustainable materials	A renewable source of materials e.g. Softwood.	MDF	A type of wood made from fibres.	Plywood	A type of wood made from layers of wood.
Anthropometric Data	Collected data that identifies the various sizes and size ranges of the human anatomy.	Diameter	The measurement from the outer edge of the circle, through the centre to the opposite edge of the circle.	CAM	Computer Aided Manufacture. A piece of machinery that is controlled by a computer that assists in making a product.

Adhesives and Finishes

Varnish is a coating or finish that can be applied to the surface of wood to protect it from environmental impact. It can also improve the aesthetic qualities of the final product by giving it a matt, satin or gloss finish along with enhancing the natural grain of the product. The varnish can be either brush or spray applied.

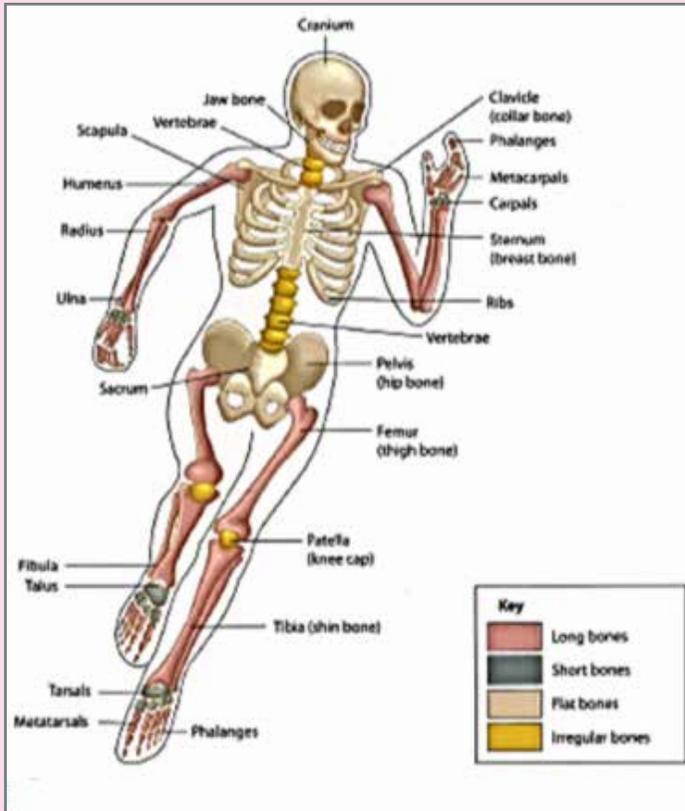
Wax is another type of coating or finish that is usually applied by hand with a rag or cloth. Wax is a natural product with additives to enable it to be easily applied. It improves the natural appearance of the grain and protects the timber from moisture. It needs to be reapplied regularly.



Laser cutting		2D design/Techsoft Tools			
<p>Laser cutting offers a very accurate form of CAM (Computer Aided Manufacture) that will cut a range of materials including, fabrics, manufactured boards and plastics.</p> <p>This process of laser cutting will also ensure the same consistent quality of cut and identical replication of the CAD (Computer Aided Design) drawing intended for cutting.</p> <p>The laser cutter can also distinguish between line colour in the CAD package, to produce a range of cuts in various materials to a required depth, to produce a full cut through the material or an engrave cut that will partially burn a portion of the material away to form a pattern on the surface.</p> <p>In the D&T department we colour cut lines to RED and engrave lines to BLACK</p>					
				<p>STRAIGHT LINE TOOL Draws a straight line.</p>	
				<p>ARC TOOL Draws an arc between three points.</p>	
				<p>ELLIPSE TOOL Draws an ellipse with a specific radius.</p>	
				<p>RECTANGLE TOOL Draws a user defined rectangle by dropping and dragging.</p>	
	<p>GRID LOCK TOOL Allows you to lock the select tool to the chosen grid size.</p>		<p>BLACK ARROW/SELECT TOOL Is used to select drawn objects/shapes/text.</p>		<p>PATH TOOL Draws a path between user defined vector nodes.</p>
	<p>DELETE BETWEEN AN INTERSECTION TOOL Deletes parts of lines between joins.</p>		<p>DELETE TOOL Deletes anything that is selected.</p>		<p>TEXT TOOL Draws text and numbers in different fonts and sizes.</p>



1. Skeletal System - Draw and label the skeleton. Extension - can you colour code the different type of bones



2. Functions of the Skeleton

Remember the acronym:

Scary Skeletons Make Many People Petrified

Support

Bones keep us upright and support muscles and organs.

Shape

Skeleton gives us our height and build.

Mineral Storage

Bones store minerals such as calcium and phosphorus.

Movement

Muscles attach to and pull on bones to produce movement. Bones act as levers.

Protection

Bones protect vital organs - e.g, Cranium protects brain, ribs protect heart and lungs.

Production of Red Blood Cells

Inner marrow of bones produces red and white blood cells. Red cells carry oxygen, white cells fight infections.

3. Movement at each Joint

Flexion

Decreasing the angle at a joint (bending).

Extension

Increasing the angle at a joint (straightening).

Abduction

Taking a limb away from the body (abduct).

Adduction

Bringing a limb back towards the body (add).

Rotation

Turning a limb along its axis (circular).

Plantar Flexion

Pointing toes (P for Point).

Dorsi Flexion

Toes towards knee.



4. Types of Bones	5. Types of Joints	6. Tendons, Ligaments and Cartilage
<p>Flat Bones (Cranium, Ribs, Clavicle, Sternum) Protect vital organs and the brain.</p> <p>Long Bones (Humerus, Radius, Ulna, Metacarpals, Metatarsals, Phalanges, Femur, Tibia, Fibula) Enable gross (large) movements.</p> <p>Irregular Bones (Patella, Vertebrae Column) Specifically shaped to protect.</p> <p>Short Bones (Carpals, Tarsals, Talus) e.g. Using wrist to add spin to table tennis shot or spin bowling in cricket; enable finer, controlled movements.</p>	<p>Fixed Joints (Skull, Pelvis) Some of your joints, like those in your skull, are fixed and don't allow any movement.</p> <p>Slightly Moveable Joints (Vertebrae) These are connected by pads of cartilage and can only allow small movement.</p> <p>Synovial Joints These are freely movable joints containing a lubricating liquid called synovial fluid. There are different types of synovial joints:</p> <ul style="list-style-type: none"> • Ball and Socket (Shoulder and Pelvis) • Hinge (Elbow and Knee) • Pivot (Vertebrae) • Condylloid (Wrist/Carpals) • Saddle (Thumb) • Gliding (Clavicle) 	<p>Tendons Tendons attach muscle to bone. Tendons are very strong, inelastic connective tissues that allow a muscle to pull on a bone to move it.</p> <p>Ligaments They attach bone to bone and help keep the joint together. Ligaments are a type of connective tissue and are tough, fibrous and slightly elastic. They can absorb shock because of their elasticity, which protects the joint.</p> <p>Cartilage Cartilage is found at the ends of bones and where joints meet. In synovial joints, the ends of the bones are covered with cartilage (called articular cartilage), which cushions the joint and prevents friction and wear and tear between the bone ends.</p>

