Knowledge Organiser

Year 8 Autumn 2 2026

"There is no end to education. It is not that you read a book, pass an examination, and finish with education. The whole of life, from the moment you are born to the moment you die, is a process of learning."

Jiddu Krishnamurti



YEAR 8 KNOWLEDGE ORGANISER: THE OTHER SIDE OF TRUTH

CHARACTERS

Sade: a brave and resourceful 12 year old girl, the **protagonist.**	**Femi:** Sade's 10 year old brother, who struggles with the **trauma** in their lives.
Papa (Folarin): Sade and Femi's father. Brave and outspoken, his **criticism** of the government puts his family in danger.	**Uncle Tunde:** Helps organise the children's escape from Nigeria.
Mrs Bankole: a cold woman who accepts money to **smuggle** the children into England.	**Iyawo Jenny:** A compassionate social worker who helps the children. (Iyawo: Bride)
Mr Nathan: A compassionate immigration official who tries to help the children navigate the difficult British asylum process.	**Mrs Appiah:** a Ghanaian social worker working for the **Refugee** Council in London who advocates for the children.
Mariam: A smart and friendly Somali **refugee** in Sade's English class.	**Marcia:** A racist classmate at Sade and Femi's new school. She bullies the siblings.

THEMES AND CONTEXT

Historical Background:

The novel is set in 1995 during the brutal military rule of Nigerian despot General Sani Abacha. The political crisis depicted mirrors real-world events, specifically the execution of the writer and activist Ken Saro-Wiwa

The Role of the Media:

The central **conflict** focuses on the children's father, an outspoken political journalist who refuses to stop printing the truth about the regime's **corruption** and **oppression**. This tackles debates about what we read in the media – there is always another side to the stories that are reported.

The Refugee Experience:

After being **smuggled** out of Nigeria on a stranger's passport, the children are abandoned in London. The book reveals the harsh realities of persecution, trauma, navigating foreign legal systems, and the emotional effects of being labeled "illegal".

VOCABULARY:

Misconception - An idea that is wrong based on incorrect or overly-simplified information.	**Perspective** – someone's viewpoint, or way of seeing something	**Refugee** – someone who has been forced to flee their country due to war, violence, or persecution
Inference – reading between the lines, drawing conclusions based on evidence	**Emotive language** – words and phrases that draw out a feeling in the reader	**Metaphor** – describing something as if it were something else
Context – background information that helps understanding	**Migrant** – someone who moves from one place to another.	**Empathy** – the ability to understand how others feel.
Smuggling – the illegal transportation of goods (or people!) across national borders	**Trauma** – emotional shock after following a stressful event.	**Prejudice** – prejudged opinions about others not based on any evidence
Conflict – serious disagreement or argument.	**Oppression** – the cruel or unfair use of power by a dominant group to limit the freedoms of others	**Structure** – how a text has been put ordered and arranged

Respiration and photosynthesis

Respiration happens in every living cell. It is the chemical reaction that releases energy from **glucose**. All living things – animals, plants and microbes (microorganisms) – need energy. Some uses are given on the right.

Animals need energy:	Plants need energy:
to grow and repair tissues	to grow and repair tissues
to reproduce	to reproduce
to keep the body at a suitable and fairly constant temperature	to transport water
to contract muscles in order to move	to absorb nutrients

Aerobic respiration uses oxygen:

glucose + oxygen → carbon dioxide + water (+ energy)

Animals get glucose from digestion of food. Glucose is carried by the blood from the small intestine to all cells of the body.	Animals get oxygen from breathing. Oxygen is carried by the blood from the alveoli in the lungs to all cells of the body.	In animals, the waste carbon dioxide and water are carried by the blood from the cells to the lungs, where it is breathed out.	The energy released is needed for many life processes in animals and plants.
Plants make glucose by the process of photosynthesis.	Plants get oxygen by diffusion from the air *or* by photosynthesis.	In plants, the waste carbon dioxide and water diffuse from the leaves into the air *or* are used in photosynthesis.	

Anaerobic respiration takes place when there is not enough oxygen for aerobic respiration or when energy is needed to be released quickly. In animals, for example, **aerobic respiration** (in mitochondria) switches to anaerobic respiration (in the cytoplasm) during vigorous exercise. Even while there is still some oxygen left in your body, anaerobic respiration may begin, as it releases energy quickly.

The process differs in animals and plants and microbes.

In animals: glucose → lactic acid (+ energy)

oxygen needed to get rid of the **lactic acid** is the '**oxygen debt**'

In plants and microbes: glucose → ethanol + carbon dioxide (+ energy)

this is called **fermentation**

Comparing aerobic and anaerobic respiration:

	Location	Reactants	Products	Energy generated
aerobic respiration	mitochondria	glucose and oxygen	carbon dioxide and water	more energy than anaerobic but not generated as quickly
anaerobic respiration	cytoplasm	glucose	animals – lactic acid plants and microbes (fermentation) – ethanol and carbon dioxide	less energy than aerobic but generated more quickly

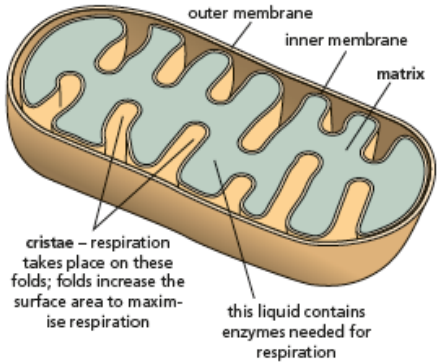
Fermentation (anaerobic respiration) by yeast is useful to humans.

- **brewing** – in beer and wine making, **ethanol** is the useful product. The type of drink made depends on the source of sugar, for example, grapes for wine, hops and barley for beer.
- **baking** – in bread making, carbon dioxide is the useful product as it causes the bread to rise.

In brewing and baking, water is first added to dried yeast to activate it. Sugar is then added as the reactant for respiration.

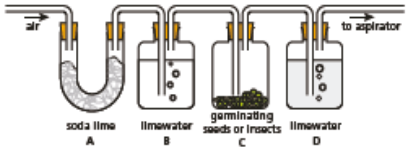
Glucose and oxygen are the **reactants**.
Carbon dioxide and water are the **products**.

Aerobic respiration takes place in cell organelles called **mitochondria**. These are sausage-shaped and found in most animal and plant cells. Their structure is adapted to carry out their function.



We can use experiments to show that animals and plants produce water and carbon dioxide, the products of respiration.

- Water – when we breathe onto a cold mirror or window, water vapour condenses onto the cold surface. If a plant is grown in a plastic bag, water vapour condenses inside the bag.
- Carbon dioxide – in the set-up below, **soda lime** absorbs carbon dioxide, **limewater** tests for carbon dioxide. B stays clear showing no carbon dioxide; D turns cloudy showing carbon dioxide has been produced.



Glucose can be stored in organisms. It can then be used to release energy as and when needed.

In the animal and human body, glucose is stored:

- as **glycogen** in muscles and the liver
- as fat.

In plants, glucose is stored as starch.

Key vocabulary

aerobic respiration	respiration involving oxygen
anaerobic respiration	respiration without using oxygen
baking	cooking with dry heat, for example, in an oven as is done with bread and pastries
brewing	the production of beer using fermentation
cristae	the folds of the inner membrane of a mitochondrion where respiration takes place
ethanol	an alcohol produced during anaerobic respiration in plants and microbes
fermentation	a type of anaerobic respiration taking place in plants and some microbes
glucose	a simple organic sugar molecule, used in respiration
glycogen	organic glucose molecules linked in a long chain; a storage molecule
lactic acid	the substance produced in anaerobic respiration in animals
limewater	a solution used to test for the presence of carbon dioxide
matrix	the liquid inside a mitochondrion which contains the enzymes needed for respiration
mitochondria	an organelle found in most animal and plant cells where respiration is carried out
oxygen debt	the oxygen needed to break down lactic acid produced as a result of vigorous exercise
products	substances that are produced by a chemical process or reaction
reactants	substances that react in a chemical process
respiration	the process in living things in which energy is released from glucose
soda lime	a chemical that absorbs carbon dioxide

Respiration And photosynthesis

Life on Earth and human activities are dependent on plants for many reasons:

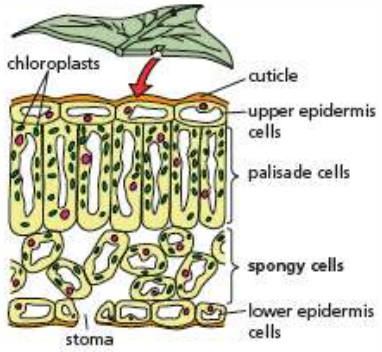
- food (green plants are at the start of all feeding relationships)
- raw materials for fabrics and building
- fuel
- medicines
- decorating homes, gardens, parks
- green plants help to maintain the balance of carbon dioxide and oxygen in the atmosphere.

Comparing photosynthesis and respiration.

- Photosynthesis takes place in green plants; respiration takes place in both plants and animals.
- The products of photosynthesis (glucose and oxygen) are the reactants of aerobic respiration.
- The products of aerobic respiration (carbon dioxide and water) are the reactants of photosynthesis.
- Photosynthesis requires energy (from light); respiration releases energy.

Photosynthesis takes place in green leaves. **Chlorophyll** is a green pigment and is found in organelles called **chloroplasts** in some plant cells. Leaves are adapted for photosynthesis.

Adaptation	Function
waxy and waterproof **cuticle**	prevents water loss
transparent layer below cuticle	allows light through
palisade cells packed with chloroplasts	increase photosynthesis
stomata on underside	open and close to control gas exchange
air spaces	allow gases to move inside the leaf



Photosynthesis is the reaction used by green plants to make the carbohydrate glucose using light energy.

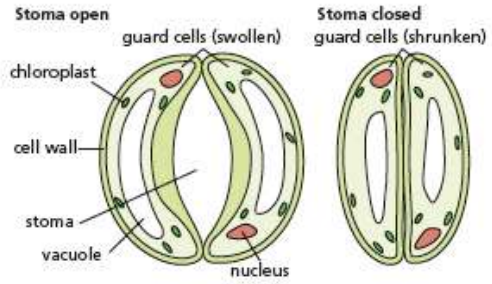
carbon dioxide + water —(light)→ glucose + oxygen

reactants → *products*

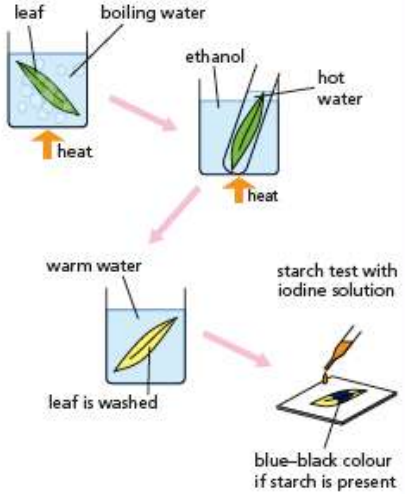
Stomata are opened and closed by specialised **guard cells**. Through the stomata:

- gas exchange happens – gases pass in and out of the leaf
- water can be lost.

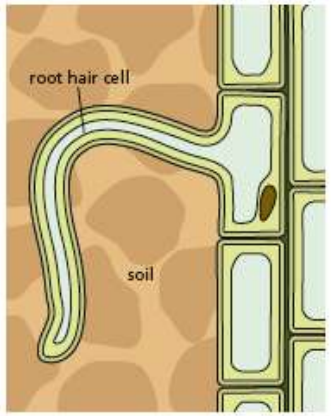
Stomata close when water levels are low and at night (as there is no sunlight for photosynthesis).



Glucose from photosynthesis is stored as starch. Testing leaves for starch with **iodine** shows whether or not a plant has been photosynthesising. The experimental steps are shown below.



Water and **minerals** move into a plant through the roots from the soil. **Root hair cells** do not contain chloroplasts because they are not exposed to light. The cells are adapted to their function by having extensions called root hairs, to increase the surface area for absorption.



Some minerals are essential nutrients to keep plants healthy. If they are missing or deficient the plant's health is affected.

Mineral	Effect of deficiency
nitrates (contain nitrogen)	poor growth and yellow leaves
magnesium	cannot make chlorophyll
phosphates (contain phosphorus)	poor root growth

Plants have tissues that are specialised to transport substances.

1. Water moves up the plant from the roots to the leaves through **xylem**.
2. Glucose made by photosynthesis moves from the leaves and around the plant through **phloem**.

Transpiration is the loss of water from a leaf. Most water is lost in hot, dry, windy conditions. Leaves can be adapted to reduce water loss by:

- having a thick waxy cuticle
- having narrow, curled or folded leaves to reduce their surface area
- closing their stomata.

Key vocabulary

chlorophyll	the green pigment in plants that traps sunlight for photosynthesis
chloroplasts	organelles within some plant cells that contain chlorophyll
cuticle	the waxy, waterproof outer layer of a leaf
guard cells	cells that open and close the stomata
iodine	a chemical used to test for the presence of starch
minerals	elements such as iron and calcium needed to keep living things healthy
palisade cell	a plant leaf cell that is long and narrow and packed with chloroplasts
phloem	a tissue made up of long tubes that transport glucose made in the leaves to other parts of the plant
photosynthesis	a process carried out by green plants; light energy, carbon dioxide and water react to produce glucose and oxygen
rate of photosynthesis	the measure of how much photosynthesis takes place in a set time
spongy cells	plant leaf cells that have large spaces around them to allow gas exchange
starch	a large molecule made by plants as a way to store food (glucose)
stomata (singular: stoma)	a minute pore in the lower surface of a leaf
root hair cell	a specialised cell in roots of plants, hair-like extensions that provide a large surface area
transpiration	the movement of water in plants as it is taken up through the roots and released from the leaves as water vapour
xylem	a tissue made of cells that form a long tube through the plant to transport water and minerals from the roots

Chemical reactions

A **chemical reaction** is a change in which new substances are made. During a chemical reaction you may see:

- bubbles of gas
- a change in temperature
- a colour change
- a change in mass.

In any chemical reaction, the total mass of the reactants is the same as the total mass of the products. This is called the law of conservation of mass. Sometimes it may appear that the mass has changed. When this happens, there is normally a gas, either as a reactant or as a product, which accounts for the 'missing' mass.

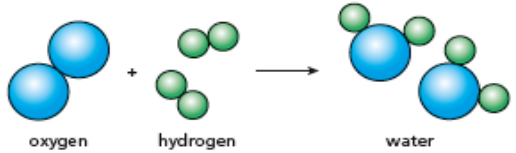
Burning is an example of a chemical reaction. The scientific name for burning is **combustion**. During combustion, a **fuel** reacts with oxygen to make carbon dioxide and water. The reaction releases useful energy. We can summarise combustion using an equation:

fuel + oxygen → carbon dioxide + water

If there is not enough oxygen available to react with all of the fuel, **incomplete combustion** takes place. The reaction has different products.

fuel + oxygen → carbon monoxide + carbon + water

During a chemical reaction, atoms rearrange and join together in a different way. New **products** are formed from the **reactants**. For example, hydrogen and oxygen react together to form water. Hydrogen and oxygen are the reactants and water is the product. One molecule of oxygen reacts with two molecules of hydrogen to form two molecules of water.



Notice that there are the same numbers of oxygen and hydrogen atoms at the start of the reaction as there are at the end of the reaction. They have been rearranged to form a new substance, water.

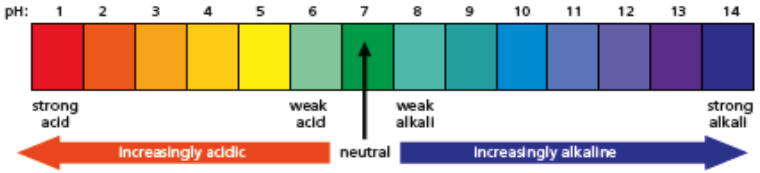
Some of the substances we use at home or in the laboratory are **acids**. Vinegar and lemon juice contain acids. Acids are substances with a **pH** less than 7. Concentrated acids are **corrosive**; dilute acids may be **irritants**. All acids contain the element hydrogen.

Some other substances are **alkalis**. Soap and detergents contain alkalis. Alkalis are substances with a pH greater than 7. Like acids, concentrated alkalis can be corrosive and dilute alkalis may be irritants. All alkalis contain hydroxide particles (**chemical formula** OH).


'Corrosive' hazard sign


'Harmful' hazard sign, which is used for substances that are not corrosive but are irritants.

An **indicator** is a substance that is a different colour in an acid and in an alkali. One example of an indicator is litmus. Litmus solution turns *red in acid* and *blue in alkali*. If a solution is neither an acid nor an alkali, we say it is **neutral.**



Universal indicator turns a range of different colours. The colour depends on whether the substance is an acid or an alkali *and* on how strong or weak it is. Each colour is given a **pH number**. The pH scale is a measure of the acidity or alkalinity of a substance.

Hydrochloric acid is an example of a strong acid, with a pH of 1. Vinegar is an example of a weak acid, with a pH of 3.

Oxidation reactions involve oxygen being added to another substance. This reaction forms compounds called oxides. During the combustion of a metal, oxygen is added to the metal:

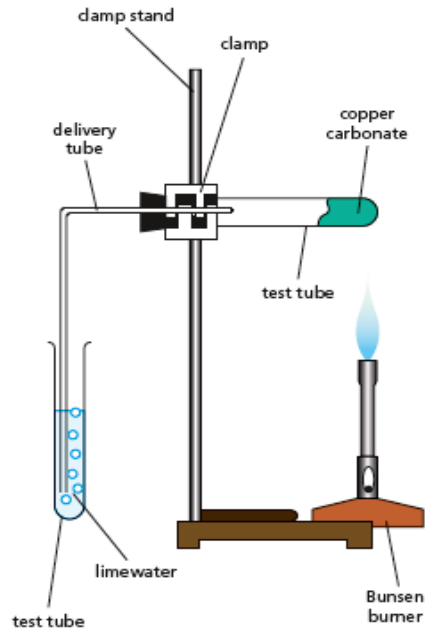
metal + oxygen → metal oxide

The mass of the metal oxide is greater than the mass of the metal because oxygen has been added.

When oxygen is removed from a metal oxide, the reaction is called **reduction**. This is the opposite of oxidation. Carbon can be used to remove oxygen from iron oxide.

Thermal decomposition reactions happen when some substances are heated and break down into simpler products. No new substances are added. When carbonates decompose, they produce a metal oxide and carbon dioxide:

metal carbonate → metal oxide + carbon dioxide

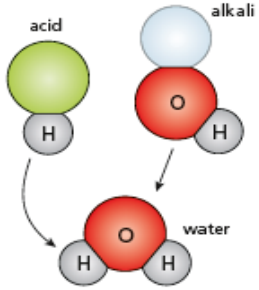


Key vocabulary

acid	a substance that will neutralise a base; has a pH lower than 7
alkali	a base that is soluble in water; has a pH above 7
chemical formula	chemical symbols and numbers that show how many atoms of which elements are contained in a molecule of an element or compound
chemical reaction	a process in which one or more substances are changed into others, by the rearrangement of their atoms
combustion	the reaction of a fuel with oxygen that transfers thermal energy to the surroundings
conserved	when the quantity of something does not change after a process takes place
corrosive	can destroy skin and attack metal if spilled
fuel	any material that can be burned to release energy
incomplete combustion	when there is not enough oxygen available to react with all of a fuel during combustion
indicator	chemical that is a different colour in an alkali and an acid; used to identify whether an unknown solution is acidic or alkaline
irritant	a substance that causes the skin to become red, blistered and itchy
neutral	has a pH of 7
oxidation	a reaction in which a substance combines with oxygen
pH	a number from 1 to 14 on the pH scale of acidity and alkalinity
product	(of a chemical reaction) a substance made in a chemical reaction
reactant	a starting substance in a chemical reaction
reduction	a reaction in which oxygen is removed from a compound
thermal decomposition	a chemical change caused by heating, when one substance is changed into at least two new substances
universal indicator	an indicator that turns a range of different colours; each colour indicates a different pH value

Chemical reactions

A neutral substance has pH 7. It is made when an acid and alkali exactly neutralise one another. This is called **neutralisation**. Neutralisation is a chemical reaction; new products are formed.



acid + alkali → salt + water

Water is a product of the neutralisation reaction between acids and alkalis. The hydrogen from the acid combines with the hydroxide from the alkali to form water.

Acids react with bases to produce a **salt** and water. This is similar to the reaction you saw above between an acid and an alkali.

acid + base → salt + water

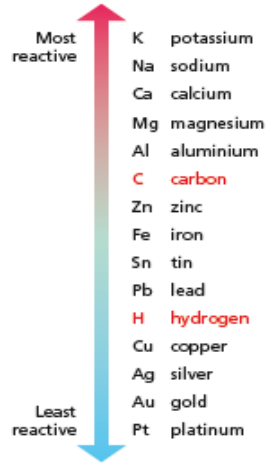
Salts are also formed in other reactions that involve acids. Acids react with metals to form a salt and hydrogen gas.

acid + metal → salt + hydrogen

Acids react with metal carbonates to form a salt, water and carbon dioxide.

acid + metal carbonate → salt + water + carbon dioxide

The reactivity series of metals places metals in order of their reactivity. It also includes two non-metals: hydrogen and carbon.



In a **displacement reaction** a more **reactive** substance displaces (pushes out) a less reactive substance from a compound. An example is when iron is added to a copper sulfate solution. Iron is more reactive than copper. A chemical change occurs – iron displaces the copper to make iron sulfate:

iron + copper sulfate → iron sulfate + copper

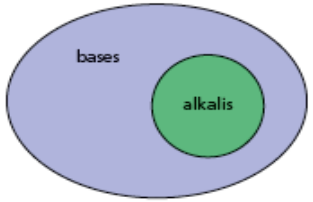
Acids contain hydrogen. When reactive metals react with acids, a displacement reaction occurs and hydrogen is displaced from the acid. If a metal is above hydrogen in the reactivity series, it will react to displace hydrogen. For example:

zinc + hydrochloric acid → zinc chloride + hydrogen

Non-metals also undergo displacement reactions. Chlorine and iodine are non-metals. Chlorine is more reactive than iodine. When chlorine gas is passed through sodium iodide solution, the chlorine displaces the iodine:

chlorine + sodium iodide → sodium chloride + iodine

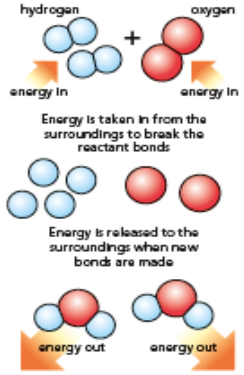
A **base** is any substance that neutralises an acid to produce a salt and water. An alkali is a soluble base – one that dissolves in water. Therefore, all alkalis are bases, but not all bases are alkalis. Metal oxides, metal hydroxides and metal carbonates are all examples of bases.



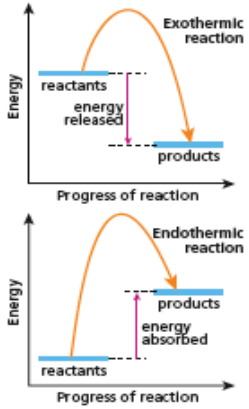
The name of a salt has two parts. The first part comes from the reactant that is not the acid; it is often a metal. For example, the alkali sodium hydroxide forms salts that start with 'sodium'. The end part of the name comes from the acid. For example, a salt formed from sulfuric acid and sodium hydroxide is called 'sodium sulfate'.

Acid used in reaction	Forms salts that end in...
hydrochloric acid	chloride
sulfuric acid	sulfate
nitric acid	nitrate

In a chemical reaction, existing **chemical bonds** are broken and new ones are made. Energy is needed to break chemical bonds; energy is released when new chemical bonds are made. The balance between these two processes explains why some reactions are endothermic and others are exothermic. If more energy is needed for **bond breaking** than is released in **bond making**, the reaction is endothermic. If less energy is needed for bond-breaking than is released in bond-making, the reaction is exothermic.



In some reactions, like combustion, there is an **energy transfer** to the surroundings – these are known as **exothermic reactions**, which cause the temperature of the surroundings to increase. Other reactions, like thermal decomposition, take energy from their surroundings – these are known as **endothermic reactions**, which cause the temperature of the surroundings to decrease. An energy profile diagram shows the energy changes taking place during exothermic and endothermic reactions.



A **catalyst** is a substance that is added to a chemical reaction to make the reaction faster. Catalysts are not changed by the reaction – they alter the **rate of reaction**. Most catalysts provide an alternative 'pathway' for the reaction that lowers the amount of energy needed for the reaction to proceed.

Key vocabulary

base	a substance that will neutralise an acid
bond breaking	when a chemical bond is broken by overcoming the force of attraction between particles; energy is transferred in from the surroundings
bond making	when a chemical bond is made by the force of attraction between particles; energy is transferred out to the surroundings
catalyst	substance that speeds up a chemical reaction
chemical bond	the force of attraction between two atoms
displacement reaction	a chemical reaction in which one substance takes the place of another in a compound
endothermic reaction	a chemical reaction in which energy is taken in, causing a cooling of the surroundings
energy transfer	the passing on of energy from one energy store to another energy store
exothermic reaction	a chemical reaction in which energy is given out, causing a warming of the surroundings
neutralisation	to make a substance neutral (pH 7) by adding an acid or a base
rate	the number of times something happens in a unit of time, such as a second
rate of reaction	a measure of the speed of a reaction; for example, the number of molecules of product produced over a set time
reactive	inclined to react in a chemical reaction; some substances are more reactive than others
salt	a substance formed when an acid reacts with a base, a metal or a metal carbonate

Matter

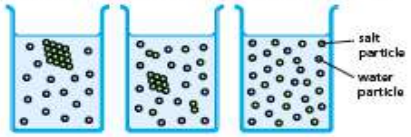
In a solid the **particles** are closely packed and arranged in a fixed pattern. In a liquid the particles are still close together but are not in a fixed arrangement. In a gas the particles are much further apart and move around freely in all directions, colliding with each other and the container.



Changes of **state** occur when a material goes from one state to another; for example, **melting** is when a solid changes to a liquid. The particles do not change apart from gaining or losing energy and the number of particles of the substance stays the same.

Metals change shape easily when a force is applied, because they have layers of **atoms** that slide over each other. This makes metals **malleable** and **ductile**.

When a substance **dissolves** in water, the solution that forms is a mixture of the solute particles and particles (**molecules**) of water. Dissolving is a physical change and can be reversed by **evaporation**.



Physical changes such as melting and dissolving are reversible because no new substance is made. **Chemical changes** are irreversible because in a chemical reaction atoms are combined in new ways to produce one or more new substances. There is **conservation of mass** in both physical and chemical changes.

The term particles can refer to both atoms and molecules. This is because in some substances the atoms move or are arranged individually but in others two or more atoms have combined to form molecules.

The closeness of particles in solids, liquids and gases explains why solids are denser than liquids and gases are less dense than either.

Key vocabulary	
atom	the basic 'building block' of an element; an atom cannot be chemically broken down
boiling point	temperature at which a liquid changes state to a gas (or a gas condenses)
chemical change	an irreversible change caused when one substance combines with another to form a new substance or one substance breaks down to form two others
condensation	process that happens when a gas changes into a liquid
density	the mass per unit volume; unit kg/m³
dissolve	the process in which particles of a solute mix with particles of a solvent to form a solution
evaporation	the process that happens when a liquid changes to a gas at the surface of the liquid
freezing	the process in which a liquid changes to a solid; it occurs when the liquid reaches its freezing point
melting point	the temperature at which a solid changes to a liquid (or a liquid substance freezes)
physical change	a reversible change, such as dissolving and changes of state
state (of matter)	solid, liquid or gas
sublimation	the process when a solid turns into a gas, without becoming a liquid first
thermal expansion	when particles in a solid or a liquid gain enough energy to occupy more space

As a result of energy being transferred by heating there may be a change in the temperature of a material, or a change in how close the particles in a material are to each other.

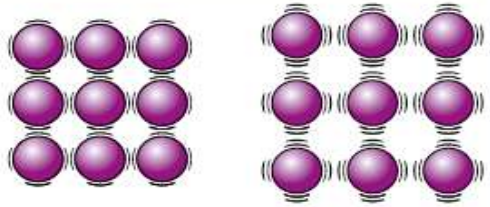
Changing the **internal energy** of a material will alter either its temperature or its state. Melting and boiling can take place without a change in temperature because the additional energy transferred by heating gives particles energy to move further apart and overcome forces of attraction.

When a substance is heated the internal energy of its particles increases. This means particles of the material have different amounts of internal energy when the material is a solid, liquid or gas.

As the temperature of a material is increased, its particles move faster.

Key vocabulary	
Brownian motion	the movement of solid particles caused by collisions with gas particles
conservation of mass	matter cannot be destroyed or created, just transformed; this means the total mass does not change during physical or chemical reactions
internal energy	the sum of the kinetic energy and the chemical potential energy of all the particles in a material

Most solids expand when heated and contract when cooled. This is because increasing the temperature causes the particles to move faster and so take up slightly more space. Liquids also expand when heated.



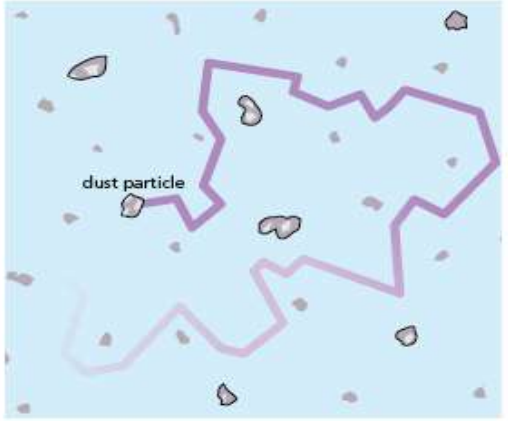
Both these effects cause an increase in the material's store of internal energy.

Most materials get less **dense** when going from a solid to a liquid, and more dense when going from a liquid to a solid.

The change from ice to water is different to other solids when they melt. Unlike other solids, water expands and becomes less dense when it is cooled close to its **freezing** point. This is why ice floats on water.



Particles of dust or smoke suspended in a gas move randomly in all directions. This is known as **Brownian motion** and is caused when the dust specks are hit by the moving particles that make up the gas.



Year 8 - Knowledge organiser - The Restless Earth

Week 1: Match the key word with the description

Key term	Definition
Crust	Is the part of the earth under the crust. It is about 2,900 km thick and made up of magma and rock.
Mantle	The outer layer of the Earth, above the mantle, which is up to 80km deep.
Outer Core	The Earth's innermost part. It is primarily a solid ball with a radius of about 1,220 km. It is composed of an iron–nickel alloy and some other elements.
Inner Core	The outer core of the Earth is a liquid layer about 2,260 km thick. It is made of iron and nickel.
Oceanic crust	The continental crust is the layer of granitic, sedimentary and metamorphic rocks which form the continents.
Continental crust	Oceanic crust, is found under the oceans and is about 6 km thick.

Week 2: Complete the definitions using the words below

Key term	Definition
Constructive	Occurs when plates move apart. Volcanoes are formed as _____ wells up to fill the gap, and eventually new crust is formed.
Destructive	occurs when oceanic and continental plates move together. The oceanic plate is forced under the lighter _____ plate. Friction causes melting of the oceanic plate and may trigger earthquakes. Magma rises up through cracks and erupts onto the surface.
Collison	_____ _____form when two continental plates collide. Neither plate is forced under the other, and so both are forced up and form fold mountains.
Conservative	Occurs where plates slide past each other in opposite directions, or in the same direction but at different speeds. Friction is eventually overcome and the plates slip past in a sudden movement. The shockwaves created produce an _____.
_____	A long, high sea wave caused by an earthquake or other _____.
Earthquake	A sudden violent shaking of the ground, typically causing great _____ , as a result of movements within the earth's crust or volcanic action

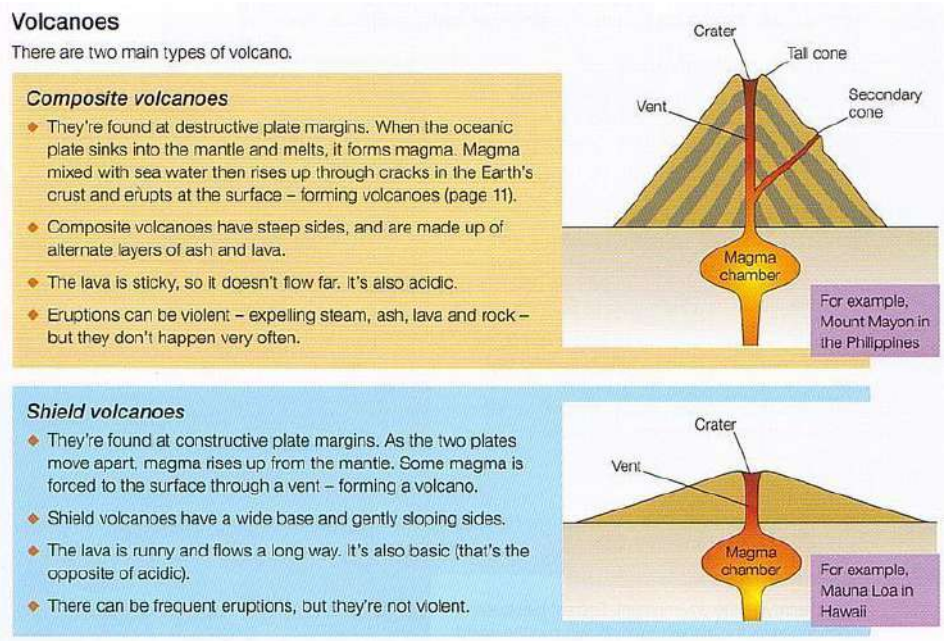
Magma Continental Collision Zones Earthquake Disturbance Destruction Tsunami

Week 3: Match the key word with the description

Key term	Definition
Focus	This scale measures earthquakes based on observations on a scale of 1-12.
Epicentre	are those that occur immediately as the earthquake happens.
Mercalli Scale	The location where the earthquake begins. The ground ruptures at this spot, then seismic waves radiate outward in all directions.
Richter Scale	are the subsequent effects of the quake, and can be even more devastating then the primary ones
Seismic waves	are waves of energy that travel through the Earth's layers
Primary	The point on the Earth's surface located directly above the focus of an earthquake.
Secondary	This scale measures the seismic waves on a scale from 1-10.

Year 8 - Knowledge organiser - The Restless Earth

Week 4: Create a mind map about the 2 different types of volcano. Don't forget there are over 600 active volcanoes.

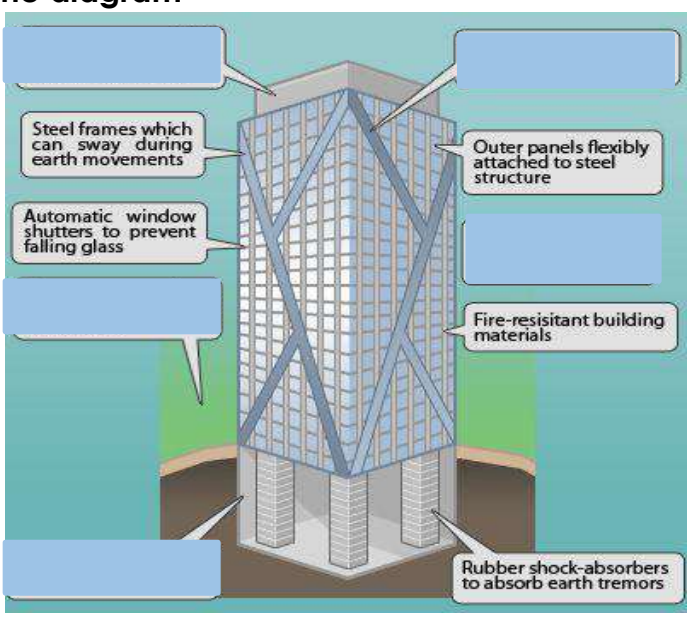


Week 5: Tsunamis – Organise the facts about the Boxing day Tsunami into the following categories- general, human and physical (Colour code).

The tsunami resulted in at least 227,898 fatalities	Date - December 26, 2004 Indian Ocean tsunami	9.0 magnitude quake
Located in the Indian Ocean near the west coast of Sumatra.	Tsunami slammed into the coastlines of 11 countries, damaging countries from east Africa to Thailand.	A tsunami is a large sea wave caused by an earthquake under the ocean at destructive plate margins.
The Indian Ocean tsunami travelled as far as 3,000 miles to Africa and still arrived with sufficient force to kill people and destroy property.	Many people in Indonesia reported that they saw animals fleeing for high ground minutes before the tsunami arrived – very few animal bodies were found afterward.	Despite a lag of up to several hours between the earthquake and the impact of the tsunami, nearly all of the victims were taken completely by surprise because there were no tsunami warning systems in place.

Week 6 – Enter the missing labels to complete the diagram

1. Foundations sunk into bedrock avoiding clay
2. Open areas where people can assemble if evacuated
3. Roads to provide quick access for emergency services
4. Birdcage interlocking steel frame
5. Computer controlled weights on roof to reduce movement



Year 8 Half Term 2- Trans-How did the Transatlantic Slave Trade change Africa and the lives of African people? Knowledge Organiser

Homework 1– Key Terms

Key terms	Definitions
Chattel Slavery	When one person has total ownership of another. The slave is treated as property, the slaver is free to sell, trade, or treat the slave as he would other pieces of property, and the children of the slave are also the property of the slaver.
Oral tradition	History passed down by word of mouth rather than writing
Griot	A historian and storyteller who preserves history through oral tradition
Resistance	Resistance is defined as a refusal to give in or to something that slows down or prevents something.
Abolition	The action of abolishing a system, practice, or institution.
Empire	A collection of lands and people ruled by one government
Trade network	Routes linking different regions through trade
Plantations	A large farm producing cash crops using forced labour
Middle Passage	The journey taken by enslaved people across the Atlantic

Homework 2 – Africa Before the Slave Trade



- Africa contained many kingdoms and empires.
- Mali became wealthy through trade in gold and salt.
- Benin was known for its rulers, trade and artwork.
- African societies were connected through trade routes linking Africa, Europe and Asia.
- Historians use oral traditions, archaeology, artefacts and historical sites to discover African history.

Homework 3 - Why did the Trans-Atlantic Slave Trade develop?

The triangular slave trade happened between Europe, Africa, and the Americas from the 1500s to the 1800s. Ships from Europe (like those from Bristol) carried goods made in Europe to African ports. There, traders traded these goods for enslaved Africans. The ships then took these enslaved people across the ocean (called the Middle Passage) to the Americas, where they were sold in European colonies. The ships would then return to Europe, repeating the cycle. Enslaved Africans were mostly forced to work on farms called plantations, growing important crops like sugar, cotton, and tobacco, which were very popular in Europe.

Slavery existed in some African societies before Europeans arrived, but it was often different from plantation-based chattel slavery. The arrival of European merchants increased the scale of slavery dramatically



Homework 4 - What were the common experiences of enslaved people?

The Middle Passage: This was the journey from Africa to the Americas. On the ships, enslaved people were kept in very tight, crowded spaces. They were chained close together because the traders wanted to fit as many people as possible to make more money. During the slave trade, millions of enslaved people died on these trips from hunger and disease. The **Slave Auction:** When a slave ship reached the Caribbean, enslaved people were sold at auctions. Those who looked healthier were sold for higher prices. **Life on the Plantation:** Enslaved people had very hard lives on plantations. Growing sugar and cotton was tough work. Groups of enslaved men, women, children, and even elderly people worked from early morning until sunset. They were controlled by a white overseer and were whipped if they didn't work hard enough. During harvest time, they sometimes had to work up to 18 hours a day.

Homework 5 - Resistance to Slavery

- White slave owners were very worried about revolts. When enslaved people resisted, it could cause big problems and slow down work. It was also dangerous for the owners because there were many more enslaved people than there were white owners on the plantations.
- **Slave resistance on plantations:** Some enslaved Africans fought for their freedom by working slowly or running away. Others resisted by learning to read, getting married, and creating their own culture to show they were human. Some planned rebellions, even though they knew they could be tortured or killed if caught. Sometimes, these rebellions led to violence, destroying plantations and causing deaths.

Homework 6- Factors behind the campaign to abolish Slavery

- **Political and Legal**: Granville Sharp used the law courts to try and give slaves their freedom.
- **Economic:** Sugar plantations were closing as cheap sugar could be bought from Brazil and Cuba. **Religious:** Christian groups, such as the Quakers, thought that slavery was a sin against God.
- **Key Individuals:** An ex-slave called Olaudah Equiano wrote a book of the story of his life as a slave. Many British people read the book and as a consequence opposed slavery
- **Groups, Beliefs and Ideas:** The Society for the Abolition of the Slave Trade was set up in 1787. **Use of media:** Josiah Wedgwood joined the anti-slavery side and designed a logo for it. The design appeared on bookplates, coat buttons, wax seals, jewellery etc.

Homework 7 – Why Was Slavery Abolished?

Campaigners- Equiano, Clarkson, Quakers

Parliament- Wilberforce, 1807 Act, 1833 Act

Resistance- Rebellions, Haiti

Economics- Falling profits, Industrial Revolution



French Knowledge Organiser – Year 8 - Half Term 2

Homework 1	
J'aime aller…	I like going…
Je n'aime pas aller…	I don't like going…
Je déteste aller…	I hate going…
Je vais aller…	I'm going to go…
On va aller…	We are going to go…
Je vais sortir…	I will go out…
On va manger…	We will eat…
Je vais jouer…	I will play…
nous allons visiter…	we are going to visit…
on va faire…	we are going to make / do…

Homework 2	
…parce que c'est…	…because it's…
…car c'est…	…because it's…
ennuyeux	boring
calme	peaceful
amusant	fun
pas pour moi	not for me
près de	near to
ici	here
Quel dommage!	What a shame!
Ça va être…	It will be…
super	super
cool	cool
fantastique	fantastic
délicieux	delicious

Homework 3	
vouloir	to want to
je veux	I want
tu veux	you want (singular, informal)
il / elle veut	he / she wants
on veut	we want (informal)
nous voulons	we want
vous voulez	you want (plural or formal)
ils / elles veulent	they want
pouvoir	to be able to / can
je peux	I can
tu peux	you can (singular, informal)
il / elle peut	he / she can
on peut	we can (informal)
nous pouvons	we can
vous pouvez	you can (plural or formal)
ils / elles peuvent	they can

Homework 4	
je sors…	I go out…
Normalement…	Normally…
je mange du gâteau	I eat cake
j'organise une fête	I organise a party
je vais au cinéma	I go to the cinema
mais pour mon prochain anniversaire…	but for my next birthday…
L'année prochaine…	Next year…
je vais aller…	I'm going to go…
nous allons visiter…	we are going to visit…
on va faire…	we are going to make / do…
la fête	party
aujourd'hui	today
prochain(e)	next

Homework 5	
aller	to go
communiquer	to communicate / talk
écouter	to listen
faire	to do
faire la grasse matinée	to have a lie-in
finir	to finish
jouer	to play
lire	to read
marcher	to walk
méditer	to meditate
regarder	to watch
rester	to stay
se promener	to go for a walk
sortir	to go out
vendre	to sell

Homework 6	
j'adore	I love
j'aime	I like
je préfère	I prefer
je n'aime pas	I don't like
avant	before
lentement	slowly
tard	late
tôt	early

Knowledge Organiser – Term 2

Spanish

HOMEWORK 1	
En mi pueblo	**In my town**
para los turistas	for tourists
hay…	there is/are…
no hay…	there isn't/aren't
un banco	a bank
una biblioteca	a library
un centro comercial	a shopping centre
un cine	a cinema
una estación de tren	a train station
una estación de autobús	a bus station
un estadio	a stadium
un museo	a museum
un parque	a park
una playa	a beach
una tienda de regalos	a gift shop
un zoo	a zoo



HOMEWORK 2

Ir	**To go**
voy	I go
vas	You go
va	He/she goes
vamos	We go
vais	You all go
van	They go
Suelo ir…	I normally go…

HOMEWORK 3	
Los adjetivos	**Adjectives**
es	It's
grande	big
pequeño	small
tranquilo	quiet
ruidoso	noisy
moderno	modern
antiguo	old
industrial	industrial
rural	rural
sucio	dirty
limpio	clean
histórico	historic



HOMEWORK 4	
Palabras útiles	**Useful words**
muy	very
la mar de	very
poco	a little
mucho	a lot / much
bastante	quite
demasiado	too
también	also
pero	but
además	furthermore / also
sin embargo	however
por eso	therefore

HOMEWORK 5	
¿Dónde está?	**Where is it?**
a la derecha (de)	to the right (of)
a la izquierda (de)	to the left (of)
al lado de	next to
cerca de	close to
lejos de	far from
la primera	the 1st
la segunda	the 2nd
la tercera	the 3rd
toma	take
tuerce	turn
cruza	cross
pasa	go through / over
los semáforos	traffic lights
el puente	the bridge

HOMEWORK 6	
Para + infinitive	**In order + infinitive**
Para bailar en la discoteca	In order to dance at the disco
Para cantar en el coro	In order to sing in the choir
Para ir de compras	In order to go shopping
Para comprar	In order to buy
Para nadar en el mar	In order to swim in the sea
Para pasear mi perro	In order to walk my dog
Para visitar el museo	In order to visit the museum

GERMAN YEAR 8
HT2 into HT3

Homework 1:

1.	Deutschland	**Germany**	11.	Norwegen	**Norway**
2.	England	**England**	12.	Italien	**Italy**
3.	Schottland	**Scotland**	13.	Österreich	**Austria**
4.	Wales	**Wales**	14.	Dänemark	**Denmark**
5.	Nordirland	**Northern Ireland**	15.	Portugal	**Portugal**
6.	Irland	**Ireland**	16.	die Schweiz	**Switzerland**
7.	Frankreich	**France**	17.	Spanien	**Spain**
8.	Belgien	**Belgium**	18.	Polen	**Poland**
9.	Holland	**Holland**	19.	Schweden	**Sweden**
10.	Ungarn	**Hungary**	20.	Australien	**Australia**

- When saying you are going to/ have been to/ will go to a country, you need to put nach before the country:

e.g. Ich fahre nach Deutschland

- There are some exceptions to this rule:

e.g. Ich fahre in die Schweiz/ Türkei

Homework 2:

1.	fahren	**to travel**
2.	mit dem Auto	**by car**
3.	mit dem Zug	**by train**
4.	mit dem Rad	**by bicycle**
5.	mit dem Bus	**by bus**
6.	mit dem Schiff	**by boat**
7.	mit der Fähre	**by ferry**
8.	mit der U-Bahn	**by underground**
9.	mit der Straßenbahn	**by tram**
10.	fliegen	**to fly**
11.	mit dem Flugzeug	**by (aero)plane**
12.	gehen	**to go**
13.	zu Fuß	**on foot i.e. walk**

14. Time – Manner – Place is a form of German word order e.g. Am Wochenende (= Time) fahre ich mit dem Auto (= Manner) in die Stadt. (= Place)
15. i.e. Time – Manner – Place = when – how – where

Homework 3:

1. The Past Tense expresses something that has already happened
2. The formation of the Past Tense in German requires 3 parts:
3. Part 1 is a pronoun/ subject of the sentence
4. Part 2 is an auxiliary verb
5. Part 3 is a past participle
6. e.g. Ich (1) habe (2) gespielt (3) = I played
7. e.g. Ich (1) bin (2) geflogen (3) = I flew
8. The past participle should be at the end of the sentence
9. e.g. Ich bin nach Deutschland geflogen = I flew to Germany

Homework 4:

1.	**haben to have**	8.	**sein to be**
2.	ich habe I have	9.	ich bin I am
3.	du hast you have	10.	du bist you are
4.	er hat he has	11.	er ist he is
5.	sie hat she has	12.	sie ist she is
6.	wir haben we have	13.	wir sind we are
7.	sie haben they have	14.	sie sind they are

Homework 5:

1. There is a choice of 2 different verbs for the auxiliary verb: haben *or* sein
2. If movement A ➔ B is implied, you should use SEIN
3. Otherwise, you should use HABEN
4. A past participle can end with 't' e.g. gemacht (did/ made)
5. A past participle can end with 'en' e.g. geschrieben (wrote)
6. A past participle usually begins with 'ge'
7. Some past participles have 'ge' in the middle e.g. ferngesehen (watched TV)
8. Some past participles don't contain 'ge' e.g. besucht (visited)

Homework 6:

1. fahren = to travel
2. ich fahre = I travel
3. ich bin ... gefahren = I travelled / I did travel
4. ich werde ... fahren = I will travel
5. gehen = to go (on foot)
6. ich gehe = I go
7. ich bin ... gefahren = I went
8. ich werde ... gehen = I will go

Homework 7:

1. fliegen = to fly
2. ich fliege = I fly
3. ich bin ... geflogen = I flew
4. ich werde ... fliegen = I will fly
5. bleiben = to stay
6. ich bleibe = I stay
7. ich bin ... geblieben = I stayed
8. ich werde ... bleiben = I will stay

Homework 8:

1. besichtigen = to visit *a place*
2. ich besichtige = I visit
3. ich habe ... besichtigt = I visited
4. ich werde ... besichtigen = I will visit
5. verbringen = to spend **in terms of time**
6. ich verbringe = I spend
7. ich habe ... verbracht = I have spent
8. ich werde ... verbringen = I will spend

YEAR 8 FOOD TECHNOLOGY KNOWLEDGE ORGANISER

1. KEY TEMPERATURES IN FOOD

100°C – BOILING POINT — Water boils. Used for boiling foods.

75°C – COOK THOROUGHLY — Minimum temperature to kill harmful bacteria.

63°C – KEEP HOT — Keep hot food at 63°C or above.

5°C – 63°C – DANGER ZONE — Bacteria grow quickly in this temperature range. Keep food out of the danger zone!

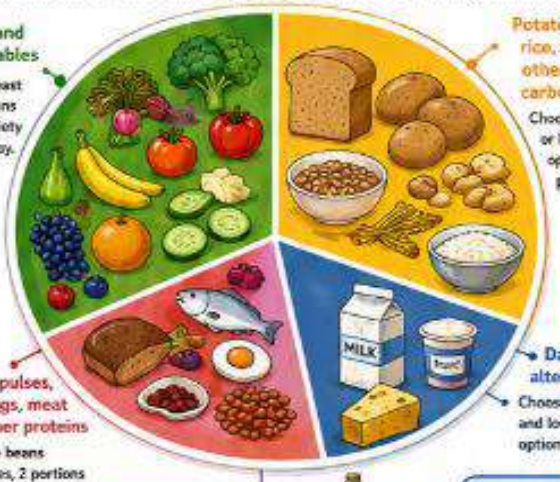
0°C – 5°C – FRIDGE TEMPERATURE — Keep cold food at 5°C or below. Bacteria grow very slowly.

0°C – FREEZING POINT — Water freezes. Food should be frozen below 0°C. Do not refreeze thawed food.

REMEMBER:
- Keep cold food COLD (below 5°C)
- Keep hot food HOT (above 63°C)
- Avoid the DANGER ZONE (5°C – 63°C)

2. THE EATWELL GUIDE

The Eatwell Guide shows how much of what we eat overall should come from each food group to achieve a healthy, balanced diet.



- **Fruit and vegetables** — Eat at least 5 portions of a variety every day.
- **Potatoes, bread, rice, pasta and other starchy carbohydrates** — Choose wholegrain or higher fibre options where possible.
- **Beans, pulses, fish, eggs, meat and other proteins** — Eat more beans and pulses, 2 portions of sustainable fish per week.
- **Dairy and alternatives** — Choose lower fat and lower sugar options.
- **Oils and spreads** — Choose unsaturated oils and use in small amounts.
- **Drink plenty of water – 6–8 glasses a day.**

3. CONDITIONS FOR BACTERIA TO GROW

Bacteria need four things to grow:

WARMTH	MOISTURE	FOOD	TIME
Warm temperatures (5°C – 63°C) are ideal.	Bacteria need water or moisture to survive.	Bacteria need nutrients from food to grow.	The longer food is left out, the more bacteria will grow.

HOW TO STOP BACTERIA GROWING

Wash hands · Keep food cold · Avoid cross-contamination · Clean surfaces and equipment

4. NUTRITION

MACRONUTRIENTS (needed in larger amounts)

CARBOHYDRATES
Main source of energy.
Examples: bread, rice, pasta, potatoes.

PROTEIN
Growth and repair of body tissues.
Examples: meat, fish, eggs, beans, lentils.

FAT
Energy source, insulation and protection.
Examples: oils, nuts, butter, avocado.

MICRONUTRIENTS (needed in smaller amounts)

VITAMINS
Keep us healthy and help our bodies work properly.
Examples: vitamin C in fruit and veg.

MINERALS
Help build strong bones, blood and teeth.
Examples: calcium in milk, iron in spinach.

5. COLOUR-CODED CHOPPING BOARDS

Using the right chopping board helps prevent cross-contamination.

RED	BLUE	GREEN	YELLOW	BROWN	WHITE	PURPLE
Raw meat	Raw fish	Fruit & vegetables	Cooked meat	Root vegetables	Bakery & dairy	Allergen free

6. FOOD PACKAGING – WHAT INFORMATION SHOULD YOU FIND?



Typical values per 100g

Energy	1501kJ/356kcal
Fat	1.3g
of which saturates	0.3g
Carbohydrate	71.3g
of which sugars	3.2g
Fibre	3.0g
Protein	12.5g
Salt	<0.01g

Ingredients: Wholewheat durum wheat semolina, water.
Allergy advice: For allergens, including cereals containing gluten, see ingredients in bold.
JUN 2026
Made in Italy

- Name of the food
- Ingredients list
- Allergen information (e.g. contains: wheat)
- Nutrition information (traffic light / table)
- Use By / Best Before date
- Storage instructions
- Cooking instructions
- Weight
- Manufacturer / Country of origin

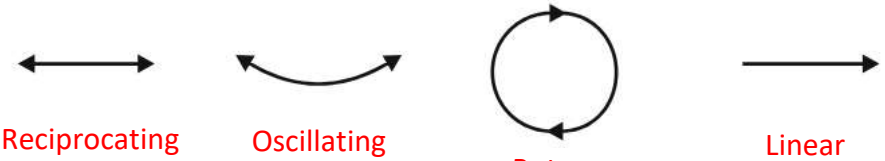
KEY WORDS

- **BACTERIA** — Tiny organisms that can cause food poisoning.
- **CROSS-CONTAMINATION** — Harmful bacteria spreading from one food or surface to another.
- **HYGIENE** — Keeping clean to prevent illness.
- **NUTRIENT** — A substance our bodies need to stay healthy.
- **MACRONUTRIENT** — Nutrients needed in large amounts (carbohydrate, protein, fat).
- **MICRONUTRIENT** — Vitamins and minerals needed in small amounts.
- **ALLERGEN** — A food that may cause an allergic reaction.
- **EATWELL GUIDE** — A guide showing how to eat a balanced diet.

Engineering & Technology – Knowledge Organiser

Year 8 Engineering Systems

Hwk 1 Identify 4 types of motion:



Reciprocating | Oscillating | Rotary | Linear

Watch & LEARN

https://www.youtube.com/watch?v=5hKTvVG6eqA

Hwk 2 Identify the parts of the diagram below: System Block Diagram



Hwk 3 Identify input and output components:

Input



Light Dependent Resistor



Push-to-make



Thermistor

Output



Light Emitting Diode



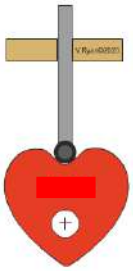
Servo



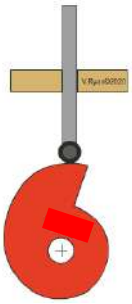
Buzzer

Hwk 4

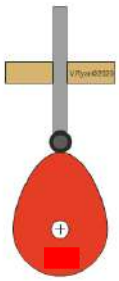
Identify 4 cam profiles:



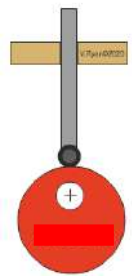
Heart



Drop

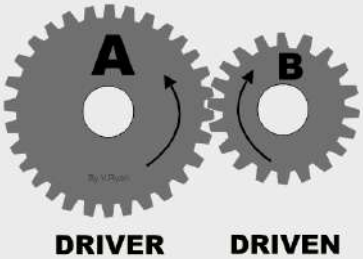


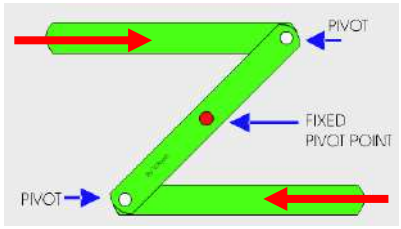
Pear



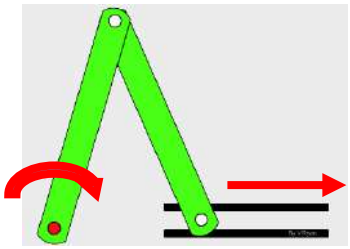
Eccentric

Hwk 5 Identify gears & linkages:

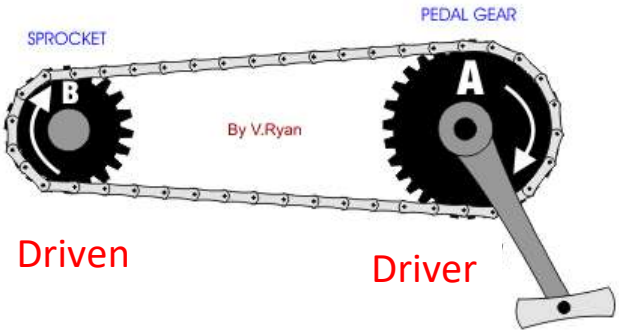




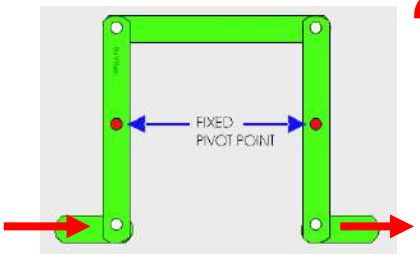
Reverse Motion



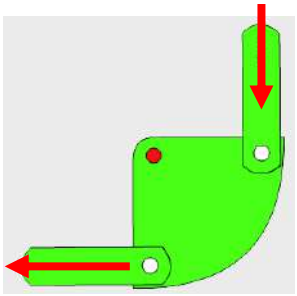
Crank and Slider



Driven | Driver



Parallel Motion



Bell Crank

EXCELLENCE IN EVERYTHING

Engineering & Technology – Knowledge Organiser

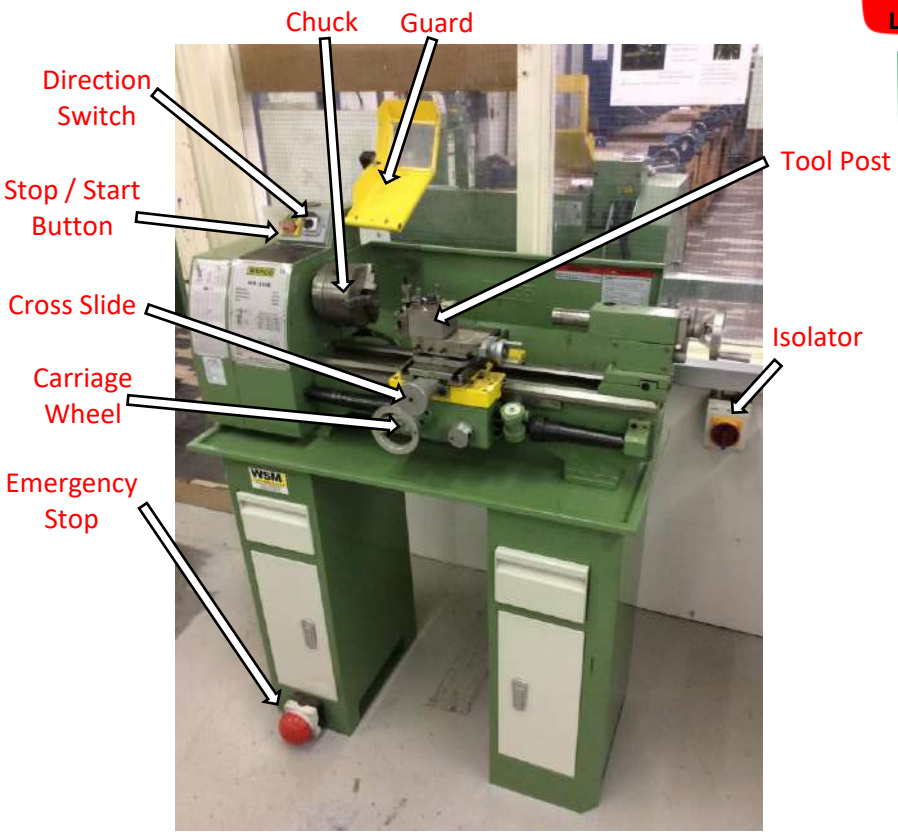
Year 8 Engineering Manufacture

Watch & LEARN

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

Hwk 1

Identify basic parts of a metal lathe:



Hwk 2

Identify engineering tools:



Engineers Vice



Junior Hacksaw



Engineers Square



Twist Drill Bit



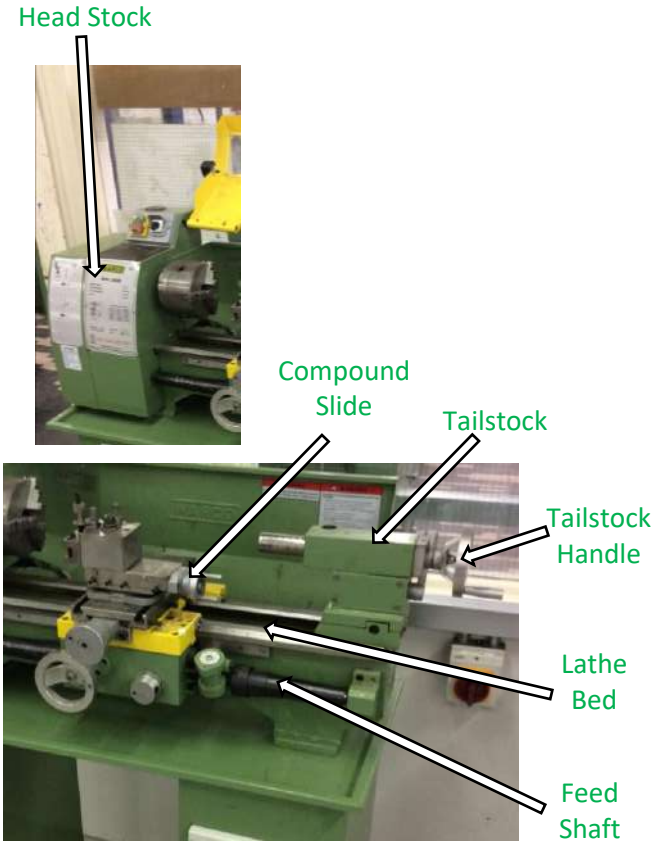
Centre Drill



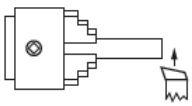
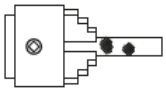
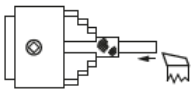
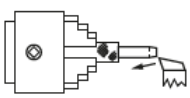
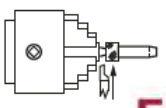
Drill Chuck

Hwk 3

Identify advanced parts of a metal lathe:



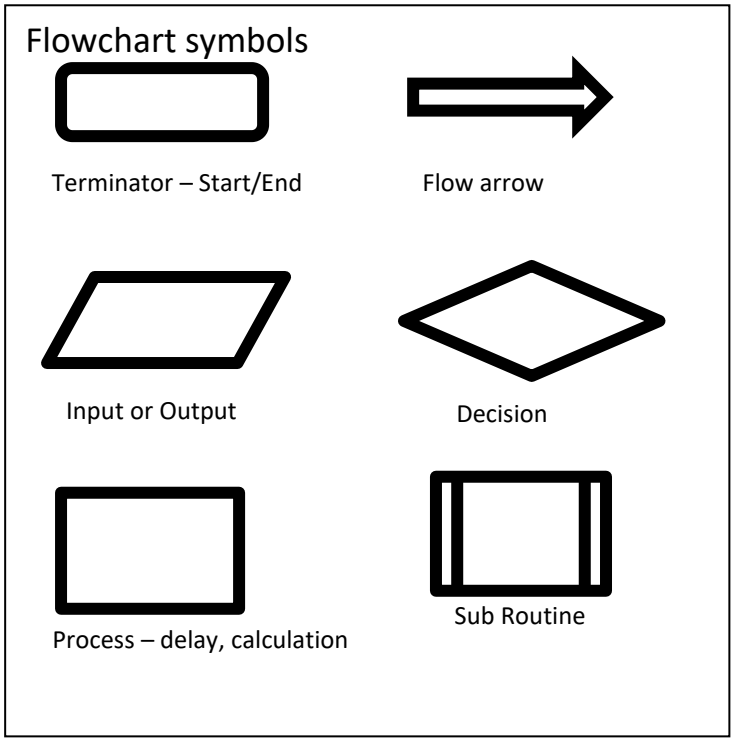
Hwk 4 Name the five machining processes:

Process	Description of process	Name of process
	Cutting across the end of the Ø20 mild steel bar	Facing Off
	Putting a grip on the outside of the bar	Knurling
	Reduce the peg to Ø10	Turning Down
	Putting the angle on the end of the peg	Taper Turning
	Cutting off the finished peg	Parting Off

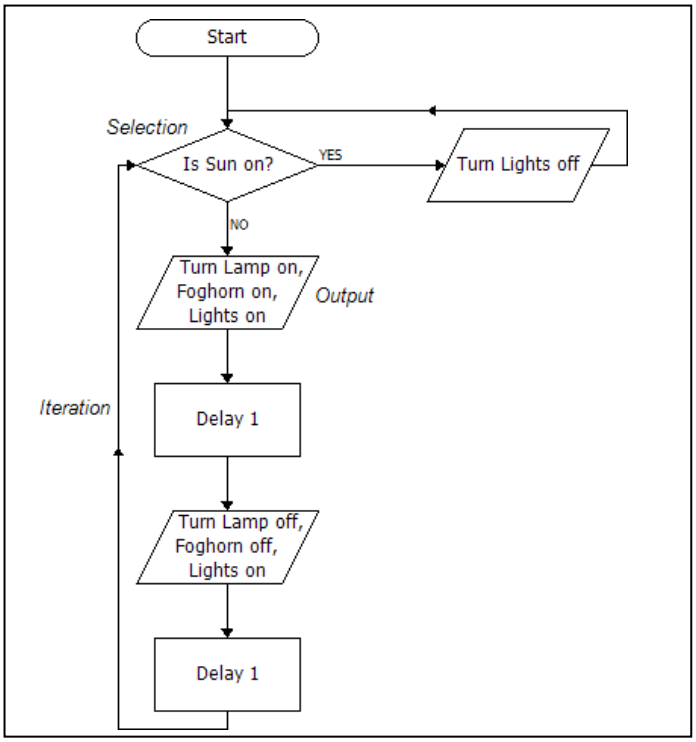
EXCELLENCE IN EVERYTHING

Computing

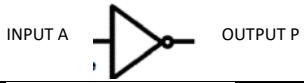
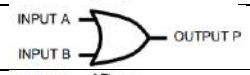
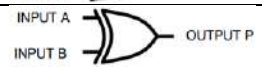
Year 8 COMP 1



Homework 1 Be able to draw and use these symbols



Homework 2 Describe how this flowchart works

	Key Term	Definition	Examples	
Control	Sequence	The order in which instructions are executed.	1) Wake up 2) Get dressed	
	Input	A way to get data into a computer.	Switch being pressed. Temperature reading taken.	
	Output	A way to show results or an action.	Something turns on or off.	
	Iteration	Repeating a set of instructions.	Repeat 4: Alarm on, wait 1, Alarm off, wait 1	
	Selection	There is a choice of ways to go.	Flowol uses decisions that have Yes and No routes.	***Homework 3/4***
	Sub-routine	A separate chunk of code that does a particular job. They only run when called.	Sub Fire: Fire on	
Logic Gates	NOT gate	Where the Input is the opposite of the output		
	AND gate	Where only both Inputs must be on		
	OR gate	Where either Input must be on (or both)		***Homework 5***
	XOR gate	Where one of the Inputs must be on, the other off		
E-Safety	Cyberbullying	Bullying an individual or group of people using digital technology	Bullying via Social Media such as WhatsApp, TikTok	
	Grooming	A process involving an offender building a relationship with a child, gaining their trust and a position of power over the child, in preparation for abuse.	Gaining a child's trust in preparation for abuse	***Homework 6***
	Social Media	internet-based platforms and applications that allow people to communicate, build communities, and create or share content	Instagram, Facebook, WhatsApp	

Y8 Architecture 2

What is perspective?
The art of representing **three-dimensional** objects on a **two-dimensional** surface.

One point perpective



Two point perspective



Three point perspective



Using Colour Pencils

To effectively use colored pencils, start with light layers and gradually build up color intensity and detail. Layering allows for blending and creating smooth transitions, while varying pressure can achieve different effects. Holding the pencil further back provides better control and even pressure, and using circular strokes can help create smooth, streak-free results.



6 tips for painting with watercolours

1. Use good quality paper
2. Draw out lightly in pencil
3. Start with the lightest colours
4. Layer watercolour paints to build tone
5. Don't add too much or too little water
6. Mix colours/ make your own hues



Creating texture in watercolor
Wet-on-wet
Wet-on-dry methods,
Markmaking with brush
Dry brush strokes



Care of brushes

Use gently
Clean with water
Store bristle side up

Blending is the process of combining two or more colors together to create a smooth transition or a new colour.

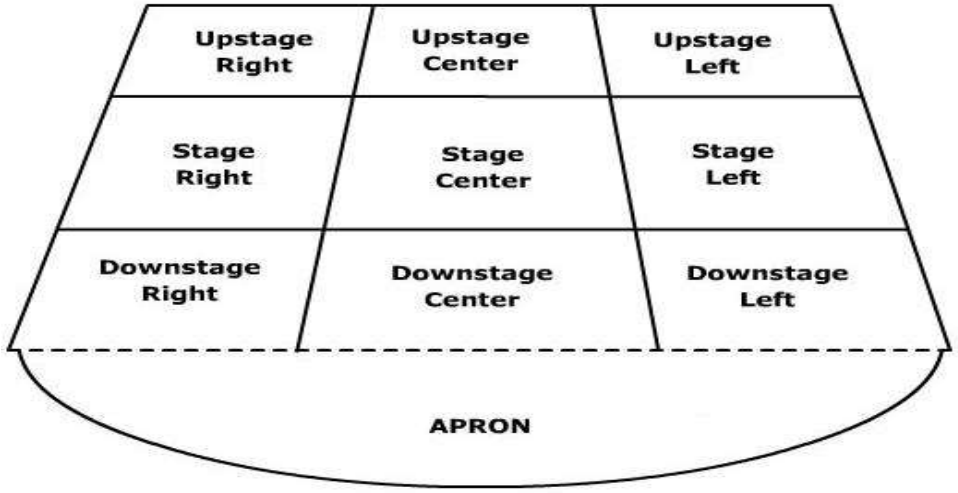
Melodramatic Theatre

A

Areas that need exaggeration in Melodramatic Theatre:

Gesture and Movement	Any movement of the body or use of hand or head gesture needs to be seen by all members of the audience. As a result there can be no subtlety of movement.
Voice and Vocal Tone	Voice must be loud so that all members of the audience can hear what is being said. Vocal tone indicates the mood and expectation of the line being delivered so this can not be misunderstood to mean anything other than what is intended.
Language	The words used would indicate the type of character speaking. A more formal use of language would indicate a wealthy character or official (like a police officer) whilst an informal tone or even the use of slang or abbreviated language might suggest a rogue or particularly nasty character.

B



C

Stock Characters used in Melodramatic Theatre:

Hero	This character is loved by the Heroine. He is honourable and good and tries to do the best by everybody. This often means he is too trusting.
Heroine	This character is loved by the Hero. She is often young and wealthy and is expected to marry. She is devoted but is often portrayed (as were the times) as needing a man to support her as she is weak.
Villain	This character is manipulative and often wants to marry the Heroine in order to gain status. He is the antagonist to the Hero, getting him banished at some point in the story in order to take the hand of the Heroine.
Loveable Rogue	The Hero's friend. This character looks after the Heroine, supporting her when the Hero is sent away. Loyal and just on the right side of good.
Aged Parent	Usually the parent to the Heroine. Old, wealthy and usually makes decisions without considering the consequences. Often seen as a little foolish.
Villain's Sidekick	This character is often treated badly by the Villain but continues to do as he is told. Often portrayed as being very unintelligent and thuggish.

D

Melodramatic Theatre is similar to Greek Theatre in that large gestures and loud volume was used to communicate to the audience. In Greek Theatre this was used to ensure that the audience were aware of who the characters were from far away; as there were multiple characters played by only three actors, whilst in Melodramatic Theatre it was to show the type of character being played and to allow them to follow the narrative of the plot in a very simple way.

YEAR 8 | MUSIC | HT1/2 - MUSICAL THEATRE

HOMEWORK 1

Musical Theatre	A drama characterised by storyline, plot and characters interspersed with dialogue and different musical numbers including scenery, costumes and
Opera	A play, set to music, sung and acted, with scenery, costumes and lighting.
Solo	A song for a single voice, with or without instrumental accompaniment.
Duet	A song for a two voices, with or without instrumental accompaniment.

HOMEWORK 2

Recitative	A style of singing in opera or musicals that sounds like talking, used to move the story along.
Unison	When two or more people sing or play the exact same note at the same time.
Ensemble	A small group of singers or a piece of music written for a small group.
Aria	A solo song in an opera or musical where a character shows their feelings, often very emotional and expressive.

HOMEWORK 3

Soprano	The highest type of female voice
Alto	The lowest female voice
Vibrato	A slight, quick wobble in pitch that singers or players use to make a note sound warmer or more expressive.
In Harmony	When two or more notes are sung or played together

HOMEWORK 4

Accompaniment	The musical support or background provided for the solo voices or instruments in the musical texture.
Tenor	A high adult male voice.
Baritone	A male voice whose range lies between that of a tenor and bass voice.
Bass	The lowest male voice.

Want to Explore more?

Research famous musical theatre composers and listen to their music. Start with 'Leonard Bernstein'.



YEAR 8

MUSIC

HT1/2 - THE GUITAR

HOMEWORK 1

Electric Guitar	A guitar that needs to be plugged into an amp to make sound. It uses electricity to get louder and often sounds great for rock music!
Acoustic Guitar	A guitar that makes sound all by itself, using its wooden body to echo the sound of the strings.
Bass Guitar	A guitar with thicker strings that plays low notes and helps keep the beat in a band.
Chord	A group of notes played at the same time that often sound good together.

HOMEWORK 2

Finger-picking	Performing the guitar using the thumb and fingers of the right hand.
Strumming	Playing most of the strings at once in a downward and upward motion.
Chord box	A little diagram that shows you where to put your fingers on the guitar to play a chord
Tablature	A way to read music for guitar using numbers and lines instead of regular music notes.



HOMEWORK 3

Distortion	Effect which adds grit to the tone of the guitar by making it a square wave.
Chorus (effect)	Creates the sound of two instruments playing simultaneously.
Delay	Effect which repeats the note played.
Plectrum	A small tool you hold in your fingers to strum or pluck the guitar strings.

HOMEWORK 4

Reverb	Effect which creates artificial space.
Riff	A short, catchy part of music that's often repeated—like a musical hook. This is often played on an electric guitar.
Amplifier	A speaker that makes your electric guitar sound louder.
Fret	The gaps between metal strips on the neck of a guitar that help you play different notes when you press the strings down.

Want to Explore more?

Research famous guitarists and listen to their music. Start with 'Jimi Hendrix'.

John Port Spencer Academy PE Department Knowledge Organiser

Activity: Football

Year: 8

Key Skills:

- Controlling the ball – using different parts of the body – this could be the feet, thigh, chest and head. Try and use both feet. Remember to cushion the ball.
- Passing – there are 3 types of passes. Side foot pass, driven pass with the laces and a lofted pass. Using the side of the foot allows you to pass accurately over a short distance, a driven pass allows you to pass the ball on the floor, but a greater distance. Finally, a lofted pass allows you to lift the ball in the air over players and change direction. Remember to keep your standing foot next to the ball when you make the pass.
- Dribbling – dribbling allows you to move the ball quickly around the pitch using the inside and outside of your feet and keeping, the ball close to your feet and your head up.
- Turning with the ball and outwitting a defender – turning with the ball allows you to change direction using different techniques, such as dragging the ball back with the sole of your boot. Outwitting and opponent allows you to beat a defender using different techniques such as a step over.
- Shooting – there are different types of shots that allows you to score goals. You instep can be used to control and place the ball into the goal. If you use your laces then this allows more power to be produced.
- Heading – you can use an attacker header, a defensive header or a controlled header, which might be passing the ball back to someone with your head.
- Attacking – keeping possession – making a number of passes allows your team to keep possession and advance up the field.
- Tackling techniques – tackling, jockeying and forcing the player onto their weaker foot.



Strategies and Tactics:

Attacking – using the width is very important when attacking. It is important teams keep possession and play one and two touch to move the ball quickly. Also, another effective strategy is to 'switch' the play using a lofted pass.

Defending – players are normally marked man to man, but can be marked zonal from corners.

Stretch and Challenge Task:

- What are the advantages of using man to man marking when defending?
- Research the different types of formations (pictured) and positions.
- Why is it important to use width in a game.

Key Content and Terms to learn:

Passing, dribbling, shooting, heading, attacking, defending, possession, width, depth, different formations

John Port Spencer Academy PE Department
Knowledge Organiser – YR 8 BADMINTON

Key Skills:

READY POSITION – balanced stance, side on, racket up, ready to go, on toes.

SERVING –There are several types of serve – short/backhand, long ,flick. A backhand serve should land close to the service line on your opponents side of the net. The racket head must start from below the waist.

UNDERARM CLEAR (long serve) **–** This shot is played high to the back of your opponents court. Start sideways on and use a whip action with the wrist to create power.

OVERHEAD CLEAR – Played to the back of your opponents' court and is a defensive shot. Start sideways on, racket up and behind you, focus on making contact with the shuttle in front of you.

DROP SHOT- a shot played with finesse to land the shuttle as close as possible to the net on your opponent's side.

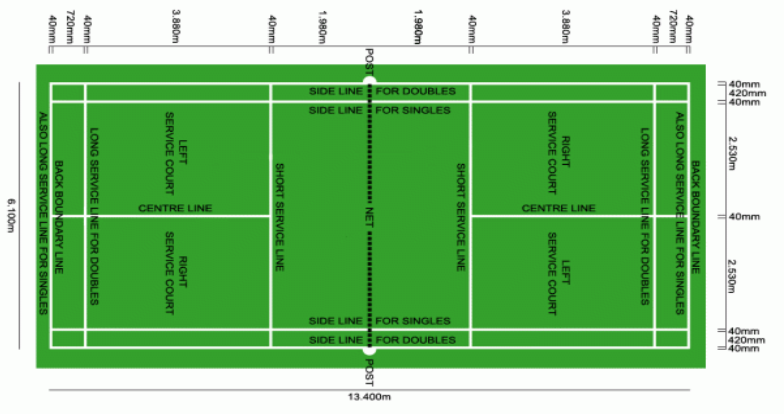
SMASH SHOT – This is the main attacking shot in badminton. It is an overhead shot, hit in front of the body, that aims to get the shuttle down on the floor at a sharp angle. The wrist needs to "snap" to get it down.

TACTICS - Hitting into space – keep your opposition moving around the court

- Shot selection – selecting the right shot for the right situation
- Targeting opponents weaknesses
- Disguised shots – trying to make it look like you are going to play a particular shot but then play a different shot to fool an opponent.
- Doubles play – role of players in doubles. Front/back formations or side to side.

Rules

Game starts with a diagonal serve- right hand side to right hand side
Serve must land over the service line
Play to 21 points – but must win by 2 clear points.
A point is won every rally
Whoever wins the point serves next
When score is even, serve from right, when score is odd, serve from left
Court is long and thin for singles, short and wide for doubles
You cannot hit the net with your racket or body



Stretch and Challenge Task:

-Draw a badminton court in your knowledge book and label it correctly with the lines that are in/out for both singles and doubles.

-When might you use front and back play in doubles and when might you use side to side?

- Go online and watch some doubles play form the Olympics or Commonwealth games.

Key Terms to learn:

Grip and ready position
Rally
Serve –backhand/short, long, flick
Ready position
Overarm clear
Underarm clear
Drop shot
Disguised shot
Smash

John Port Spencer Academy PE Department Organiser Year 8 Fitness

Knowledge

Key Skills: Components of Fitness/ Tests for Components of Fitness:-

***M*uscular endurance-** The ability to use muscles repeatedly for a long period. 1 Minute Sit-Up Test &
1 Minute Press-Up Test

***C*ardiovascular/Aerobic Endurance** - Being able to exercise the whole body for a long period using oxygen and nutrients efficiently. Cooper 12-Minute Test; multi stage & Harvard Step Test

***M*uscular Strength-** The amount of force that muscle produces in one contraction. Grip Dynamometer

***F*lexibility-** The range of movement possible at a joint. Sit and Reach Test

***B*ody Composition-** The measure of how much of your body is made up of fat-free mass, vital organs and fat. Body Mass Index

***A*gility-** The ability to change direction at speed (quickly) without losing balance. Illinois Agility Run Test

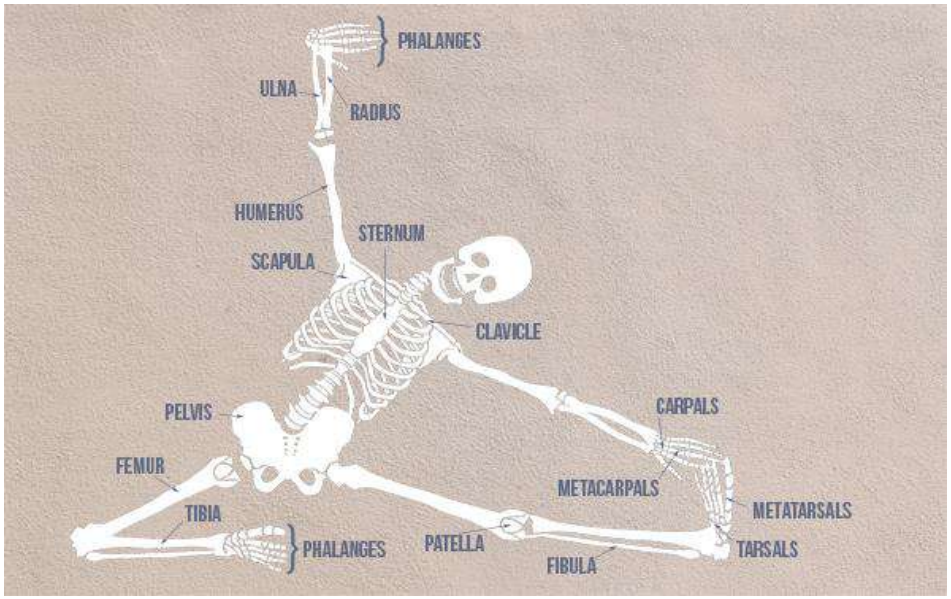
***B*alance-** The ability to maintain centre of mass over a base of support. Stork Balance Test

***C*o-ordination-** The smooth flow of movement needed to perform a motor task efficiently and accurately using two or more body parts together. Alternate Hand Wall Toss Test

***P*ower-** Speed X Strength Vertical Jump Test

***R*eaction time-** How quickly someone can react to a stimulus. Ruler Drop Test

***S*peed-** How quickly an object or human moves from 'A' to 'B'. 30m/40mSprint Test



Stretch and Challenge Task:
Link the Components of fitness to specific Sports/activities.
Describe Training that could be undertaken to improve components of Fitness.

Key Content and Terms to learn:
Endurance; Aerobic; strength; Flexibility; Agility; Balance; Coordination; Power; Reaction Time; Speed and Body Composition.

John Port Spencer Academy PE Department
Knowledge Organiser

Activity: Rugby

Year: 8

Key Skills:

Passing- The loop, switch and reverse passes can be very effective in unlocking opposition defences.
Tackling- a skill used to try to stop an opponent who has the ball by bringing them down to the ground. There are different types of tackles and safe tackling technique is extremely important.
Carrying- a skill used to gain territory and score tries. This is where a player keeps the ball as they progress down the pitch.
Handling- a skill used to catch and throw the ball. Offloading the ball is where a player passes the ball as they are being tackled. This can help maintain momentum and take defenders out of the game.
Rucking- a phase of the game where the ball goes to ground and one or more players from each team close around the ground.



Stretch and Challenge Task:

- Watch a premiership or international rugby game with focus on the rucking laws. Where is offside in a game of rugby? Which players are best at rucking and what is the correct technique?

Key Content and Terms to learn:

- Rucking
- Offside
- Jackling
- Offloading