Knowledge Organisers

Year 8

Spring Term 2026

Name: _____

Instructions for how to use your Knowledge Organiser

After school, every day, you should learn knowledge from **TWO** subjects on your knowledge organiser each night. Your class teacher may set you specific tasks on Satchel One linked to the knowledge that you will be expected to learn. The timetable below tells you which subjects you should focus on each night. It doesn't matter if you don't have that particular subject on that day, just follow the timetable for your home learning. You should spend **half an hour** on each subject.

TIMETABLE OF SUBJECTS

Monday: English and Geography
Tuesday: Science and Art / DT / Food
Wednesday: Maths and History
Thursday: RE and Computer Science
Friday: MFL and Music / Drama

Reading at home

There is also an expectation that you should read a book of your choice for 30 minutes everyday.

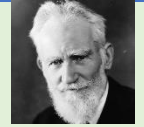
This knowledge organiser outlines the key information from your lessons this Spring term.

Spend time consolidating this knowledge at home.

How to learn knowledge from my knowledge organiser:

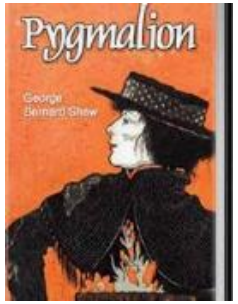
- Look at the work, cover it over, write it out again and check it.
- Look. Cover. Write. Check.
- Ask someone to test you and ask you questions about the topic
- Create mind maps on the topic
- Create flashcards on the topic
- Try writing out the key words or new vocabulary into new sentences
- Create a mnemonic
- Draw a diagram of the process
- Read further around the subject

English Year 8 Spring Term: 'Pygmalion' by George Bernard Shaw



Context

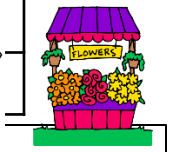
- The play is set in the early 20th century, at the end of the Victorian period.
- London, as the capital of England, was the centre of the far reaching, powerful British Empire.
- Victorian society was controlled by a rigid social hierarchy.
- Women had not yet gained many basic rights and privileges such as the right to vote.
- As the 20th century began, social change was beginning to happen.



The Title

- The play takes its title from the myth of Pygmalion.
- The story of Pygmalion originates from Ovid's epic Latin poem 'The Metamorphoses'.
- Pygmalion makes a sculpture of his ideal woman, Galatea.
- He falls in love with his beautiful statue, who then comes to life.
- The title may imply Eliza is a kind of Galatea, moulded by Pickering &Higgins into the ideal lady of Victorian society

Characters	
Eliza Doolittle	first introduced as a flower girl in Act One. She is known as Liza, Eliza and Miss Doolittle.
Professor Higgins	a well respected linguist who studies phonetics. He documents different dialects and ways of speaking.
Alfred Doolittle	Eliza's father who first appears in Act Two.
Colonel Pickering	a friend of Professor Higgins. A colonel and an academic who studies dialects.
Mrs. Eynsford Hill	a wealthy friend of Mrs. Higgins.
Clara Eynsford Hill	Mrs Eynsford Hill's daughter.
Freddy Eynsford Hill	Clara's brother.
Mrs. Higgins	Henry Higgins' mother.
Mrs. Pearce	Henry Higgins' housekeeper



Symbolism

Clothing: Throughout the play, clothing reflects the social status of characters. For example, Higgins's slippers represent his class as well as his disregard for Eliza. As a symbol, clothing represents Eliza's metamorphosis from flower girl to lady, and Doolittle's rise from dustman to gentleman.

Flower shop: The flower shop represents the dream that drives Eliza to Higgins's laboratory. It is the dream for which she is willing to transform herself.

Mirror: Eliza's glimpse in the mirror reveals to her the need for a change, and the results of the bath prove that change is possible. Thus, the mirror symbolizes self-awareness and identity.

Key Vocabulary	
Class	A system of ordering society whereby people are divided into sets based on perceived social or economic status
Social Hierarchy	The order in which society categorise its people into rankings of socioeconomic tiers based on factors like wealth, income, race, class, education, and power.
Meritocracy	A society governed by people selected according to merit
Patriarchy	A system of society of government in which men hold the power and women are largely excluded from it.
Misogyny	A dislike of, contempt for, or ingrained prejudice against women.

Key Terms	
Satire	The use of humour to expose, ridicule and criticise people's foolishness, stupidity or vices.
Linguistics	The scientific study of language and its structure, including the study of grammar, syntax, and phonetics.
Accent	A distinctive way of pronouncing a language, especially one associated with a particular country, area, or social class.
Dialect	A particular form of a language which is used by people in a specific region or social group
Received Pronunciation	The standard accent of standard English in the United Kingdom.

Key Quotes

1. *He's no right to take away my character. My character is the same to me as any lady's.* – Eliza
2. *You see this creature with her kerbstone English: the English that will keep her in the gutter to the end of her days. Well, sir, in three months I could pass that girl off as a duchess at an ambassador's garden party.* – Professor Higgins
3. *A woman who utters such depressing and disgusting sounds has no right to be anywhere—no right to live.* - Professor Higgins
4. "I sold flowers. I didn't sell myself. Now you've made a lady of me I'm not fit to sell anything else." - Liza Doolittle
5. *Well, the matter is, sir, that you can't take a girl up like that as if you were picking up a pebble on the beach.* – Mrs Pearce

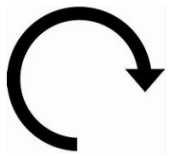
Maths Year 8 Spring Term REFLECTION AND ROTATION

$x = 1$

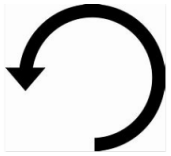
Key Concepts

A **reflection** creates a mirror image of a shape on a coordinate graph. The mirror line is given by an equation eg. $y = 2, x = 2, y = x$. The shape does not change in size.

A **rotation** turns a shape on a coordinate grid from a given point. The shape does not change size but does change orientation.



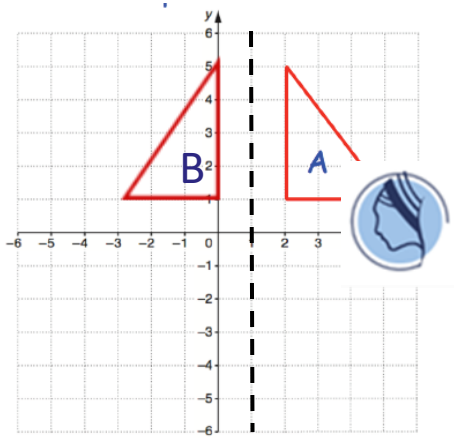
Clockwise



Anticlockwise

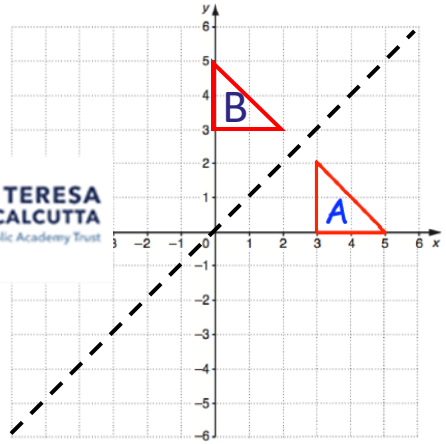
Examples

Reflect shape A in the line $x = 1$. Label it B.



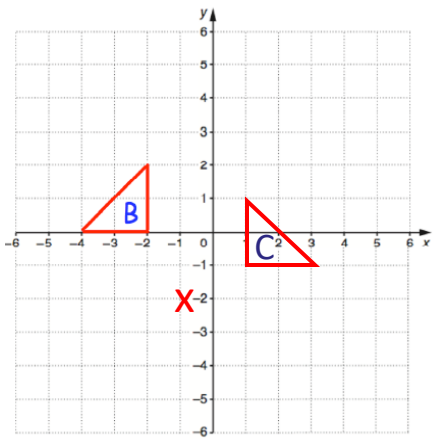
$x = 1$

Reflect shape A in the line $y = x$. Label it B.



$y = x$

Rotate shape B from the point (-1, -2)



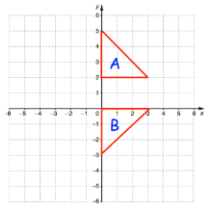
MATHSWATCH

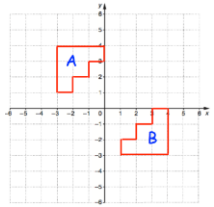
G4a, G4b, G6, G7

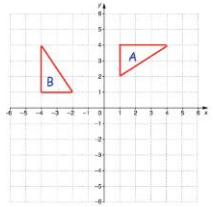
Key Words

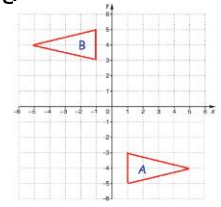
Rotate
Clockwise
Anticlockwise
Centre
Degrees
Reflect
Mirror image

Describe the **single** transformation you see on each coordinate grid from A to B:









ANSWERS: a) reflection, $y = 1$ b) reflection $y = x$ c) rotation, centre (0,0), 90° anticlockwise d) rotation, centre (0,0), 180°

Maths Year 8 Spring Term TRANSLATION AND ENLARGEMENT

Key Concepts

A **translation** moves a shape on a coordinate grid. Vectors are used to instruct the movement:

$\begin{pmatrix} x \\ y \end{pmatrix}$

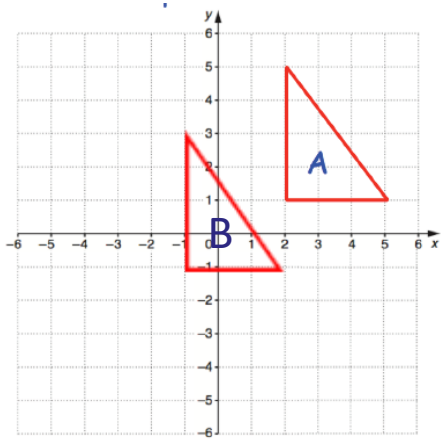
Positive-Right
Negative - Left

Positive-Up
Negative - Down

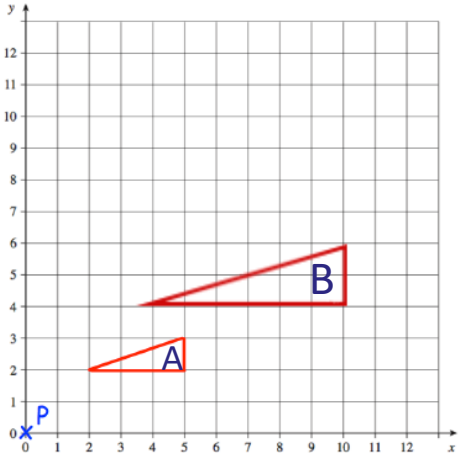
An **enlargement** changes the size of an image using a scale factor from a given point.

Examples

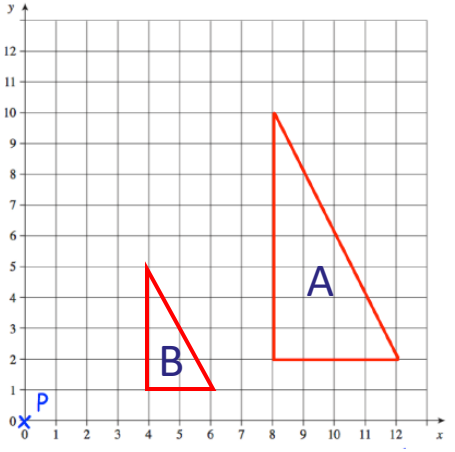
Translate shape A by $\begin{pmatrix} -3 \\ -2 \end{pmatrix}$. Label it B



Enlarge shape A by scale factor 2 from point P.



Enlarge shape A by scale factor $\frac{1}{2}$ from point P.



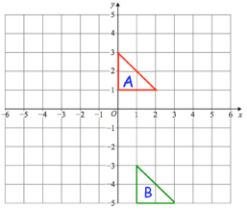
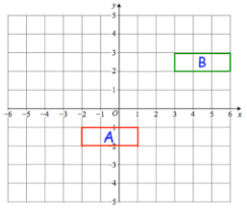
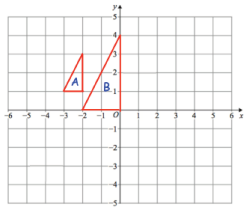
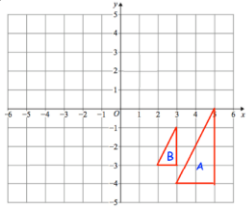
MATHSWATCH

G5, G28

Key Words

Translation
Enlargement
Scale factor
Centre
Positive
Negative

Describe the **single** transformation you see on each coordinate grid from A to B:

ANSWERS: a) translation $\begin{pmatrix} 1 \\ -6 \end{pmatrix}$ b) translation $\begin{pmatrix} 5 \\ 4 \end{pmatrix}$ c) enlarge, centre (-4,2) scale factor 2
d) enlarge, centre (1,-2) scale factor $\frac{1}{2}$

Maths Year 8 Spring STRAIGHT LINE GRAPHS AND EQUATION OF A LINE

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Key Concepts

Coordinates in 2D are written as follows:

x is the value that is to the left/right

(x, y)

y is the value that is to up/down

Straight line graphs always have the equation:

$$y = mx + c$$

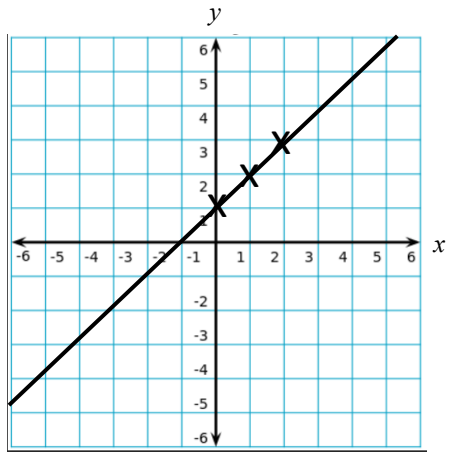
m is the **gradient** i.e. the steepness of the graph.

c is the **y intercept** i.e. where the graph cuts the y axis.

Parallel lines always have the same **gradient**.

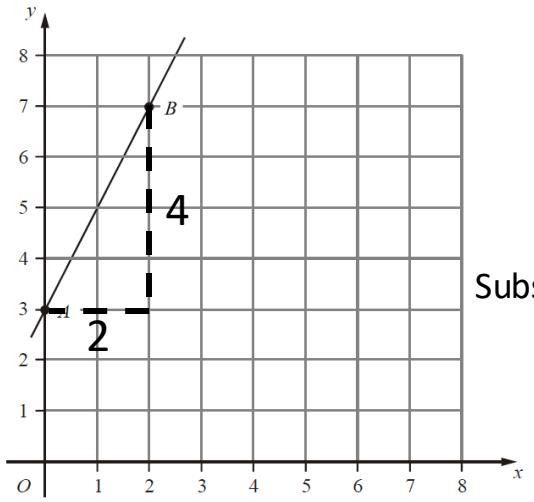
Plot the graph of $y = 2x + 1$

x	0	1	2
y	1	2	3



Examples of lines parallel to this graph are: $y = 2x - 3$ or $y = 2x + 7$

Examples



Calculate the equation of this line:

$$y = mx + c$$

$$m = \frac{4}{2}$$

$$= 2$$

$$y = 2x + c$$

Substitute in a coordinate: (2,7)

$$7 = (2 \times 2) + c$$

$$3 = c$$

$$y = 2x + 3$$

MATHSWATCH

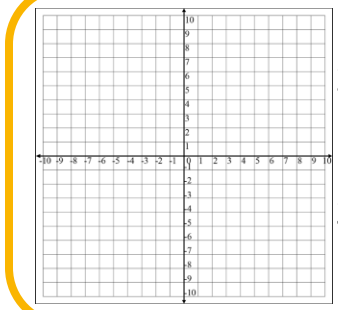
A14a, A14b, A14c

Key Words

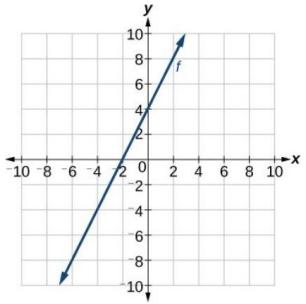
Coordinate

Gradient

Parallel



1) Plot the line $y = 3x - 2$
2) Find the equation of the line for the attached graph.
3) State the equation of a line that would be parallel to this line.



ANSWERS: 2) $y = 2x + 4$ 3) Any line that has a gradient of 2

Maths Year 8 Spring TYPES OF DATA AND GRAPHS

Key Concepts

Discrete data: data that can be categorised into a classification, there are a finite number of classifications.
E.g. Hair colour, shoe size, number of children in a class.

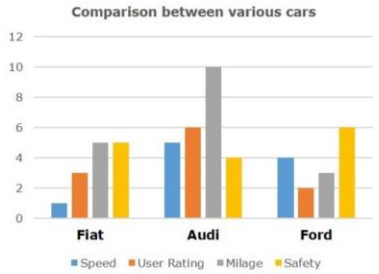
Continuous data: data that can take any value. Data that is measured.
E.g. Height, weight, time.

Qualitative data: data that describes something.
E.g. Race, ethnicity.

Quantitative data: data that is in numerical form.
E.g. Statistics, percentages, time.

Examples

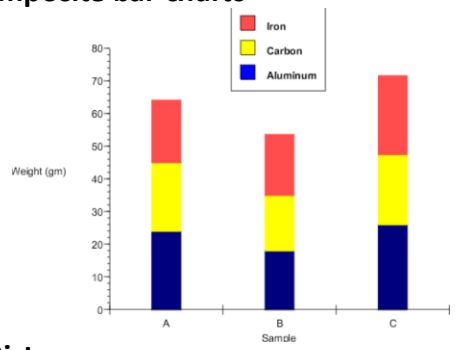
Comparative bar charts



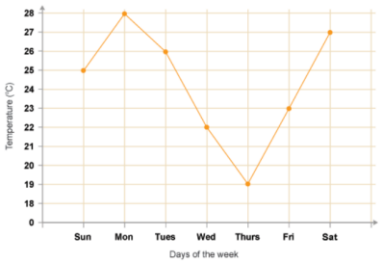
Tally charts

Colour	Tally	Frequency
Red	𝍸 𝍸 | | |	13
Blue	𝍸 | | | |	9
White	𝍸 𝍸 𝍸 𝍸 | | | |	24
Black	𝍸 𝍸 | |	12
Other	𝍸 | | | |	9

Composite bar charts

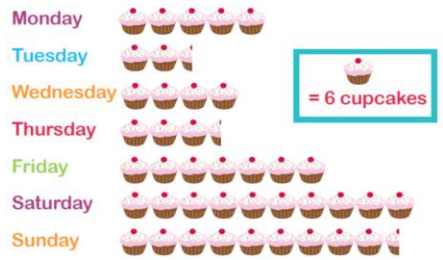


Line graphs



Pie charts

Pictograms



MATHSWATCH

A21a, A21b

Key Words

Data
Discrete
Continuous
Qualitative
Quantitative
Graph

What types of data is each of the following?

1) Number of goals scored in a match
2) Eye colour
3) Time it takes to run 100m
4) Length of a car
5) Number of pets a person owns

ANSWERS: 1) Discrete, quantitative 2) Discrete, qualitative 3) Continuous, quantitative
4) Continuous, quantitative 5) Discrete, quantitative

Science Year 8 Spring Term Biology: Photosynthesis

Photosynthesis

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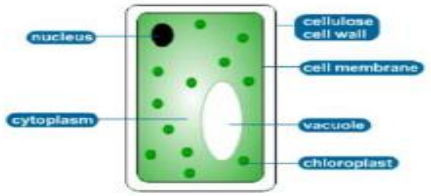
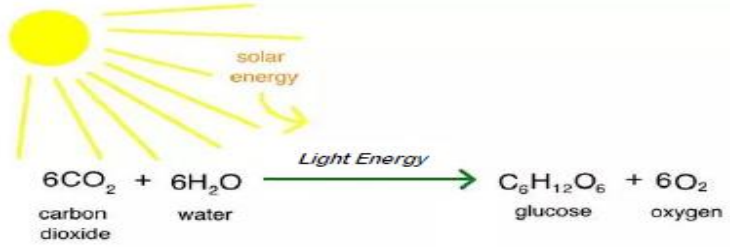
Keyword	Definition
Photosynthesis	Process carried out where plants make their own food. Carbon Dioxide + Water → Glucose + Oxygen
Chlorophyll	Green pigment in chloroplasts of plant cells. It enables photosynthesis to take place.
Chloroplasts	Contain the green pigment chlorophyll; the site of photosynthesis.
Waxy Cuticle	Waxy layer, prevents water loss.
Upper Epidermis	Thin and transparent allowing light to pass through.
Palisade Mesophyll	Main region for photosynthesis. Lots of palisade cells containing lots of chloroplasts.
Spongy Mesophyll	Cells are more loosely packed. Contains air spaces between cells allowing gas exchange.
Lower Epidermis	Contains stomata to regulate the loss of water vapour (transpiration)
Stomata	Each stomata surrounded by a pair of guard cells. Guard cells control whether they're open or closed.
Petals	Brightly coloured to attract insects.
Stamen	The male part of the flower (each consist of an anther held up on a filament)
Stigma	The top of the female part of the flower which attracts pollen.
Anthers	Produce make sex cells (pollen grains)
Ovary	Produces the female sex cells (contained in the ovules)
Nectary	Produce a sugary solution called nectar, which attracts insects.

Green plants and algae do not eat food to get their energy, Instead they make their own food by a process called photosynthesis.
Photosynthesis takes place inside plant cells within the chloroplasts.
Below shows a diagram of a plant cell.



Chloroplasts contain a green pigment called chlorophyll. This absorbs light energy needed for photosynthesis to occur.

Plants use the raw materials; Carbon Dioxide and Water. With the presence of light energy from the sun, the raw materials are converted into Glucose and Oxygen.



This plant is deficient in nitrate ions.
There is poor grown and yellow leaves.
Nitrate ions are needed to build proteins and to help the plant grow.

This plant is deficient in phosphate ions.
Phosphate ions are needed to ensure good root growth.

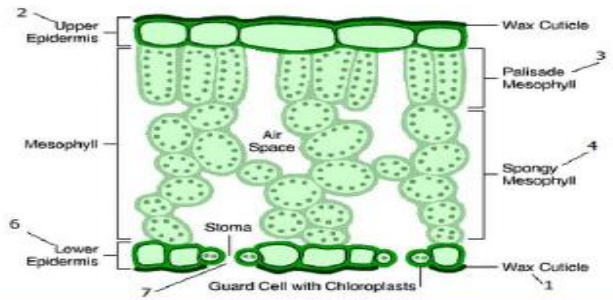
The leaves are starting to turn purple.

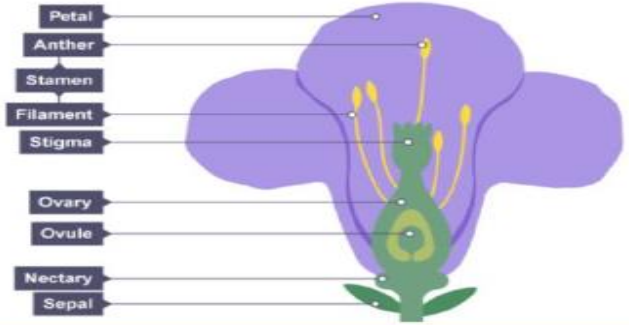
This plant is deficient in Magnesium ions.
Yellow leaves start to form, so rate of photosynthesis is reduced.
Magnesium ions are needed for photosynthesis.

This plant is deficient in Potassium ions.
Potassium ions are needed for making flowers and fruit.

The leaves are turning yellow, with dead spots.

The Leaf Structure





Science Year 8 Spring Term Biology: Respiration

Respiration

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Keyword	Definition
Respiration	Process in living things which oxygen is used to release the energy from food. Glucose + Oxygen → Carbon Dioxide + Water (+energy)
Aerobic Respiration	Respiration that requires oxygen.
Anaerobic Respiration	Respiration without oxygen.
Lactic Acid	A chemical produced during anaerobic respiration
Mitochondria	Structures in the cytoplasm of all cells where aerobic respiration takes place.
Oxygen Debt	The amount of extra oxygen required by the body for recovery after vigorous exercise.
Alveoli	Tiny air sacs in the lungs, where gas is exchanged during breathing.
Bronchi	Branches off the trachea that distribute air to both lungs.
Bronchioles	Branches of the bronchi, that distribute the inhaled air throughout all of the lungs.
Diaphragm	Expands and moves down so lungs have room to fill with air – inhalation. Contracts and moves upwards to force air out of the lungs (exhalation).
Lung	Soft organ that inflates to draw in oxygenated air and deflates to expel air.
Trachea	Windpipe, air passes between mouth and lungs.

Aerobic Respiration

Respiration is a series of reactions that takes place in the cells of animals and plants.
Energy is released in the reaction. The mitochondria, found in the cell cytoplasm, is where respiration happens.

Glucose + Oxygen → Carbon Dioxide + Water (+energy)

$C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O$

'Energy' is in brackets because it is not a substance. This type of respiration, where oxygen is used, is known as aerobic respiration. Oxygen (from breathing) is carried from the lungs to all the cells of the body in the blood. The waste products (carbon dioxide and water) are taken away from the cells by the blood and breathed out from the lungs.

Anaerobic Respiration

Although anaerobic respiration does release some energy, it does not release as much as aerobic respiration does.

Glucose → Lactic Acid (+energy)

The lactic acid produced during anaerobic respiration builds up in muscles. This can be felt as an aching in muscles during or after exercise.

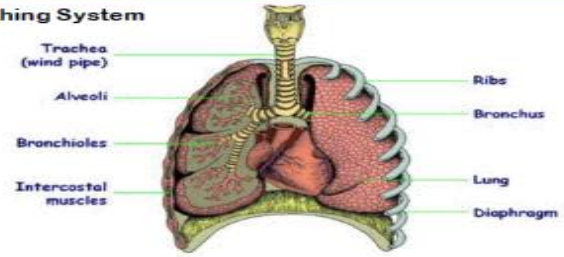
Anaerobic Respiration In Microbes

Anaerobic respiration happens in microorganisms such as bacteria because they need to release energy from glucose. Yeast (unicellular fungi), carry out a process called fermentation.

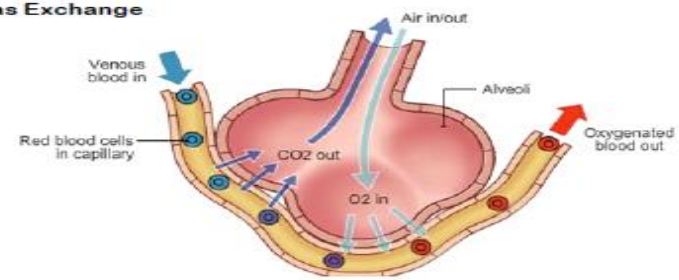
Glucose → Ethanol + Carbon Dioxide

The ethanol (alcohol) is useful for brewers, and carbon dioxide is useful to bakers because it helps their bread rise.

The Breathing System



Gas Exchange



The alveoli are adapted to make gas exchange in the lungs happen easily and efficiently.

- Alveoli give the lungs a large surface area.
- Alveoli have think cells walls (just one cell thick)
- Alveoli are surrounded by lots of blood capillaries.

The gases move by diffusion from where they have a high concentration to a lower concentration.

Oxygen diffuses from the air in the alveoli into the blood.
Carbon dioxide diffuses from the blood into the air in the alveoli.

Asthma and Respiration

Air passage for people who are asthmatic become reduced.

This is why they often struggle during exercise as there is reduced volume of oxygen getting into the blood stream, so rate of respiration is reduced.

Science Year 8 Spring Term Physics: Magnetism

KS3 Knowledge Organiser: Magnetism and Electromagnets

Key Words:

Magnet: An object that attracts iron, cobalt and nickel

Attract: To move towards something

Repel: To move away from something

Magnetic force: The force exerted between magnets or a magnet and a magnetic material

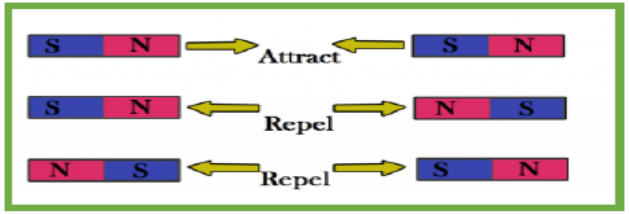
Magnetic pole: Magnets have a north and a south pole. Like poles repel but opposite poles attract.

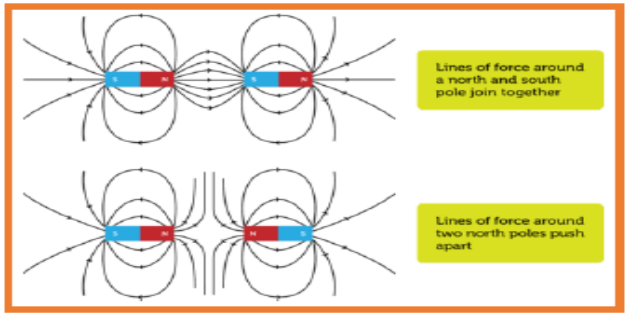
Magnetic field: A region around a magnetic material or a moving electric charge within which the force of magnetism acts.

Core: The piece of iron forming the central inner portion of an electromagnet.

Permanent Magnet: A magnet that retains its magnetic properties in the absence of an inducing field or current.

Electromagnet: A soft metal core made into a magnet by the passage of electric current through a coil surrounding.

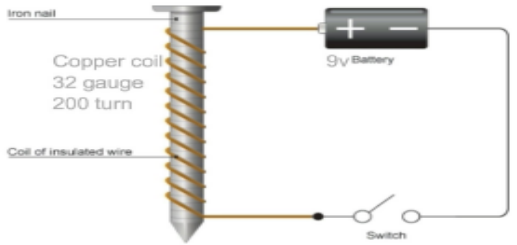




We can pass an electrical current through a wire.
This creates a magnetic field. We call this an electromagnet

Making Electromagnets:

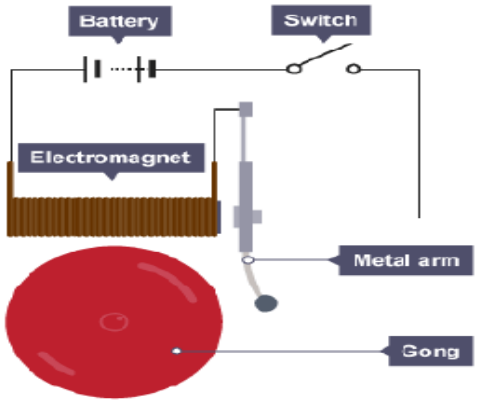
Use a power supply to provide an electrical current to the circuit.
Run the current through a coil of metal wrapped around a piece of iron.
When the current flows the coil will become magnetized.
To turn the magnet off, turn the power supply off.



Permanent Magnets	Electromagnets
Always magnetised	Magnetism can be turned on and off
Made from a magnetic material	Magnetism is created by passing current through a wire
Constant strength of magnetism	Strength of magnetism can be varied
Doesn't get hot	Gets hot
Not affected by power failure	Turns off if power fails

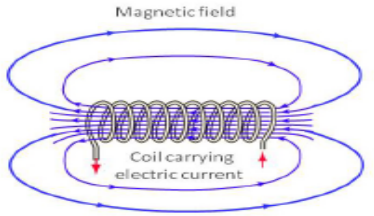
Electric Bells:

When off the metal arm is away from the gong of the bell. When the electromagnet is turned on it attracts the springy metal arm towards the gong. Here is hits the gong and makes a sound. This movement breaks the circuit and turns off the electromagnet. The arm moves away from the gong as it is not being attracted by the electromagnet. The circuit is reset and ready to go again



Electromagnets can be made stronger by:

- Increasing the number of coils in the wire
- Adding an iron core
- Increasing the current through the wire



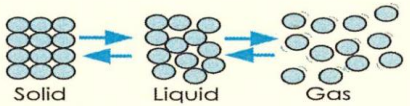
Science Year 8 Spring Term: Chemistry: Changing Substances

C2.2 Knowledge Organiser

Science Mastery

Chemical and Physical Changes

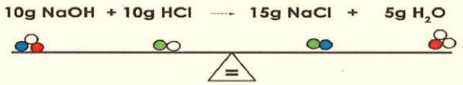
1. A **chemical change** produces a new substance whereas in a **physical change** no new substance is produced.
2. A chemical change is **irreversible** whereas a physical change is **reversible**.
3. Melting, evaporating, condensing, freezing and sublimation are examples of **physical changes** because they only change the *state* (solid, liquid or gas) of the substance.
4. These processes only change the energy that each particle has (how much it moves) and not its arrangement or properties (e.g. its boiling or melting point).



5. A chemical change can be identified if there is a change in colour or temperature, or if the reaction produces light.
6. In a chemical change, a new substance (or product) is always made.

Chemical Reactions

7. A chemical change can also be called a chemical reaction.
8. The number and type of atoms do not change in a chemical change and are only rearranged.
9. The total overall mass is **conserved** in a chemical change (the mass of the reactant is equal to the mass of the products).
10. Every reactant atom will become a product atom.
11. Extra atoms cannot be made, and atoms cannot disappear.



Reactions of Metals with Oxygen

12. Metals react with oxygen to produce metal oxides.
13. The general equation is: Metal + oxygen → Metal oxide
14. Example 1: Copper + oxygen → copper oxide
15. Example 2: Lithium + oxygen → lithium oxide
16. These reactions are oxidation reactions because the metals gain oxygen
17. **Reduction** is the loss of oxygen
18. **Oxidation** is the gain of oxygen
19. **Exothermic** reactions transfer energy **to** the surroundings
20. **Endothermic** reactions take in energy **from** the surroundings

Reactions of Metals with Acid

21. Acids react with some metals to produce salts and hydrogen
22. Metal + acid → salt + hydrogen
23. This can be remembered by MASH: **M**etal + **A**cid → **S**alt + **H**ydrogen
24. Example 1: Copper + Hydrochloric acid → copper chloride + hydrogen
25. Example 2: Sodium + Nitric Acid → sodium nitrate + hydrogen

Reactions of Acids with Alkalis, Bases and Metal Carbonates

C2.2 Knowledge Organiser

Science Mastery

26. Acids are **neutralised** by alkalis (e.g. soluble metal hydroxides) and bases (e.g. insoluble metal hydroxides and metal oxides) to produce salts and water,
27. Acid + alkali → salt + water
28. Acid + base → salt + water
29. Acids are neutralised by metal carbonates to produce salts, water and carbon dioxide.
30. Acid + metal carbonate → salt + water + carbon dioxide
31. The particular salt produced in any reaction between an acid and a base or alkali depends on the acid and metal in the base, alkali or carbonate
32. Hydrochloric acid produces chloride salts, nitric acid produces nitrate salts, and sulfuric acid produces sulfate salts

Acid	Salt produced
Hydrochloric Acid	Chloride
Sulfuric Acid	Sulfate
Nitric Acid	Nitrate

33. Example 1: **Hydrochloric Acid** + sodium hydroxide → sodium **chloride** + water
34. Example 2: **Sulfuric Acid** + sodium chloride → sodium **sulfate** + water
35. Example 3: **Nitric Acid** + sodium hydroxide → sodium **nitrate** + water
36. Example 4: **Hydrochloric Acid** + sodium carbonate → sodium **chloride** + water + carbon dioxide
37. Example 5: **Nitric Acid** + sodium carbonate → sodium **nitrate** + water + carbon dioxide
38. Example 6: **Sulfuric Acid** + sodium carbonate → sodium **sulfate** + water + carbon dioxide

Tests for Gases

39. The **test for hydrogen** uses a burning splint held at the open end of a test tube of the gas. Hydrogen burns rapidly with a squeaky pop sound.
40. The **test for carbon dioxide** uses a solution of calcium hydroxide (limewater).
41. When carbon dioxide is shaken with or bubbled through limewater the limewater turns milky (cloudy)

RE Year 8 Spring Vocation and Prayer

Key Words: (AT1)
Church 1. a building for Christian religious activities: 2. an official Christian religious organization
Vocation a divine call to God's service or to the Christian life.
Laity the ordinary people who are involved with a church but who do not hold official religious positions.
Ordain to officially make someone a priest or other religious leader, in a religious ceremony

Different Christian Vocations

Laity	Ordained	Religious Life
• Baptised • Confirmed • Holy Communion • Catholic Schools • Marriage • Bring their children up as Catholic • Give money to charity • Help others • Caring career • Attend Mass	• Priest • Bishop • Devote their life to God • Cannot marry • Spread the word of God • Visit the sick, elderly and people in prison • Mass • Sacraments • Pray for the needs of others	• Nun • Monk • Cannot Marry • Devote their life to God • Spread the word of God • Visit the sick, elderly people in prison • Pray for the needs of others • Attend Mass

Aids to prayer

The Altar 

The Tabernacle 

The Statue of St. Monica 

The Intentions board 

The Stations of the Cross 

The Holy Water Stoop 

The Lectern 

Why is prayer important?

- To communicate with God
- To be closer to God
- To be forgiven
- To thank God
- To ask for help for yourself or others
- To strengthen the community and bring people together
- It brings comfort
- Jesus taught us to pray, we are following his example

Match up the type of prayer to why it is useful for Catholics

Pair discussion

Adoration	*Helps them get things into perspective and be thankful for their life.*
Thanksgiving	*Makes them feel like they are helping the less fortunate and inspire them to practically help.*
Confession	*Helps a person not to be selfish, to realise they depend on others and not take things for granted.*
Supplication	*Helps them face their feelings, relieves their sin and they learn from their mistakes.*

SOURCE OF WISDOM: **'You will pray to him, and he will hear you, and you will fulfill your vows.'** John 22:27

Key words: ACTS
Adoration: A prayer of love to God.
Confession: Saying sorry and asking for forgiveness
Thanksgiving: A prayer thanking God for something
Supplication: Asking God for help for yourself or for somebody else

History Year 8 Spring Term: The Industrial Revolution

Key Words Glossary	
Industrial Revolution	A dramatic change in the way things were made. This was a time when factories replaced farming as the main form of business in Britain. It is sometimes used to describe the changes in population, transport, cities and so on in the period 1750-1900.
Invention	Something new which is created, can be an idea or an object.
Factory System	The system were people worked in factories to produce goods in large numbers. It replaced the Domestic System.
Domestic System	The system where people worked in their homes or small workshops rather then in factories.
Cholera	An infectious and often fatal bacterial disease of the small intestine typically contracted from infected water supplies and causing severe vomiting and diarrhoea.
Spinning Jenny	This was a machine created in 1764 which made the production of thread quicker and therefore cheaper.

Main Changes

- ❑ There was a move away from water and wind power to steam engines.
- ❑ There was a revolution in transport and communication, away from canals and pack horses, to railways and the telegraph.
- ❑ In 1750, only about 15% of the population lived in towns. By 1900 it was 85% This meant that there were far more people around to work in new industries.
- ❑ By 1900, London had 4.5 million inhabitants. The biggest other towns were Glasgow with 760,000 inhabitants and Liverpool with 685,000. Manchester and Birmingham had more than half a million people.

Knowledge	
Factory conditions	**Long working hours**: normal shifts were usually 12-14 hours a day, with extra time required during busy periods. Workers were often required to clean their machines during their mealtimes. **Low wages**: a typical wage for male workers was about 15 shillings (75p) a week, but women and children were paid much less, with women earning seven shillings (35p) and children three shillings (15p). **Cruel discipline:** there was frequent "strapping" (hitting with a leather strap). Other punishments included hanging iron weights around children's necks, hanging them from the roof in baskets, nailing children's ears to the table. **Fierce systems of fines:** these were imposed for talking or whistling, leaving the room without permission, or having a little dirt on a machine. **Accidents:** forcing children to crawl into dangerous, unguarded machinery led to many accidents. Up to 40 per cent of accident cases at Manchester Infirmary in 1833 were factory accidents. **Health:** cotton thread had to be spun in damp, warm conditions. Going straight out into the cold night air led to many cases of pneumonia. The air was full of dust, which led to chest and lung diseases and loud machine noise damaged workers' hearing.
Living Conditions	**Pollution:** coal was used to heat houses, cook food and heat water to produce steam to power machines in factories. The burning of coal created smoke, which led to terrible pollution. **Overcrowding:** due to large numbers of people moving to the cities, there were not enough houses for all these people to live in. Low wages and high rents caused families to live in as small a space as possible. Sometimes whole families lived in one room. **Disease:** typhus, typhoid, tuberculosis and cholera all existed in the cities of England. Cholera reached England for the first time in 1830, and there were further major epidemics in 1832 and 1848. Overcrowding, housing of a low standard and poor quality water supplies all helped spread disease.

History Year 8 Spring Term : The British Empire

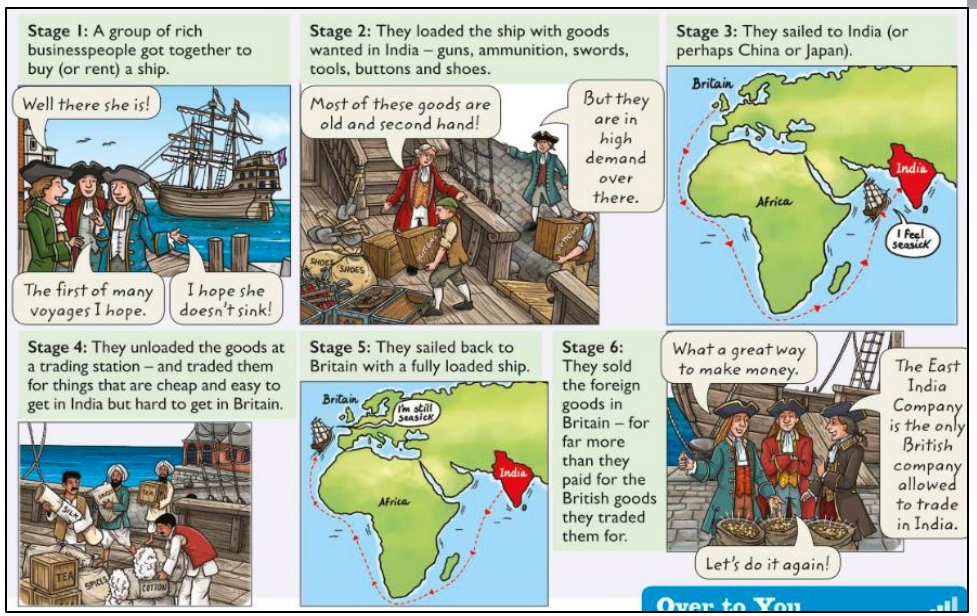
Key Words Glossary	
Colony	A country that is part of an Empire. India was a colony of Britain.
Sikh	One of the religions of India – Sikhism. Sikhs were part of the Sepoy rebellion.
Muslim	One of the religions of India – following Islam. Muslims were part of the Sepoy rebellion. Islam was introduced by the Mughals.
Sepoys	The Indian soldiers who had an uprising against the British army.
Jewel in the Crown	This is how people refer to India as it brought Britain lots of money and power.
Mughal Emperors	Muslims that invaded India in the early 1500s. Akbar united many Indian states and it was a peaceful time until the rule of Aurangzeb.
Robert Clive	At the Battle of Plassey in 1757, Robert Clive led the East India Company to victory over Prince Sirajud-Doaulah and control on Bengal.

Key Events Glossary	
1756-1763	The Seven Years War between Britain and France. Often referred to as the first global war.
1612	The East India Company first starts to trade.
1850	By this date most of India was controlled by the British.
1857	Sepoy Rebellion results in more control from Britain in India.
1858-1947	The British Raj – period of British rule in India

So why did Britain want an empire?

The four main reasons why Britain wanted an empire were:

1. to get valuable raw materials and riches (such as diamonds, gold, spices, sugar and tea that were found in other countries)
2. so it could sell goods to the people in the colonies and make money
3. to become a more powerful country
4. because it thought it was the right thing to do.



Sepoy Rebellion and The Raj

On the **10th May 1857**, a few of the 200,000 Indian soldiers called Sepoys working for the British shot dead a number of British soldiers. This is known as the **Indian Mutiny** or **the War of Independence**. The rebellion eventually ended in July 1858.

After the mutiny, the British government took over full responsibility for running India from the East India Company. A new government department, the India Office, was set up in 1858 and a viceroy put in charge of India.

Geography Year 9 Spring Term - Why are biomes brilliant?

What do I need to know?	
What is an ecosystem?	
How does energy move around an ecosystem?	
What are the characteristics of a TRF?	
Why are rainforests under threat?	
How do plants and animals adapt to their environment?	
How did I collect data at Chester Zoo?	
How can I analyse my fieldwork data?	
What are the UK ecosystems?	
How are people changing Savannah Grasslands?	

Skills to develop
Fieldwork skills Data presentation and analysis

What is an ecosystem?

An ecosystem is a community of plants and animals sharing an environment. They can be small such as ponds or large called biomes

Where do we find biomes?

Every location on the planet is within a biome. This is often determined by climate and/or altitude. Examples: tropical rainforest, tundra, desert and deciduous forest.

How does energy move around an ecosystem?

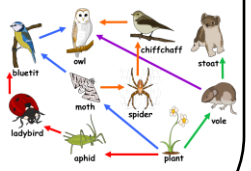
Energy is moved between living organisms through the food chain.

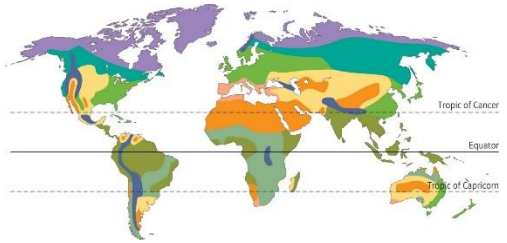
Producer: Plants that produce their own energy through photosynthesis

Consumers: Feed off other living organisms e.g. herbivores, carnivores and omnivores.

A food web is made up of many food chains

When one part of the food web is altered, it can impact the rest of the food web. This can cause some species to die out and others to thrive.

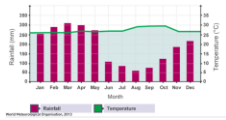




Tropical Rainforests (TRF)

Tropical rainforests are found in a continuous band north and south of the equator. They are found in South America, Asia and Africa.

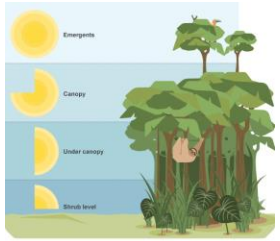
The climate is hot all year round and has wet and dry seasons. This causes high biodiversity



Characteristics of TRF

There are 4 layers of the TRF. Each receives less light than the layer above it. Plants compete to reach sunlight.

Each layer has different features with different animals living in each one.



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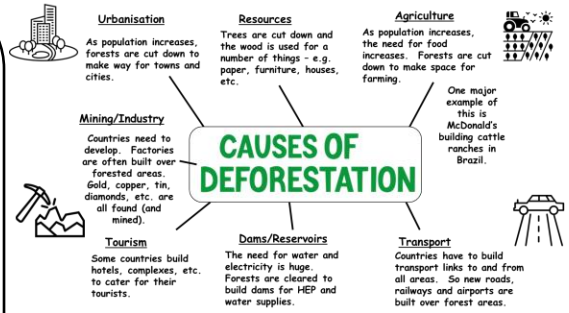
Geography Year 9 Spring Term – Why are biomes brilliant?

Key Words	
Biome	A biome is a very large ecosystem e.g. Tropical Rainforest.
Sustainable	Meeting the needs of people today and in the future, while limiting harm to the environment.
Desertification	The process by which fertile land becomes desert, typically as a result of drought, deforestation, or inappropriate agriculture.
Adapt	When someone or something adjusts themselves to different conditions or environments.
Decomposition	The breakdown of dead organic matter (plants and animals) by living organisms
Afforestation	The opposite of deforestation. If trees are cut down, they are replaced to maintain the canopy.
Abiotic	Non-Living items in an ecosystem such as rocks soil and water.
Biotic	The living parts of an ecosystem.
Mangroves	A shrub or tree that grows in coastal waters
Tundra	Treeless regions found in the Arctic and on the tops of mountains, where the climate is cold and windy, and there is little rainfall
Food chain	A series of organisms each dependent on the next as a source of food.

What are the impacts of deforestation?

It can cause local and global effects:

1. Soil erosion: the removal of plants can wash soil away
2. Loss of biodiversity: habitats lost when trees removed.
3. Climate change: less evaporation and CO2 removed
4. Economic development: Cattle ranches and other settlements have been abandoned due to poor soil on previous rainforest areas



How are plants and animals adapted?

Plants and animals may have to adapt to: soil quality, temperature, precipitation, competition, protection

This can be done by:
Camouflage, hard shells, flight, horns, poison, strength, long roots, large leaves, tall trees, special features

What are the UK's ecosystems?

Moorland: Rough grasslands, peat bogs, used for shooting grouse

Woodland: Of UK land area 12% is woodland, is ancient forest and 80% is less than 100 years old.

Wetlands: Low-nutrient, water logged soils, vita habitat for birds and insects

Heathlands: Some are dry, some marshy, lots of rare species

Chester Zoo Fieldwork

Hypothesis: Does Chester Zoo manage tourism effectively?

Methods:

1. Environmental Quality: to assess success of facilities put in place for tourists (presented as a radar graph)
2. Pedestrian count: to assess the busiest locations in the zoo. (presented as proportional flow lines)

How are people changing Savannah grasslands?

Dry all year round. Located around tropics.

At risk of **desertification** due to population growth, deforestation, over grazing and CC.

People are combatting this by: reducing livestock, stone lines and the great green wall

Spanish Year 8 Spring Term: Food and Drink

Viva 2 Modulo 3 ¡A comer! Knowledge Organiser

Opinion phrases

Me gusta (n) mucho = I really like
Me encanta (n) = I love
No me gusta (n) nada = I really don't like
Odio = I hate
Prefiero = I prefer

Food & Drink

El agua = water
El arroz = rice
La carne = meat
Los caramelos = sweets
La fruta – fruit
Las hamburguesas = hamburgers
Los huevos = eggs
La leche = milk
El marisco = seafood
El pescado = fish
El queso = cheese
Las verduras = vegetables

¿Qué desayunas? – What do you have for breakfast?

Desayuno = For breakfast I have
Cereales = cereal
Churros = churros (sweet friters)
Tostadas = toast
Yogur = yoghurt
Café = coffee
Cola-cao = ColaCao (a popular Spanish chcocolate drink)
Té = tea
Zumo de naranaja = orange juice
No desayuno nada = I don't have anything for breakfast

¿Qué comes? – What do you have for lunch?

Un bocadillo = a sandwich

¿Qué cenas? = What do you have for dinner?

Ceno = For dinner I have
Patatas fritas = chips
Pollo con ensalada = chicken with salad

¿A qué hora desayunas / comes / cenas? – What time do you have breakfast / lunch / dinner?

Como a las dos = I have lunch at 2.00
Ceno a las nueve = I have dinner at 9.00

En el restaurante

Buenos días = Good Day, Good Morning
¿Qué va a tomar (usted) = What are you going to have? (Singular)
¿Qué van a tomar (ustedes)? = What are you going to have (plural)
¿Y de Segundo? = And for main course?
¿Para beber? = To drink?
¿Algo más? = Anything else?
Voy a tomar = I'll have
De primer plato = as a starter
De Segundo plato = for main course
De postre = for desseert

En el restaurante

Tengo sed = I'm thirsty
Tengo hambre = I'm hungry
nada más = nothing else
La cuenta por favor = The bill please

Scan these 2 QR Codes for Videos about ordering food and drink in a café / restaurant in Spanish

Spanish Year 8 Spring Term: Talking about what we do

Viva 2 Modulo 4 ¿Qué hacemos? Knowledge Organiser

¿Te gustaría ir al cine? / Would you like to go to the cinema?

¿Te gustaría ir...? = Would you like to go...?
a la bolero = to the bowling alley
a la cafetería = to the café
al centro comerical = to the shopping centre
al museo = to the museum
al parque = to the park
a la psta de hielo = to the ice rink
al polideportivo = to the sports centre
¿Te gustaría venir a mi casa? = Would you like to come to my house
¿Quieres salir? = Do you want to go out?

Reacciones / Reactions
De acuerdo = All right
Vale = OK.
Muy bien = Very good
¡Genial! = Great!
Sí, me gustaría mucho = Yes, I'd like that very much
¡Ni hablar! = No way!
¡Ni en sueños! = Not in your wildest dreams
No tengo ganas = I don't feel like it
¡Qué aburrido! = How boring!

Excuses
Tengo que... = I have to....
Cuidar a mi hermano = look after my brother
Hacer los deberes = do my homework
Lavarme el pelo = wash my hair
Ordenar mi dormitorio = tidy my room
Pasear el perro = walk the dog
Salir con mis padres = go out with my parents
No tengo dinero = I have no money
No quiero = I don't want to
No puede salir = He /she can't go out

¿Dónde quedamos? = Where do we meet up?
Al lado de la bolero = next to the bowling alley
Delante de la cafeteria = in front of the café
Detrás del centro commercial = behind the shopping centre
Enfrente del polideportivo = opposite the sports cenre
En tu casa = at your house

¿A qué hora? = At what time?
A las... = At...
Seis = six o'clock
Seis y cuarto = quarter past six
Seis y media = half past six
Siete menos cuarto = quarter to seven
Siete menos diez = ten to seven

Scan the QR codes for videos on "Telling the Time" in Spanish

Having a debate & High Frequency Words
Estoy de acuerdo = I agree
Con tu madre / padre = with your mother / father
Con tus padres = with your parents
Contigo = with you
En mi opinion, tienes rázon = In my opinion, you're right
¿Tú qué opinas? = What do you think?
Por eso = for this reason
Por supuesto = of course
¡Lo pasé fenomenal! = I had a fantastic time
Este / esta / estos / estas = this / these
Demasiado/a = too much
Demasiados / as = too many

Year 8 Spring Term Topic 2: Indigenous 3D Card relief

Glossary

Artist: Eduaro Paolozzi

Native American, Indigenous, ancient Art and Totem Pole, Animal meanings, symbolism, Graphite, scale, proportion, the distortion, composition, collage, concepts, colour, recording, observational drawing

Helpful Links to Videos:

https://www.youtube.com/watch?v=uxNDKlh-Vjo
https://www.youtube.com/watch?v=by3NxI0dA6w
https://www.youtube.com/watch?v=c8idY2LdxHQ
https://www.youtube.com/watch?v=N_0Dn7BaLcI

What is the meaning of native in art?
Indigenous arts are **art created by the original people to inhabit a land**

"I like to make use of everything. I can't bear to throw things away - a nice wine bottle, a nice box. Sometimes I feel like a wizard in Toytown, transforming a bunch of carrots into pomegranates."

Surrealism and Cubism
Influenced Paolozzi in the way he continued to

pair disparate imagery and disjointed forms and mechanical representation of modern-day life

Food, Nutrition and Health Year 8 Spring Term

- Seneca Online Learning - AQA Food and Nutrition - Class code: b797g0nf2i
- https://www.foodafactoflife.org.uk/
- BBC Food
- Food Standards Agency - https://www.food.gov.uk/food-safety
- https://www.ifst.org/lovefoodlovescience
- https://www.nutrition.org.uk/
- https://quizlet.com/240309265/gcse-food-preparation-nutrition-keywords-flash-cards/

Key Knowledge

1. Protein is required by the body for growth, maintenance and repair.
2. Fats can be classified as either saturated and unsaturated.
3. Saturated fats are considered to be more harmful to health because they raise levels of cholesterol.
4. Carbohydrate provides the body with energy.
5. Vitamins are micronutrients, required in small amounts to do essential jobs in the body.
6. Water makes up two thirds of the body so it is vital to drink regularly to stay hydrated.
7. Energy balance is the balance of energy consumed through eating and drinking compared to energy burned through physical activity.

Quick Test (Use the internet to research your answers)

1. What are the functions of fat in the diet?
2. Give some examples of foods containing protein.
3. Why is a good supply of vitamins and minerals needed in a teenagers diet
4. What does Calcium do in our diet?
5. Which nutrient provides energy?
6. Describe what a balanced diet is.

Glossary of Keywords

Research the Key Words below and write an explanation for each

- **Balanced diet**

_____
_____
_____

- **Nutrients**

_____
_____
_____

- **Deficiency**

_____
_____
_____

- **Excess**

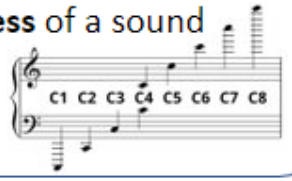
_____
_____
_____

- **Processed foods**

_____
_____
_____

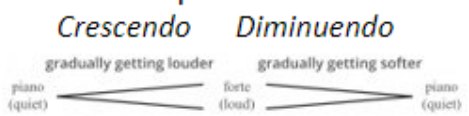
Year 8 Music Spring Term: Introduction to Film Music

Pitch: The **highness** or **lowness** of a sound



Tempo: The **speed** of a sound or piece of music

Dynamics: The **volume** of a sound or piece of music



Duration: The **length** of a sound

Texture: How much sound we hear

Silence: The opposite or absence of sound

Timbre: The unique sound quality of different instruments

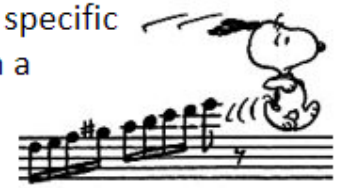
Articulation: How individual notes or sounds are played

LEGATO – playing notes in a long, smooth way shown by a SLUR.
STACCATO – playing notes in a short, detached, spiky way shown by a DOT.
ACCENT – playing a note with a sudden emphasis

Structure: How a piece of music is organised into different sections or parts

ACOUSTIC: makes a sounds naturally e.g acoustic guitar
ELECTRIC: makes a sounds using electricity e.g. electric guitar

Mickey Mousing: when the music fits precisely with a specific part of the action in a film e.g. cartoons)



Film Music is a type of **DESCRIPTIVE MUSIC** that represents a **MOOD, STORY, SCENE** or **CHARACTER**. It is designed to support the action and emotions of the film on screen.

Drone: A long, low held note

MAJOR: Sounds happy
MINOR: Sounds sad

Dissonance: Notes that clash and sound horrible together
Consonance: Notes that sound nice together

Foley Artist: a person who re-creates sounds for film, video, and other media in post-production to enhance audio quality

ENSEMBLE SKILLS

- Listen to each other
- Play in time & in tune
- Play in balance (not too loud/quiet)
- Express yourself
- Be confident
- Be organised
- Communicate with your group

Semitone: A half step on a keyboard, often black to white notes

Trill: rapid movement between 2 next door notes

Ostinato: A repeated pattern

Chromatic: When notes move in semitones

Watch

Computing Year 8 Spring Term: Graphics

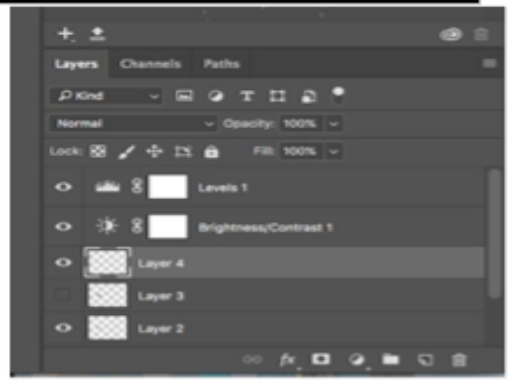
Quiz

Graphics

Graphic design is the art or skill of combining text and pictures in advertisements, magazines, or books.

Tools

Layers are used to change parts of an image

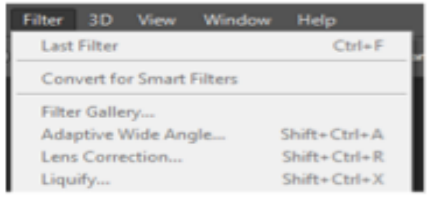


Magic Wand

Add text

Zoom

Spot Healing Tool



Key

Bitmap: An image made up of pixels. This type of image loses quality if its width and/or height are increased.

Vector: Vector graphics are based on mathematical relationships with control points that make up the image. Vectors are used for cartoon mages or logos

Pixel: One individual unit or dot which makes up an image

Editing: Changing the way an image looks

Composition: Different parts of images put together, putting images onto one image

Audience: Who your graphical work is designed for

Layout: How the page is set out

Mood board: A group images put together about a topic

Repurpose

This is changing or editing an image in some way. This could either be hanging the colour, making it black an white, adding things to an image or changing something within the image.

Bitmap v Vector

Bitmap images are real digital images they are made up of pixels which are tiny coloured dots.

Vector images are used for cartoon images and logos they are made by mathematical co-ordinates.

When a Bitmap image is resized it goes blurry when a vector image is resized the quality remains the same.

ST TERESA of CALCUTTA Catholic Academy Trust

Read

Computing Year 8 Spring Term 2: Computers

Quiz

Operating System

An operating system performs several functions in s computer:

- Multi-tasking
- Provides the user interface
- Security
- File Management
- Controls Peripherals

Examples: Windows, Android, IOS

Open Source

Advantages	Disadvantages
Free	Lacks features of paid for software
Can change the software to your liking	Projects could be buggy
Encourages sharing	No warranties or customer support if

Key

Hardware: The physical parts of the computer which you can touch they include mouse, printer and motherboard

Software: The programs that run on a computer, this might be PowerPoint, Word, Roblox or your internet browser Google Chrome

Memory: Memory is the area where the computer stores or remembers data. Memory provides the CPU with its instructions.

RAM: What's currently being used, Volatile memory

ROM: Used to boot up (start up) the computer, non volatile memory

Storage: Where you save your work

Operating Systems: Allows the computer to work together links the software and the hardware

Open Source Software: Free software where you get the code and can change the software

Storage

Magnetic- Hard Drive lots of storage

Optical- CD Uses Lasers portable, outdated now

Solid State- USB Flash Drive, portable has no moving parts

RAM V ROM

RAM is what is used when you have a number of documents open.

It is volatile so when the computer is turned off your work will be lost.

ROM is used when the computer is loading up it is non volatile so it doesn't change

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Year 8 Unit 2: Graphics - Iconic Product Design

Glossary

Iconic Design

An iconic design is usually a design that is '**ground breaking**' and one that sets new standards in its field. It is a design that other designers and manufacturers follow, as it becomes a bench mark for other similar products. Furthermore, an iconic design is one that stands up to the test of time, remaining a good design, despite the passing of years, decades and even centuries.

Jonathan Ive

James Dyson

Deiter Rams

Achille Castiglioni

What makes a brand iconic?

But for a brand to be truly iconic, it needs to reach out to its audience on multiple levels. The product or service needs a good tone of voice, tell a gripping story, evoke emotion, and be memorable. Some of the most successful and globally perceived brands have become iconic for positive reasons.

Marc Newson

Philippe Starck

Charles and Ray Eames

Iconic Designers

1. Jonathan Ive, UK
2. James Dyson, UK
3. Charles and Ray Eames, USA
4. Deiter Rams, Germany
5. Achille Castiglioni, Italy
6. Marc Newson, Australia
7. Arne Jacobsen, Denmark
8. Marcel Breuer, Hungary
9. Giorgetto Giugiaro, Italy
10. Philippe Starck, France
11. Karim Rashid, USA
12. Zaha Hadid, Iraq
13. Frank Lloyd Wright, USA
14. Noto Fukasawa, Japan

Infographic examples

What is an infographic?

a visual representation of information or data displayed as a chart or diagram:

"a good infographic is worth a thousand words" ·

10 most influential Product Designers of all time - RTF | Rethinking The Future (re-thinkingthefuture.com)

Who are the 10 most influential Product Designers of all time? : DesignWanted

Year 8 Unit 3: Biomimicry, smart & modern materials

Glossary

BIOMIMICRY
Biomimicry is the art of mimicking nature. This means using naturally occurring features of plants and animals to inspire a material or product.

SMART MATERIALS
To be classed as a 'smart material' they need to exhibit a physical change in response to some external stimuli. Such as stress, moisture, electric or magnetic fields, light, temperature, pH, or chemical compounds. The change should be reversible.

MODERN MATERIALS
Modern materials are materials which have been modified and developed to improve their properties. This may include the method which the material is made to produce lighter materials with the same strength properties or coasting the material in a nanomaterial (very thin) to improve it's performance.

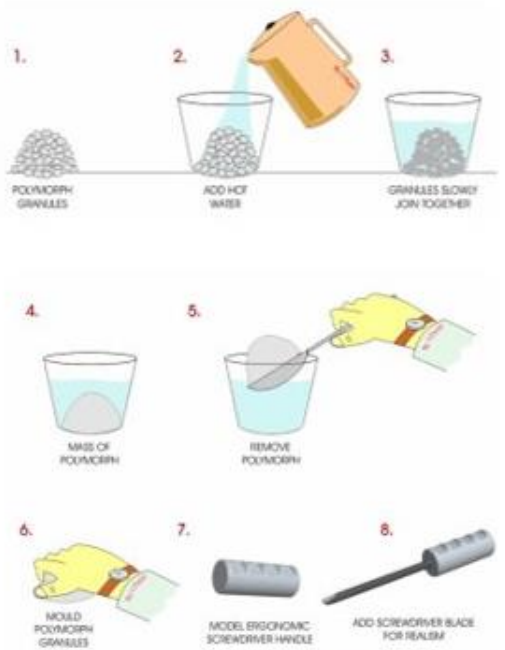
Using a Kingfisher's head and bill profile as inspiration, the redesigned Japanese bullet train created less drag and friction when travelling and didn't create a sonic boom on exiting tunnels.

The bone structure of a woodpecker is used as an inspiration for an ice pick.

Burrs have very tiny hooks on them. The Burrs stick to fur and clothing by hooking themselves onto the fibres. These tiny hooks are the inspiration behind Velcro.

SMART MATERIALS

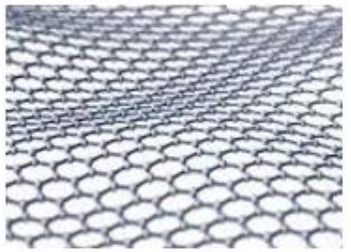
Polymorph is a thermoplastic material that can be shaped and reshaped any number of times. it is normally supplied as granules that look like small plastic beads. In the classroom it can be heated in hot water and when it reaches 62 degrees centigrade the granules form a mass of 'clear' material. When removed from the hot water it can be shaped into almost any form and on cooling it becomes as solid as a material such as nylon.
Although expensive, polymorph is suitable for 3D modelling as it can be shaped by hand or pressed into a shape through the use of a mould.



Flexible MDF is made in a similar way to standard MDF except grooves are cut across the board. This process allows the MDF to be bent yet still regains it's strength. Very popular to create more 'organic' shapes.

MODERN MATERIALS

Cornstarch Polymers- an alternative to fossil fuel-based polymers. Cornstarch polymers are biodegradable and becoming more and more popular with manufacturers for their packaging. They are not recyclable but they are biodegradable.



Graphene, discovered and developed at the University of Manchester, is the thinnest, strongest and most conductive material known. It is ultra thin layer of graphite just one atom thick.

Nanomaterials are exceptionally thin materials. The are used in electronics to improve conductivity and allow the production of very small components. In the textiles industry they can add protective coatings to improve water resistance, UV protection and improve anti-bacterial protection in footwear.

Smart materials - Developments in new materials - AQA - GCSE Design and Technology Revision - AQA - BBC Bitesize

Year 8: Physical Education

Developing and embedding skills

- Expectations
- Standards
- Skills/technique refinement

Health Related Fitness - Benefits of Physical Activity

- Methods of Training
- Components of Fitness
- Anatomy Vocabulary
- Power, Agility & Muscular Endurance

Dance

- Knowledge of techniques, styles and forms.
- Pupil led choreography, inter form competition

Sports/Activities taught

Netball
Football
Hockey
Handball
Cricket
Rounders
Basketball
Table Tennis
Badminton

Strategies to overcome opponents in competitive sport (Games)

- Teamwork
- Rules & regulations
- Sport specific skills whilst moving

Develop techniques and improve performance in other competitive sport. (Individual)

- Athletics: Fosbury Flop High Jump
- Gymnastics: Vaulting
- Trampolining: Basic Agilities

Outdoor & Adventurous Activities

- Team building
- Problem solving
- Oracy & Communication Skills
- Intellectual challenge

Wider Curriculum Competitive Sports & Activities

- Extra Curricular
- Inter-form
- Sports Day
- Community Links
- School trips

- Desire to Improve: assessments will demonstrate
- Improvements to achieve your personal best.
- Evaluation of Performance (peer & self assessment).
- Commitment, Resilience & Respect across the learning journey.

Mental wellbeing

Glossary

Mental Wellbeing Mental wellbeing describes your mental state - how you are feeling and how well you can cope with day-to-day life. Our mental wellbeing is dynamic. It can change from moment to moment, day to day, month to month or year to year.

Emotional Literacy The ability to understand and express feelings. Emotional Literacy involves having self-awareness and recognition of one's own feelings and knowing how to manage them.

Primary Emotions There are 5 primary emotions but over 600 words in the English language for different emotions. The primary emotion groups are: 1. Joy 2. Anger 3. Sadness 4. Disgust 5. Fear

Mental Illness Mental illnesses comprise of a broad range of problems, with different symptoms. However, they are generally characterized by some combination of abnormal thoughts, emotions, behaviour and relationships with others. They can only be diagnosed by a Doctor or Mental Health Professional

Signs of poor mental wellbeing

Erratic changes in mood and behaviour
Distancing from friends and family.
Loss of interest in things that they used to be interested in.
Excessive sleeping or not sleeping
Increased alcohol consumption.
Poor concentration and being easily distracted
Finding it hard to make decisions
Feeling overwhelmed by things & tearfulness
Finding it difficult to control your emotions
Irritability and short temper or aggression

The importance of positive relationships

Connecting with others can help us to feel a greater sense of belonging and can help to challenge feelings of loneliness.
Make time for the people you love. Keeping regular contact with friends and family, whether it's face-to-face, on the phone or by text, can strengthen your relationships.
Join a group. Think of the things you like to do, such as drawing, gardening or sport and look for local groups. Meeting others with a shared interest can increase your confidence and build your support network.
Talk about the way you feel. Opening up to a trusted friend or family member can help you to feel listened to and supported. Just acknowledging your feelings by saying them out loud can help.
Use peer support. If you're finding things difficult, talking to people who have similar feelings or experiences can help you to feel accepted

Things that can affect our mental wellbeing

Everyone is different and what affects someone's mental wellbeing won't necessarily affect others in the same way. Everyone will have times when they have low mental wellbeing, where they feel stressed, upset or find it difficult to cope. Common life events that can affect your mental wellbeing include:

- loss or bereavement
- loneliness
- relationship problems
- issues at work
- worry about money

However there are times when there is no discernible reason for the way a person feels which can be extremely frustrating. There are some factors that may make people more vulnerable to experiencing a period of poor mental wellbeing. These may have happened in the past or might still be happening now:

- Childhood abuse, trauma, violence or neglect
- Social isolation or discrimination
- Homelessness or poor housing
- A long-term physical health condition
- Social disadvantage, poverty or debt • Unemployment
- Caring for a family member or friend
- Significant trauma as an adult, such as military combat, being involved in a serious accident or violent crime

Signs of good mental wellbeing

- **Feeling relatively confident in yourself and have positive self-esteem**
- **Feeling and express a range of emotions**
- **Building and maintaining good relationships with others**
- **Feel engaged with the world around you**
- **Live and work productively**
- **Cope with the stresses of daily life**
- **Adapt and manage in times of change and uncertainty**

Where to get more help and support

- Parents and trusted family.
- School Staff and Wellbeing Team
- Your Doctor or Practice Nurse
- MIND - https://www.mind.org.uk Help line - 0300 123 3393 open 9am to 7pm, Monday to Friday or Text: 86463
- Young Minds - https://youngminds.org.uk Text: 85258 or Parents Helpline: 0808 802 5544
- Stem4 - https://stem4.org.uk/

Smoking and Vaping

Glossary

Nicotine - A toxic colourless or yellowish oily liquid which is the chief active constituent of tobacco. It acts as a stimulant in small doses, but in larger amounts blocks the action of autonomic nerve and skeletal muscle.

Vaping - The action or practice of inhaling and exhaling the vapour produced by an electronic cigarette or similar device.

Smoking - The action or habit of inhaling and exhaling the smoke of tobacco or a drug. Usually through Cigarettes or Cigars.

E-Cigarettes - E-cigarettes are electronic devices that heat a liquid and produce an aerosol or mix of small particles in the air. Which is then inhaled

Effects Of Nicotine

Nicotine is both a sedative and a stimulant.

When a body is exposed to nicotine, the individual experiences a "kick." This is partly caused by nicotine stimulating the adrenal glands, which results in the release of adrenaline.

This surge of adrenaline stimulates the body. There is an immediate release of glucose, as well as an increase in heart rate, breathing activity, and blood pressure. Indirectly, nicotine causes the release of dopamine in the pleasure and motivation areas of the brain.

Smoking and the Law

- You must be over 18 to buy cigarettes in the UK. If you're under 16 the police have the right to confiscate your cigarettes.

It's illegal:

- For shops to sell you cigarettes if you are underage
- For an adult to buy you cigarettes if you are under 18
- To smoke in all public enclosed or substantially enclosed area and workplaces.
- To smoke in a car with a child.

Vaping and the Law

- You must be 18 or over to purchase e-cigarettes or eliquids in the UK. It also became illegal for an adult to buy e-cigarettes for someone under the age of 18.
- Although there is no legal restriction on where you can vape in the UK there are local laws and bylaws in force that prohibit the practice. The choice of whether or not to allow vaping is that of the property owner.
- Vaping generally is not allowed on the underground, planes, buses or trains and train stations in the United Kingdom.
- Vaping while you drive may not seem like such a big deal but it could land you with up to nine penalty points and a fine of £2,500.

Who Can you turn to for help and Support

Parents or trusted family members	School Safe Guarding Team or any member of staff.
Your GP or Practice Nurse.	
Smoke Free Future	https://smokefreefuture.co.uk
NHS – Stop Smoking	https://www.nhs.uk/live-well/quitsmoking
Smoke Free	https://smokefree.gov/

How do E-Cigarettes Work

E-cigarettes produce an aerosol by heating a liquid that usually contains nicotine, flavourings, and other chemicals that help to make the aerosol.

The liquid used in e-cigarettes often contains nicotine and flavourings. This liquid is sometimes called "e-juice," "e-liquid," "vape juice," or "vape liquid."

Users inhale e-cigarette aerosol into their lungs. Bystanders can also breathe in this aerosol when the user exhales it into the air. E-cigarette aerosol is NOT harmless "water vapor." The e-cigarette aerosol that users breathe from the device and exhale can contain harmful and potentially harmful substances, including:

- Nicotine
- Ultrafine particles that can be inhaled deep into the lungs
- Flavouring such as diacetyl, a chemical linked to a serious lung disease
- Volatile organic compounds
- Cancer-causing chemicals
- Heavy metals such as nickel, tin, and lead

It is difficult for consumers to know what e-cigarette products contain. For example, some e-cigarettes marketed as containing zero percent nicotine have been found to contain nicotine.