



ST TERESA
of **CALCUTTA**
Catholic Academy Trust

Knowledge Organisers

Year 8

Spring Term 2024

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.



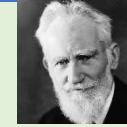
This knowledge organiser outlines the key information from your lessons this Spring term.

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

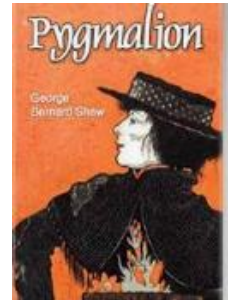


Context

- 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



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.

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



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.

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 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

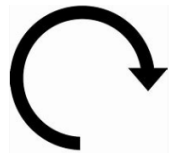


$$x = 1$$

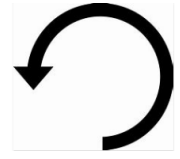
Key Concepts

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.



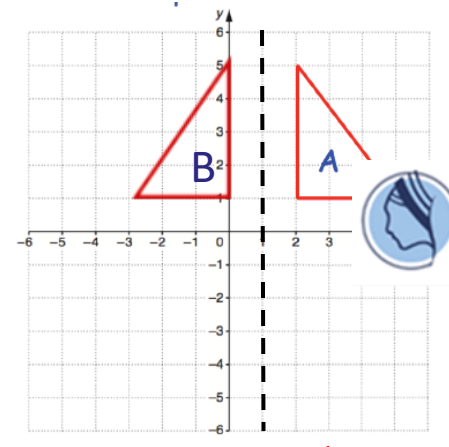
Clockwise



Anticlockwise

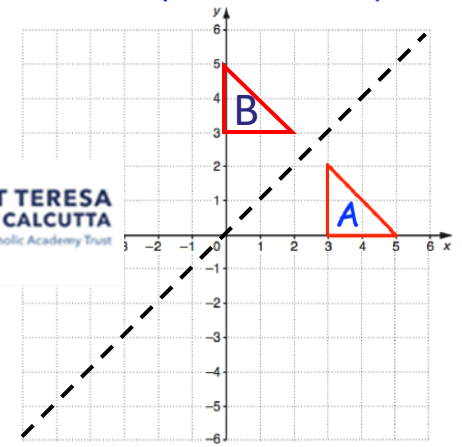
Examples

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



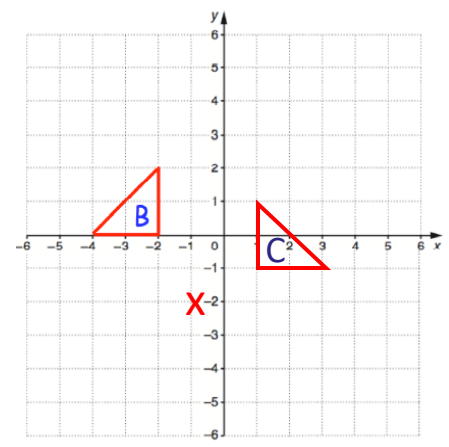
$$x = 1$$

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



$$y = x$$

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



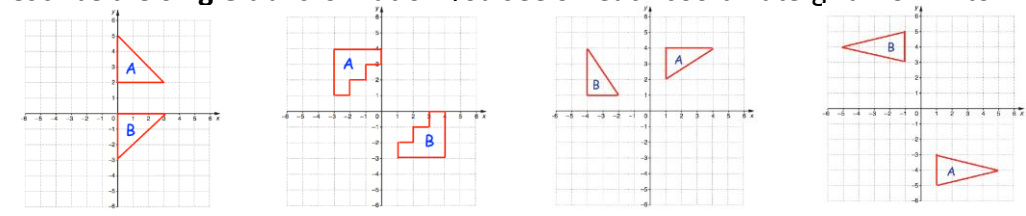
MATHSWATCH

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°



Key Concepts

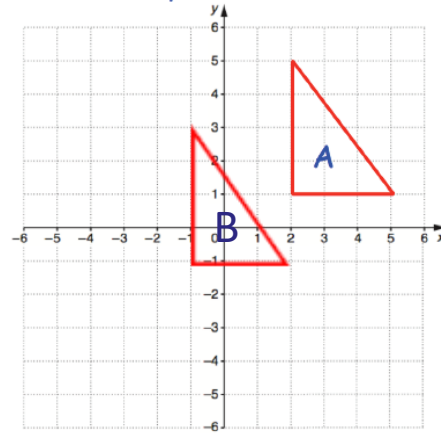
A **translation** moves a shape on a coordinate grid. Vectors are used to instruct the movement:

(x) → Positive-Right
 Negative - Left
 (y) → Positive-Up
 Negative - Down

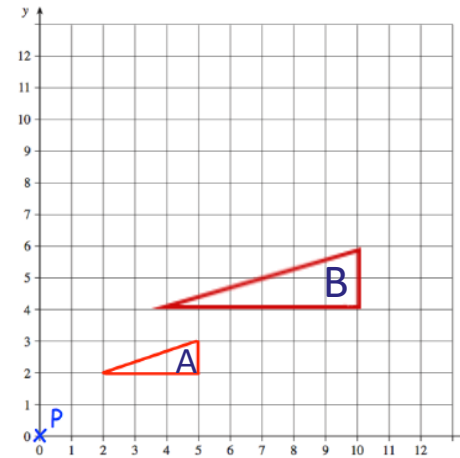
An **enlargement** changes the size of an image using a scale factor from a given point.

Examples

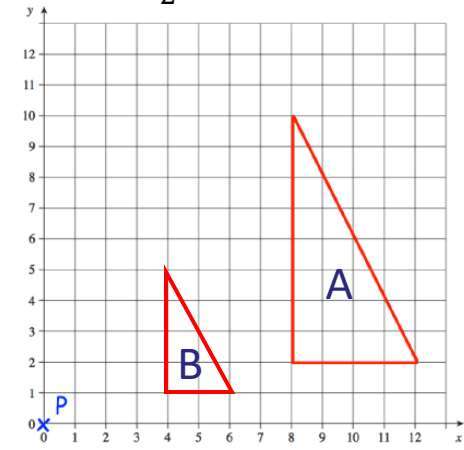
Translate shape A by $\begin{pmatrix} -3 \\ -2 \end{pmatrix}$.
Label it B



Enlarge shape A by scale factor 2 from point P.



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

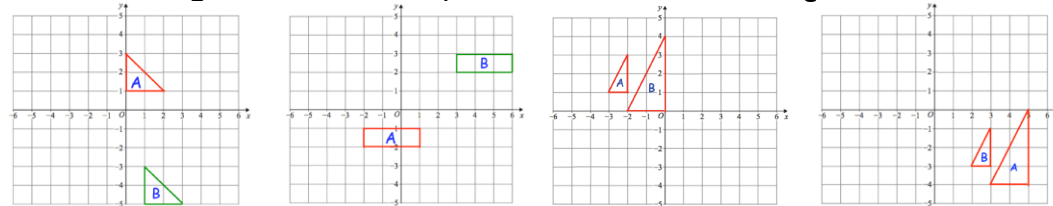


MATHSWATCH

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 $\begin{pmatrix} 4 \\ 5 \end{pmatrix}$ 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



Key Concepts

Coordinates in 2D are written as follows:

x is the value that is to the left/right
 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.

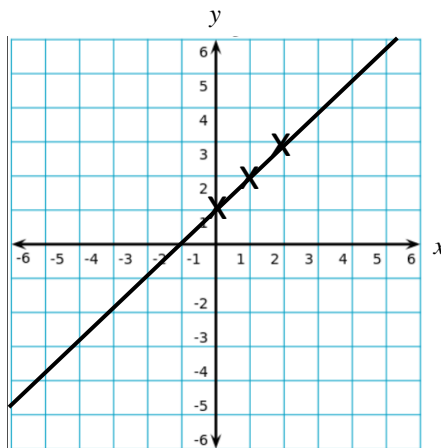
Parallel lines always have the same **gradient**.

MATHSWATCH

A14a, A14b, A14c

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:

$$y = mx + c$$

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

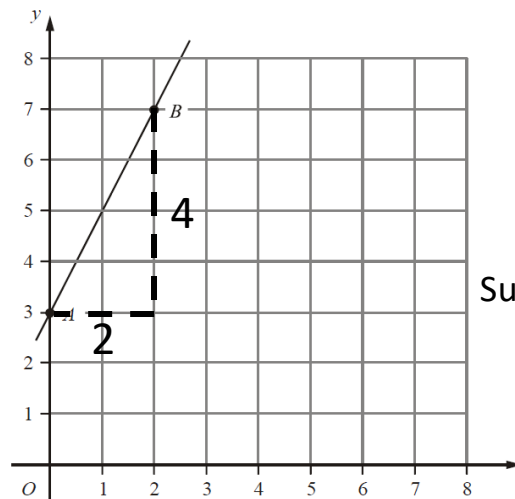
$$y = 2x + c$$

Substitute in a coordinate: (2,7)

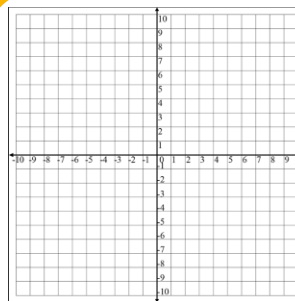
$$7 = (2 \times 2) + c$$

$$3 = c$$

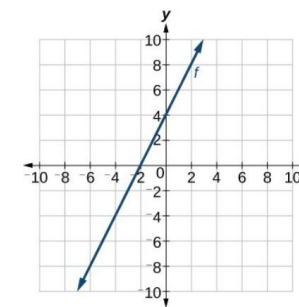
$$y = 2x + 3$$



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.





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.

MATHSWATCH

A21a, A21b

Key Words

Data

Discrete

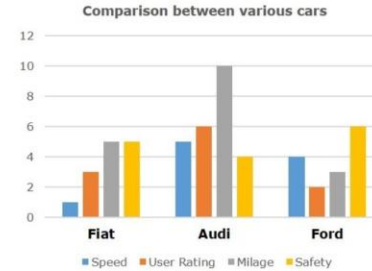
Continuous

Qualitative

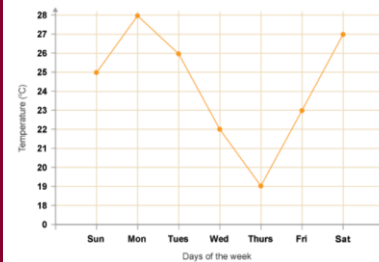
Quantitative

Graph

Comparative bar charts



Line graphs



Examples

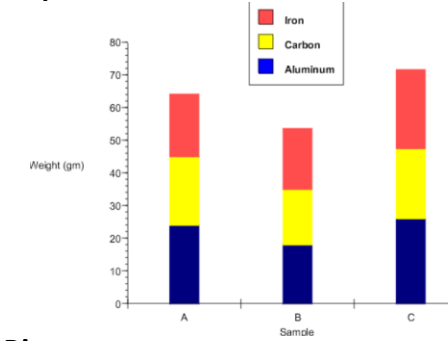
Tally charts

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

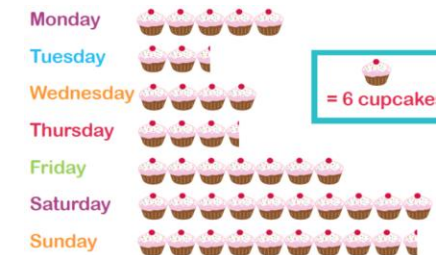
Pie charts



Composite bar charts



Pictograms



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

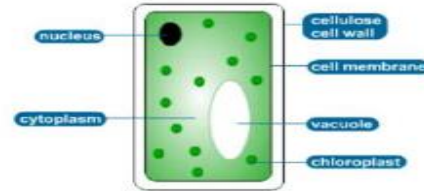
Science Year 8 Spring Term Biology: Photosynthesis

Photosynthesis

@TCL

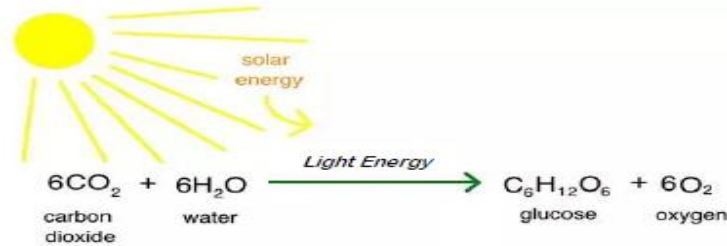
Keyword	Definition
Photosynthesis	Process carried out where plants make their own food. Carbon Dioxide + Water → Glucose + Oxygen
Chlorophyll	Green pigment in chloroplasts of plant cells. It enables photosynthesis to take place.
Chloroplasts	Contain the green pigment chlorophyll; the site of photosynthesis.
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 male 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 growth 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.



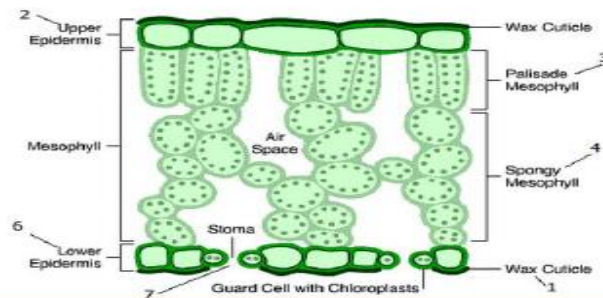
This plant is deficient in Magnesium ions. Yellow leaves start to form, so rate of photosynthesis is reduced. Magnesium ions are needed for photosynthesis.



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

©TCL

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)



'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

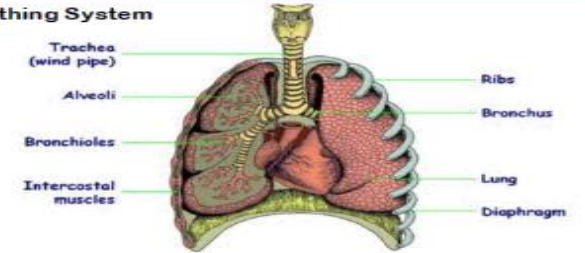
Anaerobic respiration happens in microorganisms such as bacteria because they need to release energy from glucose. Yeast (unicellular fungi), carry out a process called fermentation.

Glucose → Ethanol + Carbon Dioxide

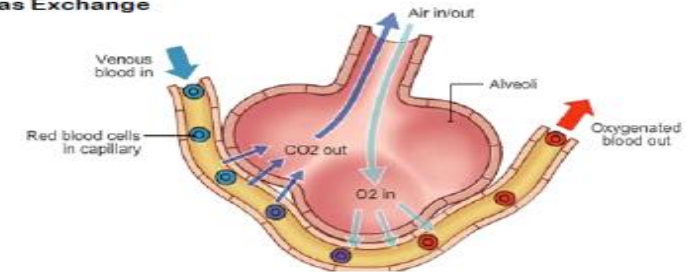
The ethanol (alcohol) is useful for brewers, and carbon dioxide is useful to bakers because it helps their bread rise.



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 thin cell 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

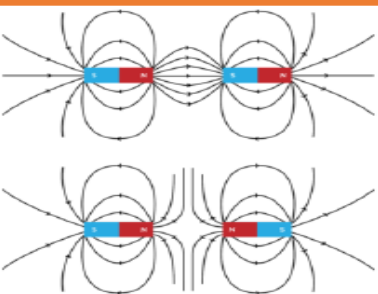
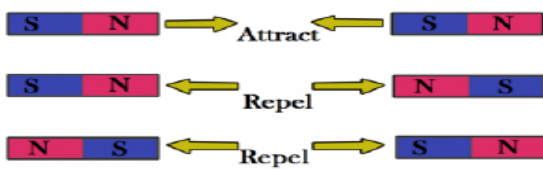
Magnetic pole: Magnets have a north and a south pole. Like poles repel but opposite poles attract.

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.

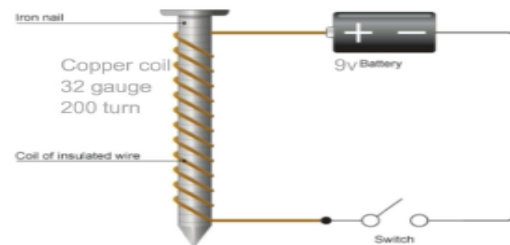


Lines of force around a north and south pole join together

Lines of force around two north poles push apart

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.



We can pass an electrical current through a wire.

This creates a magnetic field. We call this an electromagnet

Permanent Magnets

Always magnetised

Made from a magnetic material

Constant strength of magnetism

Doesn't get hot

Not affected by power failure

Electromagnets

Magnetism can be turned on and off

Magnetism is created by passing current through a wire

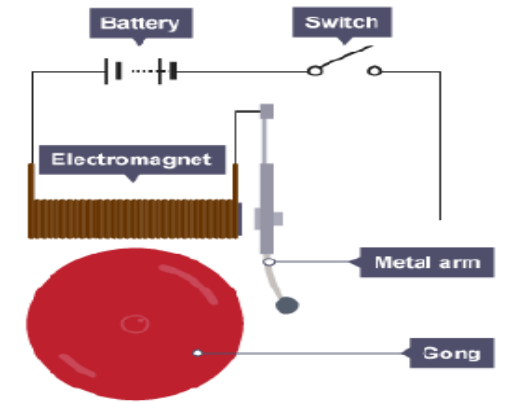
Strength of magnetism can be varied

Gets hot

Turns off if power fails

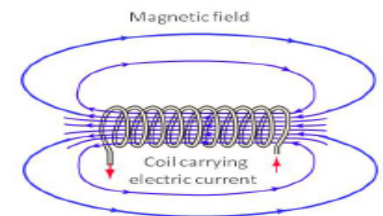
Electric Bells:

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 it 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



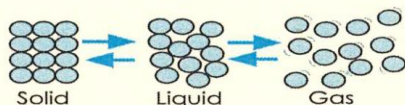
Science Year 8 Spring Term: Chemistry: Changing Substances

C2.2 Knowledge Organiser



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).

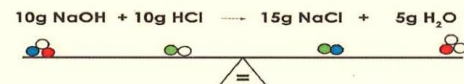


5. A chemical change can be identified if there is a change in colour or temperature, or if the reaction produces light.
6. In a chemical change, a new substance (or product) is always made.

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 \rightarrow Metal oxide
14. Example 1: Copper + oxygen \rightarrow copper oxide
15. Example 2: Lithium + oxygen \rightarrow 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 \rightarrow salt + hydrogen
23. This can be remembered by MASH: **M**etal + **A**cid \rightarrow **S**alt + **H**ydrogen
24. Example 1: Copper + Hydrochloric acid \rightarrow copper chloride + hydrogen
25. Example 2: Sodium + Nitric Acid \rightarrow sodium nitrate + hydrogen

Reactions of Acids with Alkalis, Bases and Metal Carbonates

C2.2 Knowledge Organiser



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 \rightarrow salt + water
28. Acid + base \rightarrow salt + water
29. Acids are neutralised by metal carbonates to produce salts, water and carbon dioxide.
30. Acid + metal carbonate \rightarrow 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

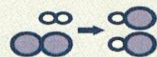
Acid	Salt produced
Hydrochloric Acid	Chloride
Sulfuric Acid	Sulfate
Nitric Acid	Nitrate

33. Example 1: **Hydrochloric Acid** + sodium hydroxide \rightarrow sodium **chloride** + water
34. Example 2:

35. Example 3: **Nitric Acid** + sodium hydroxide \rightarrow sodium **nitrate** + water
36. Example 4: **Hydrochloric Acid** + sodium carbonate \rightarrow sodium **chloride** + water + carbon dioxide
37. Example 5: **Nitric Acid** + sodium carbonate \rightarrow sodium **nitrate** + water + carbon dioxide
38. Example 6: **Sulfuric Acid** + sodium carbonate \rightarrow 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



ST TERESA
of CALCUTTA
Catholic Academy Trust

Different Christian Vocations

Laity	Ordained	Religious Life
<ul style="list-style-type: none"> Baptised Confirmed Holy Communion Catholic Schools Marriage Bring their children up as Catholic Give money to charity Help others Caring career Attend Mass 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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

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

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

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



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

Pair discussion

Adoration

Thanksgiving

Confession

Supplication

Helps them get things into perspective and be thankful for their life.

Makes them feel like they are helping the less fortunate and inspire them to practically help.

Helps a person not to be selfish, to realise they depend on others and not take things for granted.

Helps them face their feelings, relieves their sin and they learn from their mistakes.

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

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

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 where 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 than 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	
<input type="checkbox"/>	There was a move away from water and wind power to steam engines.
<input type="checkbox"/>	There was a revolution in transport and communication, away from canals and pack horses, to railways and the telegraph.
<input type="checkbox"/>	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.
<input type="checkbox"/>	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).

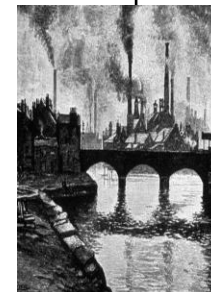
Cruel discipline: there was frequent "strapping" (hitting with a leather strap). Other punishments included hanging iron weights around children's necks, hanging them from the roof in baskets, nailing children's ears to the table.

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.

Stage 1: A group of rich businesspeople got together to buy (or rent) a ship.

Stage 2: They loaded the ship with goods wanted in India – guns, ammunition, swords, tools, buttons and shoes.

Stage 3: They sailed to India (or perhaps China or Japan).

Stage 4: They unloaded the goods at a trading station – and traded them for things that are cheap and easy to get in India but hard to get in Britain.

Stage 5: They sailed back to Britain with a fully loaded ship.

Stage 6: They sold the foreign goods in Britain – for far more than they paid for the British goods they traded them for.

The comic includes illustrations of a ship, a trading station, and a map of the Indian Ocean region. A speech bubble from a character in Stage 6 says: "The East India Company is the only British company allowed to trade in India." Another speech bubble says: "Let's do it again!"

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 8 Spring: 'What Happens Where the Land Meets the Sea?'

What do I need to know?

What is a coast?

How are waves formed?

How does the sea erode the land?

What landforms are caused by erosion?

What is longshore drift?

What landforms are caused by deposition?

How do we protect our coastline?

How is Hembsy protecting our coastline?

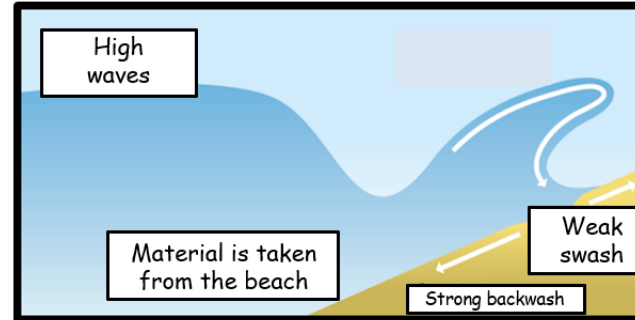
Skills to develop



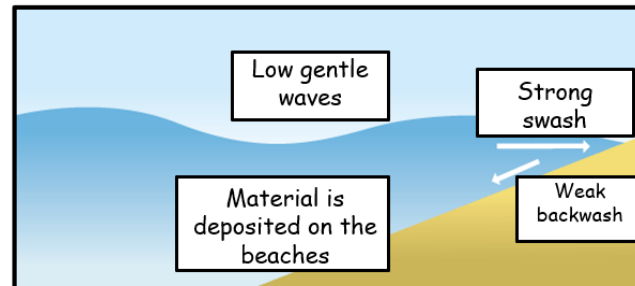
Discussion / evaluation



Destructive Wave



Constructive Waves



The size of the wave depends on three things:

1. The length of time the wind has been blowing.
2. The strength of the wind.
3. The FETCH. (How far the wind has travelled).

How can we protect our coastline?

Hard engineering

Sea walls

Sea walls are concrete barriers built along the seafront that deflect waves back to sea. They also protect the land behind them from flooding. They are very hardwearing but very expensive to construct.

Rock armour

Large rocks or boulders can be placed in front of a cliff to absorb the energy of the waves and slow the rate of erosion. They are fairly cheap to put in place but big waves can move them.

Soft engineering

Beach nourishment

Sand or *shingle* is placed on a beach to create a higher and wider beach. This will absorb more wave energy and protect the land behind. This looks very natural however it will get washed away over time.

Managed retreat

Some areas of low-value land are allowed to flood creating a *salt marsh*. This area of land acts as a *buffer*. Salt marshes provide natural protection from the sea and they are an important habitat for wildlife.

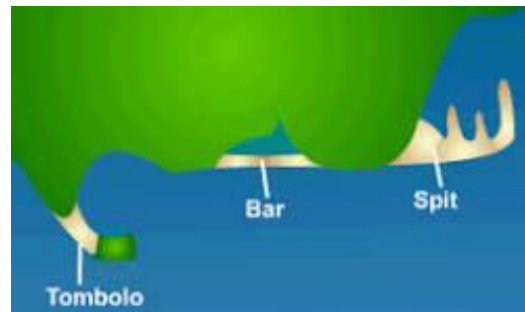
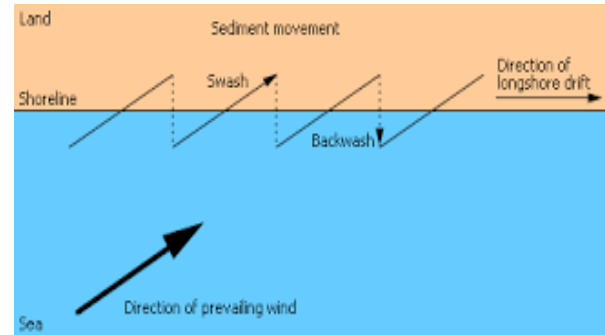
Geography Year 8 Spring What Happens Where the Land Meets the Sea?

Key Vocabulary	
Constructive waves	Frequently breaking, long and low waves found on gentle beaches. Swash is stronger than the backwash meaning they build up the beach.
Destructive Waves	Infrequently breaking, high waves found on steep beaches. Backwash is stronger than swash meaning they destroy the beach.
Swash	The forward movement of a wave up on to the beach.
Backwash	The backward movement of the water down a beach when a wave has broken.
Soft engineering	Coastal management strategies that work with the natural coastal processes.
Hard engineering	Coastal management strategies that are man-made structures to protect coasts against erosive waves. Often made out of hard materials e.g. concrete.



Hembsy

Longshore drift is the movement of sediments along a coast by waves that approach at an angle to the shore but then the swash recedes directly away from it. It can create coastal features such as spits bars and tombolos.

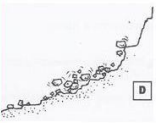


Types of erosion

Hydraulic Action
The forces of the waves crashing into the cliff. The air in cracks in the cliff is compressed which breaks up the rock



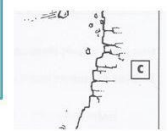
Attrition
rocks and pebbles collide with each other and roll around. They become smaller and more rounded



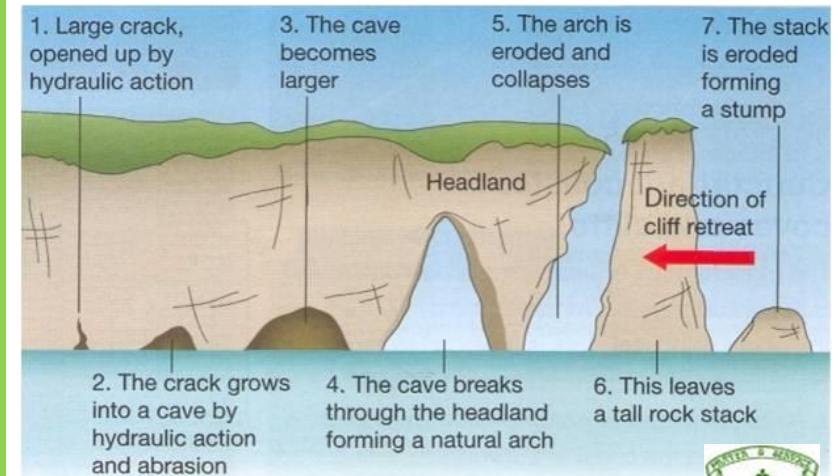
Abrasion
Waves carrying beach material e.g. sand and rocks are thrown against the cliff wearing it away



Corrosion (solution)
Is when the cliff dissolves by slightly acidic water.



Landforms created by erosion



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 fritters)
Tostadas = toast
Yogur = yoghurt
Café = coffee
Cola-caó = ColaCao (a popular Spanish chocolate drink)
Té = tea
Zum de naranja = 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 dessert

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



¿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 comercial = to the shopping centre

al museo = to the museum

al parque = to the park

a la pista 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 cafetería = in front of the café

Detrás del centro comercial = behind the shopping centre

Enfrente del polideportivo = opposite the sports centre

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 opinión, tienes razón = 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_0Dn7BaLcl



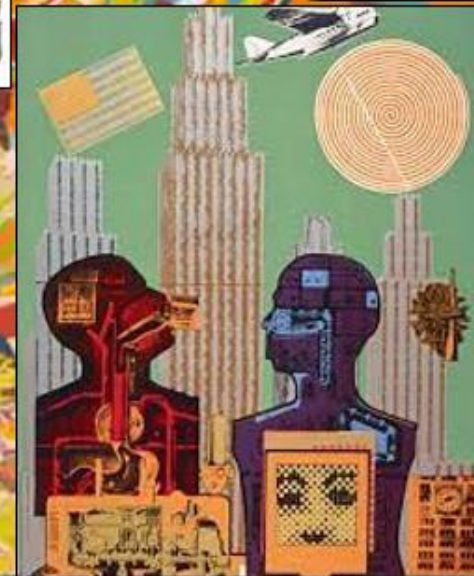
What is the meaning of native in art?
Indigenous arts are **art created by the original people to inhabit a land**



"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



Research the Key Words below and write an explanation for each

• **Balanced diet**

• **Nutrients**

• **Deficiency**

• **Excess**

• **Processed foods**

• 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)

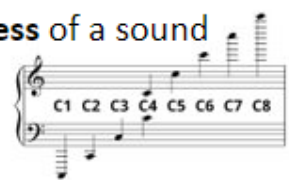
1. What are the functions of fat in the diet?
2. Give some examples of foods containing protein.
3. Why is a good supply of vitamins and minerals needed in a teenagers diet
4. What does Calcium do in our diet?
5. Which nutrient provides energy?
6. Describe what a balanced diet is.



Year 8 Music Spring Term: Introduction to Film Music



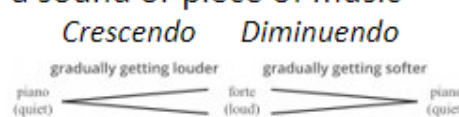
Pitch: The highness or lowness of a sound



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

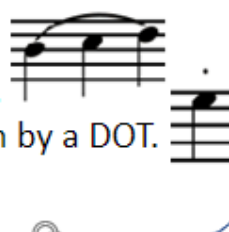
Timbre: The unique sound quality of different instruments

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

Dissonance: Notes that clash and sound horrible together

Consonance: Notes that sound nice together

MAJOR: Sounds happy

MINOR: Sounds sad

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

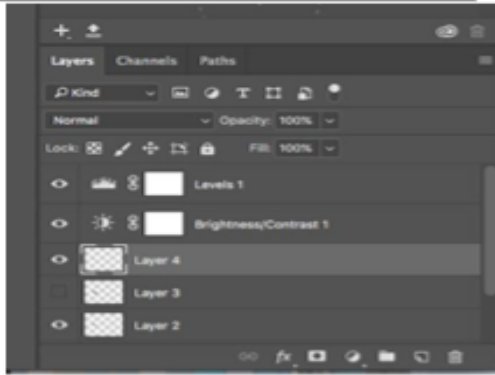


Graphics

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



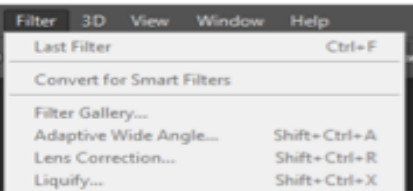
Add text



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 a 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 something



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



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 **benchmark** 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



Marc Newson



Charles and Ray Eames



Philippe Starck



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" -



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.

Iconic Designers

- Jonathan Ive, UK
- James Dyson, UK
- Charles and Ray Eames, USA
- Deiter Rams, Germany
- Achille Castiglioni, Italy
- Marc Newson, Australia
- Arne Jacobsen, Denmark
- Marcel Breuer, Hungary
- Giorgetto Giugiaro, Italy
- Philippe Starck, France
- Karim Rashid, USA
- Zaha Hadid, Iraq
- Frank Lloyd Wright, USA
- Noto Fukasawa, Japan

[10 most influential Product Designers of all time - RTF | Rethinking The Future \(re-thinkingthefuture.com\)](http://re-thinkingthefuture.com)

[Who are the 10 most influential Product Designers of all time? : DesignWanted](http://DesignWanted.com)

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 coating 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.

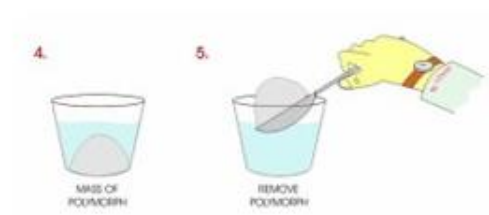
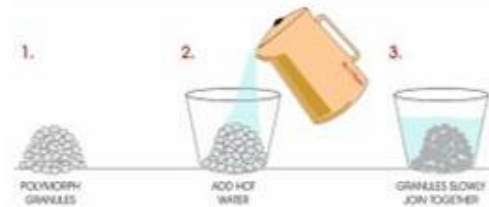


Burrs have very tiny hooks on them. The Burrs stick to fur and clothing by hooking themselves onto the fibres. These tiny hooks are the inspiration behind Velcro.

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.

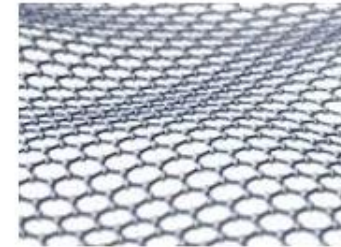


Flexible MDF is made in a similar way to standard MDF except grooves are cut across the board. This process allows the MDF to be bent yet still regains it's strength. Very popular to create more 'organic' shapes.



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.



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

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**

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

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 e-liquids 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.

Risks from Smoking



Side effects of vaping

