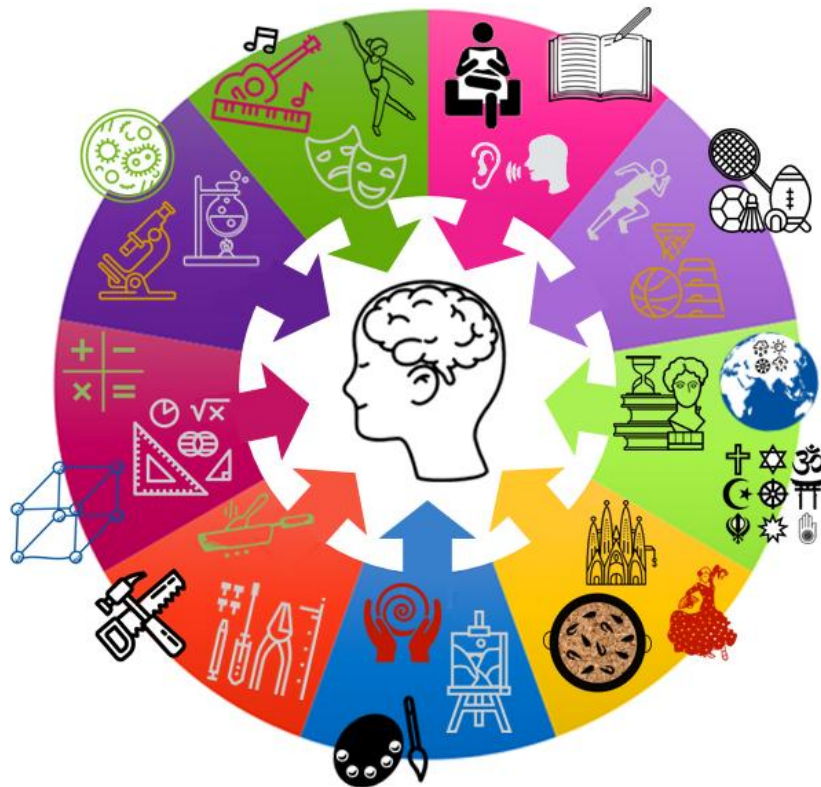


100% book - Year 9 Grammar

Aim to memorise 100% of the knowledge on these Knowledge Organisers

Term 2



Swindon Academy 2025-26

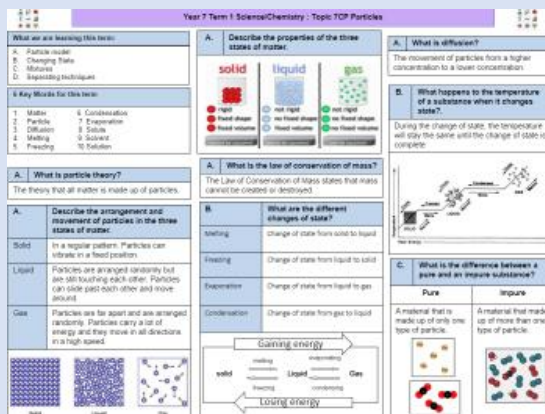
Name:	
Tutor Group:	
Tutor & Room:	

"If you are not willing to learn, no one can help you.

If you are determined to learn, no one can stop you."

Using your Knowledge Organiser and Quizzable Knowledge Organiser

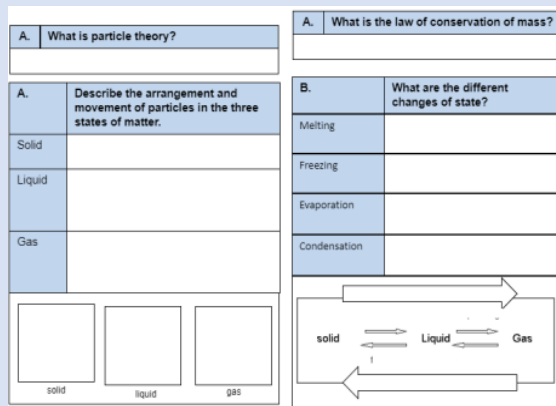
Knowledge Organisers



Knowledge Organisers contain the essential knowledge that you **MUST** know in order to be successful this year and in all subsequent years.

They will help you learn, revise and retain what you have learnt in lessons in order to move the knowledge from your short-term memory to long-term memory.

Quizzable Knowledge Organisers



These are designed to help you quiz yourself on the essential Knowledge.

Use them to test yourself or get someone else to test you, until you are confident you can recall the information from memory.

Top Tip

Don't write on your Quizzable Knowledge Organisers! Quiz yourself by writing the missing words in your prep book. That way you can quiz yourself again and again!

Expectations for Prep and for using your Knowledge Organisers

1. Complete all prep work set in your subject prep book.
2. Bring your prep book to every lesson and ensure that you have completed all work by the deadline.
3. Take pride in your prep book – keep it neat and tidy.
4. Present work in your prep book to the same standard you are expected to do in class.
5. Ensure that your use of SPAG is accurate.
6. Write in blue or black pen and sketch in pencil.
7. Ensure every piece of work has a title and date.
8. Use a ruler for straight lines.
9. If you are unsure about the prep, speak to your teacher.
10. Review your prep work in green pen using the mark scheme.

How do I complete Knowledge Organiser Prep?

Step 1

Check Epraise and identify what words /definitions/facts you have been asked to learn. Find the Knowledge Organiser you need to use.

Step 2

Write today's date and the title from your Knowledge Organiser in your Prep Book.

Step 3

Write out the keywords/definitions/facts from your Knowledge Organiser in FULL.

Step 4

Read the keywords/definitions/facts out loud to yourself again and again and write the keywords/definitions/facts at least 3 times.

Step 5

Open your quizzable Knowledge Organiser. Write the missing words from your quizzable Knowledge organiser in your prep book.

Step 6

Check your answers using your Knowledge Organiser. Repeat Steps 3 to 5 with any questions you got wrong until you are confident.

Make sure you bring in your completed Prep notes to demonstrate that you have completed your prep.



Chapter breakdown of Jane Eyre

1	On a bitter day, Jane is curled up with a book when her cousin, John Reed, discovers her and hits her. She fights back and is sent to the red-room.
2	Jane is locked in the red-room. She sits in turmoil until she hears and sees something odd. She begs to be let out. She faints.
3	Jane wakes up in the nursery. Bessie and Mr Lloyd are there. Jane is miserable. Mr Lloyd talks to Jane about going to school.
4	Jane is visited by Mr Brocklehurst, the headteacher at Lowood School. After his visit, Jane and Mrs Reed argue. Jane says she will never call her 'aunt' again.
5	Jane travels to Lowood School. She meets Miss Temple, the kind teacher, and Helen Burns, another pupil.
6	Helen is thrashed for having dirty hands. Later, she talks with Jane and explains that it is better to forgive and be patient than to get angry and seek revenge.
7	Mr Brocklehurst visits Lowood School. He calls Jane to the front of the classroom and calls her a liar in front of all the teachers and pupils. Helen smiles at Jane, bringing Jane hope.
8	Afterwards, Jane and Helen visit Miss Temple. Miss Temple says she believes that Jane is not a liar. Jane listens to Miss Temple and Helen's fascinating conversations. Miss Temple hears from Mr Lloyd that Jane is not a liar and tells the school.
9	Jane enjoys the area around Lowood in the spring. Typhus breaks out at Lowood School. Lots of girls get sick. Many die. Helen Burns dies of tuberculosis.
10	Eight years pass. Jane has become a teacher at Lowood School. Mr Brocklehurst had his power removed when his treatment at the school was discovered. Jane applies to be a governess for a family at Milcote.

The Big Ideas:

1	Social Class: Jane is an orphan and dependent on the charity of her extended family. Jane is poor and of low class – powerless. She suffers abuse by John Reed, her 'master' Lowood is harsh and corrupt – religious hypocrisy.
2	Growth: Jane is constantly growing and maturing. She is an adult reflecting back on her childhood in the novel. She learns to manage her emotions. Her relationships with others help her grow .
3	Oppression: Oppression of women. Jane's abusive childhood is a form of oppression. Adults oppressing children in a huge theme in the novel. Religion as a form of oppression. In the novel.
4	Role of women in society: Jane is angry at her place in society. Lowood is an all-girls' school. Women as governesses, teachers, servants. Low class women are powerless.

Locations in the first 10 chapters

Gateshead Hall Home of Mrs Reed, John, Georgiana, and Eliza Reed. Jane grows up here. Jane is locked in the red-room.
Lowood School Jane is sent to Lowood by Mrs Reed. Mr Brocklehurst is the headteacher. Conditions are harsh and strict. The girls receive brutal punishments and are fed poorly. A typhus outbreak kills many of the girls.

Terminology: Key words

thesis – the main idea that you want to discuss throughout an essay.
juxtaposition – a literary technique where a writer places very different things or people close to each other. This helps to show how the things are similar or different.

Characters in Jane Eyre

Jane Eyre The main character. A young, intelligent, and passionate orphan. "You think I have no feelings, and that I can do without one bit of love or kindness; but I cannot live so"
Mrs Reed – Jane's aunt She neglects and abuses Jane and is glad to send her away to Lowood School. "Guard against her worst fault, a tendency to deceit"

Mr Brocklehurst – The governor of Lowood school A cruel and hypocritical Christian. He believes in driving evil from children through harsh discipline. "Punish her body to save her soul"

Helen Burns – Jane's friend A kind and forgiving Christian. She inspires Jane to be more patient and accepting. She dies of tuberculosis at 14. "Love your enemies; bless them that curse you; do good to them that hate you and despitefully use you."

Miss Temple The kind and understanding teacher at Lowood. Offers care and affection to Jane and Helen. "You shall be publicly cleared from every imputation: to me, Jane, you are clear now."

Vocabulary: Key words

protagonist – the main character
dependent – someone who relies on another person to support them financially. Jane is a dependent because she relies on Mrs Reed to feed, clothe and house her.
oppress (vb.) – to treat a group of people in an unfair way, often by limiting their freedom.
solitude – state or situation of being alone
sombre – serious or sad
conventional – normal or accepted way
obedience – submission to another's authority
ominous – something bad that is going to happen
clandestine – something that is done in secret
humiliate (vb.) – to make someone feel stupid or ashamed. If something makes you feel stupid or ashamed, you could describe it as humiliating .
hypocrite – someone who says one thing but does the opposite at another time.
comeuppance – when a villain receives some form of punishment for what they did.

Victorian attitudes to childhood

1	A child is a blank slate and can be trained to develop into a rational being.
2	A child is born completely innocent and pure . They are only contaminated by contact with corrupt forces.
3	The child is born evil and must therefore be controlled and punished in order to submit to the rules of God and society.

Biographical information

1	'Jane Eyre' written in 1847 by Charlotte Brontë.
2	Parts of 'Jane Eyre' were influenced by Brontë's experiences at school and as a young woman.
3	'Jane Eyre' was unusual when it was published because it is written in the first-person from a female perspective.



Chapter breakdown of Jane Eyre

1	On a bitter day, Jane is curled up with a book when her cousin, John _____, discovers her and hits her. She _____ back and is sent to the _____ - _____.
2	Jane is locked in the _____ - _____. She sits in turmoil until she hears and sees something odd. She begs to be let out. She _____.
3	Jane wakes up in the nursery. _____ and Mr _____ are there. Jane is _____. Mr _____ talks to Jane about going to school.
4	Jane is visited by Mr _____, the _____ at _____. After his visit, _____ and Mrs _____ _____. Jane says she will _____ call her ' _____ ' again.
5	Jane travels to _____ School. She meets Miss _____, the kind _____, and Helen _____, another _____.
6	_____ is thrashed for having _____ hands. Later, she talks with Jane and explains that it is better to _____ and be _____ than to get _____ and seek _____.
7	Mr Brocklehurst visits Lowood School. He calls Jane to the front of the classroom and calls her a _____ in front of all the _____ and _____. Helen smiles at Jane, bringing Jane _____.
8	Afterwards, _____ and _____ visit Miss Temple. Miss Temple says she believes that Jane is _____ a _____. Jane listens to Miss Temple and Helen's _____. Miss Temple hears from Mr _____ that Jane is not a _____ and tells the _____.
9	Jane _____ the area _____ in the _____. _____ breaks out at Lowood School. Lots of girls get _____. Many _____, Helen Burns _____ of _____.
10	_____ pass. Jane has become a _____ at _____. Mr _____ had his _____ when his _____ at the school was _____. Jane applies to be a governess for a family at Milcote.

The Big Ideas:

1	Social Class: Jane is an _____ and _____ on the _____ of her extended family. Jane is _____ and of _____ class – _____. She suffers _____ by John Reed, her 'master'. Lowood is harsh and _____ – religious _____.
2	Growth: Jane is constantly _____ and _____. She is an adult _____ back on her _____ in the novel. She learns to manage her _____. Her _____ with _____ help her _____.
3	Oppression: Oppression of _____. Jane's _____ childhood is a form of oppression. Adults oppressing _____ in a huge theme in the novel. _____ as a form of oppression in the novel.
4	Role of women in society: Jane is _____ at her place in _____. Lowood is an all-girls' school. Women as governesses, teachers, servants. Low class women as _____.

Locations in the first 10 chapters

Gateshead Hall Home of _____, _____ and _____. _____ grows up here. _____ is locked in the _____ - _____.
Lowood School _____ is sent to _____ by Mrs _____. Mr _____ is the _____. Conditions are _____ and _____. The girls receive brutal _____ and are fed _____. A _____ outbreak _____ many of the girls.

Terminology: Key words

thesis – _____.
juxtaposition – _____.

Characters in Jane Eyre

Jane Eyre
Mrs Reed – Jane's aunt

Mr Brocklehurst – The governor of Lowood school**Helen Burns – Jane's friend****Miss Temple**

Vocabulary: Key words

protagonist – _____.
dependent – _____.
oppress (vb.) – _____.
solitude – _____.
sombre – _____.
conventional – _____.
obedience – _____.
ominous – _____.
clandestine – _____.
humiliate (vb.) – _____.
hypocrite – _____.
comeuppance – _____.

Victorian attitudes to childhood

1	A child is a blank slate...
2	A child is born completely innocent and pure ...
3	The child is born evil...

Biographical information

1	'Jane Eyre' written in _____ by Charlotte _____.
2	Parts of 'Jane Eyre' were influenced by Brontë's experiences at _____ and as a young _____.
3	'Jane Eyre' was unusual when it was published because it is written in the _____.



What we are learning this term:		A	What are the names and functions of animal and plant sub-cellular structures?		
A. Animal & plant cells B. Eukaryotes & prokaryotes C. Cell specialisation D. Cell differentiation E. Microscopy F. Culturing microorganisms		Structure	Function	Found in...	
		Nucleus	Controls the cell & contains genetic information	Animal & plant	
		Cell membrane	Controls movement in & out of the cell	Animal & plant	
		Cell wall	Supports the cell. Made of cellulose	Plant	
		Cytoplasm	Jelly-like substance where chemical reactions take place	Animal & plant	
		Mitochondria	Respiration, to release energy	Animal & plant	
5 Key Words for this term		Chloroplast	Photosynthesis, to produce glucose	Plant	
1. Eukaryotic 2. Prokaryotic 3. Differentiation 4. Magnification 5. Resolution		Vacuole	Filled with cell sap, keeps cell turgid	Plant	
		Ribosome	Protein synthesis	Animal & plant	

B Compare eukaryotic and prokaryotic cells			C	How are these cells specialised?		
Feature	Eukaryotic	Prokaryotic	Cell	Animal or plant	Specialised features	
DNA	In nucleus	Single loop DNA & plasmids	Sperm cell	Animal	Tail to swim. Pointed head, containing acrosome. Lots of mitochondria.	
Cytoplasm	Yes	Yes	Nerve cell	Animal	Long. Branched ends (dendrites). Fatty sheath to insulate axon.	
Cell membrane	Yes	Yes	Muscle cell	Animal	Layers of protein filaments for contraction. Lots of mitochondria.	
Cell wall	No	Yes	Root hair cell	Plant	Large surface area. Thin walls.	
Size	Larger	Smaller	Xylem cells	Plant	Continuous. Thickened & woody.	
			Phloem cells	Plant	Companion cells have lots of mitochondria.	

What we are learning this term:

- A. Animal & plant cells
- B. Eukaryotes & prokaryotes
- C. Cell specialisation
- D. Cell differentiation
- E. Microscopy
- F. Culturing microorganisms

E**Define magnification**

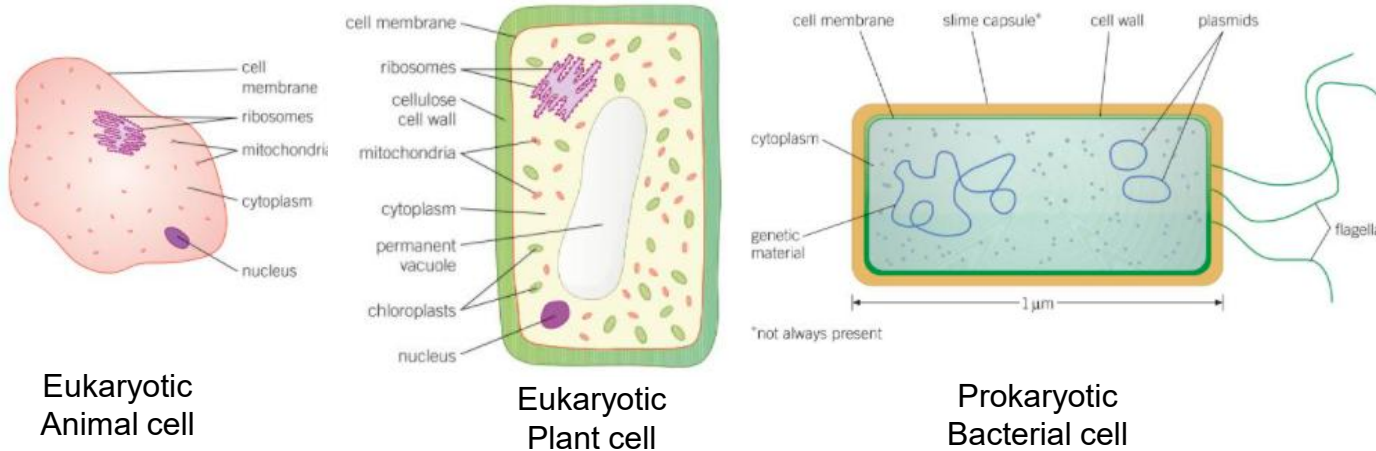
The number of times larger an image is than the original specimen.

E**Define resolution**

The minimum distance at which two distinct points of a specimen can still be seen.

E**What is the formula for magnification?**

$$\text{magnification} = \frac{\text{size of image}}{\text{real size of image}}$$

**D****When does differentiation occur for most types of animal cells?**

At early development

D**When does differentiation occur for most types of plant cells?**

Throughout the lifetime of the plant

D**In multicellular animals, what is cell division required for?**

- Growth or repair
- To replace cells

E**Compare light and electron microscopes**

Feature	Light	Electron
Radiation used	Light waves (visible light)	Electron beams
Magnification	Lower magnification (~ 1500 times)	Greater magnification (~ 2 000 000 times)
Resolution	Larger resolution (200nm)	Smaller resolution (0.2nm)
Size & cost	Smaller & portable. Cheaper.	Very large & not portable. Very expensive.

What we are learning this term:

- A. Animal & plant cells
- B. Eukaryotes & prokaryotes
- C. Cell specialisation
- D. Cell differentiation
- E. Microscopy
- F. Culturing microorganisms

F**How do bacteria replicate?**

Binary fission

F**How often do bacteria replicate?**

As often as once every 20 minutes

F**What is the formula for the area of circle?**

$$A = \pi r^2$$

F**How do you calculate the number of bacteria in a population?**

Step 1) $\frac{\text{Total time}}{\text{Mean division time}} = \text{Number of divisions}$

Step 2) $2^{\text{Number of division}} = \text{Number of cells}$

F**Explain the reasons for aspects of aseptic technique****Aseptic technique****Reason**

Sterilise culture media & petri dish before use

Kill existing bacteria on culture media & petri dish, and prevent contamination

Sterilise inoculating loop with flame

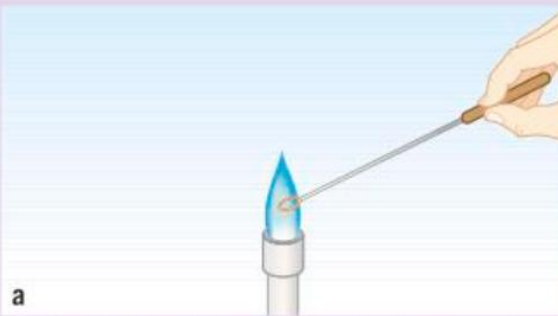
Kill existing bacteria on inoculating loop & prevent contamination

Tape petri lid & store upside down

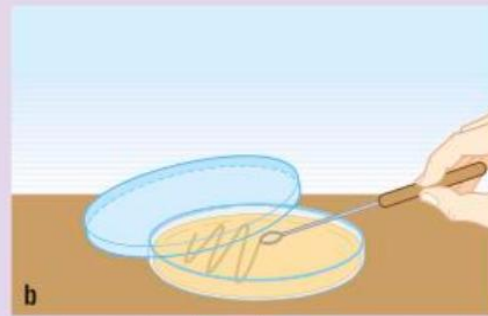
Prevents condensation falling from lid onto agar

In schools, incubate cultures at 25°C

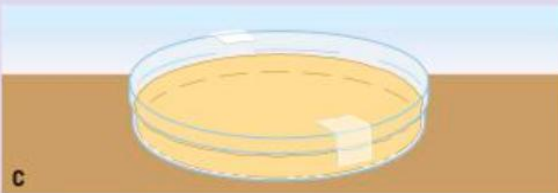
Reduces chance of harmful bacteria growing

How to prepare an uncontaminated culture using aseptic technique:

Sterilise the inoculating loop used to transfer microorganisms to the agar by heating it until it is red hot in the flame of a Bunsen and then letting it cool. Do not put the loop down or blow on it as it cools.



Dip the sterilised loop in a suspension of the bacteria you want to grow and use it to make zigzag streaks across the surface of the agar. Replace the lid on the dish as quickly as possible to avoid contamination.



Fix the lid of the Petri dish with adhesive tape to prevent microorganisms from the air contaminating the culture – or microbes from the culture escaping. Do not seal all the way around the edge – as oxygen needs to get into the dish to prevent harmful anaerobic bacteria from growing.



The Petri dish should be labelled and stored upside down to stop condensation falling onto the agar surface.

What we are learning this term:

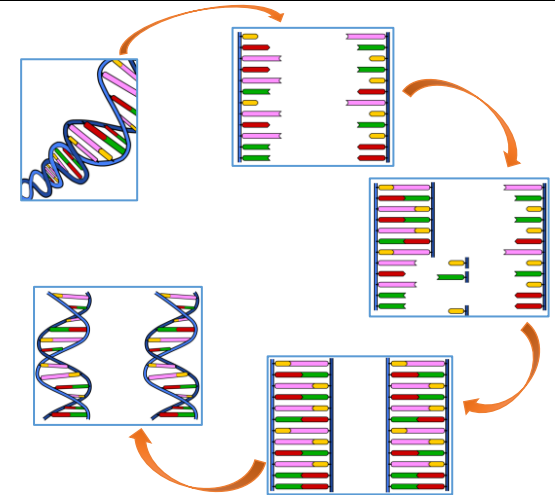
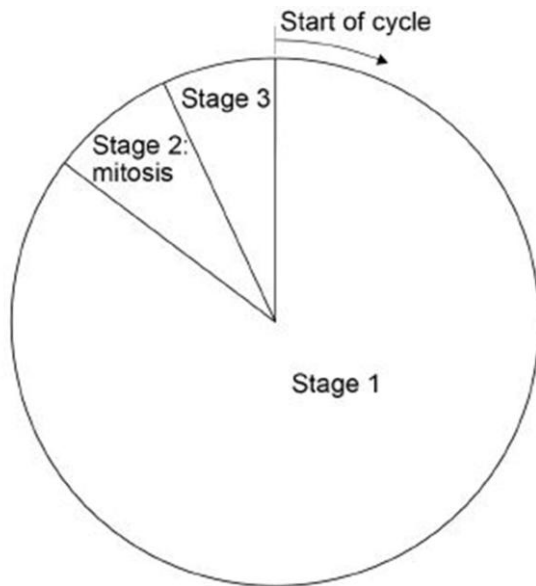
- A. Cell cycle
- B. Mitosis
- C. Growth
- D. Stem cells
- E. Cloning

2 Key Words for this term

- 1. Mitosis
- 2. Differentiate

B.**What are the stages of DNA replication?**

1. The DNA molecule unwinds.
2. An enzyme moves along separating the two strands.
3. New complementary bases bond to the existing bases of one strand.
4. New complementary bases bond to the existing bases of the other strand.
5. The two complete molecules coil back into a helical shape.

**A. Describe the stages of the cell cycle**

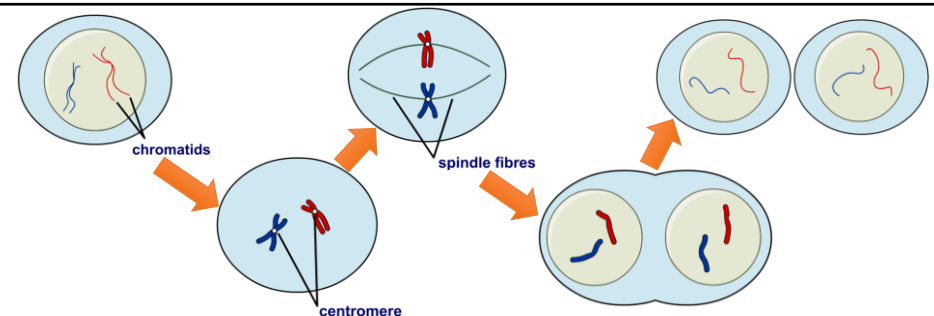
1) Replication of DNA to form two copies of each chromosome and synthesis of new sub-cellular structures

2) Nucleus divides

3) Cell divides in two

B.**What is the order of the stages of mitosis?**

- 1 chromosomes become shorter and thicker
- 2 spindle fibres attach to the chromosomes
- 3 chromosomes align in the centre of the cell
- 4 spindle fibres shorten, separating the chromosomes
- 5 chromatids move to opposite sides of the cell
- 6 the cell divides into two daughter cells





C.	Match terms on growth to their definitions										
	<table><tr><td>differentiation</td><td>when a cell starts to become specialized</td></tr><tr><td>division</td><td>when a cell replicates</td></tr><tr><td>elongation</td><td>when a cell increases in size</td></tr><tr><td>stem cells</td><td>cells that can become any type of cell</td></tr><tr><td>tissue cells</td><td>cells that have begun to be specialized</td></tr></table>	differentiation	when a cell starts to become specialized	division	when a cell replicates	elongation	when a cell increases in size	stem cells	cells that can become any type of cell	tissue cells	cells that have begun to be specialized
differentiation	when a cell starts to become specialized										
division	when a cell replicates										
elongation	when a cell increases in size										
stem cells	cells that can become any type of cell										
tissue cells	cells that have begun to be specialized										
D.	Describe the ethical concern around using embryonic stem cells.										
	Embryonic stem cell research is strongly criticized by people who believe it is unethical to kill embryos for their cells. Work involving embryonic stem cells is subject to government regulation.										
D.	What are the advantages of using adult stem cells?										
	• They come from volunteers so they are more ethically acceptable. • A patient's own stem cells could be used to treat their own disease, avoiding the problem of immune rejection. • It might be easier to guide their development into specific cell types. • They are less likely to become cancerous.										
D.	Describe these two types of human stem cell										
Embryonic	• Up until the eight cell stage, all of the cells in a human embryo are identical. • They can develop into all the different types of cell in the body.										
Adult	• They are found in small numbers in many organs, including bone marrow, brain, skin and muscle. • Can usually only make a small number of cell types.										
D.	Describe plant stem cells										
Meristem tissue	• Plant cells can differentiate to form specific cells throughout the plant's life.										
D.	Define therapeutic cloning										
A process where an embryo is produced that is genetically identical to the patient so the cells can be used in medical treatments.											

**What we are learning this term:**

- A. Arrangement of the Periodic table
- B. Development of the periodic table
- C. Metals and non metals
- D. Group 1
- E. Group 7
- F. Group 0
- G. Transition metals

6 Key Words for this term

- 1. Halogens
- 2. Intermolecular

A. How are the elements in the periodic table arranged?

Elements are arranged in order of increasing atomic number.

What are Groups?

The vertical columns are groups.

What similarities do elements in groups have?

- Similar properties
- Same no of electrons on outer shell

What are periods?

The horizontal rows in a periodic table

Periodic Table of Elements

Groups → 1 2 3 4 5 6 7 8

← Periods

Key

relative atomic mass → atomic number → element symbol → element name

These go here but there isn't room

Periodic Table © MMarkandScience 2016

C. How many elements are metals?

Most elements in the periodic table are metal

What are ions?

Ions are formed when elements gain or lose electrons

What are positive ions?

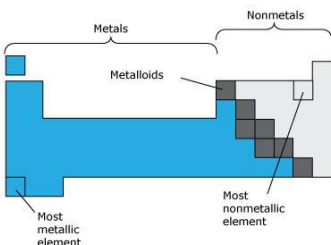
When an element loses an electron it forms a positive ion

What type of ions do metals form?

Metals react to form positive ions

Where are metals and non-metals found on the periodic table?

Metals are found to the left, towards the bottom.
Non-metals are found towards the top right of the periodic table

**B. Before the discovery of protons, how did scientists try to arrange elements?**

Scientists tried to group elements in order of their atomic weights

What problems were often found with early periodic tables?

- Not all elements had been discovered
- Some elements placed in the wrong position when atomic weight was used

C. What are negative ions?

Ions formed when atoms gain electrons

What type of ions do non-metals form?

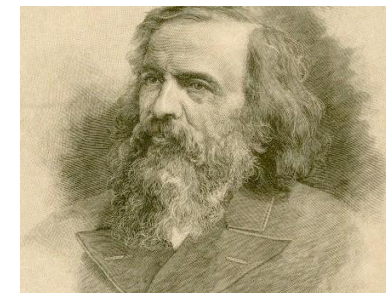
Non-metals do not form positive ions – they form negative ions

B. How did Mendeleev overcome some of the problems of grouping elements?

- He left gaps for possible elements that had not been discovered
- He sometimes changed the order based on atomic weights

What was discovered that helped explain why using atomic weights didn't always work?

Knowledge of isotopes

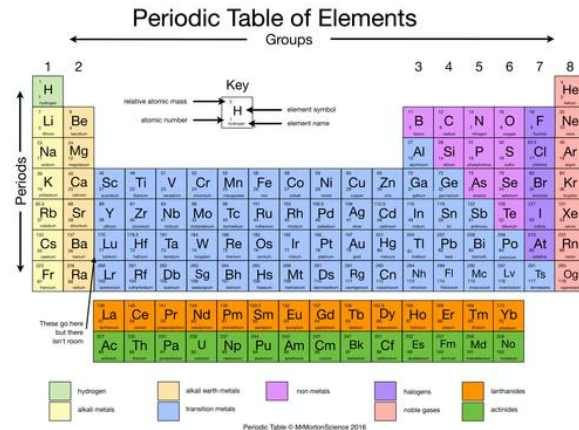
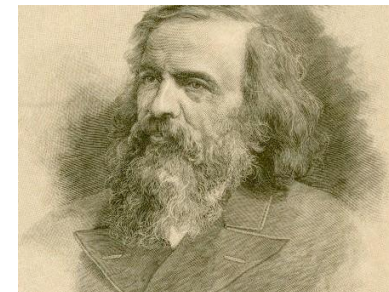


**What we are learning this term:**

- A. Arrangement of the Periodic table
- B. Development of the periodic table
- C. Metals and non metals
- D. Group 1
- E. Group 7
- F. Group 0

6 Key Words for this term

- 1. Halogens
- 2. Intermolecular

A. How are the elements in the periodic table arranged?**What are Groups?****What similarities do elements in groups have?****What are periods?****C. How many elements are metals?****What are ions?****What are positive ions?****What type of ions do metals form?****Where are metals and non-metals found on the periodic table?****B. Before the discovery of protons, how did scientists try to arrange elements?****What problems were often found with early periodic tables?****C, What are negative ions?****What type of ions do non-metals form?****B. How did Mendeleev overcome some of the problems of grouping elements?****What was discovered that helped explain why using atomic weights didn't always work?**



D	Group 1 of the Periodic Table -
What are group 1 elements known as?	Alkali Metals
Metal or non-metal	Metal
How many electrons are in the outer shell?	1 electron in the outer shell
How reactive are they?	- Group 1 metals easily lose the electron on the outer shell. - This makes group 1 elements very reactive - Vigorous reactions with water
What ions do they form?	- Group 1 elements readily lose electrons to form positive ions - This is so they can have a filled outer shell
How does reactivity change down the group?	Reactivity increases down the group

F.	Group 0 of the Periodic Table – Helium, Neon, Argon, Krypton, Xenon, Radon
What are group 0 elements known as?	The Noble Gases
Metal or non-metal	Non-metal
How many electrons are in the outer shell?	8 - Filled outer shell (except Helium that has 2)
How reactive are they?	Filled outer shell so not very reactive
How do boiling points change down the group?	Boiling point increases down the group as the atomic weight increases

E.	What is a Halogen Displacement reaction?
A more reactive halogen can displace a less reactive halogen from an aqueous solution from its salt $\text{Cl}_2 + 2\text{KBr} \rightarrow 2\text{KCl} + \text{Br}_2$	

E.	Group 7 of the Periodic Table
What are group 7 elements known as?	Halogens
How are they found	Halogens travel in pairs – diatomic molecules (Cl_2 , Br_2 ,...)
Metal or non-metal	Non-metal
How many electrons are in the outer shell?	7 electrons in the outer shell
How reactive are they?	- Group 7 elements easily gain electrons - This makes group 7 elements very reactive
What ions do they form?	- Group 7 elements readily gain electrons to form negative ions. - This is so they can have a filled outer shell
How does reactivity change down the group	Reactivity decreases down the group
How do boiling points change down the group?	As you go down the group, the boiling point increases as the atomic weight increases

G.	Transition elements
How do the physical properties of transition metals compare to the alkali metals?	They have higher melting points and densities and are stronger and harder.
How reactive are they compared to alkali metals?	Less reactive, they do not react vigorously with oxygen or water
What is different about the ions of transition elements?	They can have different charges in compounds.
What is a general feature of compounds containing transition elements?	They are coloured
What are transition elements used for?	Industrial catalysts



D	Group 1 of the Periodic Table -
What are group 1 elements known as?	
Metal or non-metal	
How many electrons are in the outer shell?	
How reactive are they?	
What ions do they form?	
How does reactivity change down the group?	

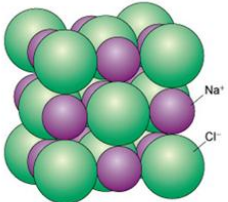
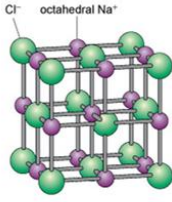
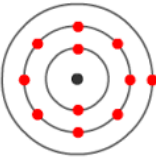
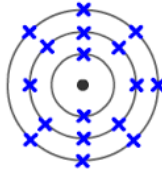
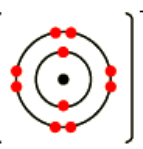
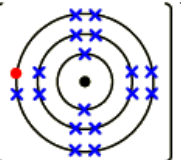
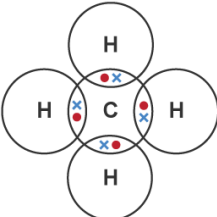
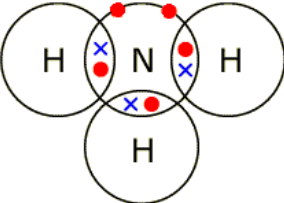
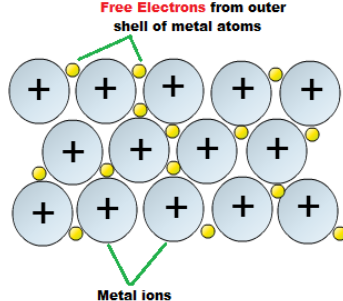
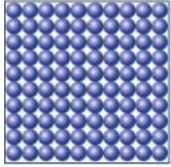
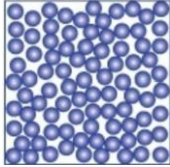
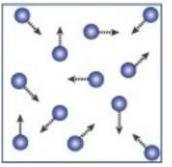
F.	Group 0 of the Periodic Table – Helium, Neon, Argon, Krypton, Xenon, Radon
What are group 0 elements known as?	
Metal or non-metal	
How many electrons are in the outer shell?	
How reactive are they?	
How do boiling points change down the group?	

E.	What is a Halogen Displacement reaction?

E.	Group 7 of the Periodic Table
What are group 7 elements known as?	
How are they found	
Metal or non-metal	
How many electrons are in the outer shell?	
How reactive are they?	
What ions do they form?	
How does reactivity change down the group	
How do boiling points change down the group?	

G.	Transition elements
How do the physical properties of transition metals compare to the alkali metals?	
How reactive are they compare to alkali metals?	
What is different about the ions of transition elements?	
What is a general feature of compounds containing transition elements?	
What are transition elements used for?	



What we are learning this term:			
A. Ionic Bonding B. Covalent Bonding C. Metallic Bonding D. States of matter E. Properties F. Carbon and Nanoparticles			
6 Key Words for this term			
1. Delocalised 2. Electrostatic 3. Ionic 4. Covalent			
A.	What is an ionic compound?		
A giant structure of ions held together by strong electrostatic forces of attractions between oppositely charged ions			
How can we represent Sodium Chloride?			
 (a) 3D diagram  (b) Ball and stick model			
A.	What is ionic bonding?		
An electrostatic force of attraction between positively and negatively charged ions			
What are dot and cross diagram?			
A way of showing electron transfers during reactions			
How is an ionic bond formed in Sodium Chloride? Draw a dot and cross diagram to show this			
- Sodium loses an electron to form a filled outer shell. A positive ion is formed - Chlorine gains this electron to fill its outer shell. A negative ion is formed - An electrostatic force of attraction is formed between these oppositely charged ions  sodium atom, Na  chlorine atom, Cl   sodium ion, Na⁺ [2,8]⁺  chloride ion, Cl⁻ [2,8,8]⁻			
A.	What is covalent bonding?		
Covalent bonding is where atoms share pairs of electrons			
When do you get Covalent bonding?			
Non metallic elements and compounds			
What covalent structures are there?			
Simple molecules and giant covalent structures			
Sketch a dot and cross diagram to show the bonding in Methane (CH₄) and Ammonia (NH₃)			
 			
C.	What is Metallic Bonding?		
Outer electrons are delocalised and free to move through the whole structure. This gives rise to metallic bonds			
What does delocalised mean?			
Where electrons are shared between 2 or more atoms			
When do you get Metallic bonding?			
Metallic elements and alloys			
Draw a sketch of metallic bonding			
			
D.	What are the three states of matter?		
State	Solid	Liquid	Gas
Diagram			
The amount of energy required to change state is dependent on what?		The strength of the forces between the particles	

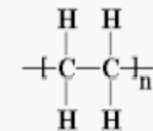


What we are learning this term:		A. What is ionic bonding?		When do you get ionic bonding?	
A. Ionic Bonding B. Covalent Bonding C. Metallic Bonding D. States of matter E. Properties F. Carbon and Nanoparticles					
		What are dot and cross diagram?			
		How is an ionic bond formed in Sodium Chloride? Draw a dot and cross diagram to show this			
					
6 Key Words for this term					
1. Delocalised 2. Electrostatic 3. Ionic 4. Covalent					
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		A. What is covalent bonding?		Sketch a dot and cross diagram to show the bonding in Methane (CH₄) and Ammonia (NH₃)	
		When do you get Covalent bonding?			
		What covalent structures are there?			
C. What is Metallic Bonding?		Draw a sketch of metallic bonding		D. What are the three states of matter?	
				State	
What does delocalised mean?					
When do you get Metallic bonding?					
				Diagram	
				The amount of energy required to change state is dependent on what?	

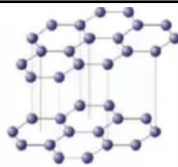
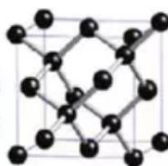
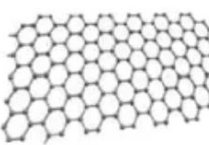


D.	What are state symbols?
These are used in chemical equations to show what state of matter things are in a reaction	
Solid	(s)
Liquid	(l)
Gas	(g)
Aqueous (in solution)	(aq)

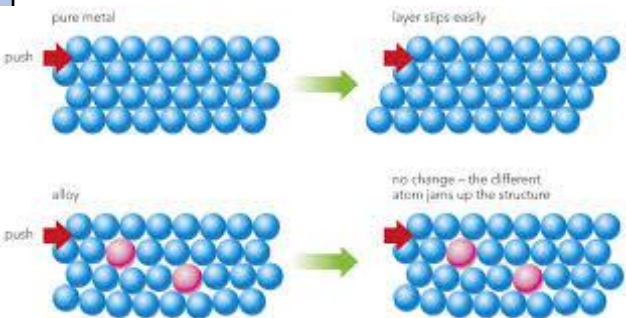
E.	What properties do Giant ionic structures have?
Melting points/boiling points	High
Does it conduct electricity?	
Ionic solid	No
Molten ionic solid	Yes
Ionic compound in solution	Yes

E.	What are polymers?
Large long chain molecules	
Are the ionic or covalent?	
	Covalent

E.	What properties do simple small covalent molecules have?
Melting point	Lower melting points – because of weak intermolecular forces (not the covalent bonds)
Conduct electricity?	No – no overall charge

F.	What different forms of carbon are there?			
	Graphite	Diamond	Graphene	Fullerenes
Structure	Hexagonal rings	Giant covalent	1 sheet of graphite	Giant covalent
Melting point	high	Very high	Very High	Very High
Conducts electricity?	Yes	No	Yes	No
Properties	soft	Very hard	hard	hard
Uses	Pencils, electrodes	Cutters, jewellery	Electronics, composites	Nanotechnology, electronics, medicine
Diagram				

E.	What properties do giant covalent structures have?
Melting point	High
Solubility	Insoluble due to strong covalent bonds

E.	What are alloys?
Mixtures of metals	
What properties do they have	
Harder than pure metals	

F.	What are nanoparticles?
Structures that are 1-100nm in size	
Why are they useful?	
Large surface area to volume ratio	
What uses?	
Medicine, electronics, sun cream, catalysts, cosmetics	



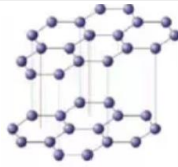
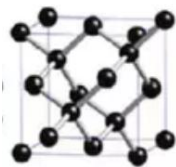
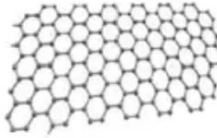
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Does it conduct electricity?	
Ionic solid	
Molten ionic solid	
Ionic compound in solution	

E.	What are polymers?
Are the ionic or covalent?	

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Melting point	
Conduct electricity?	

E.	What properties do giant covalent structures have?
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Solubility	

F.	What different forms of carbon are there?			
	Graphite	Diamond	Graphene	Fullerenes
Structure				
Melting point				
Conducts electricity?				
Properties				
Uses				
Diagram				

E.	What are alloys?	
What properties do they have		

F.	What are nanoparticles?
Why are they useful?	
What uses?	

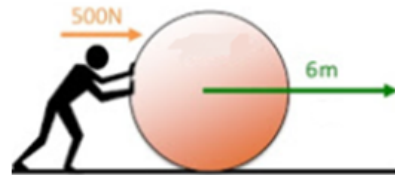
Power and work done

Work done = energy transferred

Energy transferred mechanically is calculated:

Work done = force x distance

$$W (J) = F (N) \times s (m)$$

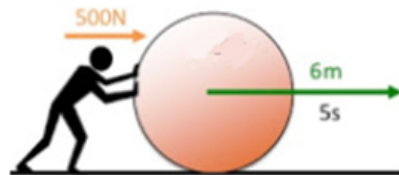


$$\begin{aligned} \text{Work done} &= 500N \times 6m \\ &= 3000 J \end{aligned}$$

Power = energy transferred per second

1 Watt = 1 Joule per second

$$\begin{aligned} \text{Power} &= \text{energy transferred} \div \text{time} \\ P (W) &= e (J) \div t (s) \end{aligned}$$



$$\begin{aligned} \text{Power} &= \text{Energy} \div \text{time} \\ &= 3000 J \div 5 s \\ &= 600W \end{aligned}$$

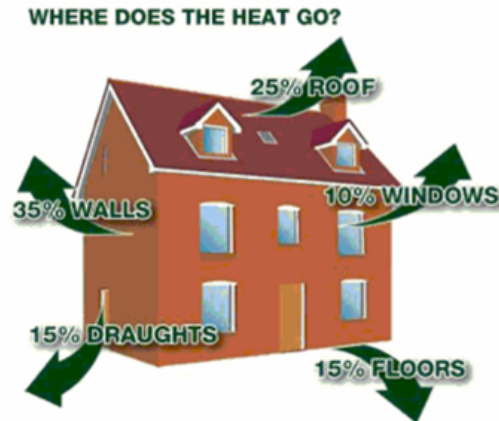
A more powerful appliance transfers more energy per second, eg:



Reducing unwanted energy transfers

Reducing wasted energy means lower costs

Materials that conduct heat well have a high **thermal conductivity**.



Reducing energy transfers in homes

- Double glazing
- Thick walls
- Walls made of materials with low thermal conductivity
- Insulation – wall and loft

Reducing energy transfers in appliances:

- Lubrication – reduces friction



- Streamlining – reduces air resistance



Energy resources

We use energy resources for electricity generation, transport and heating

Non-renewable – ones that are being used faster than they can be replaced and will run out.

Example	+	-
Coal, oil, natural gas	Reliable method of generating electricity	Release CO ₂ which contributes to global warming
nuclear	No CO ₂ released	Produces radioactive nuclear waste

Renewable resources:

Ones that will not run out, they are being replenished as they are used

Example	+	-
Solar	No CO ₂ released	Don't work at night or well on cloudy days
wind	No CO ₂ released	Doesn't work if it isn't windy
Hydro	No CO ₂ released	Damage to habitats
Geothermal	No CO ₂ released	Only found in specific places
waves	No CO ₂ released	Damage to habitats
Biofuel	Carbon neutral	Uses crop land to grow new forests

1. What are the units for work done?
2. What are the units for force?
3. What is the equation to calculate work done during mechanical work?
4. What is the equation to calculate power?
5. What is the unit for power?
6. What is the unit for time in the power equation?
7. What is 1 Watt equivalent to?
8. How would you recognise a more powerful lightbulb?
9. What is meant by a more powerful appliance?

1. Why is reducing unwanted energy transfers from the home important?
2. What is meant by 'high thermal conductivity'?



3. Where is most of the heat lost through in a house?
4. Give two ways to reduce the heat lost through the walls of a house.
5. What does lubrication reduce?
6. What does streamlining reduce?



1. Give the three main uses for energy resources
2. What is a non-renewable energy resource?
3. Give 2 examples of non-renewable energy resources
4. Give two disadvantages of using coal and oil
5. Give one advantage to using nuclear resources to generate electricity.
6. What is a renewable energy resource?
7. Give 4 examples of renewable resources
8. Give 2 advantages of using renewable resources to generate electricity
9. Give two disadvantages of using renewable resources to generate electricity

P2 – Electricity

Current, resistance and potential difference

Electrical current is the flow of electrical charge.

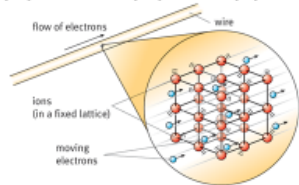
Current is measured in amps (A), charge is measured in Coulombs (C).

The size of the current depends on the rate of the flow of charge – ie how many coulombs of charge per second.

$$Q = I t$$

Charge = Current x time

(C) (A) (s)



Ohms Law

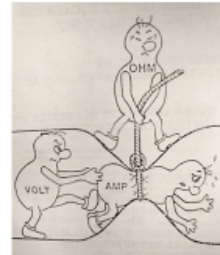
The current through a component depends on the potential difference and the resistance of the component.

If a component has high resistance, the current will be smaller for a given potential difference

potential difference = current x resistance

$$V = I R$$

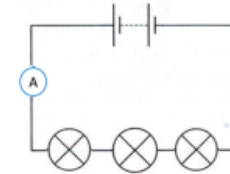
pd is measured in volts (V), resistance in Ohms (Ω)



Series and parallel circuits

Series circuits:

A series circuit is one single loop

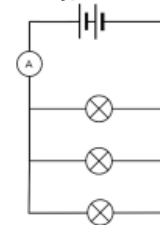


In a series circuit:

- the current is the same at all points in the circuit.
- potential difference is shared between components (equally if components are identical resistance)
- total resistance = sum of all resistors

Parallel circuits

A parallel circuit consists of more than one loop from the battery/cell.



In a parallel circuit:

- The current is shared amongst the branches
- The potential difference is the same across all components
- Resistance in the whole circuit is LESS than that of the smallest resistor

Hypothesis 'the length of the wire affects resistance'

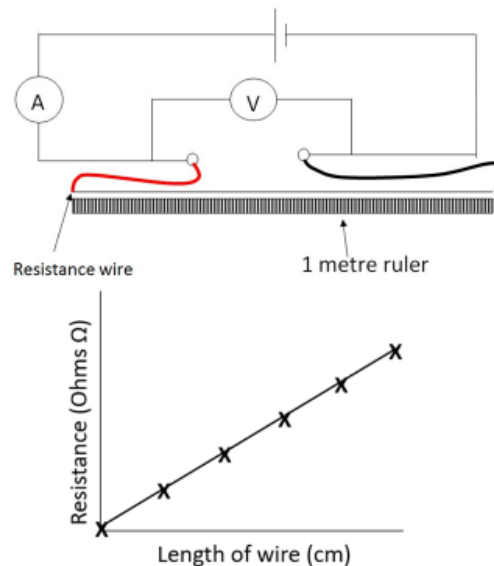
Independent variable – length of wire

Dependent variable – resistance

Control variables – type of wire, temperature of the wire, diameter of the wire

1. Set up the circuit as shown, with an ammeter in the circuit and a voltmeter connected across the wire
2. Use crocodile clips to change the length of the wire in the circuit
3. Make the wire 10cm long and read the current and pd. Switch off the current between readings or the wire will get hot, increasing the resistance.
4. Repeat for 20, 30, 40, 50 cm. (5 minimum)
5. Calculate resistance using Ohms Law $R = V/I$

Plot length of wire (IV) against resistance (DV)



The relationship is directly proportional

P2 – Electricity

Current, resistance and potential difference

1. What is current?
2. What is the unit for charge?
3. What is the unit for current?
4. What is the equation linking charge, current and time?
5. What is the equation linking current, potential difference and voltage?
6. If a component's resistance increases, what happens to current through that component?
7. What is the unit for resistance?

Hypothesis 'the length of the wire affects resistance'

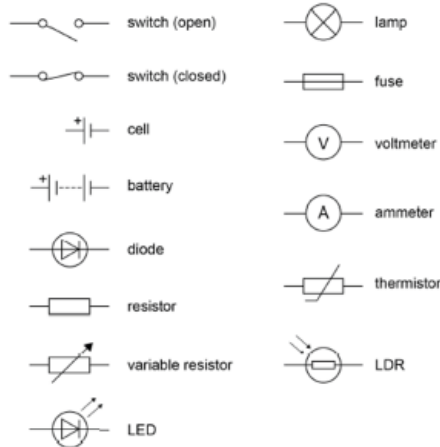
1. What is the independent variable in this investigation?
2. What is the dependent variable?
3. What is the minimum number of readings needed for a line graph?
4. What two readings are taken?
5. How is resistance calculated?
6. What sort of relationship is seen?
7. Why is it important to turn off the power in between readings?

Series and parallel circuits

1. What is a series circuit?
2. In a series circuit, the current is.....
3. How do you find total resistance in a series circuit?
4. The potential difference is shared equally among components as long as.....
5. What is a parallel circuit?
6. What is true about potential difference across all of the components in a parallel circuit?
7. How is total current calculated in parallel?
8. What is true for total resistance in a parallel circuit?

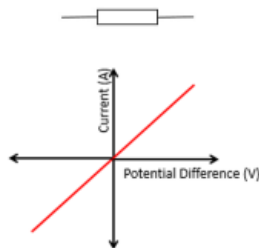
P2 – Electricity

Components

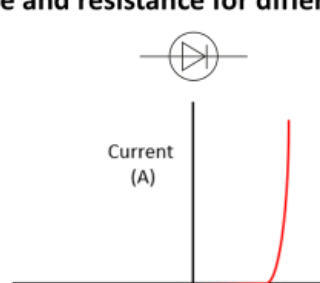


- A **diode** only allows current to flow one way in a circuit
- A **resistor** is a component that provides a fixed resistance in the circuit – e.g a $5\ \Omega$ resistor
- A **variable resistor** is a component whose resistance can be changed (e.g a dimmer switch)
- A **thermistor** is a resistor whose resistance changes with temperature – the higher the temperature the lower the resistance
- An **LDR** (light dependent resistor) has resistance that changes
- An **LED** (light emitting diode) is a light that only allows the flow of current one way

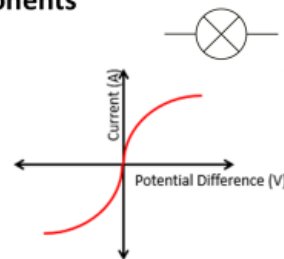
Current, potential difference and resistance for different components



A fixed (ohmic) resistor has fixed resistance
current is directly proportional to potential difference
Resistance remains constant (at constant temp)

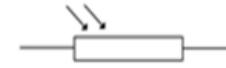


A diode very high resistance in one direction.
Only when the potential difference is positive does current flow

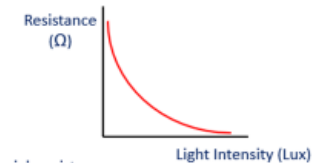


A filament bulb contains a thin wire that glows as current flows.
As the pd increases, the current initially increases.
However, at higher pd, the wire gets hot
The ions in the wire move faster and collide with the moving charges
Resistance increases, so current stops increasing

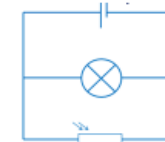
LDR



A light dependent resistor has varying resistance.
As the light intensity increases, the resistance decreases



LDRs can be used to switch on lights at night time.



In this circuit, when it is day time, the resistance in the LDR is low, so all current flows through the LDR.

As light levels fall, resistance increases, until eventually there is less resistance in the bulb than the LDR, so current flows through the bulb – switching it on.

Thermistor



As the temperature increases, the resistance in a thermistor decreases.

P2 – Electricity

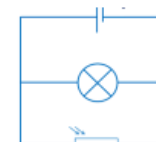
Components

Symbol	Name
	Cell
	
	fuse
	
	Voltmeter

1. Complete the table opposite
2. Which component has a resistance that decreases as light intensity increases?
3. Which component only allows current to flow one way?
4. What is a fixed resistor?

LDR

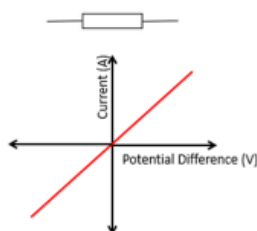
1. Draw the symbol for an LDR
2. Draw the pattern you would expect for resistance as the light intensity increases.
3. The circuit below is for a night light. What is resistance in the LDR like during the day time? (high light levels)



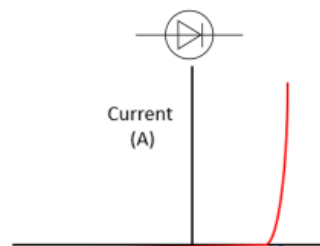
4. Why does the light switch on when it goes dark?
5. Draw the symbol for a thermistor
6. Describe the relationship between temperature and resistance in a thermistor

Current, potential difference and resistance for different components

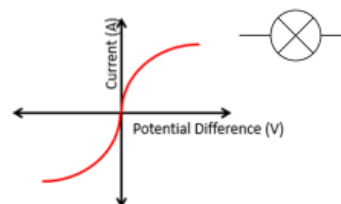
1. What readings would you need to take from a circuit to calculate resistance?



2. Describe the relationship shown



3. Why is there no current on one side of the graph?



4. What happens to current when the pd rises at first?
5. What happens to the current as the pd gets higher?
6. Why does the resistance increase at higher pd?

Climate Change

Background:	
1.	Since the 1860s the global climate has been recorded.
2.	Since then the climate globally has increased by 0.8° Celsius.
3.	Climate scientists can use methods to find out about the global climate before we started recording it. (B)
4.	From this evidence we can see that the planet has always gone through periods of warming and cooling. (A)
5.	However, the rapid increase of carbon dioxide in the atmosphere from burning fossil fuels, is causing the enhanced greenhouse effect. (D)
6.	The enhanced greenhouse effect is causing changes to the planet, such as the melting of Arctic sea ice, rising temperatures, and an increase in extreme weather events such as tropical storms. (E, F)
7.	Countries are trying to resolve the climate change issue by limiting the amount of carbon dioxide released into the atmosphere, this is known as mitigation. (G, H)
8.	Some countries are trying to adapt to climate change by building flood barriers and growing drought resistant crops. (G, H)

A. Changes in climate (3)	
Climate change	The process of the Earth's climate changing over time.
Glacial periods	Cold periods.
Inter-glacial periods	Warm periods.
B. Measuring climate change (3)	
Ice cores	Each layer of ice in a core represents a different year. CO ₂ can be measured in each layer, and therefore the temperature.
Tree rings	Each ring represents a different year. Thicker rings show a warmer climate.
Historical evidence	Paintings and diaries e.g. paintings of ice fairs on the frozen Thames 500 years ago.

C. Natural climate change (3)	
Volcanic eruptions	Ash from volcanic eruptions can block sunlight, making it colder.
Sun spots	The sun can give out more energy due to an increase in sun spots.
Orbital change	The orbit of the sun changes from oval (ellipse) to circular approx. 98,000 yrs.
E. Effects on people (6)	
Tropical storms	Increase in frequency and intensity so more damage.
Sea-level rise	Increased risk of floods, damaging property and businesses.
Melting Arctic ice	Affects trading routes in the Arctic Circle.
More droughts/floods	Crop failure, could lead to starvation and famine.
Cost of defence	Governments have to spend more money on disasters instead of developing.
Environmental Refugees	Pressure on countries to accept refugees.
G. Strategies to resolve climate change (4)	
Adaptation	Adapting to climate change to make life easier.
Adaptation examples (3)	1. Building flood defences. 2. Growing new crops to suit the new climate. 3. Irrigation channels, sending water from areas of surplus to deficit.
Mitigation	Trying to stop climate change from happening by reducing greenhouse gases.
Mitigation examples (3)	1. International agreements. 2. Alternative energies. 3. Carbon capture.

D. Human-induced climate change (5)	
Greenhouse effect	The way that gases in the atmosphere trap heat from the sun. Like glass in a greenhouse they let heat in, but prevent most from escaping.
Greenhouse gases	Gases like carbon dioxide and methane that trap heat around the Earth, leading to climate change.
Transport	More cars, so more CO ₂ causing the enhanced greenhouse effect.
Farming	Farming livestock produces methane, this is a greenhouse gas.
Energy	More energy required, meaning more fossil fuels burnt, so more CO ₂ .
F. Effects on the environment (4)	
Sea temperature rises	Coral bleaching and destruction of marine ecosystems.
More droughts	Migration/ death of species which can not survive drought conditions.
Melting glaciers (ice rivers)	Will send more fresh water into the sea, causing the sea level to rise.
Melting Arctic ice	Loss of habitats for animals, such as polar bears.
H. Place specific examples (2)	
Adaption	The Thames Barrier. Positive: Stops flooding due to rising sea levels. Negative: Expensive
Mitigation	The Paris Agreement. Positive: Countries are trying to lower CO ₂ emissions. Negative: The USA pulled out and China did not sign up.

Climate Change

Background:	
1.	Since the 1860s the global climate has been recorded.
2.	Since then the climate globally has increased by 0.8° Celsius.
3.	Climate scientists can use methods to find out about the global climate before we started recording it. (B)
4.	From this evidence we can see that the planet has always gone through periods of warming and cooling. (A)
5.	However, the rapid increase of carbon dioxide in the atmosphere from burning fossil fuels, is causing the enhanced greenhouse effect. (D)
6.	The enhanced greenhouse effect is causing changes to the planet, such as the melting of Arctic sea ice, rising temperatures, and an increase in extreme weather events such as tropical storms. (E, F)
7.	Countries are trying to resolve the climate change issue by limiting the amount of carbon dioxide released into the atmosphere, this is known as mitigation. (G, H)
8.	Some countries are trying to adapt to climate change by building flood barriers and growing drought resistant crops. (G, H)

A.	Changes in climate (3)	
Climate change		
Glacial periods		
Inter-glacial periods		

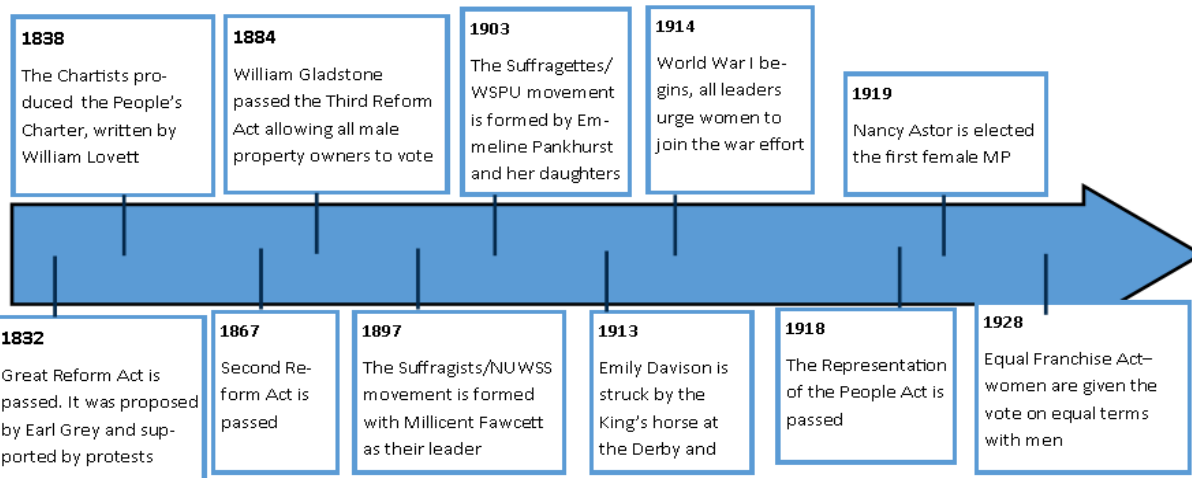
B.	Measuring climate change (3)	
Ice cores		
Tree rings		
Historical evidence		

C. Natural climate change (3)		
Volcanic eruptions		
Sun spots		
Orbital change		
E. Effects on people (6)		
Tropical storms		
Sea-level rise		
Melting Arctic ice		
More droughts/floods		
Cost of defence		
Environmental Refugees		
G. Strategies to resolve climate change (4)		
Adaptation		
Adaptation examples (3)		
Mitigation		
Mitigation examples (3)		

D. Human-induced climate change (5)		
Greenhouse effect		
Greenhouse gases		
Transport		
Farming		
Energy		
F. Effects on the environment (4)		
Sea temperature rises		
More droughts		
Melting glaciers (ice rivers)		
Melting Arctic ice		
H. Place specific examples (2)		
Adaption		
Mitigation		

Unit 2: The Suffragettes

Knowledge Organiser



Keywords	
Act a written law passed by Parliament	Propaganda information used to promote a political point that can be misleading or untrue
Ballot a system of voting on a particular issue	Reform make changes in order to improve something
Charter a written statement of the rights of a specified group of people	Representation Speaking or acting on behalf of someone
Democracy system of government by the whole population typically through elected representatives.	Rotten boroughs a borough that was able to elect an MP despite having very few voters, the choice of MP typically being in the hands of one person or family.
Enfranchisement To be given the right to vote	Strike an organised refusal to do something expected or required typically to gain a concession
Manifesto A public set of political aims written down	Suffrage the right to vote
Parliament a group of people who make the laws for their country	Tactics An action or strategy carefully planned to achieve a specific end
Petition a formal written request, typically one signed by many people, appealing to authority in respect of a particular cause	

Key concept: Causation

Long term	Factor(s) that were around or happened significantly before hand. E.g. Success of protests for male suffrage, demands of the Chartists
Short term	Factor(s) that happen relatively close to the event you are studying. E.g. Militant actions of the Suffragettes
Spark or Trigger	A significant factor or turning point, that has an immediate impact that sets a sequence of events in motion that won't turn back. E.g WW1 and changing role of women.

Key people

Nancy Astor	The first women elected as a Member of Parliament (MP)
Emily Davison	Joined the WSPU in 1906. Was struck by the King's horse at the Epsom Derby and killed in 1913.
Benjamin Disraeli	A Conservative Prime Minister (1868, 1874-80) who introduced the Second Reform Act
Millicent Fawcett	Founded the Suffragists/NUWSS in 1897
William Gladstone	A Liberal politician who served in Parliament for over 60 years and four times as Prime Minister. He passed the Third Reform Act, extending the vote to all male homeowners.
Earl Grey	A Whig Prime Minister who proposed the Great Reform Act in 1831 and resigned when the House of Lords rejected it.
Annie Kenney	A working-class socialist feminist who was active in the WSPU as a militant member and was arrested.
William Lovett	The leader of the Chartist movement and wrote the People's Charter in 1838
Christabel Pankhurst	Speaker for the WSPU in 1905. She trained as a lawyer but could not practice as a woman. She fled the country in 1912 for fear of rearrest, and unsuccessfully ran for parliament in 1918.
Emmeline Pankhurst	Founded the WSPU in October 1903 and encouraged militant action as a form of protest. Was arrested many times, she went on hunger strike and was force-fed. Mother of Christabel.

How do I use my knowledge organiser?

Have you learnt the key dates of this unit?

Can you put the dates into chronological order?

Have you mastered the keywords?

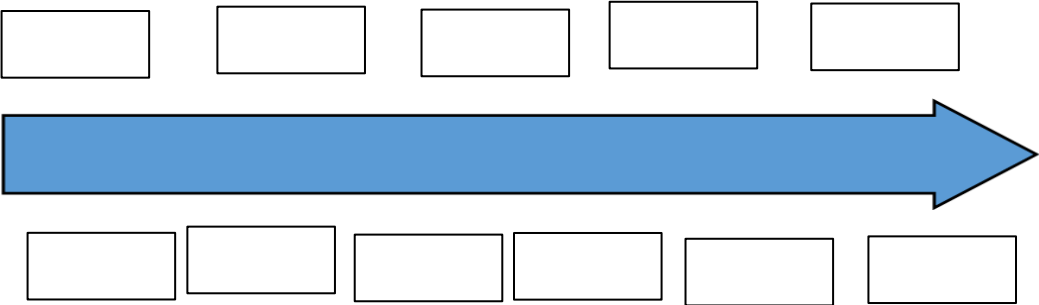
Can you spell them?

Can you define them?

Have you understood the key concept?

Unit 2: The Suffragettes

Knowledge Organiser



Keywords	
Act	Propaganda
Ballot	Reform
_____ a written statement of the rights of a specified group of people	Representation
Democracy	_____ a borough that was able to elect an MP despite having very few voters, the choice of MP typically being in the hands of one person or family.
Enfranchisement	Strike
Manifesto	Suffrage
_____ a group of people who make the laws for their country	Tactics
Petition	

Key concept: Causation	
Long term	
Short term	
Spark or Trigger	

Key people	
Nancy Astor	
Emily Davison	
Benjamin Disraeli	
Millicent Fawcett	
William Gladstone	
Earl Grey	
Annie Kenney	
William Lovett	
Christabel Pankhurst	
Emmeline Pankhurst	

Y9 RE

1	Morality	Principles concerning the distinction between right and wrong or good and bad behaviour.	11	Relative	Depending on the situation or the context, opposite of relative.
2	Ethics	Moral principles that govern a person's behaviour or the conducting of an activity.	12	Agape	Unconditional love, "the highest form of love, charity" and "the love of God for man and of man for God".
3	Sanctity of Life	The view that all life is sacred because it is made by God.	13	Abortion	A procedure to end a pregnancy.
4	Quality of Life	The standard of health, comfort, and happiness experienced by an individual or group.	14	Pro-Life	Against abortion and euthanasia.
5	Rules	Regulations or principles governing behaviour.	15	Pro-Choice	Supporting the legal right of a woman to choose whether or not she will have an abortion.
6	Natural Moral Law	A system of laws based on close observation of human nature, given to humans by God and proposed by Aquinas.	16	Euthanasia	The painless killing of a patient suffering from an incurable and painful disease or in an irreversible coma.
7	Precept	A rule made to regulate behaviour or thought.	17	Capital Punishment	The legally authorized killing of someone as punishment for a crime, death penalty.
8	Reason	The power of the mind to think, understand, and form judgements logically.	18	Animal Rights	the rights of animals to live free from human exploitation and abuse.
9	Absolute	A rule or principle which is seen as universally valid and should be applied all the time, no matter what.	19	Dominion	To be in charge of something or rule over it.
10	Situation Ethics	The view that there should be flexibility in the application of moral laws according to circumstances.	20	Stewardship	The job of supervising or taking care of something.



B. 3.2G Comer y beber

- A. Free time activities
- B. Food and Drink
- C. Sports
- D. Foods
- E. Sports
- F. Key words across topics

1. Almuerzo	4. Peligroso
2. Ceno	5. evitar
3. Desayuno	6. cambiar

aburrido/a	boring
agradable	pleasant
al aire libre	in the open air
batería	drums
la canción	song
dar un paseo	to go for a walk
de vez en cuando	From time to time
Desafiante	Challenging
divertido/a	fun
Emocionante	exciting
entretenido/a	entertaining
la entrevista	interview
estar en forma	to be fit
grabar	to record
la letra	lyrics, words
relajante	relaxing
la rutina	routine
la tarde	afternoon, evening
el terror	horror

el agua (mineral)	(mineral) water
beber	to drink
el bocadillo	sandwich
la carne	meat
la cena	evening meal
cenar	to eat evening meal
comer	to eat
la comida	lunch, food, meal
desayunar	to have breakfast
el desayuno	breakfast
después	afterwards
el perrito caliente	hot dog
el pollo	chicken
el postre	dessert, pudding
el queso	cheese
Tomar	to take, to have (food, drink)
la tortilla	omelette
la tostada	toast
el vaso	glass

activo/a	active
al aire libre	in the open air, outdoors
ayudar	to help
el baloncesto	basketball
el campo	countryside, field
la cancha	court (tennis)
los deberes	homework
la equitación	horse riding
el estadio	stadium
montar a caballo	to ride a horse
montar en bicicleta	to ride a bike
la natación	Swimming
pasar	to spend time
el patinaje	skating
la pista de hielo	ice rink
el polideportivo	sports centre
tranquilo/a	peaceful, quiet

<u>Ser</u> To be	<u>Tener</u> To have	<u>Present</u>	<u>Past</u>	<u>Future</u>
Soy = I am	Tengo = I have	Hablo I speak	Hablé I spoke	Voy a Hablar I am going to speak
Eres = You are	Tienes = You have	Como I eat	Comí I ate	Voy a comer I am going to eat
Es = s/he is	Tiene = s/he has	Voy I go	Fui/fue I am/it was	Voy a ir I am going to go
Somos = We are	Tenemos = We have	Soy I am	Fui I was	Voy a ser I am going to be
Son = They are	Tienen = They have	Tengo I have	Tuve I had	Voy a tener I am going to have

la aceituna	olive
la basura	rubbish, junk
el bocadillo	Sandwich
el/la camarero/a	waiter
dejar	to leave, to let,
escoger	to choose
los espaguetis	Spaghetti
el/la esposo/a	husband, wife
el gusto	taste
la lata	tin, can
las legumbres	Pulses (lentils)
optar por	to opt for

el alpinismo	rock climbing
cansado/a	tired
la carrera	race
el concurso	Competition(contest)
durante	during
el entrenamiento	training
entrenar	to train
el equipo	team
ganar	to win
el jugador	player
mañana	tomorrow
el miembro	member
el partido	match

to have = tener	Divertido – fun
to be = ser	Aburrido – boring
to go = ir	Útil – useful
to do = hacer	Inútil – useless
to play = jugar	Comodo – comfy
to see = ver	Interesante- interesting
to listen=escuchar	Entretenido – entertaining
to buy =comprar	Emocionante – exciting
to live =vivir	Guay – cool
to speak= hablar	Genial – great
to have to = deber	Soso – dull
to want to=querer	Asqueroso – disgusting
to visit = visitar	Malo- bad
to eat =comer	Bueno – good
to drink = beber	Arriesgado- risky
to go out = salir	Educativo- educational
to read = leer	Estimulate- stimulating
to work = trabajar	Peligroso- dangerous
to think = pensar	
to write =escribir	



SPANISH Year 9 Term 2 Knowledge Organiser: Topic = Food, drink and sports



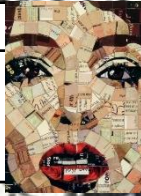
G. Translation Practice	
For lunch, and for breakfast I drink tea	p e a, y p e d b t
The prawns are delicious	l g s d
The chips are cold	l p f s f
The food is bad	l c e m
Normally I eat salad everyday	n c e t l d
The soup is tasty	l s e s
The salads are delicious	l e s d
I think that chicken is more tasty than pork	p q e p e m s q e c
I think salad is more healthy than ice cream	p q e e m s q h
I believe that ice cream is more fatty than salad	c q h e m g q e
We are going to go out to eat	v a s a c
They are going to buy a present	v a c u r
We are going to celebrate my grandma's birthday	v a c e c d m a
I am going to prepare a healthy hot dog	v a p u p c s
Often they play basketball in the free time	a m j a b e l t l
Usually we listen to music every day	a m e m t l d
I hope to visit my grandma's house	e v l c d m a
I'm going to cook chicken and chips	v a c p c p f
I have to cook every day	t q c t l d
I'm thinking of watching TV tonight	p v l t h p l t
For breakfast, I drink milk and eat a sandwich	p e d, b l y c u b
For desert, they eat cake	p e p, c p
For breakfast, I take salad and chicken	p e d, t e y p
The football match was good	E p d f f b

H. Key Questions: Answer the following in your own words. Use these model answers	
¿Qué deberías hacer para mejor proteger tu forma/tu salud? What should you do to improve your health?	Debería hacer ejercicio físico durante 30 minutos cada día. Para mejorar tu salud, hay que comer cinco raciones de verdura o fruta cada día, no tienes que comer demasiada carne roja/caramelos/gaseosas, no deberías fumar cigarrillos o porros, no debes consumir tanta grasa en la comida, no debes tomar las drogas duras/blandas.
¿Qué deberían hacer en los colegios para mejorar la salud de los jóvenes? What should schools do to improve health of Young people?	En los colegios, solo deben vender comida sana, no deberían vender gaseosas/bebidas azucaradas/deben mejorar la cantidad de fruta y verdura/deben mejorar la cantidad de ejercicio físico que tienes que hacer durante la semana.
¿Qué comes para el desayuno, la cena, tu almuerzo? ¿es sano? What do you eat for breakfast, dinner, lunch? Is it healthy?	Para el desayuno, como normalmente los cereales que son deliciosos con zumo de naranja. Para la cena como normalmente carne con patatas y verduras con mi familia en casa que es un poco sano. Para mi almuerzo, como un bocadillo con jamón y queso en el colegio con agua o coca. Ayer desayuné ... cené ... comí para mi almuerzo ...
¿Tomas demasiadas bebidas azucaradas? Do you drink too many fizzy drinks?	Si, tomo demasiadas bebidas azucaradas porque son deliciosas y muy dulces/me dan energia/todos mis amigos las beben, pero lo sé que son muy malas para la salud/para mi cuerpo.
I. Key Questions: Try to translate the model answers using words from the KO	
¿Qué te gusta comer/beber? What do you like to eat/drink	For breakfast I like to eat toast but I never eat cereals because they aren't tasty. For lunch I eat a sandwich with ham or cheese or I eat pizza with ham or sausage. For my main meal normally I eat chips with meat or fish or vegetables with potatoes
¿Eres Sano? About your family	I think I'm healthy because I don't smoke and I like to eat lots of fruit. I like to eat vegetables but I have to eat more vegetables and I have to eat less sweets
¿Qué es tu opinión de fumar? What is your opinion on smoking	I do not like smoking because I think that it is stupid. My brother smokes and it smells bad. Also, it causes cancer and is really dangerous
¿Qué te gusta hacer en tu tiempo libre y por qué? What do you like doing in your free time	Normally in my free time I like to play football. I play football after school every day and from time to time I play rugby. I don't like to dance because it's boring and I love to play computer games because they are exciting

J. Key Grammar	
Make sure adjectives agree eg blanco/blanca/blancos/blancas	Mi casa es blanca = My house is white Mi perro es blanco = My dog is white
Using verbs correctly in the present tense	Hablar hablo, hablas, habla, hablamos, habláis, hablan Como, comes, come, comemos, coméis, comen
Comparatives More /less Better/worse The best/the worst	Más/menos que – more/less than Mejor/peor que – better/worse than Lo mejor/lo peor = the best/the worst

What we are learning this term:

- A. Ines Kouidis
- B. Michael Volpicelli
- C. Techniques and skills

**A. How has Ines Kouidis created this image?**

- 1 What materials has she used?
Ines uses a range of scrap materials including envelopes, scrap paper, newspapers, old magazines and cardboard.
- 2 How has she torn the material?
Ines doesn't use scissors often, but more she tears the material so to get a rough edge to her work. A type of uneven and rustic approach to her outcomes.
- 3 What impact do smaller pieces of material have?
She is very particular about the size of pieces she is collaging. Smaller and more detailed pieces can form darker areas and shadows. Lagers and lighter pieces are the highlights. The smaller the pieces, the longer it will take her- however the more intricate it will become.
- 4 Who does she make collages of?
She usually makes collages of famous people in history, who might be dead or alive today. These people influence her making and have had an impact on Ines' live. They are her main inspiration.

**C How to make a collage.**

Collage: is a form of art by cutting and ripping paper to create interesting artworks.

Steps for making your collage:

1. Start by having an image as a source, something you will use as a guide to follow or for inspiration
2. Use a range of different types of paper, such as; scrap paper, newspaper, card, coloured paper.
3. Tear the paper to get a jagged edge, cut with scissors to get a straight edge.
4. The smaller the pieces of paper, the more detailed the outcome.
5. Darker paper in more shaded areas. Lighter paper in highlighted areas.
6. Add additional details on the face and in the background, following the same technique as step 2 and 3.

What each tool is used for:

Cutting mat	To protect the table from damage.
Glue stick	To cleanly stick the shapes onto paper.

Looking at the image drawn by Michael Vollpicelli, how does he create.....

1. Darker areas? Michael creates darker areas on the portrait by doing smaller words that are closer to one another to create shadowing.
2. Lighter areas? Words further apart and larger will be lighter

**C. Name the following equipment.**

		
Sharpie or permanent marker	Sheets of acetate	Masking tape

B. Answer the following questions about Michaels work and how he works.

What part of the body does Michael focus in drawing?	Michael focuses in on the face and facial features. This is called portraiture.
What effect do the larger words make?	The larger words make highlighted areas on the face
How would you describe his work?	Meaningful, cultural identities, typography, portrait,
What is significant about the words he uses to make up the drawing?	The words he uses are meaningful to that particular person. They might be words that describe them, or what they do, what impact they have or their personality.

**B. About the work of artist Michael Volpicelli**

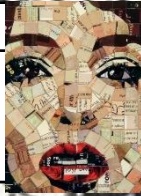
WHAT?	Michael creates word art using a variety of sizes to make up a portrait of a person.
HOW?	Use uses a fine permanent marker to draw with words. Larger words create a highlight and smaller more scrambled words create shadows and darkness.
WHY?	Michael draws people using words he thinks describes them. Kind and thoughtful words to spread the kindness.

F. Keywords

Appropriate	Suitable for a particular person, place or condition
Highlight	An area of lightness in an image
Shadow	When an object or artwork intercepts light and causes an obscurity
intricate	Having many complexly arranged element
relevant	Having a bearing or connection with the subject or matter

What we are learning this term:

- A. Ines Kouidis
- B. Michael Volpicelli
- C. Techniques and skills



A. How has Ines Kouidis created this image?

1 What materials has she used?

2

3

4

What materials has she used?

How has she torn the material.....

What impact do smaller pieces of material have?

Who does she make collages of?



C How to make a collage.

Collage:

Steps for making your collage:

1.

2.

3.

4.

5.

What each tool is used for:

Magazines

Glue stick

Looking at the image drawn by Michael Volpicelli, how does he create.....

1. Darker areas?

2. Lighter areas?



C. Name the following equipment.



B. Answer the following questions about Michaels work and how he works.

What part of the body does Michael focus in drawing?

What effect do the larger words make?

How would you describe his work?

What is significant about the words he uses to make up the drawing?

F.

Keywords

Appropriate

Highlight

Shadow

intricate

relevant

B.

About the work of artist Michael Volpicelli

WHAT?

HOW?

WHY?



YEAR 9 GRAPHIC COMMUNICATION

What are we learning this term?

A Logos	B Typography	C Computer skills	D Key words	E Evaluation
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A | Logos

What is a logo?

A graphic design element that includes words and images, shapes, symbols or colour.

How does Alex Trochut design logos?

Alex Trochut collaborates with brands to create new catchy designs. He uses text and imagery to create visual art. The viewer first notices the imagery but looks closer to find a hidden message through typography.

B | Typography

Draw your initials in the typographic style of designer Alex Trochut work



C | Computer skills

What is the shortcut for copy?

Ctrl + C

What is the shortcut for paste?

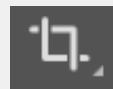
Ctrl + V

What does this symbol stand for?



Photoshop

What does this symbol mean?



Cropping

D | Key words

Merchandise	Branded products used to promote and sell a product
Combined Logo	A logo that uses both images and text
Photoshop	A software for editing photos and graphics. It is used for image editing, making illustrations or web design.
Photo Editing	The act of image and enhancement and manipulation

E | Evaluation

Evaluation: To judge or give an opinion

Designers will evaluate their products to see what works well and what doesn't. This way they can make any improvements on their current designs to ensure a high-quality product.

When writing an evaluation it is important to include the following three things:

1. Positives – what works well
2. Negatives – what doesn't work well
3. Possible improvements – how could you make it better?

For example:

My tote bag looks great, the colours are bright which appeals to the audience of the festival. However, I have not designed a combined logo. One improvement I could make is to use images and text to create a combined logo.

YEAR 9 GRAPHIC COMMUNICATION

What are we learning this term?

A Logos	B Typography	C Computer skills	D Key words	E Evaluation
------------	-----------------	----------------------	----------------	-----------------

A | Logos

What is a logo?

How does Alex Trochut design logos?

B | Typography

Please use pencil for the drawing of your design

C | Computer skills

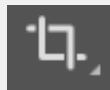
What is the shortcut for copy?

What is the shortcut for paste?

What does this symbol stand for?



What does this symbol mean?



D | Key words

Merchandise

Combined Logo

Photoshop

Photo Editing

E | Evaluation

Evaluation: To judge or give an opinion

When writing an evaluation it is important to include the following three things:

1. Positives – what works well
2. Negatives – what doesn't work well
3. Possible improvements – how could you make it better?



Year 9 PRODUCT DESIGN Rotation Knowledge Organiser

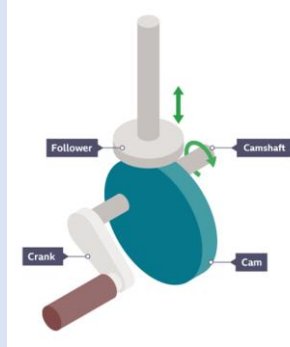
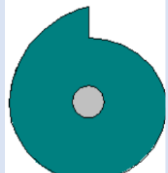


What we are learning this term:						
A. Workshop Tools		B. Materials	C. Key concepts	D. Key Words	E. Types of Cams	
A.	Workshop Tools					
Steel Rule	Tri-Square	Laser Cutter	Mitre square	Tenon Saw	Pillar Drill	Bandfacer
						

B. Materials	
Timbers come from trees	
	Scots pine – which you used for your box walls – is a softwood Softwoods come in planks and boards
Manufactured Boards come from wood pulp	
	Plywood – which you used as your base and Lid– is a manufactured board Manufactured Boards come in sheets
Polymers come from crude oil	
	Acrylic – which you used as your lid decoration for your trinket box – is a polymer Polymers come in sheets, graduals and filament

C. Key concepts	
Designers research and investigate resources and materials to help inspire ideas.	
Computer-aided design (CAD) is the process of using computer software to create 2D or 3D designs.	
Advantages	Disadvantages
Designs can be created, saved and edited quickly, saving time	CAD takes a long time to learn
Designs or parts of design can be easily viewed from different angles, copied or repeated	Software can be very expensive
CAD is very accurate	CAD files can become corrupted or lost
Hazards – these are something that could potentially harm you. There are many such as:	
- Bags and chairs acting as a trip hazard - Untucked shirts, baggy clothes and untied hair are common things to get caught on tools and machines. - Drinks and liquids, if spilled can become slip hazards	
Preventative measures – rules put in place to minimize the likelihood of a hazard occurring.	
- No food and drink in workshops - Bags and chairs stored neatly in designated areas - Long hair must be tied up and correct uniform worn.	
Personal protective equipment (PPE)	
The three used most often are aprons, safety goggles and ear defenders.	

D.	Key Words	
Prototype		An early model or sample of a product used to test a concept
Tolerance		The margin of error allowed for a dimension without negatively impacting a product
Depth stop		A part on a tool which is used to help cut or drill a specific depth.
Assemble		Creating a product by bringing several components together.

E. Types of Cams	
Cam mechanism	A cam mechanism has two main parts: • A cam – attached to a crankshaft – which rotates • A Follower – touches the cam and follows the shape, moving up and down
Cam shapes are important for the movement of the follower. • Off set circular - gradually moves the follower up and down • Pear shaped - keeps the follower at the same height for half a rotation before quickly moving it up and down. • Snail Cam - allows the follower to rise before abruptly dropping, this cam can only rotate one way • 4-lobed - rises and drops the follower 4 times per rotation and can only go one way	
Off-set circular Cam 	Pear shaped Cam 
Snail Cam 	4-lobed Cam 

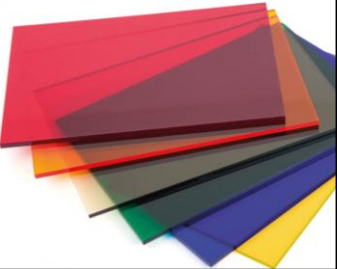


Year 9 PRODUCT DESIGN Rotation Knowledge Organiser



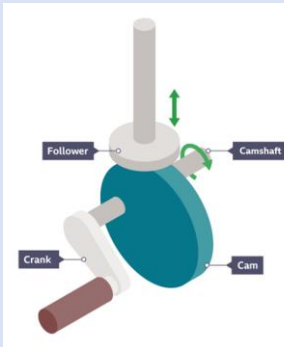
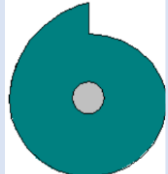
What we are learning this term:				
A. Workshop Tools	B. Materials	C. Key concepts	D. Key Words	E. Evaluating Work

A. Workshop Tools						
						

B. Materials
Timbers come from _____
 Scots pine – which you used for your box walls – is a softwood Softwoods come in _____
Manufactured Boards come _____
 Plywood – which you used as your base and Lid– is a manufactured board Manufactured Boards come in _____
Polymers come from _____
 Acrylic – which you used as your lid decoration for your trinket box – is a polymer Polymers come in _____

C.	Key concepts	
Designers research and investigate _____ _____		
_____ (CAD) is the process of using computer_____. _____.		
Advantages		Disadvantages
Hazards – these are something that could potentially harm you. There are many such as: _____ _____ _____ _____		
Preventative measures – rules put in place to minimize the likelihood of a hazard occurring. _____ _____ _____ _____		
Personal protective equipment (PPE) The three used most often are _____ _____		

D.	Key Words	
Prototype		
Tolerance		
Depth stop		
Assemble		

E. Types of Cams	
Cam mechanism	A cam mechanism has two main parts: • A cam – _____ • A Follower – _____
Cam shapes are important for the movement of the follower. • Off set circular - _____ • Pear shaped - _____ • Snail Cam - _____ • 4-lobed - _____	
	
	
	

Year 9 – High Skills

What we are learning this term:

- A. Health, safety and hygiene in the kitchen
- B. The Eatwell guide and nutrients
- C. The Dietary requirements of a teenager
- D. Skills testing
- E. Healthy cooking
- F. Chopping Board Colours

6 Key Words for this term

- | | |
|------------------------|-----------------------|
| 1 Hygiene | 4 Healthy |
| 2 Dietary Requirements | 5 Teenager |
| 3 Skills Test | 6 Cross Contamination |

A. Explain the main four things that you should do when you enter the kitchen area.

- | | |
|---------------------------------------|--|
| Remove all of your jewellery. | Jewellery can harbour bacteria and could fall off into the food. |
| Tie back your hair | Hair could fall into the food or touch equipment. |
| Wash your hands with hot soapy water. | To remove any germs and bacteria from your hands and nails. |
| Put on an apron and tie it back. | To protect you from the food and equipment and the food from touching you. |

B. Can you list 5 of the dietary requirements of a teenager?

- 1 A diet high in carbohydrate as a teenager is normally an energetic person.
- 2 A diet with 2-3 portions of protein to maintain muscle growth and cell repair
- 3 A diet with 2 -3 sources of calcium to build developing teeth and bones.
- 4 A diet low in fat to avoid becoming obese or developing other health problems.
- 5 Drinking 2 litres of water a day.

FOOD SAFETY CHOPPING BOARDS

If used correctly, colour coded chopping boards can eliminate or reduce the risk of cross contamination during food preparation

- RAW MEAT
- RAW FISH
- COOKED MEATS
- SALAD & FRUIT PRODUCTS
- VEGETABLE PRODUCTS
- BAKERY & DAIRY PRODUCTS

Clean and store chopping boards correctly after use



A. What is cross contamination and how can it be prevented?

Cross contamination happens when you use the wrong chopping board or equipment to prepare food which can therefore result in food poisoning. You must use the correct equipment for the correct ingredients. You must also ensure that you are always following good hygiene practices when cooking.

B. What do the following terms mean?

- | | |
|----------|---|
| Grilling | Using the top part of the oven. It involves a significant amount of direct, radiant heat, and tends to be used for cooking meat and vegetables quickly. It is also a healthier method of cooking meat products. |
| Baking | Baking is a method of preparing food that uses dry heat, normally in an oven. Heat is gradually transferred from the surface of cakes, cookies, and breads to their centre. |
| Frying | Frying is the cooking of food in oil or another fat. It is usually done in a frying pan using the hob of the cooker. It also known to be unhealthy. |

C. Can you list 5 reasons for why we cook food and why it is important?

Rule

- 1 to get rid of bacteria on the food
- 2 to make the food taste better
- 3 to make food chewable
- 4 to ensure that food is not raw
- 5 to add colour to the food

Why it is important

- 1 to stop food poisoning
- 2 to make the food more appealing
- 3 it could be raw or a choking hazard
- 4 to stop food poisoning
- 5 to make it look more appetising or change its use

E. Keywords

- | | |
|------------------|---|
| Hygiene | A method of keeping yourself and equipment clean |
| Research | Information that you find out to help you with a project |
| Nutritious | A meal that is healthy and contains vital nutrients. |
| Target Market | The age or type of person you re creating a product for. |
| Carbohydrates | Foods that give you energy |
| Protein | Food that grow and repair your muscles |
| Fibre | Foods that keep your digestive system healthy and avoid constipation. |
| Calcium | Foods that make your teeth and bones strong |
| Design Idea | A sketch or plan of how you are hoping a project to turn out. |
| Organisation | Having everything ready for a lesson and following instructions |
| Time keeping | Using the time to remain organised. |
| Sensory analysis | Use your senses to taste and describe a product |
| Mood Board | A collage of photos and key words based on a project |
| Time Plan | Instructions of wat you are going to do and how long it should take. |
| Skills Test | Demonstrating your knowledge of a cooking term. |
| Teenager | Someone between the age of 13 – 19. |

Guía Eatwell



What we are learning this term:
A. Health, safety and hygiene in the kitchen
B. The Eatwell guide and nutrients
C. The Dietary requirements of a teenager
D. Skills testing
E. Healthy cooking
F. Chopping Board Colours

6 Key Words for this term
1 Hygiene
2 Dietary Requirements
3 Skills Test
4 Healthy
5 Teenager
6 Cross Contamination

A.	Explain the main four things that you should do when you enter the kitchen area.



Year 9 – High Skills	
B.	Can you list 5 of the dietary requirements of a teenager?
1	
2	
3	
4	
5	

FOOD SAFETY CHOPPING BOARDS
 If used correctly, colour coded chopping boards can eliminate or reduce the risk of cross contamination during food preparation








BAKERY & DAIRY PRODUCTS


 Clean and store chopping boards correctly after use



A	What is cross contamination and how can it be prevented?
B.	What do the following terms mean?
Grilling	
Baking	
Frying	

C.	Can you list 5 reasons for why we cook food and why it is important?
Rule	Why it is important
• 1	• 1
• 2	• 2
• 3	• 3
• 4	• 4
• 5	• 5

E.	Keywords
Hygiene	
Research	
Nutritious	
Target Market	
Carbohydrates	
Protein	
Fibre	
Calcium	
Design Idea	
Organisation	
Time keeping	
Sensory analysis	
Mood Board	
Time Plan	
Skills Test	
Teenager	



What we are learning this term:

- Learn about EDM music and how it's made
- Compose your own EDM piece of music in Soundtrap
- Analysis of EDM music to understand its structure, instruments and features

F

Keywords

Piano Roll The space where you can add notes to a MIDI instrument

Velocity How loud or quiet a note is played in a DAW e.g. High velocity = Louder notes.

EDM *Electronic Dance Music* is a genre of music that uses synthesised sounds, drum machines and vocals.

MIDI Instruments that are played in a DAW (soundtrap) are MIDI instruments. This means *Musical Instrument Digital Input*

DAW *Digital Audio Workstation* is a program used to create music (*Soundtrap*)

4 to the floor A rhythm that is primarily used in EDM music, where there is a kick drum on every beat.

Sampling When a sound or part of a song is taken and changed so it can be used in another song, for example, sampling vocals.

Automation A tool in DAWs where you can change the volume/effect automatically. For example a guitar could fade in and out.

Quantize A tool in DAWs that can make notes in time.

Build up The part of an EDM piece where the music builds up to another section.

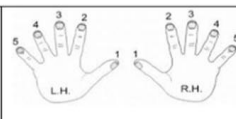
Drop The part of an EDM song where the main beat comes in. This usually comes after the build up

Bass Line The lowest sequence of notes in a piece of music. Usually played with a bass instrument i.e 808

C

Playing the Keyboard

- Remember to use your right hand when playing notes in the treble clef



Riff

A catchy phrase in a piece of music, shorter than the melody.

Phrase

A small section of music, this can be repeated throughout a piece of music.

Hook

A catch phrase in a piece of music, usually sung.

Syncopation

A musical technique where the weak beats are emphasised / off beat rhythms

Structure

How a song is put together, like a blueprint.

Loop

A repeating section of sound, this can be a melody or a drum beat

Remix

A retelling of a piece of music where elements of the original song are combined with new elements

C

Chord Progressions Ideas

Here are some popular chord progressions you can use for your EDM piece!

VI

IV

V

I

VI

V

I

IV

VI

IV

I

V

I

V

VI

IV

G

How to read music – treble clef and Bass Clef

TREBLE LINES: E G B D F



TREBLE SPACES: F A C E



BASS LINES: G B D F A



BASS SPACES: A C E G



EDM song structure

Intro

Build-up

Pre Hook

Hook

Bridge

Pre Hook

Hook

Outro

The EDM or "Banger" structure follows a structure of builds and drops. Rather than using standard verses, this structure instead has (usually) to main builds where tension increases over time before being released in the hooks. What's key here is the use of rhythm to create tension and build energy between the hooks.

(-) Soundtrap



Here is a useful video to help you get started:



What we are learning this term:
A. Learn about EDM music and how it's made
B. Compose your own EDM piece of music in Soundtrap
C. Analysis of EDM music

C	Playing the Keyboard
---	----------------------

Remember to use your right hand when playing notes in the treble clef

Riff	
Phrase	
Hook	
Structure	
Loop	
Remix	

EDM song structure

The EDM or "Banger" structure follows a structure of builds and drops. Rather than using standard verses, this structure instead has (usually) to main builds where tension increases over time before being released in the hooks. What's key here is the use of rhythm to create tension and build energy between the hooks.

C	Chord Progressions
---	--------------------

Here are some popular chord progressions you can use for your EDM piece!

G	How to read music – treble clef and Bass Clef
---	---

TREBLE LINES: E G B D F TREBLE SPACES: F A C E

BASS LINES: G B D F A BASS SPACES: A C E G

Here is a useful video to help you get started:



A	What we are learning about this term...
1	Popular song structure
2	Lyrics , hooks and riffs in popular music
3	Melody – conjunct and disjunct
4	Range, instruments and lead sheets in pop music



B	Keywords
Lyrics	The words of a song – split into verses and choruses
Hook	the ' catchy bit ' of the song that you will remember. It is short and repeated in different places throughout the song.
Riff (Ostinato)	Short, repeated musical pattern often used in the introduction and instrumental breaks in a song.
Melody	The tune – usually lead singer has this
Counter-melody	An ' extra ' melody often performed 'on top of' the main melody to compliment it
Homophonic (texture)	A texture that has a melody and accompaniment (e.g chords/bassline)
Lead Sheet	Form of notation that only shows the essential parts (eg lyrics, bassline and chords) to perform from
Arrangement	Adapting songs to be performed by other instruments or in a different style
Cover Version	A new performance by someone OTHER than the original artist/songwriter

C	Instruments in popular music
---	------------------------------

Pop Bands often feature a **DRUM KIT** and **PERCUSSION** to provide the rhythm along with **ELECTRIC GUITARS (LEAD GUITAR, RHYTHM GUITAR and BASS GUITAR)** and **KEYBOARDS**. Sometimes **ACOUSTIC INSTRUMENTS** are used such as the **PIANO** or **ACOUSTIC GUITAR**. **ORCHESTRAL INSTRUMENTS** are often found in pop songs such as the **STRINGS, SAXOPHONE, TROMBONE** and **TRUMPET**. Singers are essential to a pop song - **LEAD SINGER** – Often the “frontline” member of the band (most famous) who sings most of the melody line to the song. **BACKING SINGERS** support the lead singer providing **HARMONY** or a **COUNTER-MELODY** (a melody that is often higher in pitch and different, but still ‘fits with’ the main melody) and do not sing all the time but just at certain points within a pop song e.g. in the chorus.



D	Exploring Conjunct and Disjunct Melodies
---	--

CONJUNCT MELODIC MOTION – Melodies which move **mainly by step** or use notes which are next to or close to one another.

Conjunct

DISJUNCT MELODIC MOTION – Melodies which **move mainly by leap** or use notes which are not next to or close to one another.

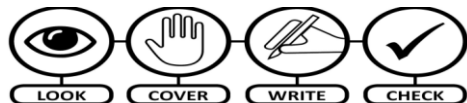
Disjunct

MELODIC RANGE – The **distance between the lowest and highest** note in a melody

F	Note Values and Dotted Note Values						
Note	Name	Beats	Rest	Note	Name	Beats	Rest
	Semibreve, Whole Note	4 beats			Dotted Semibreve, Dotted Whole Note	6 beats	
	Minim, Half Note	2 beats			Dotted Minim, Dotted Half Note	3 beats	
	Crotchet, Quarter Note	1 beat			Dotted Crotchet, Dotted Quarter Note	1½ beats	
	Quaver, Eighth Note	1/2 beat			Dotted Quaver, Dotted Eighth Note	¾ beat	

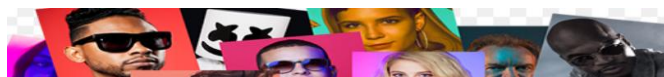
G	Describing music – MAD T SHIRT							
M	A	D	T	S	H	I	R	T
Melody	Articulation	Dynamics	Texture	Structure	Harmony/Tonality	Instruments	Rhythm	Tempo
The tune	How notes are played	Loud/quiet and any other volume changes	Layers of sound / how they fit together	The sections and organising	Chords used / the mood	Types of instruments heard	Pattern of notes	The speed

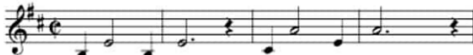
A	What we are learning about this term...
1	Popular song structure
2	Lyrics , hooks and riffs in popular music
3	Melody – conjunct and disjunct
4	Range, instruments and lead sheets in pop music



B	Keywords

C	Instruments in popular music
Read the information and provide a SUMMARY here of the main points Instruments used in pop music	



D	Exploring Conjunct and Disjunct Melodies
C_____	MELODIC MOTION – Melodies which move _____ or use notes which are next to or close to one another.
Conjunct	
D_____	MELODIC MOTION – Melodies which _____ or use notes which are not next to or close to one another.
Disjunct	
MELODIC RANGE – The _____ note in a melody	

SCAN ME



F		Note Values and Dotted Note Values					
Note	Name	Beats	Rest	Note	Name	Beats	Rest
							
							
							
							

G	Describing music – MAD T SHIRT							
M	A	D	T	S	H	I	R	T
M_____	A_____	D_____	T_____	S_____	H_____/T_____	I_____	R_____	T_____

Improvisation

improvising is inventing and creating content spontaneously. It's a great way to generate new ideas and for creating and developing characters, using a variety of useful techniques.

Spontaneous improvisation which is completely unplanned can generate dialogue or scenarios that you feel work for the piece you are creating. This can then be refined, rehearsed and included in your finished **devised** piece.

A **constraint** is a condition that you must apply to a scene, so that you're improvising within a set of rules. Here are some ideas for working with constraints when improvising.

Space

A very small space, such as a lift. Characters must behave as they would normally but within a tiny playing area.

A vast space, such as across a giant mountain range. Consider how changing **proximity** affects body language, vocal tone and volume and interaction, between characters. There may be something that works and could be included in your devised piece.

This improvisational exercise is excellent for creating entirely new and unplanned characters and scenarios.

Where, who, what?

Choose a location, eg a supermarket or a roller coaster. Select characters, eg an astronaut or an I.T. manager. Finally, choose a motivation for the character, eg they are looking for a partner or want to be famous at any cost. Each piece of information should be randomly selected, so that they don't necessarily match up. This can make for interesting and very humorous drama.

- **Improvisational Theater (improv):** is a form of theater where most or all of what is performed is created at the moment it is performed.
- In its purest form, the dialogue, the action, the story and the characters are created collaboratively by the players as the improvisation unfolds.
- Improv exists in performance as a range of styles of improvisational comedy as well as some non-comedic theatrical performances.
- It is sometimes used in film and television, both to develop characters and scripts and occasionally as part of the final product.

Tips for success

-Listen to your partner.

A scene will often 'go stale' if the people involved are not responding genuinely to each other. Improv is all about **teamwork** and the relationship you have with each other. The better the relationship, the better the scene will be to the audience.

-Use 'yes, and...".

When your partner tells you something in an improv scene, accept it and then add something to the conversation. If your partner starts by asking you why you've come to a party dressed as a pineapple, don't tell them that you think they're seeing things. Ask them why they're the only one who hasn't come dressed as a giant piece of fruit and that you have a spare costume in your car if they need it. Scenes where actors deny what their partners are saying often go dry very quickly and offer nothing for the audience. It's also a good way to annoy your partners.

- Don't necessarily try to be funny.

Sure, comedy is great, but one person trying to make the audience laugh often alienates the others on stage.

-Accept your mistakes.

Like any learning process, you will make mistakes. It's how you learn. Don't beat yourself up if you forgot a key rule of improv or your scene wasn't particularly good. Make some general notes for yourself and put it behind you. Next time you get up to improvise, treat it like a fresh start and be positive.



Examples – Mock the Week, Whose Line Is it Anyway? Outnumbered. The Office.

Drama – Year 9 Improvisation

Improvisation

improvising is _____ and _____ content spontaneously. It's a great way to generate _____ and for creating _____ and developing _____, using a variety of useful techniques.

Links to
Comp 1
and 2

Spontaneous improvisation-

A _____ is a condition that you must apply to a scene, so that you're improvising within a set of rules. Here are some ideas for working with constraints when improvising.

S _____

A very small space, such as a lift. Characters must behave as they would normally but within a tiny playing area.

A vast space, such as across a giant mountain range. Consider how changing perspective affects body language, vocal tone and volume and interaction, between characters. There may be something that works and could be included in your devised piece.



Examples – Can you name any tv shows that are improvised?

Create your own

Where, who, what?

Location-

Character-

Motivation-

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Tips for success

What are the 5 tips for successful improvisation and why are these important?



SWINDON ACADEMY READING CANON

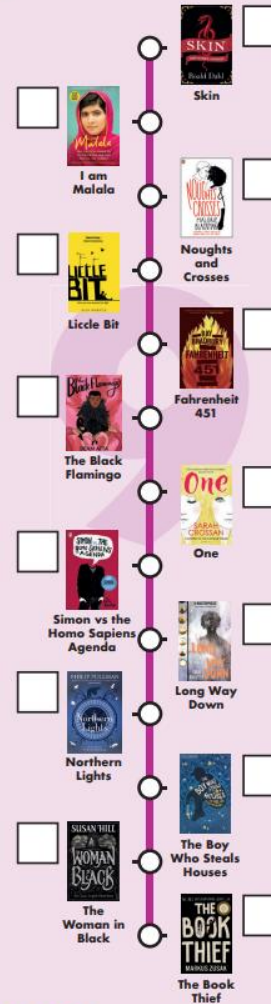
Year 7



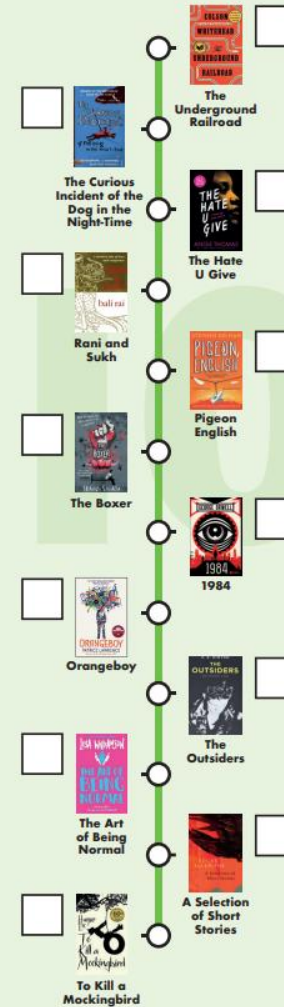
Year 8



Year 9



Year 10



#ReadingisPower