

100% book - Year 9 Grammar

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



Term 3

Swindon Academy 2023-24

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

Year 7 Term 1 Science/Chemistry - Topic: TOP Particles

What are we learning this term:

- Particle model
- Changing from Solids
- Mixtures
- Separating techniques

4 Key Words for this term:

- Matter
- Particles
- Changes of state
- Mixing

6. What is particle theory?
The theory that all matter is made up of particles.

A. Describe the arrangement and movement of particles in the three states of matter.

Solid	In a regular pattern. Particles can vibrate in a fixed position.
Liquid	Particles are arranged randomly but are still touching each other. Particles can slide past each other and move around.
Gas	Particles are far apart and are arranged randomly. Particles carry a lot of energy and they move in all directions in a high speed.

A. What is the law of conservation of mass?
The Law of Conservation of Mass states that mass cannot be created or destroyed.

B. What are the different changes of state?

Melting	change of state from solid to liquid
Freezing	change of state from liquid to solid
Evaporation	change of state from liquid to gas
Condensation	change of state from gas to liquid

C. What is the difference between a pure and an impure substance?

Pure: A material that is made up of only one type of particle.

Impure: A material that is made up of more than one type of particle.

Quizzable Knowledge Organisers

A. What is particle theory?

A. What is the law of conservation of mass?

A. Describe the arrangement and movement of particles in the three states of matter.

Solid	
Liquid	
Gas	

B. What are the different changes of state?

Melting	
Freezing	
Evaporation	
Condensation	

C. What is the difference between a pure and an impure substance?

Pure

Impure

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.

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.

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!

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.

The image shows the epraise website interface. On the left is a 'Planner' for the week of 10th May to 16th May 2020, with a grid for different subjects. On the right is a 'Knowledge Organiser' for 'What is particle theory?'. It includes sections for 'What is particle theory?', 'Describe the arrangement and movement of particles in the three states of matter', and 'What are the different changes of state?'. There are also diagrams of particle arrangements for solid, liquid, and gas states.

Step 2

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

The image shows a student's prep book. The date '29th May 2020' and the title 'Particle theory' are written in the top right corner of the knowledge organiser template. The template includes sections for 'What is particle theory?', 'Describe the arrangement and movement of particles in the three states of matter', and 'What are the different changes of state?'. There are also diagrams of particle arrangements for solid, liquid, and gas states.

Step 3

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

The image shows handwritten notes in a student's prep book. The notes are written in full and include the date '29th May 2020', the title 'Properties of the states of matter', and definitions for solid, liquid, and gas states. The definitions are: 'Solid = regular pattern particles vibrate in fixed position', 'Liquid = particles are arranged randomly but are still touching each other. Particles can slide past each other and move around.', and 'Gas = Particles are far apart and are arranged randomly. Particles carry a lot of energy.'

Step 4

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

The image shows handwritten notes in a student's prep book. The definitions and facts from the knowledge organiser are repeated three times. The definitions are: 'Solid = regular pattern particles vibrate in fixed position', 'Solid = regular pattern particles vibrate in fixed position', and 'Solid = regular pattern particles vibrate in fixed position.'

Step 5

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

The image shows a student's prep book. The missing words from the quizzable knowledge organiser are filled in. The words are: 'Self quizzing', 'Arrangement/movement of matter', 'Solid = regular pattern particles vibrate in fixed position', 'Liquid =', and 'Gas ='. There are also diagrams of particle arrangements for solid, liquid, and gas states.

Step 6

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

The image shows handwritten notes in a student's prep book. The definitions and facts from the knowledge organiser are checked and corrected. The definitions are: 'Particle theory = all matter is made of particles', 'Solid = regular pattern particles vibrate in fixed position', 'Liquid = particles are arranged randomly but are still touching each other. Particles can slide past each other and move around.', and 'Gas = Particles are far apart and are arranged randomly. Particles carry a lot of energy.'

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

'Romeo and Juliet': GS Knowledge Organiser

Plot breakdown	
P	The Prologue outlines the main conflict in the play and warns the audience of the tragic fate of Romeo and Juliet.
1.1	The Montagues and Capulets fight in the streets of Verona. Prince Escalus swears that any further fighting will be punished by death.
1.2	Paris asks Lord Capulet about marrying his daughter Juliet. Capulet tells Paris to wait as she is too young.
1.3	Lady Capulet advises Juliet to agree to marry Paris.
1.5	At the Capulet's masked ball, Romeo sees Juliet and falls in love with her. They talk, kiss, and fall in love. As they depart, they learn they are from feuding families.
2.2	In the balcony scene, Romeo and Juliet fall deeper in love. They agree to get married.
2.3	Romeo asks Friar Lawrence to marry him and Juliet. Lawrence agrees, thinking it will unite the warring families.
2.6	Friar Lawrence marries Romeo and Juliet.
3.1	Montagues and Capulets fight in the streets. Tybalt kills Mercutio; Romeo kills Tybalt. Prince Escalus decides to banish Romeo from Verona.
3.4	Lord Capulet tells Paris that he can marry Juliet in three days' time.
3.5	After their wedding night, Romeo leaves Juliet for the last time. They have a vision of the other's death. After Romeo leaves, Lord Capulet orders Juliet to marry Paris, threatening to disown her if she disobeys.
4.1	Friar Lawrence comes up with a plan: Juliet must pretend to be dead and then escape Verona with Romeo. She agrees to the plan.
5.3	Romeo does not learn of Friar Lawrence's plan. He sneaks back into Verona and visits Juliet's tomb. He thinks she is dead, and kills himself with poison. Moments later, Juliet wakes up. She finds Romeo's body and kills herself with his dagger. The two families agree to end their feud.

The Big Ideas:

Role of women: Juliet is powerless to make her own decisions. She is ruled by her father who eventually decides to marry her off to a powerful man. She breaks the status quo when she defies her father and makes her own decisions.

Evolution of Juliet's character: Juliet is a stereotypical Renaissance daughter at the outset, she is loyal and submissive. She becomes empowered and independent through her romance with Romeo. She becomes a tragic hero by acting in pursuit of her own desires.

Tragedy: A Shakespearean tragedy is the story of one or two heroes of 'high-status,' such as Kings or Lords. They act in pursuit of one desire. The story leads up to and includes the death of the hero as a result of their actions.

Fate and destiny: **Fate and destiny:** Fate is the idea that the events of someone's life are not in their control. The *star-crossed* lovers suggests they were fated for tragedy. This leads to many questions: Is the tragic ending inevitable? Do they act independently?

Characters

Romeo (Montague)

Young man. Falls in love with Juliet. Kills himself at the end of the play. *"Did my heart love till now? forswear it, sigh! For I ne'er saw true beauty till this night"; "Thus with a kiss I die"*

Juliet (Capulet)

13-year old girl. Falls in love with Romeo. Kills herself at the end of the play. *"Wherefore art thou Romeo? Deny thy father and refuse thy name"; "O happy dagger, This is thy sheath; there rust, and let me die"*

Lord Capulet (Capulet)

Head of the Capulet family. Juliet's father. Orders her to marry his friend, Paris. *"She will be ruled In all respects by me"*

Paris (no family)

Nobleman of Verona. Wants to marry Juliet. Killed by Romeo at the end of the play.

Friar Lawrence (no family)

Religious leader in Verona. Agrees to marry Romeo and Juliet, thinking it will bring peace to the city. *"For this alliance may prove To turn your households' rancour to pure love"*

Mercutio (Montague)

Romeo's friend. Killed by Tybalt. *"A plague a'both your houses!"*

Prince Escalus (no family)

Ruler of Verona. Wants to bring peace to the city. *"If ever you disturb our streets again, Your lives shall pay the forfeit of the peace"*

Structure of Shakespearean tragedy (Bradley)

Exposition Introduces the main characters and the obstacles they will overcome in the play.

Rising tension The heroes try to overcome the obstacles they face. They suffer.

Catastrophe The play ends with the deaths of the heroes.

Vocabulary: Key words

tragic – describes something as being very sad, or as part of a tragedy.

submissive - ready to obey or conform to the authority or will of others

Narcissistic – self-obsessed

feud – a serious argument and sometimes violent argument between two people or groups that continues for a long time.

shrine – a holy place that people go to pray.

status quo – the situation that exists now, without any changes.

obstacle – a problem that must be overcome.

vindictive – vengeful

patriarchy - a society in which power lies with men

belligerent - warlike

exile (vb.) – to force them from their home and live in another place.

tenacious – very determined

catastrophe – a terrible accident.

stoicism – calm self control

Terminology: Key words

Tragedy – a play in which the main character brings about their own downfall.

prologue – the introduction to a book, film, or play.

sonnet – a type of love poem. It has 14 lines, a strict rhyme scheme and 10 syllables per line.

dramatic irony – when the audience knows something that the character on stage does not

Tragic hero – the main character in a Tragedy that makes an error of judgement that leads to their downfall.

soliloquy – a speech in a play where the character speaks to himself or herself.

hyperbole – exaggeration.

tragic flaw - a character has a tragic flaw when what makes them so special also brings about their downfall.

foreshadow – to show or warn that something bigger, worse, or more important is coming.

thesis – the main idea that you want to discuss throughout an essay.

peripeteia – a sudden reversal of fortune.

hubris – excessive pride or self-confidence

anagnorisis – the moment when the character realises the true state of their affairs or the reality of their situation

Features of Shakespearean tragedy (Bradley)

The characters are '**high-status**' – they are important people.

The tragic hero **acts**: they **try to do things**. They don't just let things happen to them.

Whatever they try to do, it always **puts them in a worse situation**.

They are **exceptional** – there is something that makes them special.

'Romeo and Juliet': GS Knowledge Organiser

Plot breakdown		Characters	Vocabulary: Key words	
P	The Prologue		tragic –	
1.1		Romeo (Montague)	submissive –	
1.2			narcistic –	
1.3			feud –	
1.5		Juliet (Capulet)	shrine –	
2.2			status quo –	
2.3			obstacle –	
2.6		Lord Capulet (Capulet)	vindictive –	
3.1			patriarchy –	
3.4			belligerent - warlike	
3.5		Paris (no family)	exile (vb.) –	
4.1			tenacious –	
5.3			catastrophe –	
		Friar Lawrence (no family)	stoicism –	
			Mercutio (Montague)	Terminology: Key words
				Tragedy –
The Big Ideas:		Prince Escalus (no family)	prologue –	
Role of women:			sonnet –	
Evolution of Juliet's character:		Structure of Shakespearean tragedy (Bradley)	dramatic irony –	
Tragedy:			Tragic hero –	
Fate and destiny:		Exposition – _____ _____	soliloquy –	
			hyperbole –	
		Development/Rising Action: _____ _____	tragic flaw -	
			foreshadow –	
		Catastrophe: – _____	peripeteia -	
			anagnorisis -	
			hubris -	
			thesis –	
			Features of Shakespearean tragedy (Bradley)	



What we are learning this term: A. Tissues B. Digestive organs C. Biological molecules D. Enzymes	A. What is the function of each tissue?	
	Epithelial tissue	Forms a protective covering for different parts of the body.
	Glandular tissue	Secretes important substances, such as hormones.
	Muscular tissue	Contracts to control movement.

B. What is the function of each part of the digestive system?																
<table border="1"> <tr> <td>Liver</td> <td>Where bile is made.</td> </tr> <tr> <td>Mouth</td> <td>Where food is chewed and mixed with saliva, from salivary glands.</td> </tr> <tr> <td>Oesophagus</td> <td>Connects the mouth and stomach.</td> </tr> <tr> <td>Large intestine</td> <td>Water is absorbed from undigested food, to form faeces.</td> </tr> <tr> <td>Gall bladder</td> <td>Where bile is stored.</td> </tr> <tr> <td>Small intestine</td> <td>Where soluble food is absorbed.</td> </tr> <tr> <td>Pancreas</td> <td>Where neutralising substances and enzymes are produced.</td> </tr> <tr> <td>Stomach</td> <td>Churns food and produces hydrochloric acid.</td> </tr> </table>	Liver	Where bile is made.	Mouth	Where food is chewed and mixed with saliva, from salivary glands.	Oesophagus	Connects the mouth and stomach.	Large intestine	Water is absorbed from undigested food, to form faeces.	Gall bladder	Where bile is stored.	Small intestine	Where soluble food is absorbed.	Pancreas	Where neutralising substances and enzymes are produced.	Stomach	Churns food and produces hydrochloric acid.
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Pancreas	Where neutralising substances and enzymes are produced.															
Stomach	Churns food and produces hydrochloric acid.															

B. How are the small intestines adapted?
The walls of the small intestine are covered with villi , which increased absorption due to: <ul style="list-style-type: none"> • Large surface area. • Thin membrane. • Good blood supply.

C. Where is starch stored in plant cell?
As starch grains in plastids , including chloroplasts and amyloplasts.

C. Describe the test for sugars
<ul style="list-style-type: none"> • Add Benedict's solution, to the food solution, and gently heat. • If a reducing solution (e.g: glucose) is present, the solution will turn green, orange or red, depending upon the concentration.

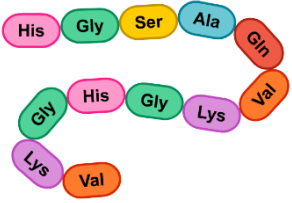

C. Describe and draw the structure of carbohydrates?
Carbohydrates are made of chains of simple sugars .

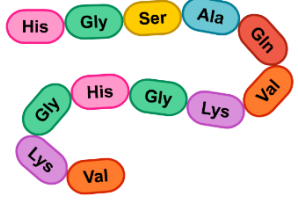
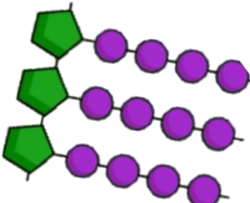


C. Describe the test for starch
<ul style="list-style-type: none"> • Add iodine. • If starch is present, colour will change to blue/black.



What we are learning this term: A. Tissues B. Digestive organs C. Biological molecules D. Enzymes	A.	What is the function of each tissue?
		Epithelial tissue
		Glandular tissue
		Muscular tissue

B.	What is the function of each part of the digestive system?	B.	How are the small intestines adapted?
	Liver		
	Mouth		
	Oesophagus		
	Large intestine		
	Gall bladder		
	Small intestine		
	Pancreas		
	Stomach		
C.	Describe and draw the structure of carbohydrates?	C.	Where is starch stored in plant cell?
		C.	Describe the test for sugars
		C.	Describe the test for starch

<p>C. Describe and draw the structure of proteins?</p>	<p>Proteins are made of chains of amino acids.</p>		<p>C. What are the functions of proteins?</p>	<p>C. Describe the test for proteins?</p>
			<ol style="list-style-type: none"> 1. Structural 2. Catalytic 3. Signalling 4. Immunological 	<ul style="list-style-type: none"> • Add Biuret's solution and mix gently into the food solution. • If protein is present, the solution will turn pink/purple.
<p>D. Describe the function of enzymes</p>	<p>To catalyse reactions and lower the activation energy.</p>		<p>C. Describe and draw the structure of triglycerides?</p>	<p>C. Describe the test for lipids?</p>
			<p>Triglycerides are made of glycerol and fatty acids.</p>	<ul style="list-style-type: none"> • Add Sudan III stain to the food solution. • If a lipid is present, red-stained oil layer will separate and float to the surface.
<p>D. What factors affect enzyme reaction rate?</p>	<ol style="list-style-type: none"> 1. Temperature 2. pH 3. Enzyme concentration 4. Substrate concentration 5. Surface area 6. Pressure 		<p>D. What happens when an enzyme is denatured?</p>	<p>D. Draw the lock and key model</p>
			<p>The enzyme active site no longer fits the substrate/reactant, so the reaction is not catalysed.</p>	
				<div style="border: 1px solid green; padding: 10px; text-align: center;"> <p>enzyme + reactant ↔ enzyme–reactant complex ↔ enzyme + products</p> </div>
<p>C. Describe the enzyme</p>				
<p>Protein</p>	<p>Broken down by pepsin</p>	<p>Into amino acids</p>		
<p>Starch</p>	<p>Broken down by amylase</p>	<p>Into maltose</p>		
<p>Triglycerides</p>	<p>Broken down by lipase</p>	<p>Into glycerol and fatty acids</p>		

C.	Describe and draw the structure of proteins?	C.	What are the functions of proteins? 1. 2. 3. 4.	C.	Describe the test for proteins?	
		C.		Describe and draw the structure of triglycerides?	C.	Describe the test for lipids?
D.	Describe the function of enzymes					
		D.	What happens when an enzyme is denatured?	D.		Draw the lock and key model
D.	What factors affect enzyme reaction rate?					
1. 2. 3. 4. 5. 6.						
C.	Describe the enzyme					
	Breaks down proteins	Into...				
	Breaks down starch	Into...				
	Breaks down triglycerides	Into...				

What we are learning this term:

- A. Circulatory System
- B. Heart Problems
- C. Respiratory System
- D. Transport in Plants

5 Key Words for this term

1. Transpiration
2. Cardiovascular
3. Pulmonary
4. Coronary
5. Oxygenated

A. Match each blood component to its function

red blood cell	carries oxygen around the body
white blood cell	engulfs invading pathogens
platelet	plays an important role in blood clotting
plasma	fluid which carries other blood components

A. Name the four functions of the blood

- Transport substances.
- Defend against pathogens.
- Control body temperature.
- Maintain pH of fluids.

A. Label the heart

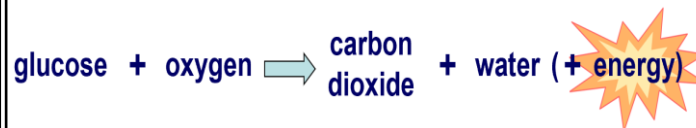
A. Describe the three types of blood vessels

Artery	Vein	Capillary
<ul style="list-style-type: none"> • Carries blood away from heart. • Has thick and elastic walls. • Carries blood at high pressure. 	<ul style="list-style-type: none"> • Has a large lumen. • Carries blood towards heart. • Contains lumen. 	<ul style="list-style-type: none"> • Carries blood to and from cells. • Has thin permeable walls.

B. What is a stent & what does it do?

A small metal or fabric mesh **tube**. It is inserted into a narrow artery to support the walls and keep it open.

C. What is the respiration word equation?



A. What are the specialised features of a red blood cell?

- Flattened, biconcave disc shape.
- Large amounts of haemoglobin.
- No nucleus or organelles.

What we are learning this term:

- A. Circulatory System
- B. Heart Problems
- C. Respiratory System
- D. Transport in Plants

5 Key Words for this term

- 1.
- 2.
- 3.
- 4.
- 5.

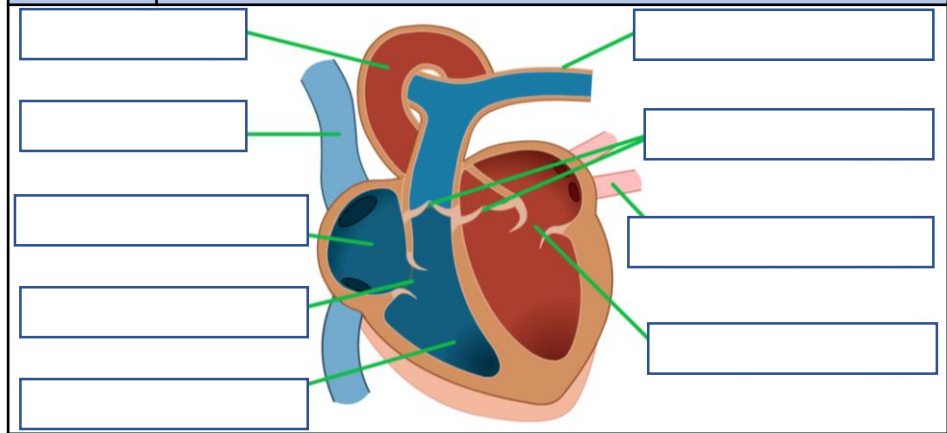
A. Match each blood component to its function

red blood cell	engulfs invading pathogens
white blood cell	carries oxygen around the body
platelet	fluid which carries other blood components
plasma	plays an important role in blood clotting

A. Name the four functions of the blood

Blank space for writing the four functions of the blood.

A. Label the heart



A. Describe the three types of blood vessels

Artery	Vein	Capillary
•	•	•
•	•	•
•	•	•

B. What is a stent & what does it do?

Blank space for writing the answer to question B.

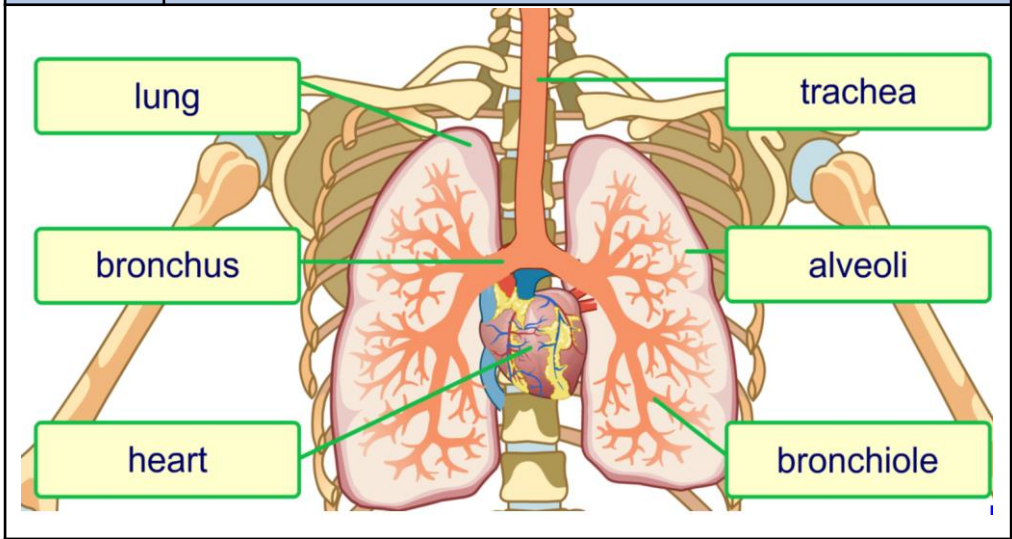
C. What is the respiration word equation?

Blank space for writing the respiration word equation.

A. What are the specialised features of a red blood cell?

-
-
-

A. Label the respiratory system



B. Describe gas exchange in the lungs

- Inhale.** Oxygen concentration in alveoli is higher than in blood.
- Oxygen diffuses into bloodstream and bind to **haemoglobin** in red blood cells (forming **oxyhaemoglobin**).
- Body cells release **carbon dioxide** into blood **plasma**. So carbon dioxide concentration is higher in blood than alveoli.
- Carbon dioxide diffuses into alveoli. **Exhale.**

B. Name four problems associated with the heart

- Irregular heartbeat.
- Hole in the heart.
- Damaged valves.
- Coronary heart disease.

D. Where does gas exchange occur in plants?

At the **stomata**.
Found on the underside of leaves, surrounded by **guard cells**.

D. Define translocation

The movement of **nutrients** around a plant, which requires **energy**.

D. Define transpiration

The loss of **water** from the leaves of a plant.

D. Describe how plants are adapted for transportation

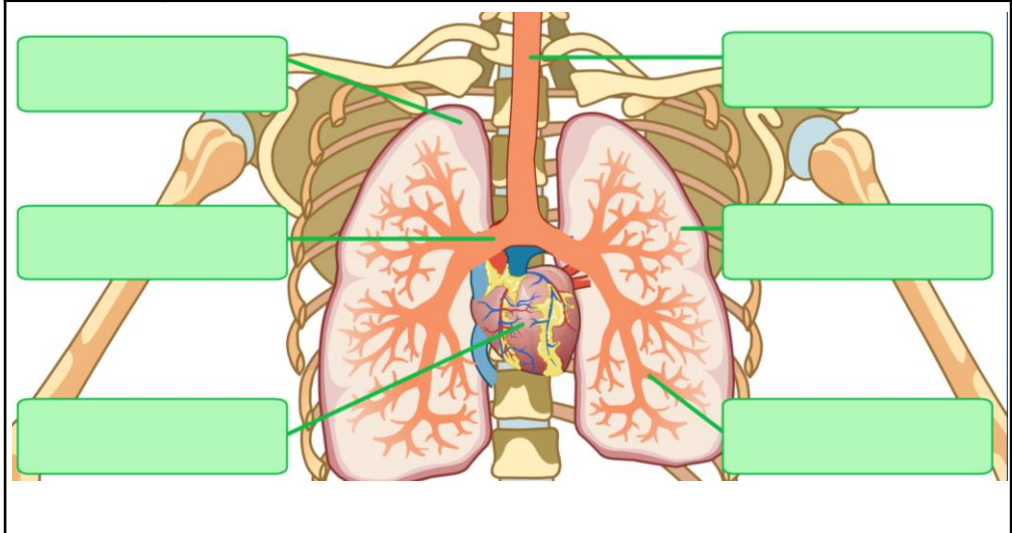
Xylem cells
Transport **water** and **minerals** up the stem from the roots to the shoots and leaves. This transport occurs in one direction only.

Phloem cells
Transport **sugars** produced in the leaves up and down the stem to growing and storage tissues.

D. What environmental factors affect rate of transpiration?

1. Light
2. Temperature
3. Humidity
4. Wind

A. Label the respiratory system



B. Describe gas exchange in the lungs

Blank space for describing gas exchange in the lungs.

B. Name four problems associated with the heart

-
-
-
-

D. Where does gas exchange occur in plants?

Blank space for answering where gas exchange occurs in plants.

D. Define translocation

Blank space for defining translocation.

D. Define transpiration

Blank space for defining transpiration.

D. Describe how plants are adapted for transportation

Xylem
cells

Blank space for describing adaptations for xylem.

Phloem
cells

Blank space for describing adaptations for phloem.

D. What environmental factors affect rate of transpiration?

- 1.
- 2.
- 3.
- 4.

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

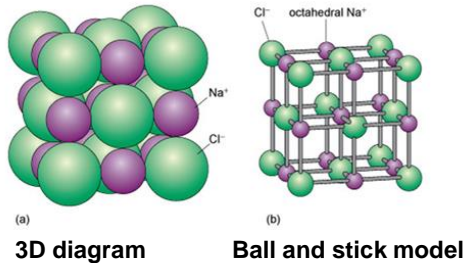
6 Key Words for this term

- 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. What is ionic bonding?

An electrostatic force of attraction between positively and negatively charged ions

When do you get ionic bonding?

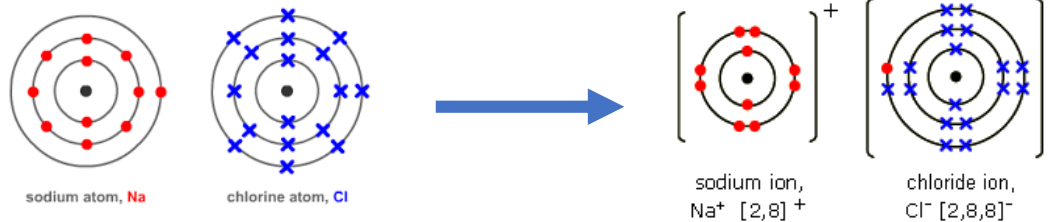
When metals react with non-metals

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

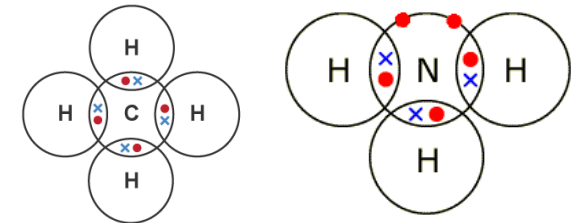
- Sodium loses an electron to form a filled outer shell. A positive ion is formed
- Chlorine gains this electron to fill its outer shell. A negative ion is formed
- An electrostatic force of attraction is formed between these oppositely charged ions



A. What is covalent bonding?

Covalent bonding is where atoms share pairs of electrons

Sketch a dot and cross diagram to show the bonding in Methane (CH₄) and Ammonia (NH₃)



When do you get Covalent bonding?

Non metallic elements and compounds

What covalent structures are there?

Simple molecules and giant covalent structures

C. What is Metallic Bonding?

Outer electrons are delocalised and free to move through the whole structure. This gives rise to metallic bonds

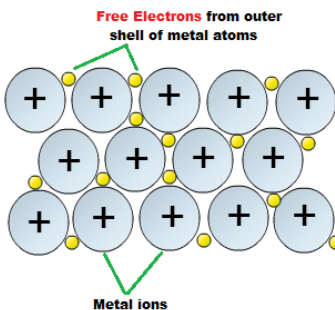
What does delocalised mean?

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



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	

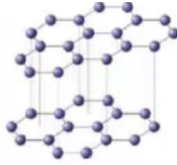
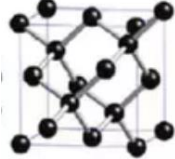
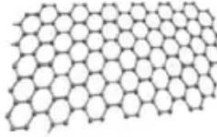



D.	What are state symbols?
These are used in chemical equations to show what state of matter things are in a reaction	
Solid	
Liquid	
Gas	
Aqueous (in solution)	

E.	What properties do Giant ionic structures have?
Melting points/boiling points	
Does it conduct electricity?	
Ionic solid	
Molten ionic solid	
Ionic compound in solution	

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

E.	What properties do simple small covalent molecules have?
Melting point	
Conduct electricity?	

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

E.	What properties do giant covalent structures have?
Melting point	
Solubility	

E.	What are alloys?
What properties do they have	

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

P2 Grammar – Electrical circuits Vocabulary: Potential difference, Thermister

Current, resistance and potential difference

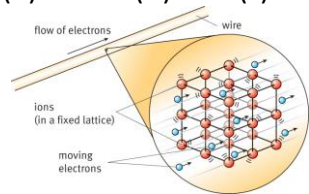
Electrical current is the flow of electrical charge.

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

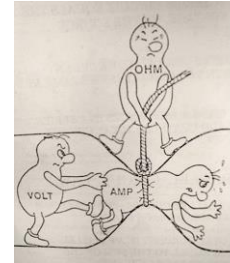
The current through a component depends on the potential difference and the resistance of the component.

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

potential difference = current x resistance

$$V = I R$$

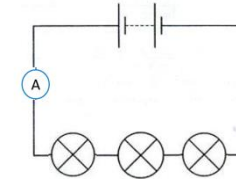
pd is measured in volts (V), resistance in Ohms (Ω)



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

Hypothesis 'the length of the wire affects resistance'

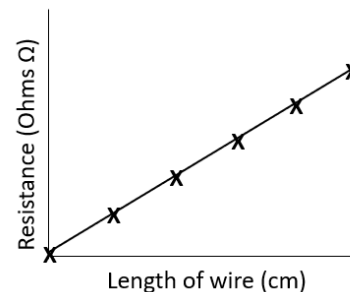
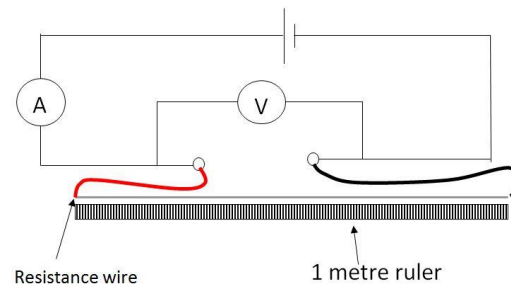
Independent variable – length of wire

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 $R = V/I$

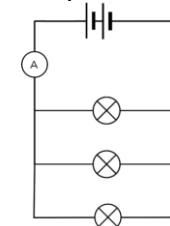
Plot length of wire (IV) against resistance (DV)



The relationship is directly proportional

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

P2 Grammar Higher – Electrical circuits

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'

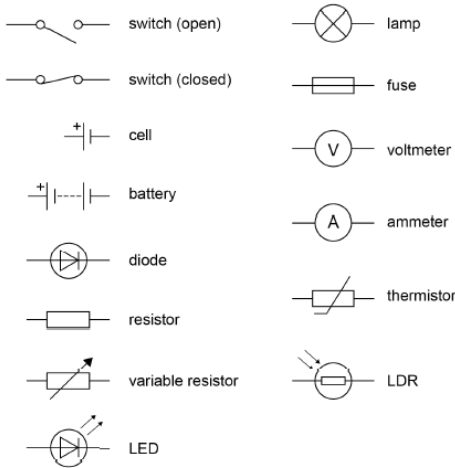
1. What is the independent variable in this investigation?
2. What is the dependent variable?
3. What is the minimum number of readings needed for a line graph?
4. What two readings are taken?
5. How is resistance calculated?
6. What sort of relationship is seen?
7. Why is it important to turn off the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

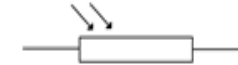
P2 Grammar Higher – Electrical circuits

Components

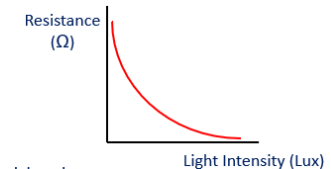


- A **diode** only allows current to flow one way in a circuit
- A **resistor** is a component that provides a fixed resistance in the circuit – e.g a $5\ \Omega$ resistor
- A **variable resistor** is a component whose resistance can be changed (e.g a dimmer switch)
- A **thermistor** is a resistor whose 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

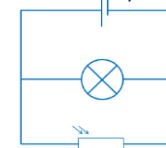
LDR



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.

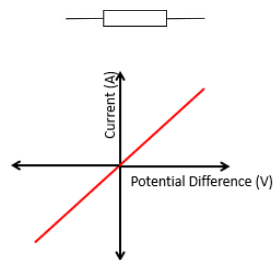
As light levels fall, resistance increases, until eventually there is less resistance in the bulb than the LDR, so current flows through the bulb – switching it on.

Thermistor

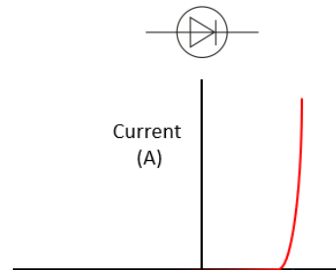


As the temperature increases, the resistance in a thermistor decreases.

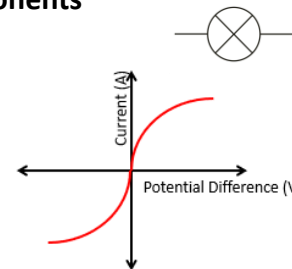
Current, potential difference and resistance for different components



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

P2 Grammar Higher – Electrical circuits

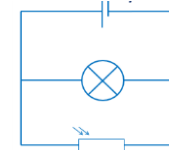
Components

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

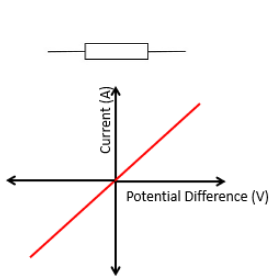
1. Draw the symbol for an LDR
2. Draw the pattern you would expect for resistance as the light intensity increases.
3. The circuit below is for a night light. What is resistance in the LDR like during the day time? (high light levels)



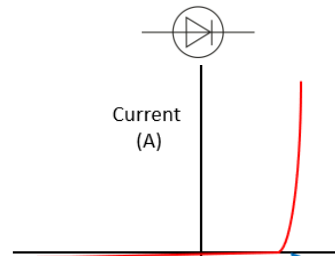
4. Why does the light switch on when it goes dark?
5. Draw the symbol for a thermistor
6. Describe the relationship between temperature and resistance in a thermistor

Current, potential difference and resistance for different components

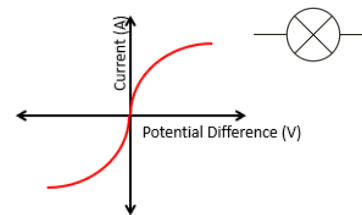
1. What readings would you need to take from a circuit to calculate resistance?



2. Describe the relationship shown



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



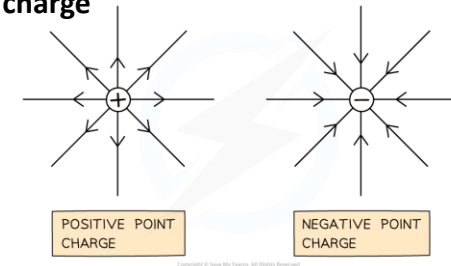
4. What happens to current when the pd rises at first?
5. What happens to the current as the pd gets higher?
6. Why does the resistance increase at higher pd?

P2 Grammar Higher – Electrical circuits

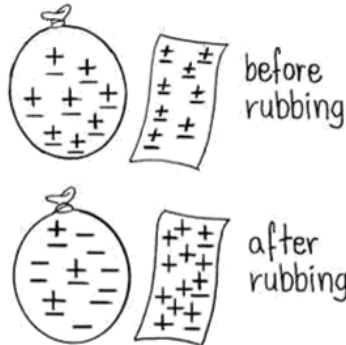
Static Electricity

Key Terms	
Static electricity	A build up of charge on an insulator.
Insulator	A material that does not allow a charge to flow through it easily.
Earthing	Connecting a charged object to a conductor connected to the ground.

Electric field around a single point of charge



Charging by friction



An insulator can be charged by rubbing it with another insulator.

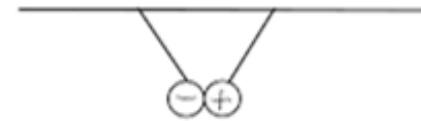
- **Before** rubbing both insulators have a neutral charge as they contain the same number of protons and electrons.
- **During** rubbing some **electrons** are transferred from one insulator to the other one.
- **After** rubbing the insulators are charged.
- The insulator that gains electrons becomes negatively charged
- The insulator that loses electrons becomes positively charged

If the potential difference between the charges is large enough you will see a spark as it discharges.

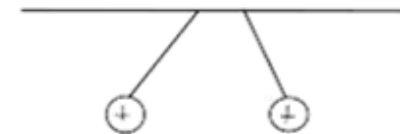
Forces between two charges

Two charge particles exert a non-contact force on each other.

Opposite charges attract



Same charges repel



Examples

- Attracting dust: Many objects around the house are insulating materials and become easily charged, dust is attracted to these objects, e.g., TV screens
- Bad Hair days: Static builds up on each hair, each strand has the same charge, so they repel each other.

Dangers

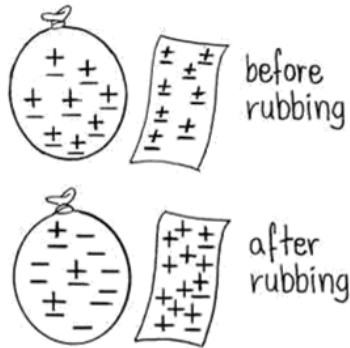
- Lightning: Lightning is a sudden electrostatic discharge during a thunder storm.
- Fuel pipes: Static can build up as fuel travels through the rubber fuel hose, this causes a build of charge and can cause an explosion if there is a discharge spark.

P2 Grammar Higher – Electrical circuits

Static Electricity

Key Terms	
Static electricity	
Insulator	
Earthing	

1. Explain how an insulator can be charged by friction



1. Draw the electric field around a single point of charge

2. What type of force do opposite charges experience?

3. What type of force do like charges experience?

Examples

- Attracting dust: Many objects around the house are insulating materials and become easily charged, dust is attracted to these objects, e.g., TV screens
- Bad Hair days: Static builds up on each hair, each strand has the same charge, so they repel each other.

Dangers

- Lightning: Lightning is a sudden electrostatic discharge during a thunder storm.
- Fuel pipes: Static can build up as fuel travels through the rubber fuel hose, this causes a build of charge and can cause an explosion if there is a discharge spark.

P2 Grammar Physics – Electricity in the home

Domestic use of electricity

There are two types of electrical supply – direct (DC) and alternating current (AC)

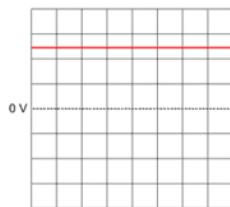
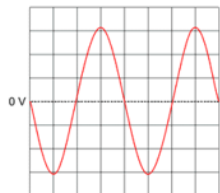
AC

The pd changes direction and magnitude, giving alternating current

The number of times the change of direction happens per second is the frequency.

UK mains is AC - **230V**

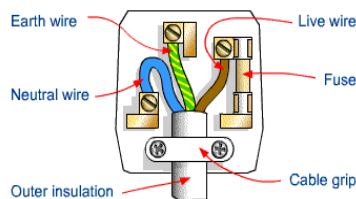
Frequency of **50 Hz**



DC

A direct pd produces current that flows in one direction

Batteries supply DC



Electrical appliances are connected using 3 core cable

- Brown – live wire, with pd of 230V
- Blue – neutral, 0V, completes the circuit
- Yellow and green – Earth wire, is at 0V unless there is a fault, when it will become live

Appliances in the home and power

Power is measured in Watts (W) or kW

Power can be calculated by using:

Power = Voltage x current

$$P = IV$$

Power = current² x resistance

$$P = I^2 R$$

Appliances transfer energy.

Energy is measured in Joules (J) or kJ

The energy transferred can be calculated by using:

Energy = charge flow x potential difference

$$E = QV$$

Energy = power x time

$$E = pt$$

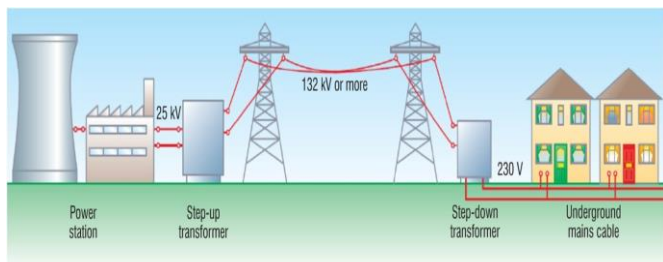
For example

A kettle transfers energy from the thermal store of the filament in the kettle to the thermal store of the water inside.

Some energy is transferred to the thermal store of the surroundings.

The National Grid

The National Grid is a system of cables and transformers connecting power stations to homes and businesses



The National Grid uses very high pd and low current.

High current causes heating in the wires and would result in large energy losses.

Step up transformers increase the pd from the power station (to around 400000V) so that low current can be used to transmit power.

This means the wires don't get hot, so less energy is lost.

Near homes and businesses, step down transformers reduce the pd to 230V for safety.

P2 Grammar Physics – Electricity in the home

Domestic use of electricity

1. What are the two types of current?
2. What type of power supply produces DC current?
3. What are the two differences between AC and DC current?
4. What is the pd of the UK mains supply?
5. What is the frequency of UK mains supply?
6. What colour is the live wire in UK plugs?
7. What is the purpose of the blue wire in UK plugs?
8. When does the yellow and green wire carry a current?

The National Grid

1. What is the National Grid?
2. What sort of pd does the National Grid use to transmit electrical power?
3. What is used to increase the pd from the power station?
4. What is used to reduce the pd near homes and businesses?
5. Why is such a high pd used?

Appliances in the home and power

1. What is the equation linking current, potential difference and power?
2. What is the equation linking current, resistance and power?
3. What two factors affect how much energy an appliance transfers?
4. What is the equation linking energy, power and time?
5. What are the units for power?
6. What is the equation linking charge, energy and potential difference?
7. What are the units for energy?

Geography Year 9 Term 3 Energy

Background:	
1.	The consumption and production of energy is not evenly distributed. (A)
2.	Many factors can influence energy use, including the wealth of the country and availability. (A)
3.	Energy consumption impacts quality of life. (B)
4.	There are two main sources of energy, these can be classified as non-renewable and renewable. (C, E)
5.	The energy mix worldwide has shifted in recent years, with a decline in coal and oil, and a growth in renewables and nuclear. (D, E)
6.	Fracking for gas is also growing worldwide. (H)

A	Factors affecting the energy mix (6)
Population	More people means more energy needed.
Wealth	Greater wealth leads to a greater energy demand.
Availability	If a country has its own natural resources e.g. coal, oil, wind etc.
Consumption	The amount of energy or power used.
Emissions	The by-product given off by burning an energy source e.g. carbon dioxide.
NIMBYism	Abbreviation for 'not in my backyard.'

B.	Importance of energy (4)
Social well being	Normally refers to quality of life e.g. happiness.
Economic well being	Having present and future financial security.
Energy dependence	To rely on other countries for your energy supply e.g. to import oil.
Energy security	To be relatively self-sufficient regarding your energy supply.

C.	Types of energy (3)
Renewable	Energy, which is infinite, sustainable and is easily replenished.
Non-renewable	Energy, which is finite, is not sustainable and takes a long time to replenish.
Finite	Something which will run out, come to an end.

D.	Nuclear energy (3)
What it is:	This is non-renewable and comes from uranium.
Positive	1. Small amounts of uranium produces lots of energy.
Negative (2)	1. Nuclear waste is toxic and must be stored for hundreds of years. 2. Nuclear accidents can occur, which is a risk to human health.

E.	The impacts of energy sources		
		Advantages	Disadvantages
Non-renewables (3)	Coal	1. Efficient, cheap and reliable.	1. Creates carbon dioxide. 2. Finite.
	Oil	1. Easy to transport. 2. Efficient.	1. Oil spills. 2. We must import this from other countries.
	Gas	1. Supplies available in the North Sea and from fracking. 2. Jobs in extraction created.	1. Finite. 2. Carbon dioxide produced.
Renewables (3)	Wind	1. Sustainable and will not run out. 2. Jobs created in the manufacture and installation of these.	1. Noise and visual pollution. 2. Bird strikes.
	Solar	1. Easy to install on houses. 2. Jobs created in the manufacture and installation of these.	1. Unreliable e.g. if it is not sunny. 2. The panels are constructed from toxic materials.
	Hydro-electric	1. One of the most reliable non-renewables. 2. Reservoirs create tourism and also provide clean water.	1. Vegetation/ forests cleared for reservoir creation. 2. Farmland and settlements flooded to create reservoirs.

F.	Fracking	
Fracking	Gas trapped in shale rock is released by pumping water and sand into the ground, which widens cracks in the ground, allowing the gas to escape.	
Positive (3):		Negative (4):
1. Blackpool council could make £1.7m per year. 2. Many jobs would be created in the north-west. 3. The UK would become less dependent on importing energy from other countries.		1. Small earthquakes could damage homes. 2. Huge areas of countryside destroyed. 3. Noise and air pollution would be created from the heavy machinery. 4. Underground water could become contaminated.

Geography Year 9 Term 3 Energy

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5.	The energy mix worldwide has shifted in recent years, with a decline in coal and oil, and a growth in renewables and nuclear. (D, E)
6.	Fracking for gas is also growing worldwide. (H)

A	Factors affecting the energy mix (6)
Population	
Wealth	
Availability	
Consumption	
Emissions	
NIMBYism	

B.	Importance of energy (4)
Social well being	
Economic well being	
Energy dependence	
Energy security	

C.	Types of energy (3)
Renewable	
Non-renewable	
Finite	

D.	Nuclear energy (3)
What it is:	
Positive	
Negative (2)	

E.	The impacts of energy sources		
		Advantages	Disadvantages
Non-renewables (3)	Coal		
	Oil		
	Gas		
Renewables (3)	Wind		
	Solar		
	Hydro-electric		

F.	Fracking	
Fracking		
Positive (3):		Negative (4):

What we are learning this term:

- The Rise of Dictatorships in Europe
- How successful were the Allied forces at the start of the Second World War?
- How can 1942 be considered a turning point for the Allies in the Second World War?
- The Homefront: Britain and Germany
- How did the Allied forces win the Second World War?

Section A: Keywords

1. Blitzkrieg – intense military campaign intended to bring a quick victory
2. Collectivism – giving a group priority over an individual
3. Communism - An economic and political system in which all property is state-owned
4. Democracy - A political system that allows the people to vote on how the country is run
5. Dictator - A single strong leader who can do what they want and has complete power
6. Dictatorship – governed by a dictator
7. Evacuation – the action of leaving a place
8. Fascism – a nationalistic right-wing system of government
9. Hyperinflation – the rapid inflation of money
10. Luffewaffe – German air force
11. Morale – the confidence or enthusiasm of a group
12. Propaganda - misleading information used to further a political cause
13. Ration – fixed amount of goods allowed to each person during a time of shortage
14. Totalitarianism – a system of government that is run by a dictator and needs complete subservience to the state.
15. Totalitarian - A form of rule in which the government or leader has unlimited power over all aspects of society
16. Autocracy - A system of government by one person with absolute power
17. Bolsheviks - The radical left-wing political group which seized control of the Russian government in 1917
18. Proletariat - Used by communists to describe the working class
19. Tsar - The Russian emperor
20. Collectivisation - The grouping together of farms to be owned by the state
21. Industrialisation - The widescale development of industries in a country
22. Purge - To remove a group of people from an organisation
23. Soviet Union - Or USSR, the new name for Russia under Communist control
24. Fuhrer - Hitler's title from 1934, when he became the absolute ruler of Germany
25. Police state - A country where the government uses the police to spy on the people and stamp out opposition
26. Weimar Republic - The German democratic government established after WWI

Year 9 Term 3 History Knowledge organiser: Topic: World War Two

Section B:

Dictatorships in Europe

Stalin

- After the Revolution there was a Civil War in Russia
- From the Revolution and Civil War, Russia faced many problems, like worker unrest
- Lenin died in 1924, and by 1929 Stalin was in power and built a totalitarian state
- To solve the economic problems, Stalin introduced collectivisation
- The human cost of Stalin's policy was high, with millions dying from famine and many being forced into slave labour

Mussolini

- As Italy joined the allies in 1915 during WW1, it wanted a share in the victory at the Treaty of Versailles. However, Italy did not gain the territory it wanted and some people in Italy were outraged.
- There was also a fear of communism growing in Italy following the revolution in Russia.
- From 1920, Fascist Squads worked to intimidate socialists, and they generally accepted Mussolini as their leader.
- By 1922, Mussolini was in power in Italy and was working to consolidate his dictatorship.

Hitler

- Germany was badly damaged by the Treaty of Versailles and many German people were not happy.
- There was a growing fear of communism in Germany following the revolution in Russia.
- There had been attempts by communists and fascists to overthrow the Weimar government (the Spartacist Revolt and the Munich Putsch).
- Increased support for the Nazis grew over the period of economic struggles in Weimar Germany, such as Hyperinflation.
- By the early 1930s, Hitler was working to consolidate his power as a dictator in Germany.

Section C: The War Before 1941

- Operation Sichelschnitt in 1940 – the German war plan to invade France. They were successful and managed to capture Paris and encircle the Allied Forces in the North of France.
- Operation Dynamo – The mass evacuation of Allied forces from the North of France from Dunkirk following Operation Sichelschnitt. This resulted in the successful evacuation of over 338,000 soldiers from France.
- The Battle of Britain – After the Allied evacuation from Dunkirk, Hitler launched Operation Sealion, an attempt to invade Britain. The Royal Air Force (RAF) managed to stop the attempted invasion.

Section D: The War by 1942

- Operation Barbarossa was launched in 1941 and was an attempt by Germany to invade the Soviet Union. This plan ultimately failed due to Germany using a weak military, having poor logistics – such as being unprepared for the Russian winter – and the failure at the Battle of Stalingrad. This also brought the USSR into the war on the side of the Allied forces.
- In December 1941, Japan bombed US naval forces at Pearl Harbour in Hawaii. Following the attack on Pearl Harbour, the USA entered the war on the side of the Allied forces.
- Germany now faced the potential of fighting a war on too fronts if there was a successful Allied invasion of Northern France.

Section F: The War after 1942

- Operation Overlord – The successful Allied invasion of Northern France, through the use of co-ordinated land, sea and air forces. This began on 6th June 1944 with the Allied forces landing on the beaches of Normandy, also known as the D-Day landings.
- The Siege of Berlin – With Germany fighting a war on two fronts, the Allies and the USSR continued to push into Germany. On 20th April 1945, Soviet troops had seized Berlin and Nazi Germany surrendered, bringing an end to the war in Europe.
- On the 6th and 9th August 1945, two atomic bombs (nuclear weapons) were dropped on Japanese cities Hiroshima and Nagasaki by Allied forces. This brought the surrender of Japan and the end of the Second World War. This remains the only use of nuclear weapons in armed conflict.

Section E: The Homefront

Britain

- From 1940, there were regular bombing by the Luftwaffe on British cities, known as the Blitz. Children were evacuated to the countryside during this period.
- Women worked factories and farming to maintain the supply of men to fight in the war.
- Rationing was introduced as trading was dangerous during wartime.

Germany

- Germany also faced the bombing of major cities by Allied forces, such as the bombing of Dresden.
- Rationing was also introduced in Germany.
- Propaganda was key in maintaining morale in Germany, but by 1943 the mood of the public began to change as the tide of war began to change.

1917	1918	1919	1920	1922	1923	1924
The Russian Revolution- Bolsheviks seize control of Russia	The signing of the armistice and the end of World War One	Germany forced to sign The Treaty of Versailles	The use of fascist squads by Mussolini	Mussolini was in power in Italy	The Munich Putsch	Death of Lenin
1917	1918	1919	1920	1922	1923	1924
The Russian Revolution- Bolsheviks seize control of Russia	The signing of the armistice and the end of World War One	The signing of the Treaty of Versailles- Germany forced to sign it	The use of fascist squads by Mussolini	Mussolini was in power in Italy	The Munich Putsch	Death of Lenin
					Hyperinflation started in Germany	
					Hyperinflation started in Germany	

Year 9 Term 1 History Knowledge organiser: Topic: World War Two

What we are learning this term:

	Section B:		Dictatorships in Europe		Section C: The War Before 1941		
	<u>Stalin</u>	<u>Mussolini</u>	<u>Hitler</u>				
Section A: Keywords					Section D: The War by 1942		
<ul style="list-style-type: none"> • Blitzkrieg – • Collectivism – • Communism - • Democracy - • Dictator - • Dictatorship – • Evacuation – • Fascism – • Hyperinflation – • Luftwaffe – • Morale – • Propaganda - • Ration – • Totalitarianism – • Totalitarian - • Autocracy - • Bolsheviks - • Proletariat - • Tsar - • Collectivisation - • Industrialisation - • Purge - • Soviet Union - • Fuhrer - • Police state - • Weimar Republic - 	Section E: The Homefront				Section F: The War after 1942		
	<u>Britain</u>		<u>Germany</u>				
	1917	1918	1919	1920	1922	1923	1924
1917	1918	1919	1920	1922	1923	1924	

Year 9 Term 1 History Knowledge organiser: Topic: World War Two

<p><u>What we are learning this term:</u></p> <ul style="list-style-type: none"> The Rise of Dictatorships in Europe How successful were the Allied forces at the start of the Second World War? How can 1942 be considered a turning point for the Allies in the Second World War? The Homefront: Britain and Germany How did the Allied forces win the Second World War? 	<p><u>Section B:</u></p>	<p><u>Dictatorships in Europe</u></p>		<p><u>Section C: The War Before 1941</u></p> <ul style="list-style-type: none"> - Operation Sichelschnitt in 1940 – - Operation Dynamo – - The Battle of Britain –
	<p><u>Stalin</u></p>	<p><u>Mussolini</u></p>	<p><u>Hitler</u></p>	
			<p>-</p>	
				<p><u>Section D: The War by 1942</u></p> <ul style="list-style-type: none"> - Operation Barbarossa w - In December 1941,
		<p><u>Section E: The Homefront</u></p>		<p><u>Section F: The War after 1942</u></p> <ul style="list-style-type: none"> - Operation Overlord – - The Siege of Berlin – - On the 6th and 9th August 1945,
		<p><u>Britain</u></p>	<p><u>Germany</u></p>	

1917	1918	1919	1920	1922	1923	1924	1929	1934	1938	1939	1940	1941	1944	1945
<p><u>Section G: Timeline</u></p>														

Year 9 Religious Education: Matters of life and death

A.	<i>Can you define these key words?</i>
<u>Key word</u>	<u>Key definition</u>
Morality	Principles concerning the distinction between right and wrong or good and bad behaviour.
Ethics	Moral principles that govern a person's behaviour or the conducting of an activity.
Sanctity of Life	The view that all life is sacred because it is made by God .
Quality of Life	The standard of health, comfort, and happiness experienced by an individual or group.
Natural Moral Law	A system of laws based on close observation of human nature, given to humans by God.
Precept	A general rule intended to regulate behaviour or thought.
Reason	The power of the mind to think, understand, and form judgements logically.
Absolute	A value or principle which is regarded as universally valid .
Situation Ethics	The view that there should be flexibility in the application of moral laws according to circumstances.
Relativism	The view that morality exists in relation to culture, society, or historical context, and is not absolute .
Agape	Unconditional love, "the highest form of love, charity" and "the love of God for man and of man for God".
Abortion	A procedure to end a pregnancy.
Pro-Life	Opposing abortion and euthanasia.
Pro-Choice	Advocating the legal right of a woman to choose whether or not she will have an abortion.
Euthanasia	The painless killing of a patient suffering from an incurable and painful disease or in an irreversible coma.
Capital Punishment	The legally authorized killing of someone as punishment for a crime.
Dominion	To be in charge of something or rule over it.
Stewardship	The job of supervising or taking care of something.

C	What does the theory of Natural Moral Law say about moral behaviour?	What are the 5 precepts of NML that we must be fulfilling for morally good behaviour?
	NML says absolute moral rules exist and are revealed to us through by God. Through the use of human reason we can look at the way things were created to know their God given design and functions. The way we are supposed to act according to the way we were created by God is morally good and any way that goes against it is morally wrong.	<ol style="list-style-type: none"> 1. Preserve innocent life 2. Live in an ordered society 3. Educate children 4. Reproduce 5. Worship God

D	What are the strengths of NML theory about what is morally good?	What are the weaknesses of NML theory about what is morally good?
	<p>The theory is based on reason so everyone can work out for themselves what is morally good</p> <p>It seems to be true that we do tend to follow the primary precepts- it is in our nature- and following them will generally bring about what we think of as good. For example, 'preserve life' means people will protect the innocent and also believe murder is wrong</p>	<p>If you do not believe in a God who has created absolute moral laws about right and wrong then NML cannot tell us anything about right or wrong.</p> <p>It can lead to classifying actions as immoral which mainstream society would argue are not. For example, the use of contraception is immoral according to NML because it does not contribute to reproduction.</p>

E	What does the theory of situation ethics say about moral behaviour?	What are the strengths of S.E theory about what is morally good?	What are the weakness of S.E theory about what is morally good?
	There are no absolute moral laws about right or wrong. The only guiding principle about what is morally right is 'do the most loving thing' in any situation.	It allows flexibility and can avoid acts we would deem to be immoral. For example, an absolute rule like 'do not lie' cannot always be followed without sometimes needing to be broken. For example if a mad axeman came in asking for your mother.... you would not want to tell the truth because it could lead to her death!.	How can we be sure what is the most loving thing when we cannot be sure what the outcome of our actions will be

B	Bible quotes relating to the sanctity of life
1	Humans were 'made in the image of God'
2	'All your days are ordained (set out) for you'
3	'The body is a temple of the holy spirit'
4	"Only God gives and takes life'
5	'Do not kill'

Year 9 Religious Education: Matters of life and death

A.	<i>Can you define these key words?</i>
<u>Key word</u>	<u>Key definition</u>
Morality	
Ethics	
Sanctity of Life	
Quality of Life	
Natural Moral Law	
Precept	
Reason	
Absolute	
Situation Ethics	
Relativism	
Agape	
Abortion	
Pro-Life	
Pro-Choice	
Euthanasia	
Capital Punishment	
Dominion	
Stewardship	

C	What does the theory of Natural Moral Law say about moral behaviour?	What are the 5 precepts of NML that we must be fulfilling for morally good behaviour?

D	<i>What are the strengths of NML theory about what is morally good?</i>	<i>What are the weaknesses of NML theory about what is morally good?</i>

E	<u>What does the theory of situation ethics say about moral behaviour?</u>	<i>What are the strengths of S.E theory about what is morally good?</i>	<i>What are the weakness of S.E theory about what is morally good?</i>

B	<i>Bible quotes relating to the sanctity of life</i>
1	
2	
3	
4	
5	



GCSE Unit 2 SPANISH Knowledge organiser.
Topic Technology in Everyday Life



What we are learning this term:

- A. Saying how you keep in touch via the internet
- B. Picking out key words when reading
- C. Giving opinions about online messaging
- D. Talking about using a mobile
- E. Give opinions about mobile technology

6 Key Words for this term

- | | |
|-------------------|-----------------|
| 1. chateo | 4. sala de chat |
| 2. redes sociales | 5. descargar |
| 3. en línea | 6. subir |

2.1G Comunicarse por internet

a veces	sometimes
allí	there
chatear	to chat online
colgar fotos	to post photos
el correo electrónico	email
demasiado/a	too much
hablar	to speak / talk
increíble	incredible
justo/a	fair
el país	country
un poco	a little
propio/a	own
la razón	reason
la red	internet / network
la red social	social network
la sala de chat	chat room
la salida	outing
todos los días	every day
usar	to use
utilizar	to use
la vez	time

2.2H ¿Podrías vivir sin el móvil y la tableta?

raras veces	rarely
la sala de chat	chat room
la señal	signal
la tarjeta de crédito	credit card
todo lo contrario	the exact opposite

2.1F ¿Cómo prefieres mantenerte en contacto?

comunicarse	to communicate
desafortunadamente	unfortunately
empezar	to start
escoger	to choose
genial	brilliant / great
gratis	free of charge
el hecho	fact
el inconveniente	disadvantage
interactivo/a	interactive
el jefe / la jefa	boss
la letra	letter of the alphabet
mandar	to send
los medios sociales	social media
el móvil	mobile phone
ofrecer	to offer
el ordenador	computer
la pantalla	screen
poder	to be able to
por desgracia	unfortunately
por mi parte	as far as I'm concerned
la revista digital	digital magazine
sencillo/a	simple
tampoco	neither / nor

2.2G ¡El móvil para todo!

aunque	although
dar	to give
dar las gracias	to thank
enviar	to send
el juego	game
lento/a	slow
el mensaje de texto	text message
el móvil	mobile phone
navegar la red	to surf the internet
la norma	rule
prohibido	forbidden
el regalo	present, gift
la regla	rule
ridículo/a	ridiculous
roto/a	broken
único/a	only

Key Verbs

Descargar To download	Subir To upload	Mandar To send	Hacer – to do/make	Chatear To chat
Descargo I download	Subo I upload	Mando I send	Hago I do	Chateo I chat
Descargas You download	Subes You upload	Mandas You send	Haces You do	Chateas You chat
descarga He/she download	sube He/she uploads	Manda He/she sends	Hace s/he does	Chatea He/she chats
Descargamos We download	Subimos We upload	Mandamos We send	Hacemos We do	Chateamos We chat
Descargan They download	suben They upload	Mandan They send	Hacen They do	Chatean They chat

2.2F La tecnología portátil

andar	to walk
archivo	file
borrar	to delete, erase
la canción	song
cargar	to load
contestar	to answer
el correo basura	spam, junk mail
cualquier	any
de vez en cuando	from time to time
el disco duro	hard drive
el espacio	space
igual	same
el ordenador portátil	laptop
sacar fotos	to take photos
sentir	to feel
la tableta	tablet
la tecnología	technology

2.2H ¿Podrías vivir sin el móvil y la tableta?

la conexión inalámbrica	wireless connection
chatear	to chat online
correr	to run
darse cuenta de	to realise
en vez de	instead of
las felicitaciones	best wishes,
congratulations	
felicitarse	to send best wishes/to
congratulate	
hasta	until
imprescindible	essential
preocupar	to worry

2.1H Las redes sociales

a mi juicio	in my opinion
acosar	to bully
el acoso	bullying
apasionar	to excite
aun	even
bajo	low
compartir	to share
el comportamiento	behaviour
el desarrollo	development
la desventaja	disadvantage
divertirse	to have a good time
gratuito/a	free of charge
mejorar	to improve
el riesgo	risk
el/la seguidor/a	follower
tener éxito	to be successful
el/la usuario/a	user



GCSE Unit 2 SPANISH Knowledge organiser.
Topic Technology in Everyday Life



What we are learning this term:	
<p>A. Saying how you keep in touch via the internet B. Picking out key words when reading C. Giving opinions about online messaging D. Talking about using a mobile E. Give opinions about mobile technology</p>	
6 Key Words for this term	
1. chateo	4. sala de chat
2. redes sociales	5. descargar
3. en línea	6. subir

2.1G Comunicarse por internet	
_____	sometimes
allí	_____
_____	to chat online
_____	to post photos
el correo electrónico	_____
demasiado/a	_____
_____	to speak / talk
_____	incredible
justo/a	_____
el país	_____
_____	a little
_____	own
la razón	_____
_____	internet / network
la red social	_____
la sala de chat	_____
_____	outing
todos los días	_____
usar	_____
_____	to use
la vez	_____

2.2H ¿Podrías vivir sin el móvil y la tableta?	
raras veces	_____
la sala de chat	_____
_____	signal
la tarjeta de crédito	_____
todo lo contrario	_____

2.1F ¿Cómo prefieres mantenerte en contacto?	
comunicarse	_____
desafortunadamente	_____
_____	to start
_____	to choose
genial	_____
gratis	_____
_____	fact
el inconveniente	_____
_____	interactive
el jefe / la jefa	_____
_____	letter of the alphabet
mandar	_____
los medios sociales	_____
_____	mobile phone
_____	to offer
el ordenador	_____
la pantalla	_____
_____	to be able to
por desgracia	_____
_____	as far as I'm concerned
la revista digital	_____
sencillo/a	_____
_____	neither / nor

2.2G ¡El móvil para todo!	
aunque	_____
dar	_____
dar las gracias	_____
_____	to send
_____	game
_____	slow
el mensaje de texto	_____
el móvil	_____
_____	to surf the internet
la norma	_____
prohibido	_____
el regalo	_____
_____	rule
_____	ridiculous
roto/a	_____
único/a	_____

Key Verbs				
Descargar	_____	Mandar	Hacer –	Chatear
_____	To upload	_____	_____	To chat
Descargo	Subo	_____	_____	Chateo
I download	_____	I send	I do	I chat
Descargas	Subes	Mandas	Haces	_____
_____	You upload	_____	You do	You chat
descarga	sube	Manda	_____	Chatea
He/she download	He/she uploads	He/she sends	s/he does	He/she chats
_____	Subimos	Mandamos	Hacemos	Chateamos
We download	We _____	_____	_____	_____
_____	suben	Mandan	Hacen	_____
They download	They upload	They send	They do	They chat

2.2F La tecnología portátil	
andar	_____
archivo	_____
_____	to delete, erase
la canción	_____
cargar	_____
contestar	_____
_____	spam, junk mail
cualquier	any
de vez en cuando	from time to time
el disco duro	_____
el espacio	space
_____	same
el ordenador portátil	_____
sacar fotos	to take photos
_____	to feel
la tableta	_____
la tecnología	technology

2.1H Las redes sociales	
a mi juicio	_____
acosar	_____
_____	bullying
apasionar	_____
_____	even
_____	low
_____	to share
el comportamiento	_____
el desarrollo	_____
_____	disadvantage
_____	to have a good time
gratuito/a	_____
_____	to improve
_____	risk
el/la seguidor/a	_____
_____	to be successful
el/la usuario/a	_____

2.2H ¿Podrías vivir sin el móvil y la tableta?	
la conexión inalámbrica	_____
chatear	_____
correr	_____
_____	to realise
_____	instead of
_____	best wishes,
congratulations	_____
felicitar	_____ congratulate
hasta	_____
imprescindible	_____
_____	to worry



Translation Practice. G – blue F – orange H - Green	
Mando _____ a mis amigos	I send emails to my friends
Me gusta usar _____	I like to use social networks
Siempre _____ fotos a Instagram	I always upload photos to Instagram
Recibo más _____ en Facebook que Twitter	I receive more messages on FB than Twitter
El _____ es más útil que Facebook	Email is more useful than Facebook
Twitter es menos divertido que las _____	Twitter is less fun than chatrooms
Estoy borrando _____	I am deleting files
Los _____ son muy caros	Laptops are very expensive
Me gusta _____ a los videojuegos	I like playing video games
_____ muchas fotos con mi tableta	I take lots of photos with my tablet
Prefiero _____ correos electrónicos	I prefer to send emails
I hate _____	I hate spam emails
Estamos ayudando a niños usar un _____	We are helping young children to use a laptop
He _____ de usar Instagram	I have stopped using Instagram
Está _____ hablar con su familia en Francia	He's trying to talk to his family in France
He _____ con comprar un móvil nuevo	I have dreamt of buying a new mobile
_____ de hablar con nuestros amigos	We have just finished speaking to our friends
_____ es importante para todos	Technology is important for everyone
He _____ Facebook antes	I have used Facebook before

Key Questions: Answer the following in your own words. Use these model answers	
¿Cómo usas las nuevas tecnologías/los redes sociales?	Todos los días uso las nuevas tecnologías. Uso mi ordenador, mi portátil nuevo, mi móvil y las redes sociales. Uso mi ordenador para ver videos de mis artistas favoritos en YouTube. Uso mi ordenador para hacer mis deberes y uso mi móvil para jugar juegos y subir y descargar fotos de mis amigos en Facebook.
¿Las nuevas tecnologías/los redes sociales son importante para ti? ¿Por qué?	Las redes sociales son muy importantes para mí. Las uso para contactarme con mis amigos, para charlar con mis amigos, para compartir experiencias y fotos, para ver videos de mis músicos favoritos. Ayer usé mi móvil para llamar a mis amigos, mandé mensajes a mis amigos y hice mis deberes.
¿Crees que las redes sociales son buenas o malas? ¿Por qué?	De un lado, lo bueno de las redes sociales es que puedes compartir experiencias y fotos con tus amigos, puedes seguir tus artistas o músicos favoritos. También lo bueno es que es muy rápido y barato mantenerte en contacto con tu familia. Lo malo es que los móviles cuestan mucho dinero, tu vida no es muy privada, es difícil para, es muy fácil ser dependiente de las redes sociales. Lo malo es que las personas no hablan y solo usan sus móviles.
¿Para qué usaste tu ordenador ayer?	Ayer usé mi ordenador para charlar con mis amigos y para mandar mensajes. También, ayer descargué música de la Red y subí fotos en Facebook. Me gustó porque fue entretenido y fue mejor que hacer mis deberes.
¿Qué es tu opinión de Facebook/youtube/skype/Twitter/Instagram?	En mi opinión Facebook etc es muy importante/útil/entretenido/divertido.
¿Podrías vivir sin tu móvil / tu tableta? ¿Por qué?	No podría vivir sin mi móvil. Soy adicto a mi móvil. Lo uso todos los días para contactar con mi familia y es muy importante para buscar información, ayudar con los deberes

Key Grammar	
Forming the preterite (past tense). Always remove the –AR, -ER, -IR endings first	Remember the preterite (past) tense endings for –AR, -ER, -IR verbs. They are: -AR: -é, -aste,-ó, -amos, -astéis, -aron -ER: -í, -íste, -ió, -imos, -istéis, -ieron -IR : -í, -iste, -ió, -imos, -istéis, -ieron
Forming the conditional ('would like to' tense). Always remove the –AR, -ER, -IR endings first	Remember the conditional ('would') tense endings for –AR, -ER, -IR verbs. They are: -AR, -ER, -IR: -ía, -ías, -ía, -íamos, -íais, -ían
Using the immediate future tense IR + A + INFINITIVE	Voy a subir fotos = I'm going to upload photos Va a mandar un correo electrónico = He / She is going to send an email



Year 9 COMPUTER SCIENCE Term 3 – Programming



What we are learning this term:

A. Matching Operators B. Definitions C. Python Code D. Data Types

Multiply
Assignment
Is greater than or equal to
Is equal to
Is not equal to
Is less than

>=
=
!=
<
==
*

B	Definitions
Computer Science Terms	
Identifier	
IF Statement - Selection	
Loops - Iteration	
Operator	
Relational Operator	
Variable	

C.	Python Code
This is an example of:	
if username == "Tim":	
print("Hello World")	
dogAge = 8	
while userNum < 3:	

D.	Data Types	Example
	Boolean	
	Character	
	Integer	
	String	
	Real/Float	



Year 9 COMPUTER SCIENCE Term 3 – Programming



What we are learning this term:

- A. Matching Operators B. Definitions C. Python Code D. Data Types

Multiply	>=
Assignment	=
Is greater than or equal to	! =
Is equal to	<
Is not equal to	==
Is less than	*

Note: Orange lines connect 'Multiply' to '=', 'Is greater than or equal to' to '>=', 'Is equal to' to '<', 'Is not equal to' to '!=', and 'Is less than' to ''. The 'Assignment' row is not connected to any operator.*

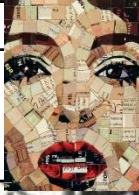
B	Definitions
Computer Science Terms	
Identifier	A name, usually for part of the program such as a constant, variable, array etc.
IF Statement - Selection	A statement that lets a program select an action depending on whether it is true or false.
Loops - Iteration	Repeating an action, activity or section within a program.
Operator	A character which determines what action is to be considered or determined. Example: =
Relational Operator	An operator which compares two values. Example: <
Variable	A memory location within a computer where values are stored.

C.	Python Code
This is an example of:	
if username == "Tim":	Selection
print("Hello World")	Output
dogAge = 8	Assignment
while userNum < 3:	Iteration

D.	Data Types	Example
Boolean	TRUE/FALSE or 1/0	TRUE or 1
Character	A single, alphanumeric character.	1 or A or !
Integer	Whole numbers	15
String	One or more alphanumeric characters.	1A!
Real/Float	Decimal numbers	15.5

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

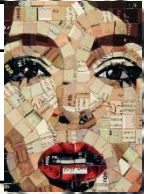
Shadow When an objector artwork intercepts light and causes an obscurity

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. How has she torn the material.....

.....

4. 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 Vollpicelli, 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?

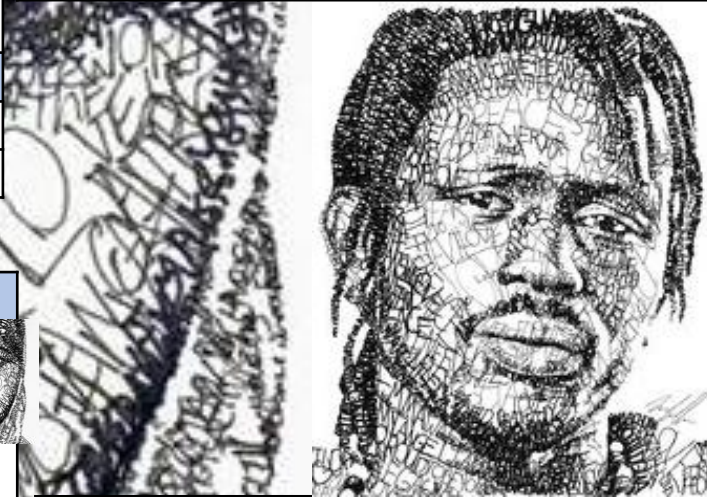
.....

HOW?

.....

WHY?

.....





Year 9 PRODUCT DESIGN Rotation Knowledge Organiser

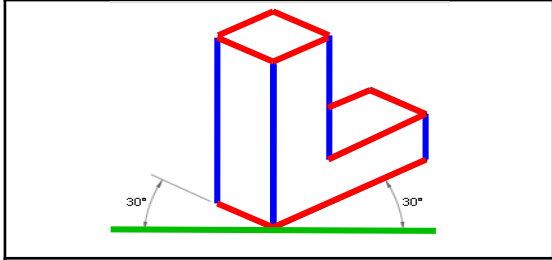


What we are learning this term:
A. Drawing Skills
B. Materials
C. Wooden Joints & Their Uses
D. Tools & Machinery

A.	Drawing Skills
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Isometric Technical Drawing

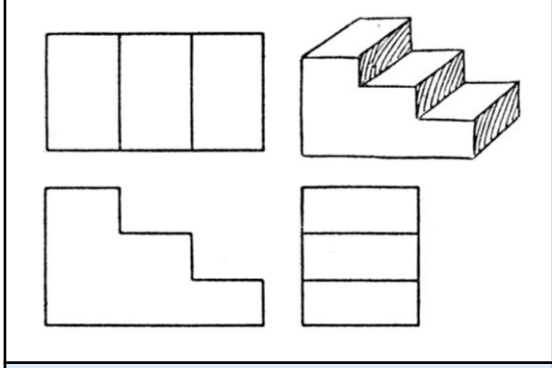
Made up of a series of parallel **vertical lines** and parallel **30-degree lines**. But no **horizontal lines**.



Used to show a 3D (3-dimensional) perspective of a object or product.

Orthographic Projection

This shows 2D views of a 3D object from different angles – front, plan and end.



Commonly used in industry to help the manufacturer understand the design.

B.	Materials
-----------	------------------

Timbers come from trees



Scots pine – which you used for your frame – is a **softwood**

Softwood trees have needle like leaves and are more sustainable

Dowels are a common component in joinery
--



Dowels – which you used in your dowel joint – is a **hardwood**

Hardwood trees have broad like leaves and loose their leaves in winter

Polymers come from crude oil
--



Acrylic – which you used for your stand – is a **polymer**

Acrylic is a **thermoforming** polymer which means it can re-heated and reshaped again and again

C.	Wooden Joints & Their Uses
-----------	---------------------------------------

Joint	Uses	Image
--------------	-------------	--------------

Mitre Joint	<ul style="list-style-type: none"> Picture Frames. Joining Moldings Window or Door Frames Trim and Skirtings 	
--------------------	--	--

Dowel Joint	<ul style="list-style-type: none"> Make joints stronger. Axles on toys. Frames Shelves Table or Chair Leg Attachments 	<p>By K. Cooper 2006</p>
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Mortise and Tenon Joint	<ul style="list-style-type: none"> Tables Chairs Door Beds Windows Cabinets Panelling 	
--------------------------------	--	--

Cross Halving Joint	<ul style="list-style-type: none"> Picture frames Drawers Cabinets Structural Framing 	
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D.	Tools & Machinery
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Steel Rule	Tri Square	Mitre Square	Tenon Saw	Wooden Mallet	Chisel	Bandfacer	Pillar Drill	Mortice



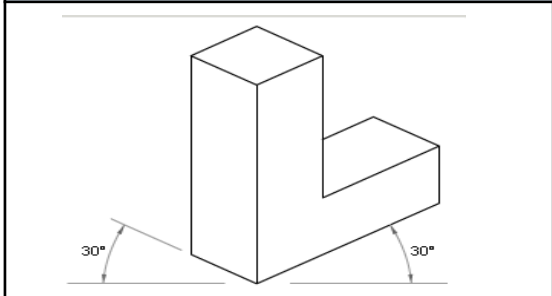
Year 9 PRODUCT DESIGN Rotation Knowledge Organiser






What we are learning this term:
A. Drawing Skills
B. Materials
C. Wooden Joints & Their Uses
D. Tools & Machinery

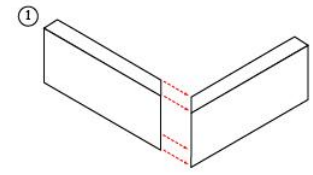
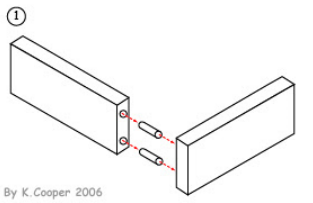
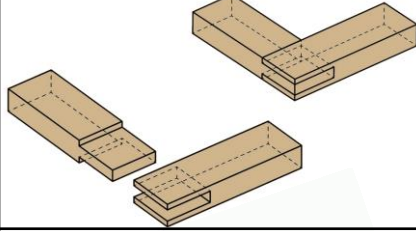
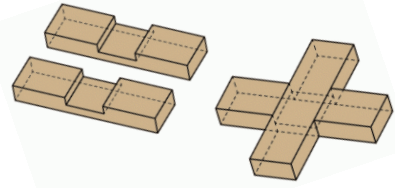
A. Drawing Skills
Technical Drawing

This is used for _____



Practice drawing the shapes below

B. Materials		
Timbers come from _____		
 <p>Scots pine – which you used for your frame – is a _____</p> <p>Softwood trees have _____ and are more sustainable</p> <p>_____ are a common component in joinery</p>	<p>Dowels – which you used in your dowel joint – is a _____</p> <p>Hardwood trees have _____ and lose their leaves in winter</p>	
	<p>_____ are a common component in joinery</p>	<p>Polymers come from _____</p>
	<p>Acrylic – which you used for your stand – is a _____</p> <p>Acrylic is a thermo-_____ polymer which means it can be _____</p>	

C. Wooden Joints & Their Uses		
Joint	Uses	Image
	<ul style="list-style-type: none"> _____ _____ _____ 	
	<ul style="list-style-type: none"> _____ _____ _____ 	 <p>By K. Cooper 2006</p>
	<ul style="list-style-type: none"> _____ _____ _____ 	
	<ul style="list-style-type: none"> _____ _____ _____ 	

D. Tools & Machinery								
								

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 and 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?
	<ol style="list-style-type: none"> 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



C.	Can you list 5 reasons for why we cook food and why it is important?	
<u>Rule</u>		<u>Why it is important</u>
<ul style="list-style-type: none"> • 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 		<ul style="list-style-type: none"> • 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.

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

Year 9 – High Skills

B.	Can you list 5 of the dietary requirements of a teenager?
1	
2	
3	
4	
5	

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

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
-
-
- 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		

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

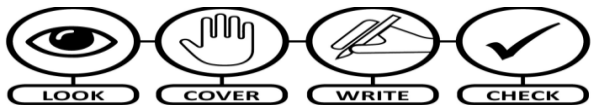
C.	Can you list 5 reasons for why we cook food and why it is important?	
<u>Rule</u>		<u>Why it is important</u>
• 1		• 1
• 2		• 2
• 3		• 3
• 4		• 4
• 5		• 5



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	



A	What we are learning about this term...
1	Basic Song Structure
2	How to write a perfect Evaluation
3	Playing an instrument / Chords / Melody
4	What are the music symbols – Note values
5	Keywords
6	How to read music - Treble clef and bass clef



B	Keywords
Instrumental Break	An instrument section during a song – no singing
Lyrics	The words of a song
Verse	A section of a song telling the story , followed by a chorus
Chorus	Repeated idea within a song, lyrics and music usually remain the same
Bridge / Middle 8	Passage of music that contrasts the verse and chorus
Outro / Coda	Passage of music that brings the song to an end
Album	A collection of audio recordings
Arrangement	A rework of a musical composition so that it can be played by different combinations of instruments
Genre	A style or category of art, music, or literature
Cover Song	A performance of a song by someone other than the original artist/band.

C	Instruments in popular music
<h2>BASIC SONG STRUCTURE</h2> <p>The fundamental elements of a pop song</p> <p>Intro: The first verse sets the scene and starts the story.</p> <p>Verse: The chorus is the main hook of the song. Lyrics should broadly summarize the message of the song.</p> <p>Chorus: The chorus is the main hook of the song. Lyrics should broadly summarize the message of the song.</p> <p>Verse: The second chorus is usually same as the first. This is your opportunity to re-emphasize your message after the 2nd verse.</p> <p>Bridge: The bridge is usually very different from both the verses and the chorus. It's either the climax of the song or the buildup to the final chorus.</p> <p>Chorus: The last chorus brings it home, tying up the story. Sometimes the last chorus is repeated twice.</p> <p>Coda: The last chorus brings it home, tying up the story. Sometimes the last chorus is repeated twice.</p>	
D	How to write a perfect Evaluation?
1	Write a full sentence explaining what your musical performance or music composition was about
2	Explain what you were trying to communicate to an audience and how you did it
3	Pick out at least two moments that worked really well, using specific examples and say what you did that made them successful
4	Pick out one moment that you could make better. Explain why it needed improving and how you would make it better if you did your performance again
5	Sum up your evaluation and discuss one thing that you will take forward into your next work

E								How to read music – treble clef and Bass Clef							
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									

F				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					

G Describing music – MAD T SHIRT

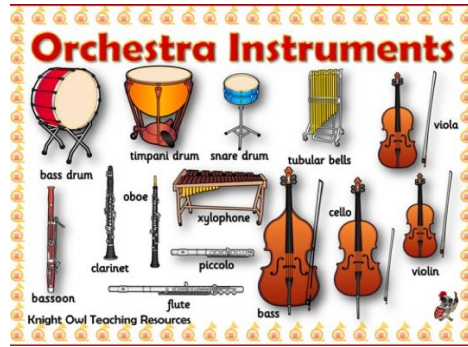
M	A	D	T	S	H	I	R	T
Melody	Articulation	Dynamics	Texture	Structure	Harmony/Tonality	Instruments	Rhythm	Tempo
The tune	How notes are played	Loud/quiet and any other volume changes	Layers of sound / how they fit together	The sections and organising	Chords used / the mood	Types of instruments heard	Pattern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

What we are learning this term:		
A.	Film Composers and Orchestra Instruments	
B.	How to write a perfect Evaluation	
C.	Playing the Keyboard / Chords	
D.	What are the musical elements?	
E.	What are the music symbols – Note Values	
F.	Keywords	
G.	How to read music – treble clef and bass clef	
7 Key Words for this term		
1 Leitmotif	4 Synchronising	7 Atonal
2 Soundtrack	5 Non-Diegetic	
3 Underscore	6 Mickey-Mousing	

C Playing the Keyboard / Chords

F	Keywords
Leitmotif / motif	a recurrent theme throughout a musical composition, associated with a person, idea, or situation
Musical Cliché	A cliché is a phrase which is often used , or overused
Theme Tune	A piece of music that is known for representing the film/tv show
Soundtrack	The collection of songs and musical arrangements played during a film/TV show.
Underscore	the background music used in a film to set the mood/atmosphere.
Opening / Closing Credits	A list of important people involved in the production of film/tv shows included at the start and end of films.
Mickey-Mousing	When the music perfectly fits with the action on the screen.
Atonal	term used to define music that seems to lack a clear tonal center – it doesn't sound good . It is perfect for horror movies!
Synchronising	The process of combining music/audio with moving image
Non-Diegetic	Sound and effects that are added for dramatic effect.

A Famous Film Composers / Instruments of the Orchestra



D What are the musical elements?

Timbre	Sound quality
Pitch	High or low sounds
Texture	How many sounds
Tempo	Fast or slow
Duration	Long or short
Structure	The musical plan
Dynamics	Loud or quiet
Silence	No sound / rests in the music
Attack/Decay	How notes start and stop

B How to write a perfect Evaluation?

1	Write a full sentence explaining what your musical performance or music composition was about
2	Explain what you were trying to communicate to an audience and how you did it
3	Pick out at least two moments that worked really well, using specific examples and say what you did that made them successful
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E What are the music symbols?

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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



What we are learning this term:

- A. Film Composers and Orchestra Instruments
- B. How to write a perfect Evaluation
- C. Playing the Keyboard / Chords
- D. What are the musical elements?
- E. What are the music symbols – Note Values
- F. Keywords
- G. How to read music – treble clef and bass clef

C Playing the Keyboard / Chords

LEFT HAND RIGHT HAND

① ② ③ ① ② ③

C D E F G A B C C D E F G A B C

C I G V

A m vi F IV

7 Key Words for this term

1		4		7	A	
2		5				
3		6				

A Famous Film Composers / Instruments of the Orchestra

Orchestra Instruments

timpani drum, oboe, xylophone, cello, bass, clarinet, bassoon

Knight Owl Teaching Resources

B How to write a perfect Evaluation?

- Write a full sentence explaining what your musical performance or music composition was about
- Explain what you were trying to to an audience and how you did it
-
- again
-

D What are the musical elements?

Timbre	
Pitch	
Texture	
Tempo	
Duration	
Structure	
Dynamics	
Silence	
Attack/Decay	

E What are the music symbols?

Note	Name	Beats	Rest	Note	Name	Beats	Rest
	<input type="text"/>	4 beats	<input type="text"/>		Dotted Semibreve, Dotted Whole Note	<input type="text"/>	
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	the background music used in a film to set the mood/atmosphere.
Opening / Closing Credits	
	When the music perfectly fits with the action on the screen.
Atonal	
Synchronising	
	Sound and effects that are added for dramatic effect.

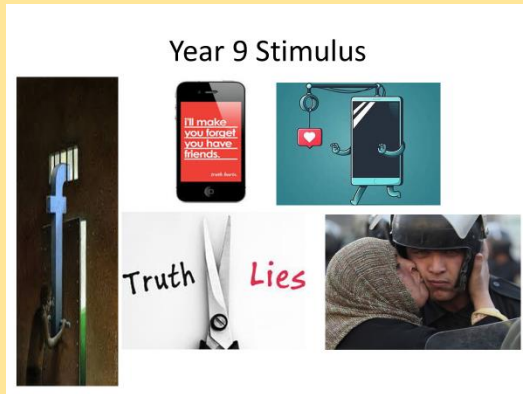
G How to read music – treble clef and Bass Clef

Treble clef and Bass clef notation examples.

DEVISING

Frequently called **collective creation** - is a method of theatre-making in which the script or (if it is a predominantly physical work) performance score originates from collaborative, often improvisatory work by a performing ensemble.

Stimulus- A starting point or catalyst for your ideas.



What words do you think of looking at these pictures?
 What stories do you think of?
 What characters come to mind?



This term you are challenged with making a group performance that lasts up to 5 minutes and is based on a stimulus that you will be given in a lesson this term.

It **MUST** be ORIGINAL (cannot involve stories / characters that already exist) and **EVERYONE** must be involved.

Tips for success

Don't try and make a STORY – instead, create scenes based on a theme

Listen to everyone's ideas

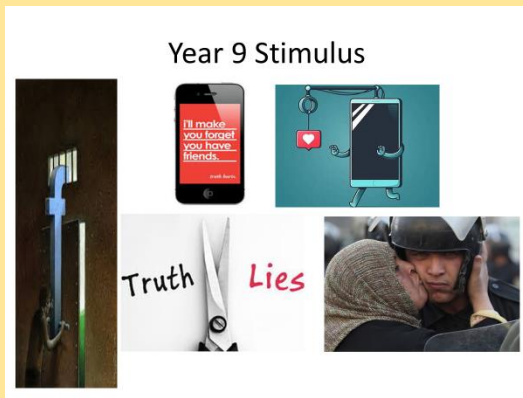
Think of at least 3 ways to show the message and then pick the best one

Would technical elements help to get your message across?

DEVISING

Frequently called or (if it is a predominantly physical work) performance score originates from collaborative, often improvisatory work by a performing ensemble. - is a method of theatre-making in which the

Stimulus-



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It MUST be ORIGINAL (cannot involve stories / characters that already exist) and EVERYONE must be involved.

Tips for success

SWINDON ACADEMY READING CANON

Year 7



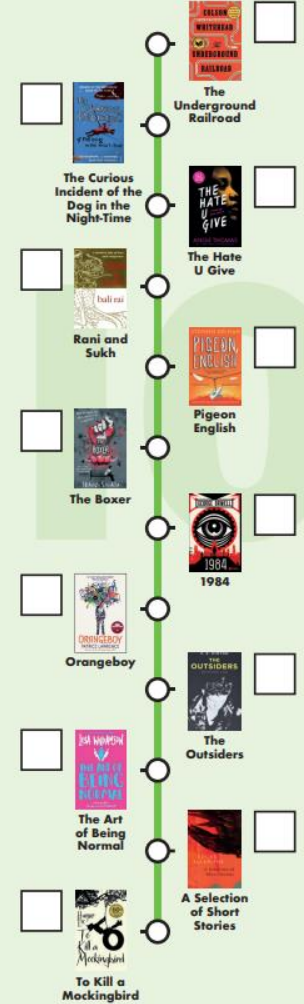
Year 8



Year 9



Year 10



#ReadingisPower