

100% book - Year 9 Grammar

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



Term 2

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

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.

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!

Quizzable Knowledge Organisers

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

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

Expectations for Prep and for using your Knowledge Organisers

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

How do I complete Knowledge Organiser Prep?

Step 1

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

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 is the law of conservation of mass?'. 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 is the law of conservation of mass?'. 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 a student's prep book with the keywords/definitions/facts from the knowledge organiser written out in full. The text includes: '29th May 2020', 'Properties of the states of matter', '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.'

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 a student's prep book with the keywords/definitions/facts from the knowledge organiser written out three times. The text includes: '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 with the missing words from the quizzable knowledge organiser written in the prep book. The text includes: '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 a student's prep book with the keywords/definitions/facts from the knowledge organiser written out in full, with some corrections. The text includes: '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.



Chapter breakdown of Jane Eyre

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

The Big Ideas:

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

Locations in the first 10 chapters

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

Terminology: Key words

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

Characters in Jane Eyre

Jane Eyre The main character. A young, intelligent, and passionate orphan. "You think I have no feelings, and that I can do without one bit of love or kindness; but I cannot live so"
Mrs Reed – Jane's aunt She neglects and abuses Jane and is glad to send her away to Lowood School. "Guard against her worst fault, a tendency to deceit"
Mr Brocklehurst – The governor of Lowood school A cruel and hypocritical Christian. He believes in driving evil from children through harsh discipline. "Punish her body to save her soul"
Helen Burns – Jane's friend A kind and forgiving Christian. She inspires Jane to be more patient and accepting. She dies of tuberculosis at 14. "Love your enemies; bless them that curse you; do good to them that hate you and despitefully use you."
Miss Temple The kind and understanding teacher at Lowood. Offers care and affection to Jane and Helen. "You shall be publicly cleared from every imputation: to me, Jane, you are clear now."

Vocabulary: Key words

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

Victorian attitudes to childhood

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

Biographical information

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



Chapter breakdown of Jane Eyre

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

The Big Ideas:

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

Locations in the first 10 chapters

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

Terminology: Key words

thesis –
juxtaposition –

Characters in Jane Eyre

Jane Eyre
Mrs Reed – Jane's aunt

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

Miss Temple

Vocabulary: Key words

protagonist –
dependent –
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solitude –
sombre –
conventional –
obedience –
ominous –
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hypocrite –
comeuppance –

Victorian attitudes to childhood

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

Biographical information

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



C. Which microscope is which?	
Electron Microscope	Light Microscope
Greater resolution	Lower resolution
Greater magnification	Lower magnification
More expensive	Less expensive
Many more sub-cellular structures are visible	Very few sub-cellular structures are visible

D.	What 3 factors affect the rate of diffusion?
<ol style="list-style-type: none"> 1. Surface area 2. Membrane thickness 3. Concentration gradient 	

D.	Name the type of solution
Isotonic	The solute concentration outside the cell is the same as the internal concentration.
Hypertonic	The solute concentration outside the cell is the higher than the internal concentration.
Hypotonic	The solute concentration outside the cell is the lower than the internal concentration.

D. Define each transport method and draw the arrow on the concentration gradients

Diffusion	The net movement of particles from an area of higher concentration to an area of lower concentration, down a concentration gradient.	
Osmosis	The diffusion of water through a partially permeable membrane from a dilute solution (high concentration of water) to a concentrated solution (low concentration of water), down a concentration gradient.	
Active transport	The movement of substances from a dilute solution to a more concentrated solution against a concentration gradient, requiring energy from respiration.	



C.	Which microscope is which?
Greater resolution	Lower resolution
Greater magnification	Lower magnification
More expensive	Less expensive
Many more sub-cellular structures are visible	Very few sub-cellular structures are visible

D.	What 3 factors affect the rate of diffusion?
	1.
	2.
	3.

D.	Name the type of solution
	The solute concentration outside the cell is the same as the internal concentration.
	The solute concentration outside the cell is the higher than the internal concentration.
	The solute concentration outside the cell is the lower than the internal concentration.

D.	Define each transport method and draw the arrow on the concentration gradients
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Diffusion		
Osmosis		
Active transport		

What we are learning this term:

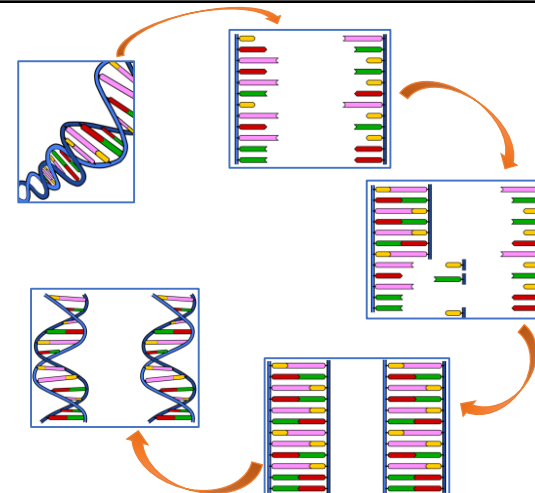
- A. Cell cycle
- B. Mitosis
- C. Growth
- D. Stem cells
- E. Cloning

2 Key Words for this term

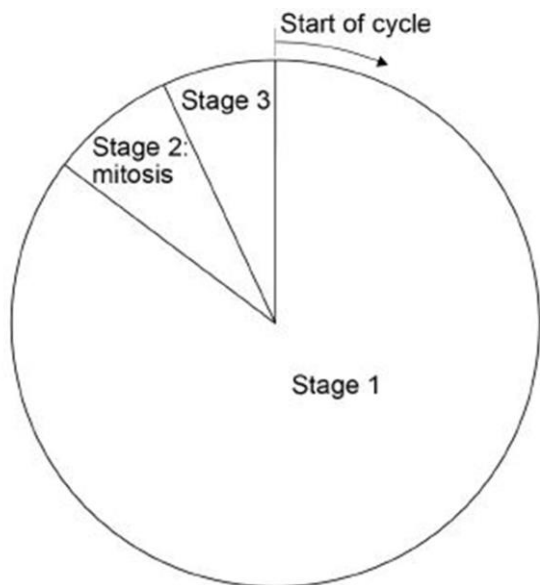
- 1. Mitosis
- 2. Differentiate

B. What are the stages of DNA replication?

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



A. Describe the stages of the cell cycle



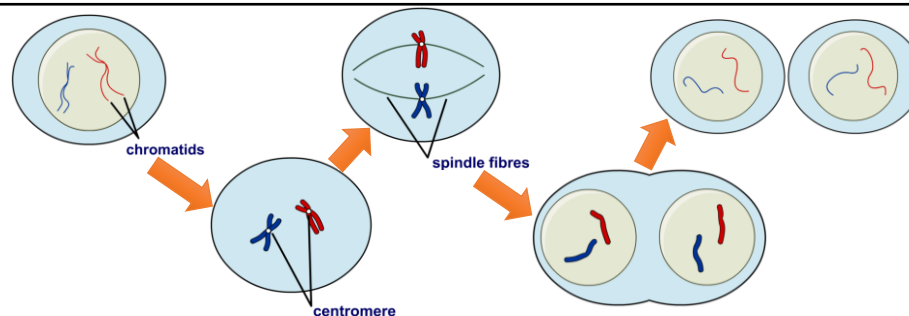
1) Replication of DNA to form two copies of each chromosome and synthesis of new sub-cellular structures

2) Nucleus divides

3) Cell divides in two

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

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



What we are learning this term:

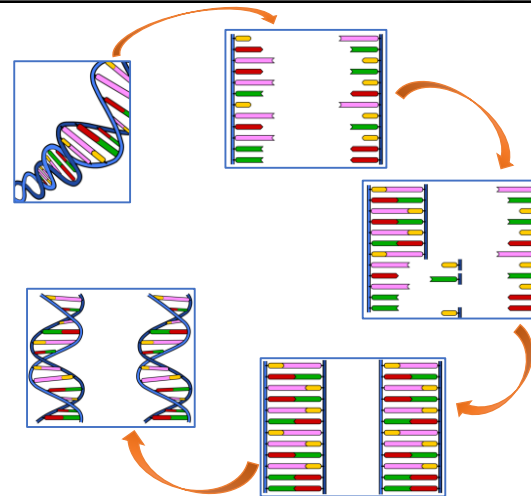
- A. Cell cycle
- B. Mitosis
- C. Growth
- D. Stem cells
- E. Cloning

2 Key Words for this term

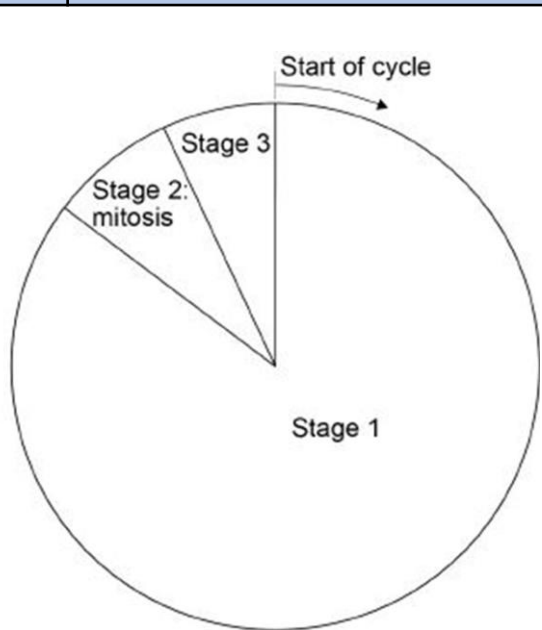
- 1. Mitosis
- 2. Differentiate

B. What are the stages of DNA replication?

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



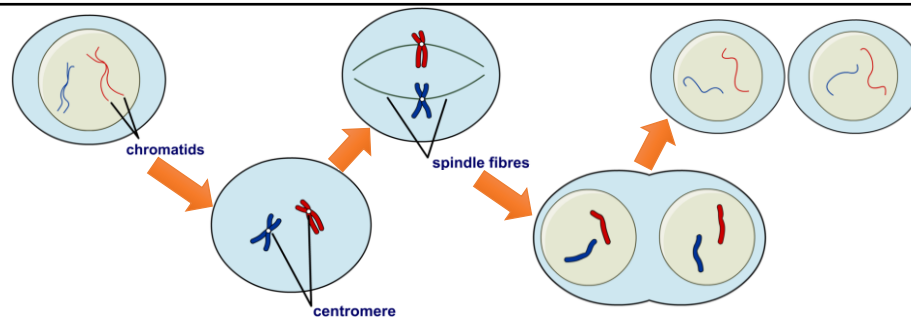
A. Describe the stages of the cell cycle



- 1)
- 2)
- 3)

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

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





C. Match terms on growth to their definitions

differentiation	when a cell starts to become specialized
division	when a cell replicates
elongation	when a cell increases in size
stem cells	cells that can become any type of cell
tissue cells	cells that have begun to be specialized

D. Describe the ethical concern around using embryonic stem cells.

Embryonic stem cell research is strongly criticized by people who believe it is unethical to kill embryos for their cells.
 Work involving embryonic stem cells is subject to government regulation.

D. What are the advantages of using adult stem cells?

- They come from volunteers so they are more ethically acceptable.
- A patient's own stem cells could be used to treat their own disease, avoiding the problem of immune rejection.
- It might be easier to guide their development into specific cell types.
- They are less likely to become cancerous.

D. Describe these two types of human stem cell

Embryonic	<ul style="list-style-type: none"> • Up until the eight cell stage, all of the cells in a human embryo are identical. • They can develop into all the different types of cell in the body.
Adult	<ul style="list-style-type: none"> • They are found in small numbers in many organs, including bone marrow, brain, skin and muscle. • Can usually only make a small number of cell types.

D. Describe plant stem cells

Meristem tissue	<ul style="list-style-type: none"> • Plant cells can differentiate to form specific cells throughout the plant's life.
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D. Define therapeutic cloning

A process where an embryo is produced that is genetically identical to the patient so the cells can be used in medical treatments.



C. Match terms on growth to their definitions

differentiation	when a cell increases in size
division	cells that have begun to be specialized
elongation	when a cell replicates
stem cells	cells that can become any type of cell
tissue cells	when a cell starts to become specialized

D. Describe the ethical concern around using embryonic stem cells.

D. What are the advantages of using adult stem cells?

D. Describe these two types of human stem cell

Embryonic	
Adult	

D. Describe plant stem cells

Meristem tissue	
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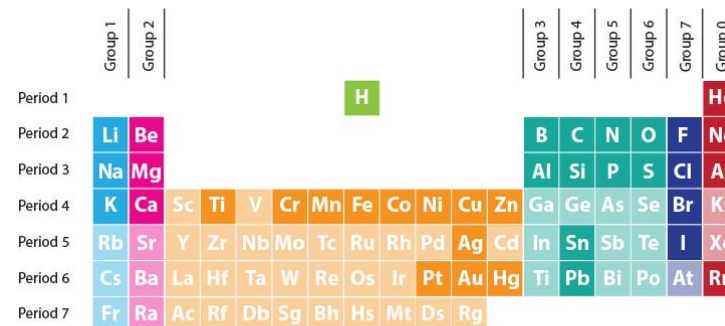
D. Define therapeutic cloning



D	Group 1 of the Periodic Table -	
What are group 1 elements known as?	Alkali Metals	
Metal or non-metal	Metal	
How many electrons are in the outer shell?	1 electron in the outer shell	
How reactive are they?	<ul style="list-style-type: none"> Group 1 metals easily lose the electron on the outer shell. This makes group 1 elements very reactive Vigorous reactions with water 	
What ions do they form?	<ul style="list-style-type: none"> Group 1 elements readily lose electrons to form positive ions This is so they can have a filled outer shell 	
How does reactivity change down the group?	Reactivity increases down the group	

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

E.	What is a Halogen Displacement reaction?	
A more reactive halogen can displace a less reactive halogen from an aqueous solution from its salt		
$Cl_2 + 2KBr \rightarrow 2KCl + Br_2$		



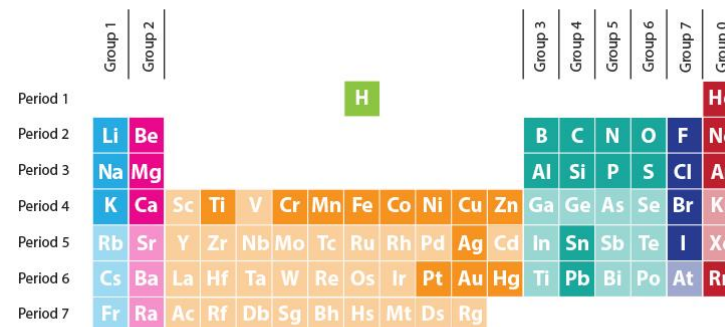
E.	Group 7 of the Periodic Table	
What are group 7 elements known as?	Halogens	
How are they found	Halogens travel in pairs – diatomic molecules (Cl_2 , Br_2 ...)	
Metal or non-metal	Non-metal	
How many electrons are in the outer shell?	7 electrons in the outer shell	
How reactive are they?	<ul style="list-style-type: none"> Group 7 elements easily gain electrons This makes group 7 elements very reactive 	
What ions do they form?	<ul style="list-style-type: none"> Group 7 elements readily gain electrons to form negative ions. This is so they can have a filled outer shell 	
How does reactivity change down the group	Reactivity decreases down the group	
How do boiling points change down the group?	As you go down the group, the boiling point increases as the atomic weight increases	



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

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

E.	What is a Halogen Displacement reaction?



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



Year 9 Grammar Term 2 Physics : Topic P1 Energy



What we are learning this term:

A. Conduction
 B. Insulators
 C. Specific heat capacity
 D. Heating and insulating buildings

6. Key Words for this term

1. Specific
 2. Absorption

A. What are the factors that affect conduction?

1. Material
2. Cross-sectional area
3. Surface contact
4. Temperature difference

B. Why do insulators not conduct heat?

They do not have any free electrons to move through the material and transfer the energy.

B. Why are cotton sheets good insulators?

Because the cotton does not conduct any heat as there are no free electrons.
 There is also air trapped in the cotton and air is not a good conductor.

C. What can the heat energy stored in a material be thought of as?

The total kinetic energy of all the particles.

C. Which has more heat energy, a bath of hot water or a spark from a sparkler? And why?

The particles in a spark from a fire move around very quickly, so it has a high temperature. However, there are only a few particles, so it has very little stored heat energy
 Compared to a spark, the particles in a bath of water move slowly, so it has a relatively low temperature, but there is a large amount of energy stored since there are many particles.

A. What is a good conductor?

A material that allows heat and electricity to pass through.

What are examples of good and bad conductors (insulators)?

<u>Good</u> Metals: silver, copper, gold, aluminium	<u>Bad (insulators)</u> Glass, air, plastic, rubber and wood.
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B. What materials make good insulators?

Rubber, wood, air, glass, plastic

B. Why is air a good insulator?

Because its a gas. Therefore its spread-out molecular configure resists heat transfer to some degree

C. Why do copper and water require a different amount of energy to get to increase their temperature to the same amount?

Because they have a different specific heat capacity.

What is specific heat capacity?

SHC is the amount of energy required to increase the temperature of 1 kg of a material by 1 °C

A. What are the three main processes that heat can be transferred by?

1. Conduction 2. Convection 3. Radiation

In what direction does heat energy flow?

From HOT to COLD
 From a warmer to cooler area

In what state (s, l, g) does conduction happen?

Solids

How do metals conduct heat?

The outer electrons are not attached, are free to move (delocalised). When the metal is heated they gain electrons and transfer the energy through the metal.

C. Do the following factors affect the temperature change of a material when it is heated?

yes	no
energy supplied ✓	material volume ✓
mass of material ✓	starting temperature ✓
material ✓	



Year 9 Grammar Term 2 Physics : Topic P1 Energy



What we are learning this term:

A. Conduction
 B. Insulators
 C. Specific heat capacity

6. Key Words for this term

A. What is a good conductor?

What are examples of good and bad conductors (insulators)?

<u>Good</u>	<u>Bad (insulators)</u>
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A. What are the three main processes that heat can be transferred by?

1. 2. 3.

In what direction does heat energy flow?

In what state (s, l, g) does conduction happen?

How do metals conduct heat?

A. What are the factors that affect conduction?

1.
 2.
 3.
 4.

B. Why do insulators not conduct heat?

B. What materials make good insulators?

B. Why is air a good insulator?

B. Why are cotton sheets good insulators?

C. What can the heat energy stored in a material be thought of as?

C. Which has more heat energy, a bath of hot water or a spark from a sparkler? And why?

C. Why do copper and water require a different amount of energy to get to increase their temperature to the same amount?

What is specific heat capacity?

C. Do the following factors affect the temperature change of a material when it is heated? Energy supplied, mass of material, material, material volume, starting temperaturw.

yes

no



C. What are the factors which affect the amount of energy required to increase the temperature of an object?

Energy supplies
Material
Mass of material

Why would a material with a high specific heat capacity be beneficial?

It can store a large amount of heat energy for a minimal temperature change.
For example, radiators have water in them because it has a high SHC.

C. What is the equation for energy, in which you use specific heat capacity?

Energy = mass x specific heat capacity x temperature change
Energy is measured in joules (J).
Mass is measured in kilograms (kg).
Temperature change is measured in °C.
Specific heat capacity is measured in J/kg°C.

How much energy is needed to increase the temperature of 0.5 kg of water by 80 °C in a kettle? SHC of water = 4,200 J/kg°C

Energy = 0.5 kg x 4200 J/kg°C x 80°C = 168,000 J

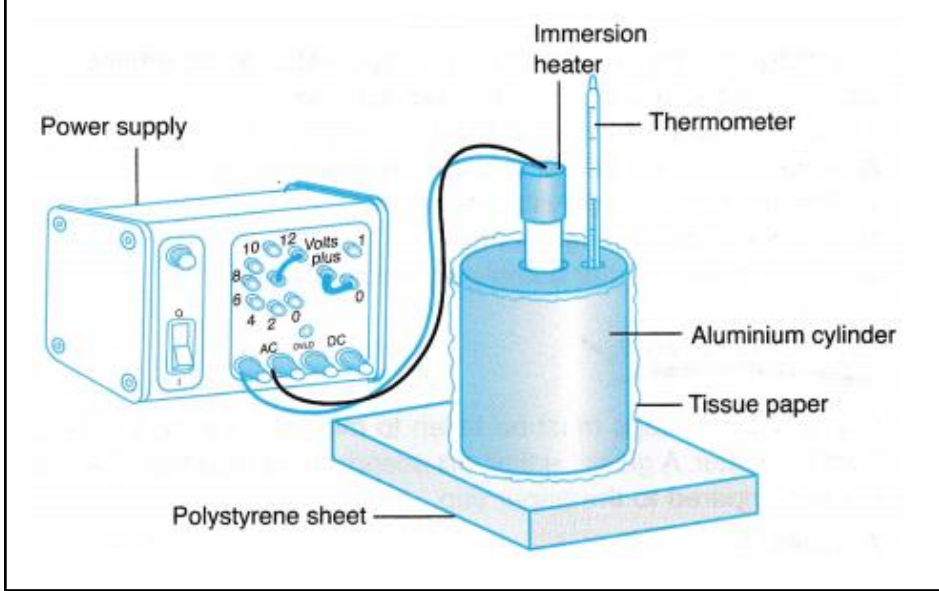
How can we rearrange this equation to calculate SHC?

$$SHC = \frac{\text{energy}}{\text{mass} \times \text{temp. change}}$$

What is the SHC of copper if 11500 J raises the temperature of 1.5 kg by 10°C

$$SHC = \frac{11,500 \text{ J}}{1.5 \text{ kg} \times 10^\circ\text{C}} = 766.66 \text{ J/kg}^\circ\text{C}$$

C. This is the apparatus used to measure the SHC of an aluminium block.



D. If the white, yellow and red areas show the warmest and the blue and green areas show the coolest parts of the house, which parts are the best insulated?



the walls are the best insulated as they are the coolest. The roof and windows are the least insulated as they appear the warmest, they are letting lots of heat out.

F. How else can heat loss from homes be reduced?

All draughts should be eliminated. Use curtains for this, as well as draught excluders over gaps in doors and window. Carpets also trap air.

F. How can heat loss from homes be reduced from the windows?

Double glazing. It is two panes of glass with trapped air between them which is an insulator.

How can heat loss from homes be reduced from the roof?

Roof insulation. Stops the warm air that has risen escaping.

How can heat loss from homes be reduced from the walls?

Outside walls have an empty space between them called a cavity this has air trapped in it (an insulator) and stops any conduction from the bricks.

How can heat loss from homes be reduced from the radiators?

A shiny foil can be put between the wall and radiator to prevent radiation by reflecting it back into the room.

D. What is payback time and how is it calculated?

Payback time is the time it takes for the cost of installing insulation to be equalled by the savings made from reduced energy costs.

$$\text{payback time (years)} = \frac{\text{cost of insulation}}{\text{saving each year}}$$



C. What are the factors which affect the amount of energy required to increase the temperature of an object?

Blank space for answer.

Why would a material with a high specific heat capacity be beneficial?

Blank space for answer.

C. What is the equation for energy, in which you use specific heat capacity?

_____ is measured in _____
_____ is measured in _____
_____ is measured in _____
_____ is measured in _____

How much energy is needed to increase the temperature of 0.5 kg of water by 80 °C in a kettle? SHC of water = 4,200 J/kg°C

Blank space for answer.

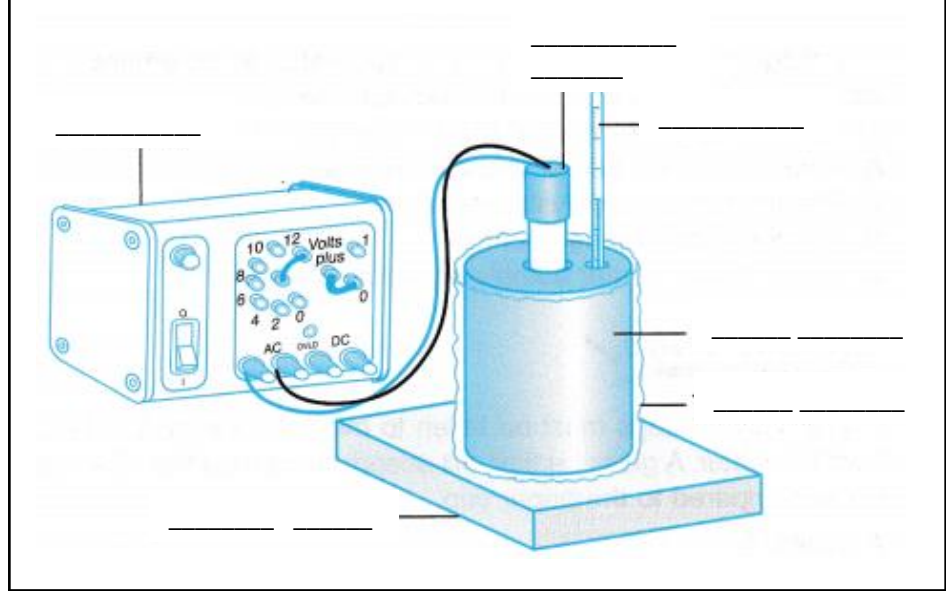
How can we rearrange this equation to calculate SHC?

Blank space for answer.

What is the SHC of copper if 11500 J raises the temperature of 1.5 kg by 10°C

Blank space for answer.

C. This is the apparatus used to measure the SHC of an aluminium block. Label this.



D. If the white, yellow and red areas show the warmest and the blue and green areas show the coolest parts of the house, which parts are the best insulated?



D. What is payback time and how is it calculated?

Blank space for answer.

F. How can heat loss from homes be reduced from the windows?

Blank space for answer.

How can heat loss from homes be reduced from the roof?

Blank space for answer.

How can heat loss from homes be reduced from the walls?

Blank space for answer.

F. How else can heat loss from homes be reduced?

Blank space for answer.

How can heat loss from homes be reduced from the radiators?

Blank space for answer.

Climate Change

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

A.	Changes in climate (3)
Climate change	The process of the Earth's climate changing over time.
Glacial periods	Cold periods.
Inter-glacial periods	Warm periods.

B.	Measuring climate change (3)
Ice cores	Each layer of ice in a core represents a different year. CO ₂ can be measured in each layer, and therefore the temperature.
Tree rings	Each ring represents a different year. Thicker rings show a warmer climate.
Historical evidence	Paintings and diaries e.g. paintings of ice fairs on the frozen Thames 500 years ago.

C.	Natural climate change (3)
Volcanic eruptions	Ash from volcanic eruptions can block sunlight, making it colder.
Sun spots	The sun can give out more energy due to an increase in sun spots.
Orbital change	The orbit of the sun changes from oval (ellipse) to circular approx. 98,000 yrs.

E.	Effects on people (6)
Tropical storms	Increase in frequency and intensity so more damage.
Sea-level rise	Increased risk of floods, damaging property and businesses.
Melting Arctic ice	Affects trading routes in the Arctic Circle.
More droughts/ floods	Crop failure, could lead to starvation and famine.
Cost of defence	Governments have to spend more money on disasters instead of developing.
Environmental Refugees	Pressure on countries to accept refugees.

F.	Effects on the environment (4)
Sea temperature rises	Coral bleaching and destruction of marine ecosystems.
More droughts	Migration/ death of species which can not survive drought conditions.
Melting glaciers (ice rivers)	Will send more fresh water into the sea, causing the sea level to rise.
Melting Arctic ice	Loss of habitats for animals, such as polar bears.

D.	Human-induced climate change (5)
Greenhouse effect	The way that gases in the atmosphere trap heat from the sun. Like glass in a greenhouse they let heat in, but prevent most from escaping.
Greenhouse gases	Gases like carbon dioxide and methane that trap heat around the Earth, leading to climate change.
Transport	More cars, so more CO ₂ causing the enhanced greenhouse effect.
Farming	Farming livestock produces methane, this is a greenhouse gas.
Energy	More energy required, meaning more fossil fuels burnt, so more CO ₂ .

G.	Strategies to resolve climate change (4)
Adaptation	Adapting to climate change to make life easier.
Adaptation examples (3)	1. Building flood defences. 2. Growing new crops to suit the new climate. 3. Irrigation channels, sending water from areas of surplus to deficit.
Mitigation	Trying to stop climate change from happening by reducing greenhouse gases.
Mitigation examples (3)	1. International agreements. 2. Alternative energies. 3. Carbon capture.

H.	Place specific examples (2)
Adaption	The Thames Barrier. Positive: Stops flooding due to rising sea levels. Negative: Expensive
Mitigation	The Paris Agreement. Positive: Countries are trying to lower CO ₂ emissions. Negative: The USA pulled out and China did not sign up.

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

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

C.	Natural climate change (3)	
Volcanic eruptions		
Sun spots		
Orbital change		

E.	Effects on people (6)	
Tropical storms		
Sea-level rise		
Melting Arctic ice		
More droughts/ floods		
Cost of defence		
Environmental Refugees		

G.	Strategies to resolve climate change (4)	
Adaptation		
Adaptation examples (3)		
Mitigation		
Mitigation examples (3)		

D.	Human-induced climate change (5)	
Greenhouse effect		
Greenhouse gases		
Transport		
Farming		
Energy		

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More droughts		
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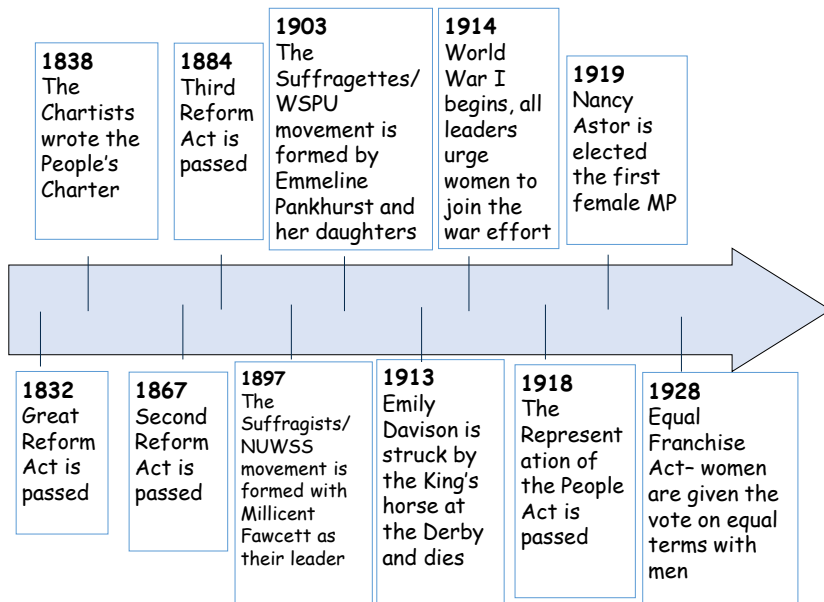
H.	Place specific examples (2)	
Adaption		
Mitigation		

Unit 2: The Suffragettes Knowledge Organiser

What we are learning this term:

In this unit students will study how women strove towards equal voting rights throughout the 19th century and the impact this had on how women were perceived. Students will also study how and why the electorate widened in general, including the place in society of working-class men

- A. Key words for this unit
- B. Key people and their roles in the suffrage movement
- C. Key events and dates in the suffrage movement
- D. Suffragists vs Suffragettes



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

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

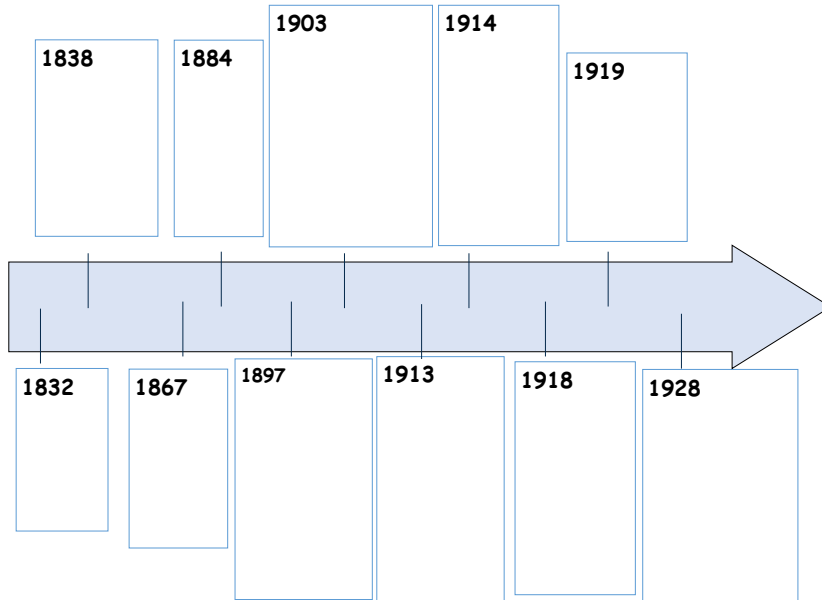
D	Suffragists	Suffragettes
	Men who were fighting for the right to vote	Women fighting for the right to vote
	Leader - Millicent Fawcett	Leader - Emmeline Pankhurst
	Formed in 1897	Formed in 1903 after splitting from the Suffragists
	Used pamphlets, petitions and marches to help persuade people to their cause	Used Protests and damaging property to help persuade people to their cause
		Were given the right to vote on equal terms in 1928

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A.	Key Words
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Manifesto	
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Parliament	
Tactics	
Petition	

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

D	Suffragists	Suffragettes

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	

What we are learning this term:	
A. Foods/drinks B. Healthy living C. Smoking D. Free time activities E. Free time activities x 2 F. Key words across topics	
6 Key Words for this term	
1. Almuerzo	4. Peligroso
2. Ceno	5. evitar
3. Desayuno	6. cambiar

A. ¿Qué te gusta comer?	
el almuerzo el azúcar barato/a el bistec la carne caro/a la cena la comida la comida basura el desayuno la ensalada la fruta la galleta la grasa el helado la leche las legumbres los mariscos el pastel el perrito caliente picante el plato el pollo rico/a saludable sano/a la tortilla la tostada las verduras	Lunch Sugar Cheap Steak Meat Expensive evening meal Food junk food Breakfast Salad Fruit Biscuit Fat ice-cream Milk Vegetables Seafood Cake hot dog Spicy Dish Chicken Tasty healthy Healthy Omelette Toast green vegetables

B ¿Llevas una vida sana?	
acostarse Cambiar cansado/a el cuerpo deportista dormir el ejercicio la energía el esfuerzo estar en forma evitar fumar joven llevar una vida (sana) mantenerse en forma morir necesario/a relajarse la salud	to go to bed to change Tired Body Sporty to sleep Exercise Energy Effort to be fit to avoid to smoke Young to lead a(healthy)life to keep fit to die Necessary to relax health

C. ¿Qué es tu opinion de fumar?	
Afectar asqueroso/a causar el cigarrillo el corazón el daño dejar de (fumar) la enfermedad el / la fumador(a) el fumar pasivo la muerte la mujer el olor el peligro	to affect disgusting / filthy to cause Cigarette Heart damage / harm to stop (smoking) illness / disease Smoker passive smoking Death Woman Smell danger

D. 3.1G ¿Qué haces en tu tiempo libre?	
Bailar Cantar De vez en cuando Entretenido Estimulante Leer Libre Pelicula Salir Tarde Ver	To dance To sing From time to time Entertaining Challenging To read Free (as in free time) Film To go out Late To see

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

E. 3.1F Que te gusta hacer en tu tiempo libre?	
bastante cada cenar Charlar descansar los dibujos animados el documental el fin de semana genial las noticias nunca ocupado/a policia/o/a poner por lo general siempre el teatro la telenovela terminar el tiempo todo/a/os/as tonto/a la vez	quite each, every to have an evening meal To chat to chat to rest cartoons documentary weekend great news never occupied, busy police, crime (adj.) to put in general always theatre soap opera to finish time all, every silly, stupid time, occasion

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



G. Translation Practice	
I like going shopping	m g i d c
I love to go out with friends	m e s c a
I like quite watching TV	m g b v l t
I don't like playing the guitar in my free time	n m g t l g e m t l
I don't like going shopping	n m g i d c
He likes playing the piano	l g t e p
She likes going out with her friends	l g s c s a
He likes watching TV in his free time	l g v l t e s t l
From time to time I read a book in the evening	d v e c l u l p l t
Always I play the guitar with my group	s t l g c m g
Sometimes I go shopping in my free time	a v v d c e m t l
Each week he likes to watch TV in the evening	c s l g v l t p l t
Usually she watches TV one time per week	a m v l t u v e l s
Sometimes she plays football in the evening	a v j a f p l t
Often they play basketball in the free time	a m j a b e l t l
Usually we listen to music every day	a m e m t l d
I hope to visit my grandma's house	e v l c d m a
I'm going to cook chicken and chips	v a c p c p f
I have to cook every day	t q c t l d
I'm thinking of watching TV tonight	p v l t h p l t
For breakfast, I drink milk and eat a sandwich	p e d, b l y c u b
For desert, they eat cake	p e p, c p
For breakfast, I take salad and chicken	p e d, t e y p
For lunch, she takes a Spanish tortilla	p e a, t u t e

H. Key Questions: Answer the following in your own words. Use these model answers	
¿Qué te gusta comer/beber? What do you like to eat/drink	Me gusta comer la comida sana. Normalmente desayuno cereales con leche y tostadas con mantequilla y mermelada y bebo zumo de naranja. Para mi almuerzo como un bocadillo con jamón o con queso y para la cena tomo patatas o verduras con carne. Me gusta comer los cereales porque son sabrosos pero no me gusta comer la carne es grasienta y quiero ser vegetariano
¿Eres Sano? About your family	Si, pienso que soy sano porque no fumo y no tomo drogas. También no como nunca caramelos pero como demasiado chocolate. Tengo que comer más fruta y beber menos coca cola
¿Qué es tu opinión de fumar? What is your opinion on smoking	Odio fumar. Mi madre no fuma pero mi padre fuma y pienso que es asqueroso. No fumo porque huele mal y te da mal aliento. También causa cáncer que es muy peligroso.
¿Qué te gusta hacer en tu tiempo libre y por qué? What do you like doing in your free time	Normalmente juego al futbol todos los días después del colegio. Lo que me encanta es jugar al futbol con mis amigos porque es bueno para la salud y es emocionante y relajante jugar contra tus amigos. De vez en cuando juego con videojuegos pero ayer hice ciclismo, hice mis deberes y toque mi guitarra.

I. Key Questions: Try to translate the model answers using words from the KO	
¿Qué te gusta comer/beber? What do you like to eat/drink	For breakfast I like to eat toast but I never eat cereals because they aren't tasty. For lunch I eat a sandwich with ham or cheese or I eat pizza with ham or sausage. For my main meal normally I eat chips with meat or fish or vegetables with potatoes
¿Eres Sano? About your family	I think I'm healthy because I don't smoke and I like to eat lots of fruit. I like to eat vegetables but I have to eat more vegetables and I have to eat less sweets
¿Qué es tu opinión de fumar? What is your opinion on smoking	I do not like smoking because I think that it is stupid. My brother smokes and it smells bad. Also, it causes cancer and is really dangerous
¿Qué te gusta hacer en tu tiempo libre y por qué? What do you like doing in your free time	Normally in my free time I like to play football. I play football after school every day and from time to time I play rugby. I don't like to dance because it's boring and I love to play computer games because they are exciting

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

What we are learning this term:

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



A. How has Ines Kouidis created this image?

1 What materials has she used?
 Ines uses a range of scrap materials including envelopes, scrap paper, newspapers, old magazines and cardboard.

2 How has she torn the material?
 Ines doesn't use scissors often, but more she tears the material so to get a rough edge to her work. A type of uneven and rustic approach to her outcomes.

3 What impact do smaller pieces of material have?
 She is very particular about the size of pieces she is collaging. Smaller and more detailed pieces can form darker areas and shadows. Lagers and lighter pieces are the highlights. The smaller the pieces, the longer it will take her- however the more intricate it will become.

4 Who does she make collages of?
 She usually makes collages of famous people in history, who might be dead or alive today. These people influence her making and have had an impact on Ines' live. They are her main inspiration.



C How to make a collage.

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

Steps for making your collage:

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

What each tool is used for:




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

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

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



C. Name the following equipment.

		
Sharpie or permanent marker	Sheets of acetate	Masking tape

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

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



B. About the work of artist Michael Volpicelli

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

F.	Keywords
Appropriate	Suitable for a particular person, place or condition
Highlight	An area of lightness in an image
Shadow	When an 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?

.....



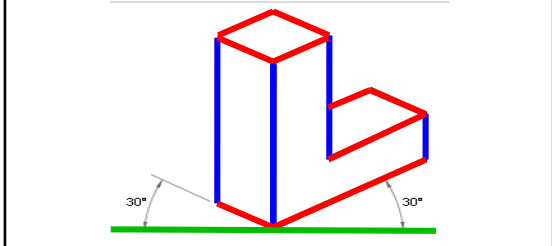


What we are learning this term:	
A.	Drawing Skills
B.	Wood Theory
C.	Wooden Joints & Their Uses
D.	Tools & Machinery

A.	Drawing Skills
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Isometric Technical Drawing

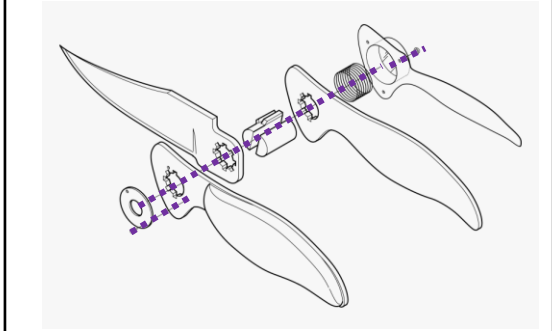
Made up of a series of parallel **vertical lines** and parallel **30-degree lines**. But no **horizontal lines**.



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

Exploded Technical Drawing

Isometric drawing of all the parts and components of an object.



All parts are shown separately so you can see all aspects. **Dashed lines** indicate where everything goes and in what order.

B.	Wood Theory
----	-------------

Natural	Advantages	Disadvantages
Hardwood: <ul style="list-style-type: none"> Stronger & durable Weather resistant Fire resistant 	<ul style="list-style-type: none"> Harder to cut / curve More expensive Longer to grow 	
Softwood: <ul style="list-style-type: none"> Easy to cut / curve Cheaper Quicker to grow 	<ul style="list-style-type: none"> Not weather resistant Not fire resistant Weaker & less durable 	

Manufactured	Advantages	Disadvantages
--------------	------------	---------------

MDF: <ul style="list-style-type: none"> Easy to cut and sand Takes paint well Comes in wide sheets 	<ul style="list-style-type: none"> Not as aesthetically pleasing Doesn't stain well 	
Plywood: <ul style="list-style-type: none"> Strong board Can be waterproof Comes in wide sheets 	<ul style="list-style-type: none"> Not as aesthetically pleasing Doesn't stain well 	

Sustainability = Natural Wood Vs Manufactured Boards
--

Manufactured boards are more sustainable than natural woods because made from wasted wood and offcuts.	Softwood is more sustainable than hardwood, because it grows a lot quicker.
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

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


Joint	Uses	Image
Mitre Joint	Used mainly for picture frames. Great aesthetics but not very strong unless a dowel is added.	
Dowel Joint	Can be used to repair stripped screw holes and in toy making they are the perfect axles in toy vehicles.	
Mortise and Tenon	Mainly used for furniture. This joint is very strong and durable as well as looking very professional.	
Cross Halving Joint	Mainly used for cabinets, doors and windows. This joint has very good resistance to side-to-side movement.	

D.	Tools & Machinery
----	-------------------

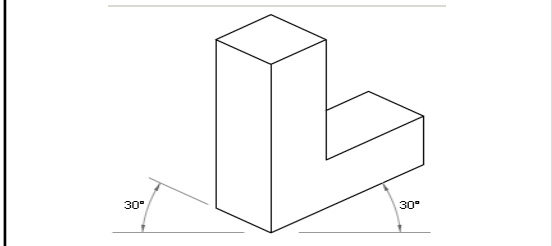
Steel Rule	Tri Square	Mitre Square	Bench Hook	Quick Clamp	Wooden Vice	Tenon Saw	Bandfacer	Pillar Drill



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

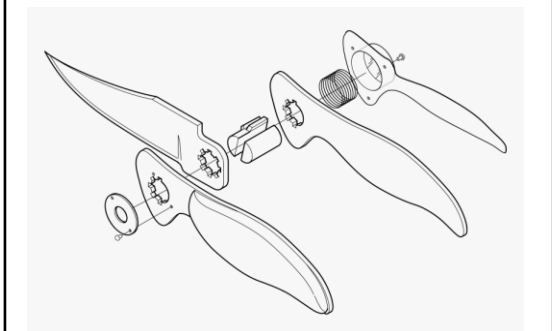
A.	Drawing Skills 
_____ Technical Drawing	







What is it & what is it used for?

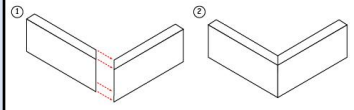
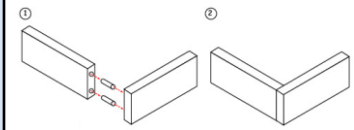
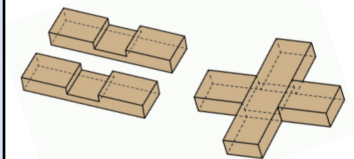
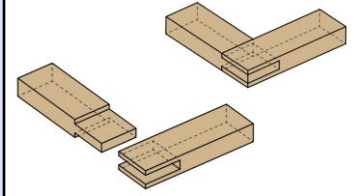












_____ Technical Drawing

What is it & what is it used for?



B.	Wood Theory 	
<i>Natural</i>	Advantages	Disadvantages
Hardwood: 		
Softwood: 		
<i>Manufactured</i>	Advantages	Disadvantages
MDF: 		
Plywood: 		
Sustainability = Natural Wood Vs Manufactured Boards 		

C.	Wooden Joints & Their Uses	
Joint	Uses	Image
Mitre Joint		
Dowel Joint		
Mortise and Tenon		
Cross Halving Joint		

D.	Tools & Machinery 								
									

Year 9 – High Skills

What we are learning this term:

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

6 Key Words for this term

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

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

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

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

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

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

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

B. What do the following terms mean?

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



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

Rule	Why it is important
• 1 to get rid of bacteria on the food	• 1 to stop food poisoning
• 2 to make the food taste better	• 2 to make the food more appealing
• 3 to make food chewable	• 3 it could be raw or a choking hazard
• 4 to ensure that food is not raw	• 4 to stop food poisoning
• 5 to add colour to the food	• 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

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

Year 9 – High Skills

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

- 1
- 2
- 3
- 4
- 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. Explain the main four things that you should do when you enter the kitchen area.

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

- RA
- RA
- 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?

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B. What do the following terms mean?

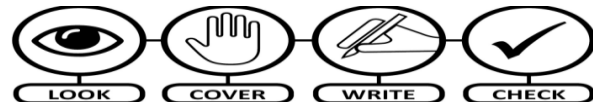
Grilling	
Baking	
Frying	

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

<u>Rule</u>	<u>Why it is important</u>
• 1	• 1
• 2	• 2
• 3	• 3
• 4	• 4
• 5	• 5

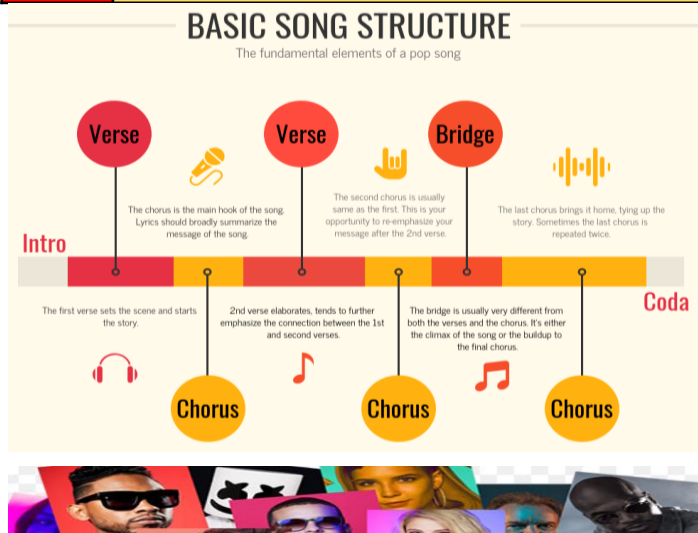


A	What we are learning about this term...
1	Basic Song Structure
2	How to write a perfect Evaluation
3	Playing an instrument / Chords / Melody
4	What are the music symbols – Note values
5	Keywords
6	How to read music - Treble clef and bass clef



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



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

Improvisation

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

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

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

Space

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

A vast space, such as across a giant mountain range.

Consider how changing **proximity** affects body language, vocal tone and volume and interaction, between characters. There may be something that works and could be included in your devised piece.



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

Where, who, what?

Choose a location, eg a supermarket or a roller coaster.

Select characters, eg an astronaut or an I.T. manager.

Finally, choose a motivation for the character, eg they are looking for a partner or want to be famous at any cost.

Each piece of information should be randomly selected, so that they don't necessarily match up. This can make for interesting and very humorous drama.

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

Tips for success

-Listen to your partner.

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

-Use 'yes, and...".

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

- Don't necessarily try to be funny.

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

-Accept your mistakes.

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

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



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

Spontaneous improvisation-

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

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

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



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

Create your own

Where, who, what?

Location-

Character-

Motivation-

- **Improvisational Theater (improv):** is a form of theater where most or all of what is performed is created at the moment it is performed.
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- It is sometimes used in film and television, both to develop characters and scripts and occasionally as part of the final product.

Tips for success

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



SWINDON ACADEMY READING CANON

Year 7



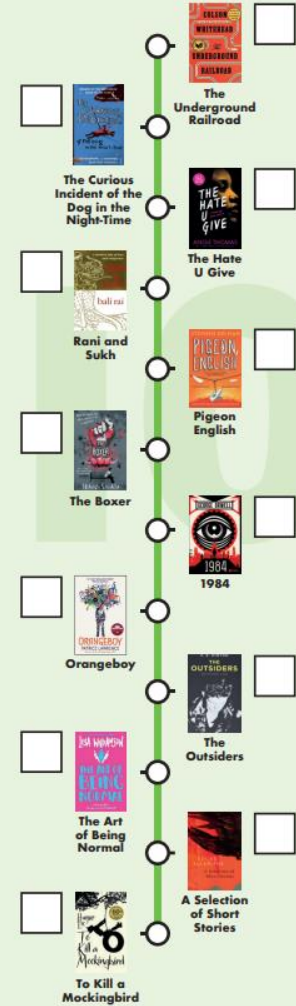
Year 8



Year 9



Year 10



#ReadingisPower