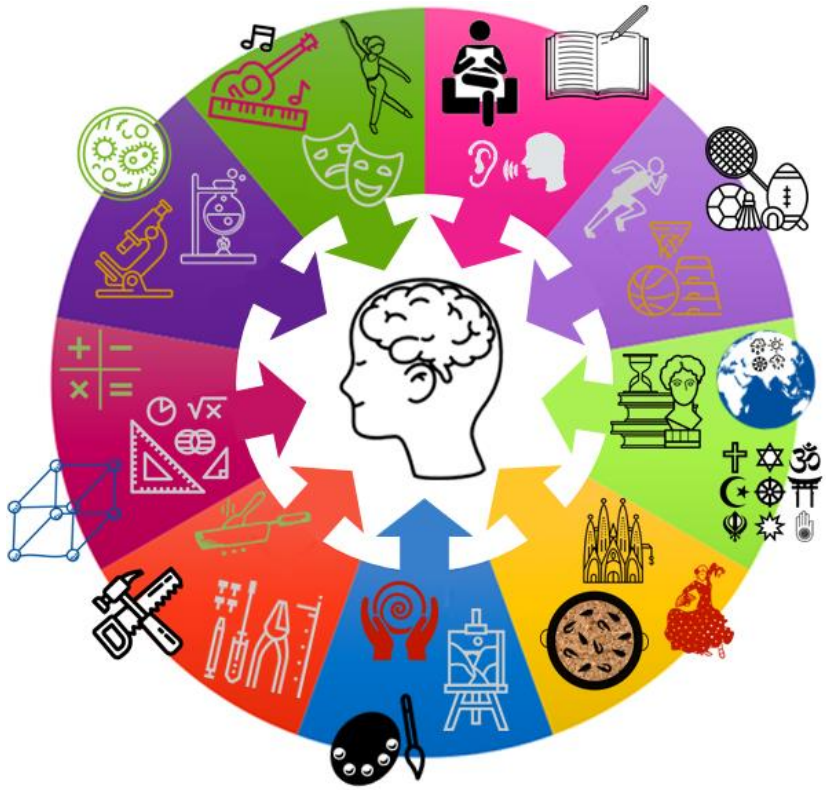
100% book – Year 9 Mainstream

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."

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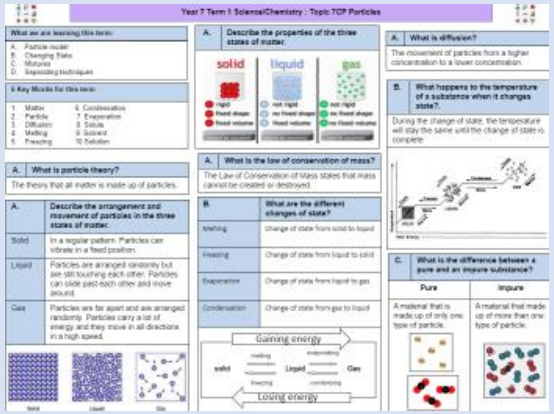
Using your Knowledge Organiser and Quizzable Knowledge Organiser

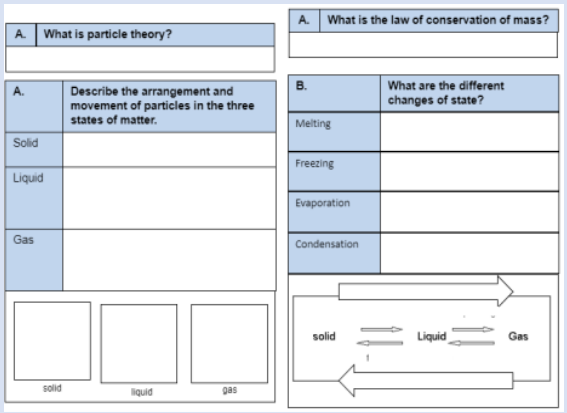
Knowledge Organisers



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

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

Quizzable Knowledge Organisers



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

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

Top Tip

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

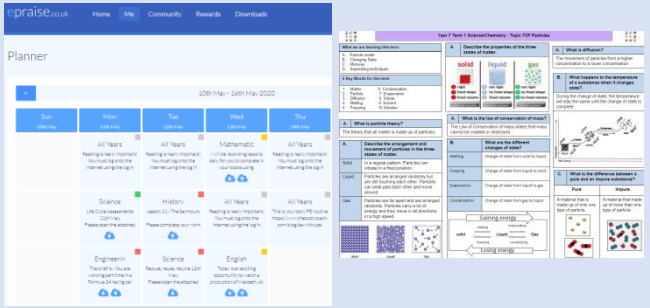
Expectations for Prep and for using your Knowledge Organisers

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

How do I complete Knowledge Organiser Prep?

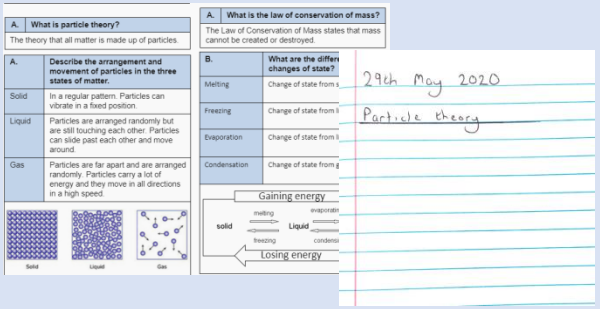
Step 1

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



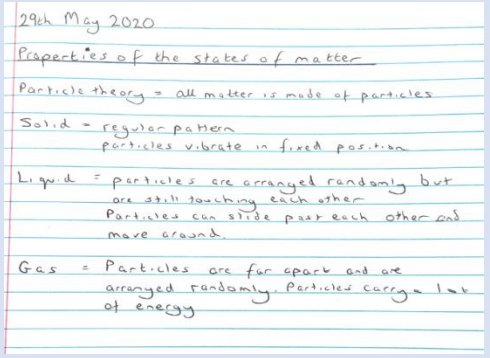
Step 2

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



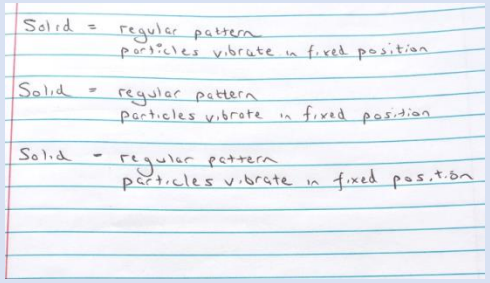
Step 3

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



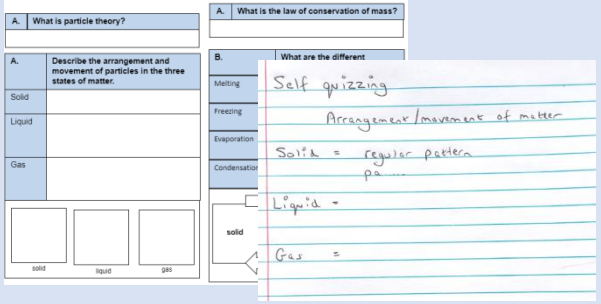
Step 4

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



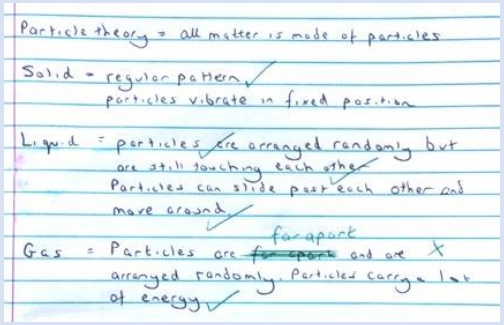
Step 5

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



Step 6

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



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

Year 9 Term 2 English Knowledge Organiser: Jane Eyre

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.

Year 9 Term 2 English Knowledge Organiser: Jane Eyre

Chapter breakdown of Jane Eyre

1	On a bitter day, Jane is curled up with a book when her cousin, John_____, discovers her and hits her. She _____back and is sent to the_____-_____.
2	Jane is locked in the _____-_____. She sits in turmoil until she hears and sees something odd. She begs to be let out. She_____.
3	Jane wakes up in the nursery. _____ and Mr _____are there. Jane is_____. Mr _____talks to Jane about going to school.
4	Jane is visited by Mr_____, the _____at _____ _____. After his visit, _____and Mrs _____ _____. Jane says she will _____call her '_____' again.
5	Jane travels to _____ School. She meets Miss_____, the kind_____, and Helen_____, another_____.
6	_____ is thrashed for having _____ hands. Later, she talks with Jane and explains that it is better to _____and be _____than to get _____and seek_____.
7	Mr Brocklehurst visits Lowood School. He calls Jane to the front of the classroom and calls her a _____ in front of all the _____and_____. Helen smiles at Jane, bringing Jane_____.
8	Afterwards, _____and _____visit Miss Temple. Miss Temple says she believes that Jane is _____ a_____. Jane listens to Miss Temple and Helen's _____ _____. Miss Temple hears from Mr _____ that Jane is not a _____ and tells the_____.
9	Jane _____ the area _____ _____in the_____. _____ breaks out at Lowood School. Lots of girls get_____. Many_____. Helen Burns _____ of_____.
10	_____ _____ pass. Jane has become a _____ at _____ _____. Mr _____ had his _____ _____ when his _____at the school was_____. Jane applies to be a governess for a family at Milcote.

The Big Ideas:

1	Social Class: Jane is an _____and _____on the _____ of her extended family. Jane is _____and of _____class – _____. She suffers _____by John Reed, her 'master'. Lowood is harsh and _____– religious_____.
2	Growth: Jane is constantly _____ and_____. She is an adult _____ back on her _____ in the novel. She learns to manage her_____. Her _____with _____help her _____.
3	Oppression: Oppression of_____. Jane's _____ childhood is a form of oppression. Adults oppressing _____ in a huge theme in the novel. _____as a form of oppression in the novel.
4	Role of women in society: Jane is _____at her place in_____. Lowood is an all-girls' school. Women as governesses, teachers, servants. Low class women as _____.

Locations in the first 10 chapters

Gateshead Hall
Home of_____ _____,_____,_____, and _____ _____. _____grows up here. _____ is locked in the _____-_____.

Lowood School
_____ is sent to _____ by Mrs _____. Mr _____ is the_____. Conditions are _____ and_____. The girls receive brutal _____and are fed_____. A _____ outbreak _____ many of the girls.

Terminology: Key words

thesis –.

juxtaposition –

Characters in Jane Eyre

Jane Eyre

Mrs Reed – Jane's aunt

Mr Brocklehurst – The governor of Lowood school

Helen Burns – Jane's friend

Miss Temple

Vocabulary: Key words

protagonist –

dependent –

oppress (vb.) –

solitude –

sombre –

conventional –

obedience –

ominous –

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humiliate (vb.) –

hypocrite –

comeuppance –

Victorian attitudes to childhood

1	A child is a blank slate…
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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_____ _____

Year 9 Term 2 Science/Physics: Topic 9PF Forces in action

What we are learning this term:

A. Forces
B. Moments
C. Springs
D. Energy transfers in mechanical systems
E. Balanced forces in mechanical systems

5 Key Words for this term

1. Internal
2. Work
3. Equilibrium
4. Deformation
5. Moment

C.	What do these terms mean?
Deformation	Changing of shape by a force
Compression	Changing the shape by squashing
Tension	Changing the shape by stretching

D.	What is Internal energy?
Internal energy = kinetic energy of the particles + potential energy of the particles.	
Kinetic energy	All matter is made of particles that are moving
Potential energy	Energy due to the relative position of particles, and the attraction between particles.

A Forces: Newtons Laws

What is a Resultant Force?	The overall force of 2 or more forces acting in different directions
What is Newton's First Law	• A stationary object stays stationary unless a resultant force acts on it. • A moving object keeps moving at a constant speed unless a resultant force acts on it.
What is Newton's Second Law	• A **resultant force** acting on an object causes acceleration, • This depends on the size of the resultant force and the mass of the object. This formula shows the link: $F_R = m \times a$ F_R is the **resultant force** measured in newtons, m is the **mass** of the object measured in kilograms, a is the **acceleration** of the object measured in metres per second per second (m/s/s).
What is Newton's Third Law	• Forces are always caused by an interaction between **two** objects. • Each force has an equal and opposite reaction

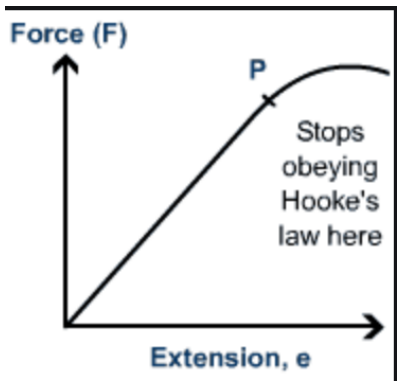
All	What Unit is usually used?
Force	N (newton)
Energy	J (joule)
Distance	m (metre)
Moments	Nm (newton metres)

D. Work Done

$$work\ done = force \times distance\ moved\ in\ the\ direction\ of\ the\ force$$

Applying a force to get an object to move is one way to transfer energy between stores. Transferring energy is also known as '**doing work**'.	Work is done (energy is transferred) when elastic objects are?	What is the amount of work done?
	• Extended • Compressed	The amount of elastic potential energy stored in the elastic object

C. Hookes Law is a linear relationship



What does Hookes law state?

The extension/compression of an elastic object is directly proportional to the force applied.

What is the elastic limit?

When the material stretches to the point that it does not return to its original length.

What is a directly proportional relationship?

The relationship between variables produces a straight line through the origin. If one doubles the other doubles

Year 9 Term 2 Science/Physics: Topic 9PF Forces in action

What we are learning this term:
A. Forces B. Moments C. Springs D. Energy transfers in mechanical systems E. Balanced forces in mechanical systems

5 Key Words for this term	
1. 2. 3.	4. 5.

C.	What do these phrases mean?
Deformation	
Compression	
Tension	

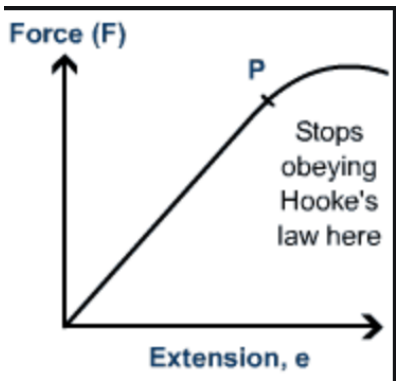
D.	What is Internal energy
Internal energy =	
	All matter is made of particles that are moving
	Energy due to the relative position of particles, and the attraction between particles.

A	Forces: Newtons Laws
What is a Resultant Force?	
What is Newton's First Law	
What is Newton's Second Law	
What is Newton's Third Law	

All	What is the Unit usually used?
Force	
Energy	
Distance	
Moments	

D.	What is the equation for Work Done?	
Applying a force to get an object to move is one way to transfer energy between stores. Transferring energy is also known as '**doing work**'.	Work is done (energy is transferred) when elastic objects are ?	What is the amount of work done?

C.	Hookes Law is a linear relationship



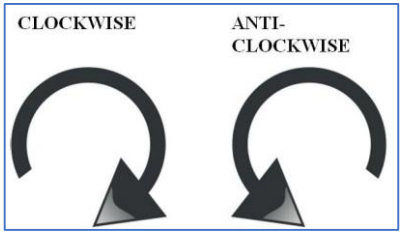
What does Hookes law state?
What is the elastic limit?
What is a linear relationship?

Year 9 Term 2 Science/Physics: Topic 9PF Forces in action

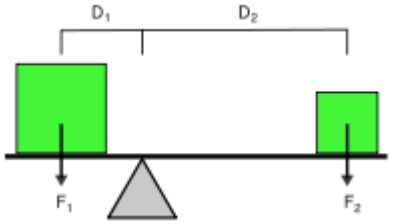
E.	Turning effects
Both the effort and load are forces that have a turning effect – they make the lever rotate	
What is the **moment** of the force?	
The size of the forces **turning effect**	
How can you increase the moment of a force?	
• Increase the force • Increase the perpendicular distance from the pivot to the force	

E.	What are levers are what are the parts of them?
Levers involve turning, or rotation. Levers allow forces applied to be multiplied	
Pivot	Levers have a pivot, a fixed centre of rotation
Effort	The force applied to a lever
Load	The output force of the lever

E.	Equation to calculate the moment of a force
$moment = force \times perpendicular\ distance\ from\ pivot$	
Moments are measured in a compound measure using the units for force and distance, usually newton metres, Nm.	

E.	Moments	
Ways to describe the direction of moments of a force		

E.	Moments
Key terms	**Definitions**
lever	A simple machine that multiplies applied forces (efforts) through rotation around a pivot.
rotation	Turning, with a fixed centre of rotation. Rotation can be clockwise or anticlockwise – see diagram.
turning effect	The rotation of a lever caused by a force (effort OR load force).
moment	Another, more formal, name for 'turning effect of a force'. *See equation*.
perpendicular	At right angles to.
equilibrium	Describes a lever that is NOT rotating because the clockwise and anticlockwise moments are equal.

E.	When does equilibrium in lever systems happen?
• When a lever is at **equilibrium**, it is NOT rotating. • Equilibrium happens when: the clockwise moments = the anticlockwise moments	
	
• The forces in each direction are not necessarily equal, but the *moments* of the forces in each direction are equal at equilibrium. • Where there are multiple forces in one direction (clockwise or anticlockwise), the TOTAL moment in one direction is found by adding up the moments of each force in a particular direction.	

Year 9 Term 2 Science/Physics: Topic 9PF Forces in action

E.	Turning effects
Both the effort and load are forces that have a turning effect – they make the lever rotate	
What is the moment of the force?	
How can you increase the moment of a force?	

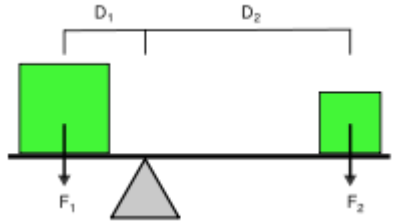
E.	What are levers and what are the different parts?
Levers involve turning, or rotation. Levers allow forces applied to be multiplied.	
Pivot	
Effort	
Load	

E.	What is the equation to calculate the moment of a force?
Moments are measured in a compound measure using the units for force and distance, usually newtonmetres, Nm.	

E.	Moments	
What ways describe the direction of moments of a force?		

E.	Moments
Key terms	**Definitions**
lever	
rotation	
turning effect	
moment	
perpendicular	
equilibrium	

E.	When does equilibrium in lever systems happen?



- The forces in each direction are not necessarily equal, but the *moments* of the forces in each direction are equal at equilibrium.
- Where there are multiple forces in one direction (clockwise or anticlockwise), the TOTAL moment in one direction is found by <u>adding up</u> the moments of each force in a particular direction.

Year 9 Term 2 Science/Biology : Topic 9BB Biological Systems and Processes

What we are learning this term:

A. Movement
B. Breathing and Fitness
C. Effect of drugs
D. Aerobic and Anaerobic respiration
E. Reproduction and Heredity

6 Key Words for this term

1. Chromosomes
2. Exchange
3. Anaerobic
4. Respiration
5. Aerobically
6. Cilia

A. What are the 4 functions of the Skeletal System?

Movement, support, protection and making red blood cells

A Support – what is the main function of the spine?

The spine supports the upper body and allows us to stand upright.

Protection – what is the function of the following:

Ribcage	Protects the heart and lungs
Cranium (skull)	Protects the brain

A Making blood cells – what part of the bone makes blood cells?

Bone marrow produces:
1. **Red blood cells** (which transport O_2 and CO_2)
2. **White blood cells** (some of which fight disease)
3. **Platelets** (which cause blood clotting e.g. when we cut ourselves)

Why are bones hollow?

Long bones in the body are **hollow** – in the middle of the bone is a **marrow cavity**. The cavity contains **bone marrow**, from which blood is produced.

A. Movement and muscles

What are the following:

Ligaments	Bones are attached to each other by **ligaments**.
Muscles	A collection of tissues which can contract and relax, causing other body parts (including bones) to move.
Tendons	Muscles are attached to bones by **tendons.** They are a strong, flexible tissue attaching a muscle to a bone.

A. How does the muscular system help us move?

This system allows us to move by **contracting** and **relaxing** our muscles

A. How do your muscles move your bones?

Muscles exert a **force** on bones to move them.

A. What is Biomechanics?

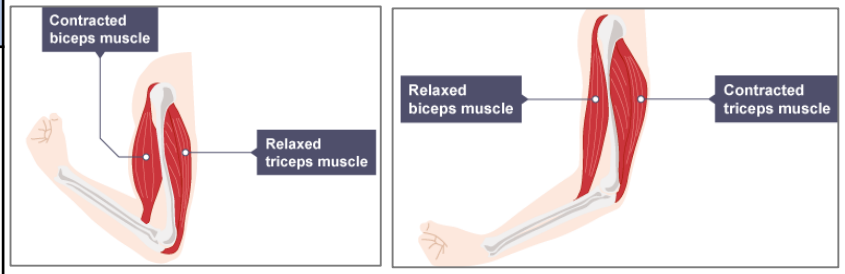
Biomechanics is the working together of the skeletal system and the muscular system to help us move.

A What are antagonistic muscles?

In order to move bones in two directions (e.g. bending then stretching your arm), muscles are **paired antagonistically** (one moves the bone in one direction, the other in the opposite direction).

How do they work?

1. To **raise** the forearm, the biceps contracts and the triceps relaxes.
2. To **lower** the forearm again, the triceps contracts and the biceps relaxes.



A. What is Osteoporosis

Osteoporosis is a condition in which someone loses bone density, making their bones fragile so they are more likely to break bones.

What are rickets?

Rickets can be caused by a deficiency of **calcium** or **vitamin D**. Rickets causes bone pain, and soft bones which can deform.

A. What happens if you overstretch a tendon?

Over-stretching a tendon can cause it to snap. Tendons will **heal themselves** but become **shorter** in the process because the two severed ends **overlap** to heal, reducing flexibility

What is Tendonitis?

As the body tries to heal a tendon, it will swell and become painful. This is called **tendonitis**, and includes **tennis elbow**.

Year 9 Term 2 Science/Biology : Topic 9BB Biological Systems and Processes

What we are learning this term:

A. Movement
B. Breathing and Fitness
C. Effect of drugs
D. Aerobic and Anaerobic respiration
E. Reproduction and Heredity

6 Key Words for this term

1.
2.
3.
4.
5.
6.

A.	Movement and muscles

What are the following:

Ligaments	
Muscles	
Tendons	

A. How does the muscular system help us move?

A. How do your muscles move your bones?

A. What are the 4 functions of the Skeletal System?

A. What is Biomechanics?

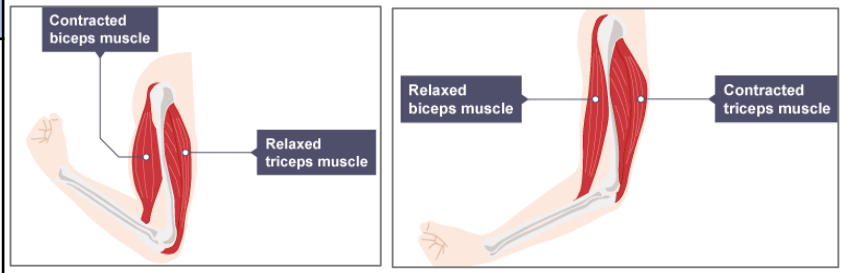
A Support – what is the main function of the spine?

Protection – what is the function of the following:

Ribcage	
Cranium (skull)	

A What are antagonistic muscles?

How do they work?



A Making blood cells – what part of the bone makes blood cells?

Why are bones hollow?

A. What is Osteoporosis

What are rickets?

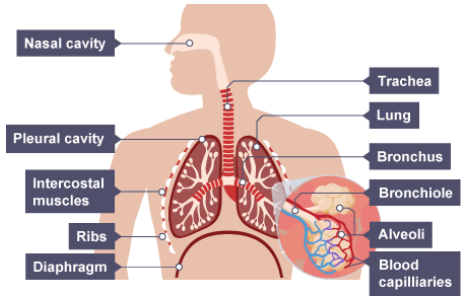
A. What happens if you overstretch a tendon?

What is Tendonitis?

Year 9 Term 2 Science/Biology : Topic 9BB Biological Systems and Processes

B. What is the Respiratory System?

The organ system responsible for exchanging gases with the environment.



How does the respiratory system work?

- Air enters the body through the nasal cavity.
- Travels down the trachea, then one of two bronchi,
- Travels to one of many bronchioles and ends up in the alveoli.
- Oxygen diffuses into the blood stream.
- Carbon dioxide diffuses in the opposite direction,
- It then follows the reverse of the above journey, to leave the body.

B. Measuring lung capacity: what do the following terms mean?

Vital capacity	The volume of air you can breathe **out** after breathing **in** as much as you can.
Residual volume	Volume of air left in the lungs **after** breathing out as much as you can.
Tidal volume	Volume of air in a normal breath (in **or** out).

What can you use to measure Lung Capacity?

A spirometer

What is the equation for lung capacity?

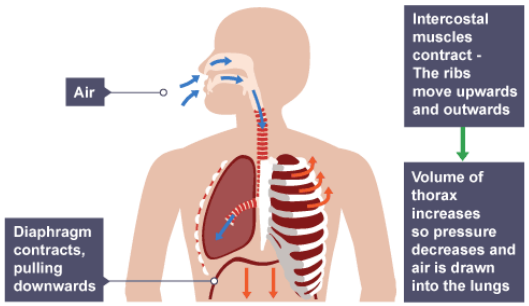
$$Lung\ capacity = vital\ capacity + residual\ volume$$

B. What is Ventilation?

Ventilation is the process of bringing gas in and expelling gas from the body.

Why are ventilation and Respiration different?

Respiration is a chemical reaction which happens in the body's cells and releases energy.
Ventilation is the process of bringing gas in and expelling gas from the body.



B. What is Asthma?

Asthma is a disease where airways become inflamed. The muscles around the bronchioles **contract**, constricting the airways and making breathing difficult.

What triggers Asthma?

Asthma is **non-communicable** but can be **triggered** by environmental factors such as infections, allergies and exercise

How can it be treated?

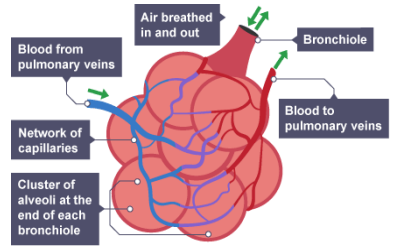
Asthma is treated using **steroids**.

B. Where does gas exchange happen?

The lungs are the site of gas exchange between the body and the environment.
Oxygen for respiration diffuses into the bloodstream and waste carbon dioxide diffuses out of the blood into the alveoli, from where it is expelled in ventilation.

What are Alveoli?

Balloon-like structures which are responsible for exchanging oxygen and carbon dioxide between the blood and the lung cavity



The alveoli

What adaptations do the alveoli have?

1. **High surface area** thanks to their balloon-like shape
2. Many **capillaries** give a **good blood supply** for gas exchange
3. Walls only **one cell thick**
4. **Moist** walls pick up gases (gases dissolve in water)

What is Diffusion?

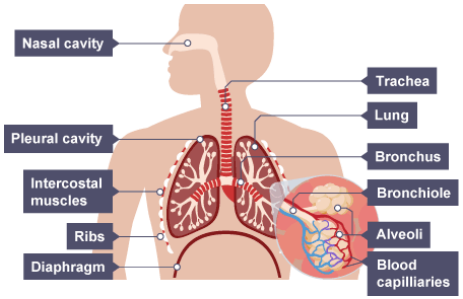
Diffusion is the net movement of anything (for example, atom, ions, molecules) from a region of higher concentration to a region of lower concentration.

B. What effects can smoking have on the gas exchange system?

1. Destroys **cilia** in the airways so they are less able to sweep **mucus** containing pathogens out of the lungs, leading to **smoker's cough**
2. Irritates the **bronchi**, causing **bronchitis**
3. Destroys alveoli, reducing the surface area for gas exchange and causing **emphysema**
4. Cigarette smoke contains **carbon monoxide** (CO) which binds to red blood cells, so they can carry less oxygen to cells and the **heart has to work harder**
5. Increases the risk of lung, throat, mouth and oesophagus cancers

Year 9 Term 2 Science/Biology : Topic 9BB Biological Systems and Processes

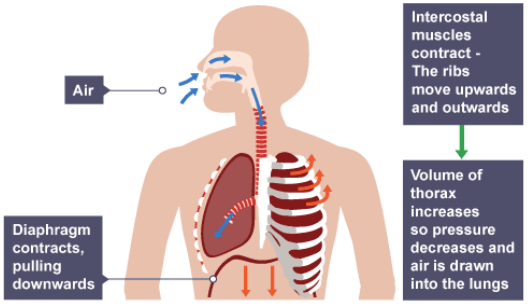
B. What is the Respiratory System?



How does the respiratory system work?

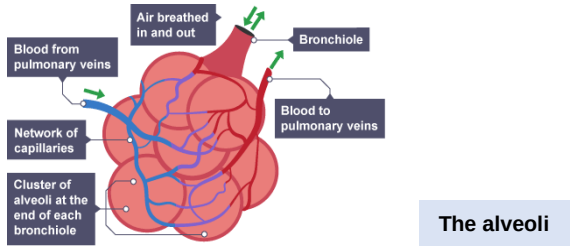
B. What is Ventilation?

Why are ventilation and Respiration different?



B. Where does gas exchange happen?

What are Alveoli?



The alveoli

What adaptations do the alveoli have?

What is Diffusion?

B. What is Asthma?

What triggers Asthma?

How can it be treated?

B. Measuring lung capacity: what do the following terms mean?

Vital capacity	
Residual volume	
Tidal volume	

What can you use to measure Lung Capacity?

What is the equation for lung capacity?

B. What effects can smoking have on the gas exchange system?

Year 9 Term 2 Science/Biology : Topic 9BB Biological Systems and Processes

B. What benefits come from regular exercise?

Regular training has the following effects:
- Heart muscles are strengthened
- **Cardiac output** increases
- Resting **heart rate** is lower (fewer beats needed because heart muscles are stronger)
- Recovery (returning to resting heart rate) happens more quickly after exercise

Why do you breathe quicker during exercise?

More oxygen is required as body is working harder.

C. What is a drug?

A drug is a substance that affects the way your body works

C. What are the 2 types of recreational drugs, and what effect do they have on the body?

Stimulants

- Stimulants cause the nervous system to carry nerve impulses faster
- They can increase reaction times
- But can also speed up heart rate, and put strain on the body

Examples include: Caffeine, Cocaine, Ecstasy

Depressants

- Depressants cause the nervous system to slow down
- They can decrease reaction times
- They can stop vital organs working, and stop parts if the brain working

Examples include: Alcohol. Heroin, Solvents

D. What is Respiration?

Respiration is a chemical reaction that releases energy from food molecules.

Why is respiration important?

An organism can the use the energy produced by respiration is several different ways including:

1. To build large molecules from smaller ones (grow)
2. To move
3. To keep warm

What are the 2 types of respiration?

	Aerobic	Anaerobic
Main difference?	With Oxygen	Without Oxygen
Where does it take place?	Mitochondria	Cytoplasm
What is the equation?	glucose + oxygen → carbon dioxide + water	In animals: **glucose → lactic acid** In plants/yeast: **glucose → ethanol and carbon dioxide**
Which produces the most energy?	Aerobic respiration produces more energy	Anaerobic produces less energy

D. What happens when Lactic Acid builds up in muscles from anaerobic respiration?

If lactic acid builds up in muscle cells it causes fatigue.

How does the body get rid of lactic acid?

We continue to have an elevated heart rate and breathing rate after exercise so that more oxygen enters the cells. This oxygen reacts with the lactic acid removing it from our muscles allowing them to work efficiently again.

D. What is fermentation?

When plants/yeast respire anaerobically, they produce ethanol and carbon dioxide.

What are the uses of fermentation?

It is useful as the ethanol can be used to make alcoholic drinks and the carbon dioxide is what makes bread rise.

E. Who discovered DNA?

Rosalind Franklin and **Maurice Wilkins** 1952

Using x-ray photography, Franklin and Wilkins produced high-resolution photographs of DNA fibres. They used these to deduce that DNA had a **helical** structure and that the outside of the molecule contained **phosphates**

James Watson and **Francis Crick** 1953

Using the x-ray data from Wilkins and Franklin, and using models, Watson and Crick managed to discover the double-helix structure of DNA. They and Wilkins were awarded the Nobel Prize in 1962.

E. What is DNA?

Deoxyribonucleic acid – the genetic material of all organisms

What is a double helix?

Two helical strands wound around each other

Year 9 Term 2 Science/Biology : Topic 9BB Biological Systems and Processes

B.	What benefits come from regular exercise?
Why do you breathe quicker during exercise?	

C.	What is a drug?

C.	What are the 2 types of recreational drugs, and what effect do they have on the body?	

D.	What is Respiration?
Why is respiration important?	

What are the 2 types of respiration?		
Main difference?		
Where does it take place?		
What is the equation?		
Which produces the most energy?		

D.	What happens when Lactic Acid builds up in muscles from anaerobic respiration?
How does the body get rid of lactic acid?	

D.	What is fermentation?
What are the uses of fermentation?	

E.	Who discovered DNA?

E.	What is DNA?
What is a double helix?	

Year 9 Term 2 Science/Biology : Topic 9BB Biological Systems and Processes

E. What makes up DNA?

- DNA has a **double helix** structure with two sugar-phosphate backbones wound around each other.
- Pairs of complementary **bases** connect the two backbones (strands)

What are the 4 bases and how are they paired?

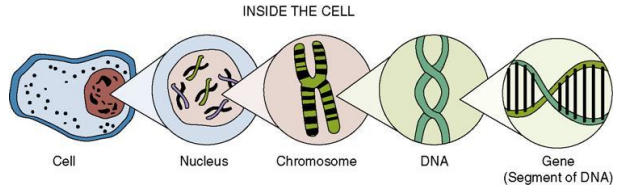
- The bases are **adenine**, **thymine**, **cytosine** and **guanine** (A, T, C, and G)
- A has a **complementary shape** to T
- C has a **complementary shape** to G

What are Chromosomes?

DNA wound up tightly. There are 23 pairs in human cells (but a different number of pairs in other species)

What are Genes?

A short section of DNA which codes for characteristics



E. What are the different types of reproduction and how are they different?

	Sexual reproduction	Asexual reproduction
How many parents?	2 parents	1 parent
Will offspring inherit features from parents?	Offspring have features of both parents	Offspring are clones of the 1 parent

E. What is Heredity?

Heredity is the process by which genetic information is transmitted from one generation to the next

What is a Genetic Disease?

Genetic diseases are passed on from parents to children through their genetic material. Children will be born with the disease

E. What is Gestation?

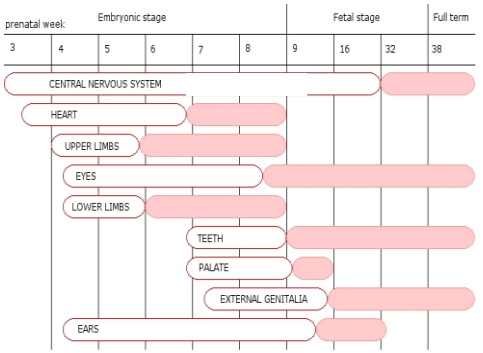
Gestation describes the development of a foetus in the womb.

What does a foetus need to develop?

In order to do all of this growing, the foetus needs to get **nutrients** and **oxygen**.

How does a foetus get what it needs to develop?

Since they can't eat or breathe, they get this from the mother's blood.
Nutrients and oxygen **diffuse** from the mother's blood into the baby's blood vessels, then **umbilical cord** in the **placenta**.



What is the Placenta?

An organ which develops during pregnancy, and supplies the developing foetus with oxygen and nutrients, while also removing waste.

What is the Umbilical cord?

A tube which connects the baby to the placenta.

E. How can an expectant mother's behaviour affect her unborn baby?

The mother's behaviour during gestation can affect the development of the unborn baby because of the transfer of substances across the placenta.

What problems can be caused by different drugs during gestation?

Cigarettes

- Reduces the **volume of oxygen** which reaches the baby's cells, affecting their ability to release energy. (**Nicotine narrows blood vessels, Carbon monoxide in smoke inhibits red blood cells from carrying oxygen)**
- Increases the risk of **premature** (early) birth, **stillbirth** (death of the foetus), **cot death** (death of the new-born) and **low birth weight** caused by growth impairment
- Children whose mothers smoked during gestation are more likely to experience:
  - learning disorders
  - behavioural problems
  - low IQ
  - asthma

Alcohol

- **Physical** defects e.g. small head size, low birth weight
- **Cerebral palsy** (movement and coordination problems)
- **Behavioural** differences including **autistic** traits and attention-deficit hyperactivity disorder (**ADHD**)
- Problems with **organs** including the liver, kidneys, and heart
- **Learning difficulties**

Other illegal drugs

Neonatal abstinence syndrome occurs when a mother has taken a drug which causes **dependency**, during gestation. The baby is born with a dependency on the drug.

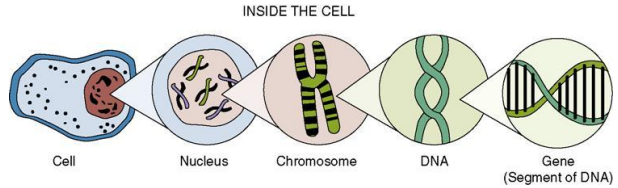
Year 9 Term 1 Science/ Biology : Topic = 9BB Biological Systems and Processes

E. **What makes up DNA?**

What are the 4 bases and how are they paired?

What are Chromosomes?

What are Genes?



E.	What are the different types of reproduction and how are they different?	
How many parents?		
Will offspring inherit features from parents?		

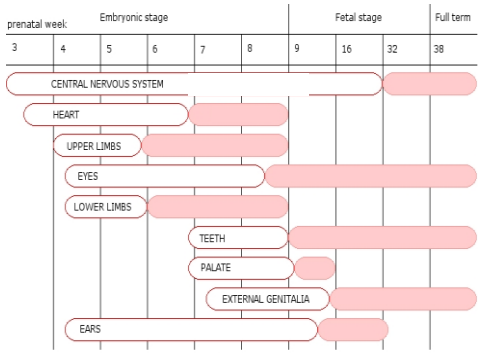
E. **What is Heredity?**

What is a Genetic Disease?

E. **What is Gestation?**

What does a foetus need to develop?

How does a foetus get what it needs to develop?



What is the Placenta?

What is the Umbilical cord?

E. **How can an expectant mother's behaviour affect her unborn baby?**

What problems can be caused by different drugs during gestation?

Cigarettes	Alcohol
	Other illegal drugs

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)*	

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Greenhouse effect	
Greenhouse gases	
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Energy	

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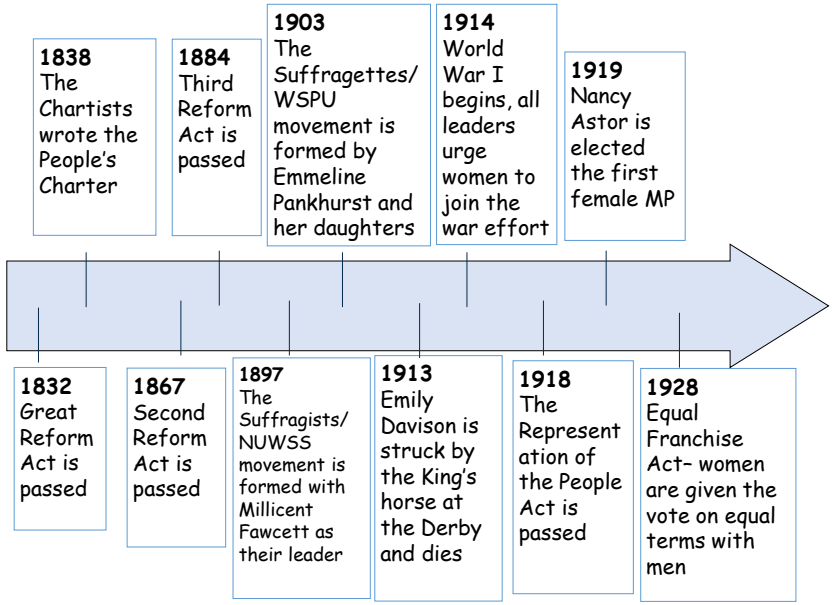
Adaption	
Mitigation	

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



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

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 time, she went on hunger strike and was force-fed. Mother of Christabel.

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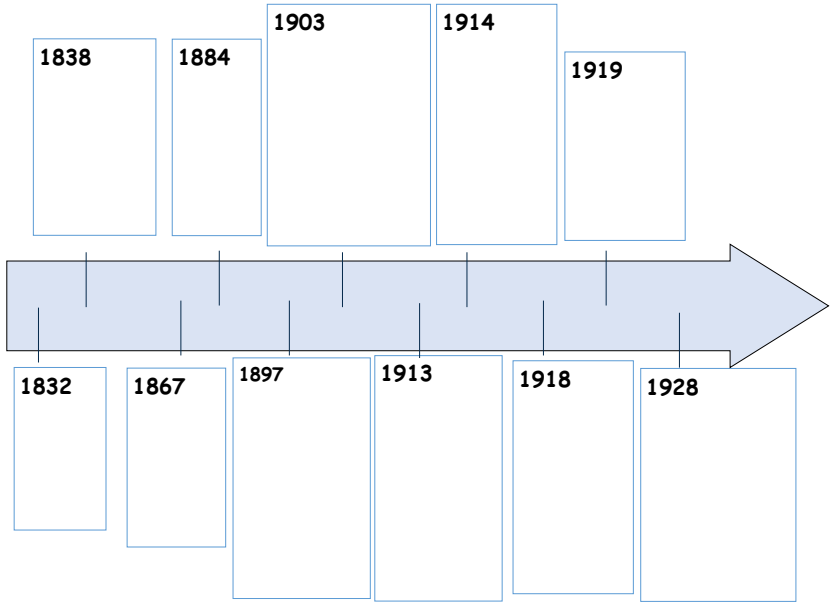

A.	Key Words
Act	
Propaganda	
Ballot	
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Charter	
Representation	
Democracy	
Rotten boroughs	
Enfranchisement	
Strike	
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Suffrage	
Parliament	
Tactics	
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Nancy Astor	
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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.	*Can you define these key words?*
Key word	**Key definition**
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 Punish ment	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.	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?***
	The theory is based on reason so everyone can work out for themselves what is morally good 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	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. 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.

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.	*Can you define these key words?*
Key word	**Key definition**
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	*What are the strengths of NML theory about what is morally good?*	*What are the weaknesses of NML theory about what is morally good?*

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?*

B.	*Bible quotes relating to the sanctity of life*
1	
2	
3	
4	
5	

SPANISH Year Knowledge Organiser: Topic = Health and Hobbies

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

A. ¿Qué te gusta comer?

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

B ¿Llevas una vida sana?

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

C. ¿Qué es tu opinion de fumar?

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

D. 3.1G ¿Qué haces en tu tiempo libre?

Bailar	To dance
Cantar	To sing
De vez en cuando	From time to time
Entretienido	Entertaining
Estimulante	Challenging
Leer	To read
Libre	Free (as in free time)
Pelicula	Film
Salir	To go out
Tarde	Late
Ver	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	quite
cada	each, every
cenar	to have an evening meal
Charlar	To chat
descansar	to chat to rest
los dibujos animados	cartoons
el documental	documentary
el fin de semana	weekend
genial	great
las noticias	news
nunca	never
ocupado/a	occupied, busy
policíaco/a	police, crime (adj.)
poner	to put
por lo general	in general
siempre	always
el teatro	theatre
la telenovela	soap opera
terminar	to finish
el tiempo	time
todo/a/os/as	all, every
tonto/a	silly, stupid
la vez	time, occasion

F. Key Words across Topics?

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

SPANISH Year 9 Knowledge Organiser: Topic = Health and Hobbies

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 tan Lo mejor/lo peor = the best/the worst

Year 9 Art Term 3 : Topic = Ines & Michael

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.

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**

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……

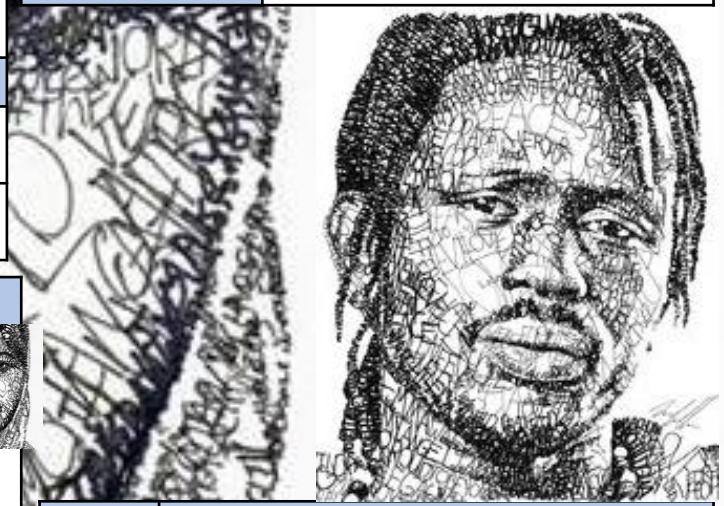
1. Darker areas? Michael creates darker areas on the portrait by doing smaller words that are closer to one another to create shadowing.
2. Lighter areas? Words further apart and larger will be lighter

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.



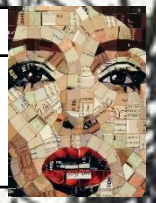
B. *About the work of artist Michael Volpicelli*

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 scrammed words create shadows and darkness.
WHY?	Michael draws people using words he thinks describes them. Kind and thoughtful words to spread the kindness.

Year 9 Art Term 3 : Topic = Ines & Michael

What we are learning this term:

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



A.	*How has Ines Kouidis created this image?*
1	What materials has she used? .....
2	.....
3	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	

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?	

	Looking at the image drawn by Michael Vollpicelli, how does he create……
1.	Darker areas?
2.	Lighter areas?

C. *Name the following equipment.*

F.	**Keywords**
Appropriate	
Highlight	
Shadow	
intricate	
relevant	

B.	***About the work of artist Michael Volpicelli***
WHAT?	
HOW?	
WHY?	

Year 9 PRODUCT DESIGN Term 1

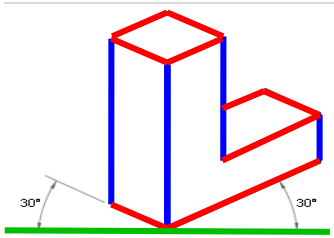
What we are learning this term:

A. Drawing Skills
B. Wood Theory
C. Wooden Joints & Their Uses
D. Tools & Machinery

A. Drawing Skills

Isometric Technical Drawing

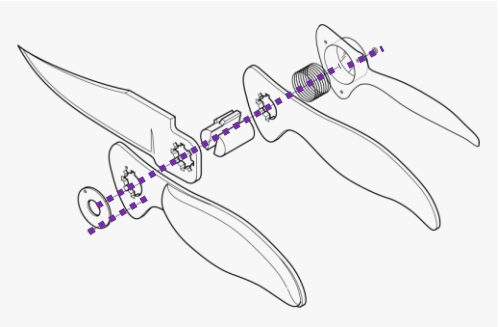
Made up of a series of par parallel **vertical lines** and parallel **30-degree lines**. But no **horizontal lines.**



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.

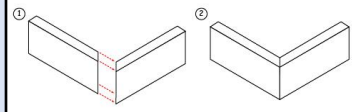
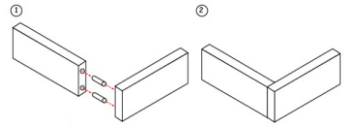
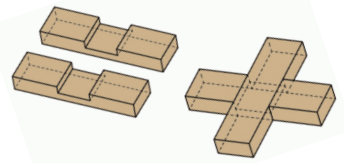
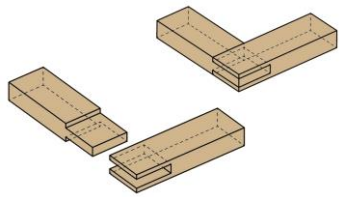
B. Wood Theory

Natural	Advantages	Disadvantages
Hardwood:	• Stronger & durable • Weather resistant • Fire resistant	• Harder to cut / curve • More expensive • Longer to grow
Softwood:	• Easy to cut / curve • Cheaper • Quicker to grow	• Not weather resistant • Not fire resistant • Weaker & less durable
Manufactured	**Advantages**	**Disadvantages**
MDF:	• Easy to cut and sand • Takes paint well • Comes in wide sheets	• Not as aesthetically pleasing • Doesn't stain well
Plywood:	• Strong board • Can be waterproof • Comes in wide sheets	• 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.

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
								

Year 9 PRODUCT DESIGN Term 1

What we are learning this term:

A. Drawing Skills
B. Wood Theory
C. Wooden Joints & Their Uses
D. Tools & Machinery

A. Drawing Skills

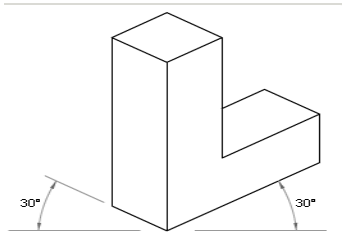
_____ Technical Drawing

What is it & what is it used for?

_____

_____

_____



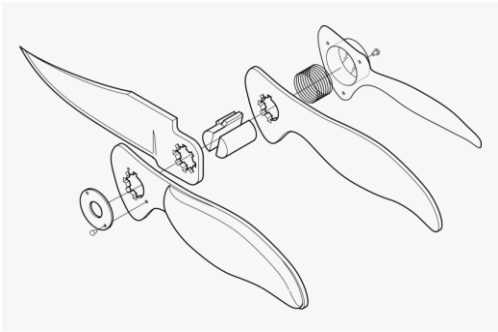
_____ Technical Drawing

What is it & what is it used for?

_____

_____

_____

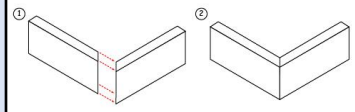
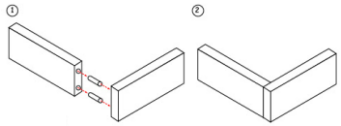
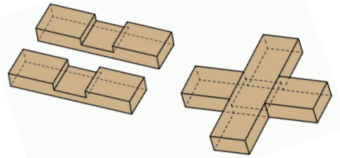
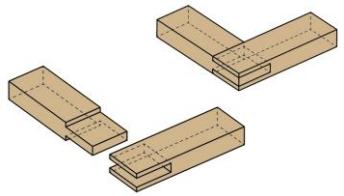


B. Wood Theory

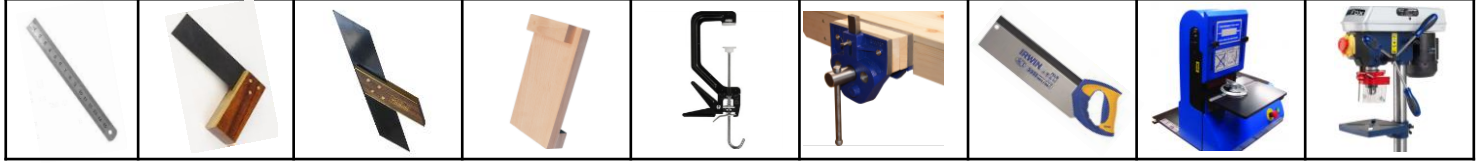
Natural	Advantages	Disadvantages
Hardwood:		
Softwood:		
Manufactured	**Advantages**	**Disadvantages**
MDF:		
Plywood:		

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

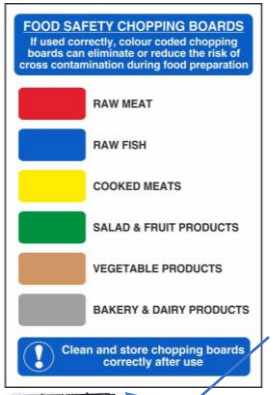
What we are learning this term:
A. Health, safety and hygiene in the kitchen
B. The Eatwell guide and nutrients
C. The Dietary requirements of a teenager
D. Skills testing
E. Healthy cooking
F. Chopping Board Colours

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 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?*

1 A diet high in carbohydrate as a teenager is normally an energetic person.
2 A diet with 2-3 potions 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.

Year 9 – High Skills

What we are learning this term:

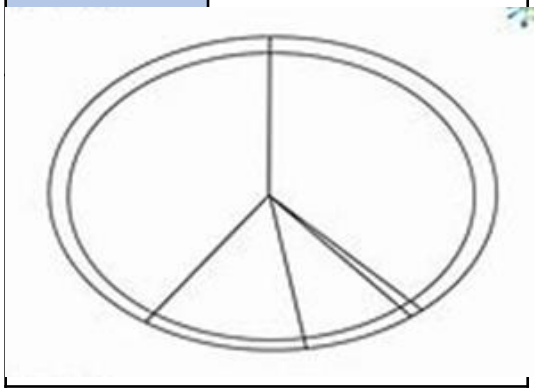
A. Health, safety and hygiene in the kitchen
B. The Eatwell guide and nutrients
C. The Dietary requirements of a teenager
D. Skills testing
E. Healthy cooking
F. Chopping Board Colours

6 Key Words for this term

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

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

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



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

B. What do the following terms mean?	
Grilling	
Baking	
Frying	

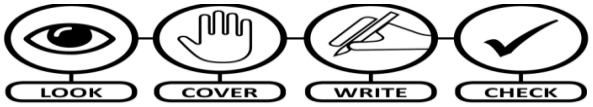
C.	*Can you list 5 reasons for why we cook food and why it is important?*
Rule • 1 • 2 • 3 • 4 • 5	Why it is important • 1 • 2 • 3 • 4 • 5

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	

Year 9: You're in the band! — Term 3

A — What we are learning about this term…

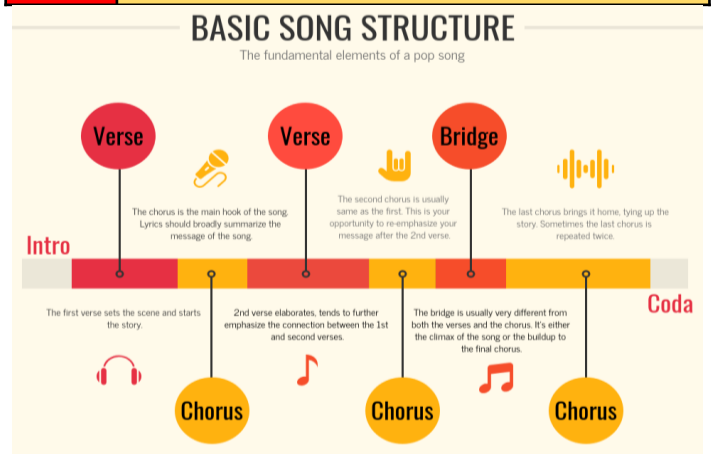
1. Basic Song Structure
2. How to write a perfect Evaluation
3. Playing an instrument / Chords / Melody
4. What are the music symbols – Note values
5. Keywords
6. How to read music - Treble clef and bass clef

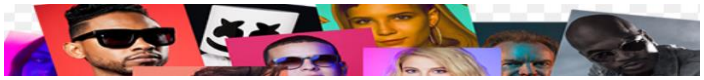


B — Keywords

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 tan the original artist/band.

C — Instruments in popular music





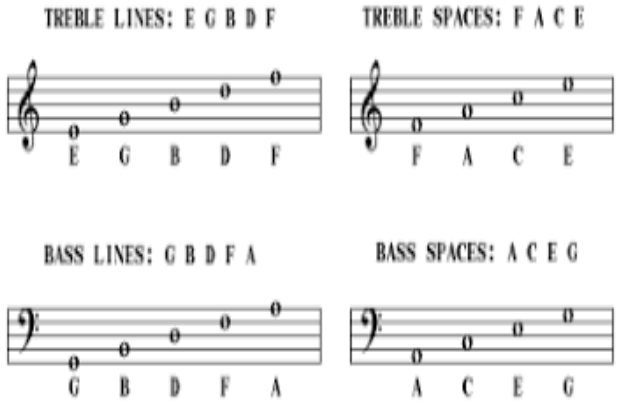
D — How to write a perfect Evaluation?

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 thin 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	3/4 beat	𝄾.

F — How to read music – treble clef and Bass Clef

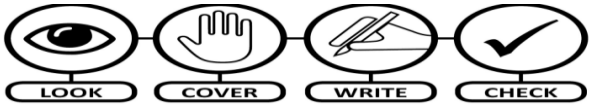


G — Describing music – MAD T SHIRT

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

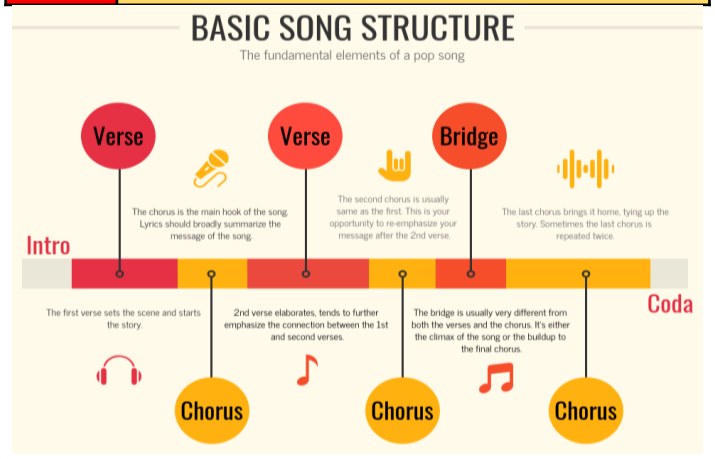
Year 9: You're in the band! Term 3

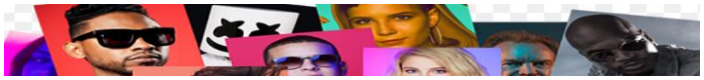
A	What we are learning about this term…
1	
2	
3	
4	
5	
6	



B	Keywords
Instrumental break	
Lyrics	
Verse	
Chorus	
Bridge / Middle 8	
Outro / Coda	
Album	
Arrangement	
Genre	
Cover Song	

C Instruments in popular music





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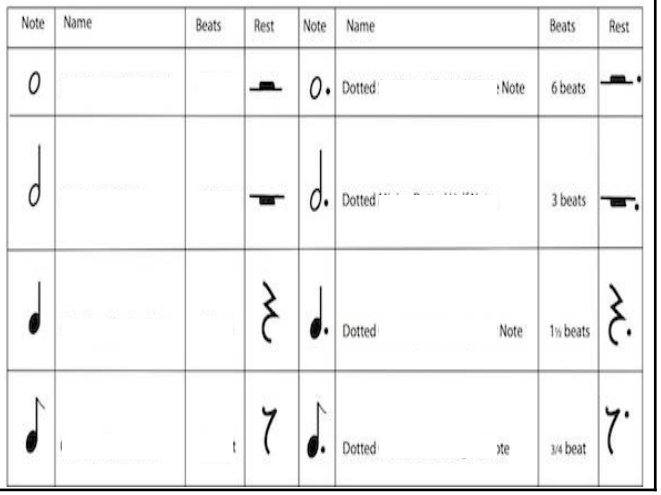

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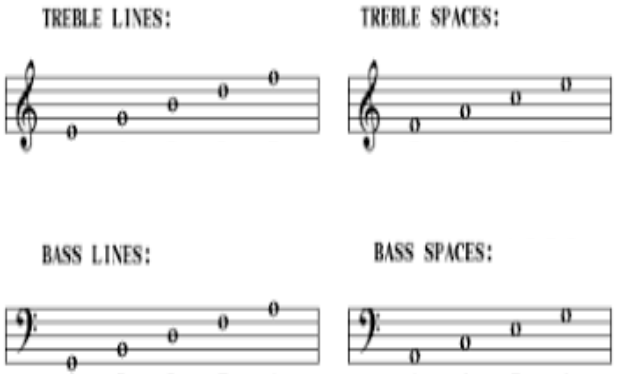

G Describing music – MAD T SHIRT

M	A	D	T	S	H	I	R	T
M_____	A_____	D_____	T_____	S_____	H_____/T_____	I_____	R_____	T_____

Drama – Year 9 Improvisation

Links to Comp 1 and 2

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.

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

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.

Drama – Year 9 Improvisation

Links to Comp 1 and 2

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.

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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.

Create your own

Where, who, what?
Location-

Character-

Motivation-

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- In its purest form, the dialogue, the action, the story and the characters are created collaboratively by the players as the improvisation unfolds.
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Examples – Can you name any tv shows that are improvised?

Tips for success

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

SWINDON ACADEMY READING CANON

Year 7

- The Canterbury Tales
- War Horse
- Adventures of a Young Naturalist
- A Monster Calls
- The Pearl
- Number the Stars
- The Hunger Games
- Chinese Cinderella
- Sir Gawain and the Green Knight

Year 8

- The Dark Lady
- Trash
- The Diary of a Young Girl
- Ghost Boys
- The Amazing Maurice
- The Bone Sparrow
- Salt to the Sea
- The Giver
- Witch Child

Year 9

- Skin
- I am Malala
- Noughts and Crosses
- Liccle Bit
- Fahrenheit 451
- The Black Flamingo
- One
- Simon vs the Homo Sapiens Agenda
- Long Way Down
- Northern Lights
- The Boy Who Steals Houses
- The Woman in Black
- The Book Thief

Year 10

- The Underground Railroad
- The Curious Incident of the Dog in the Night-Time
- The Hate U Give
- Rani and Sukh
- Pigeon English
- The Boxer
- 1984
- Orangeboy
- The Outsiders
- The Art of Being Normal
- A Selection of Short Stories
- To Kill a Mockingbird

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