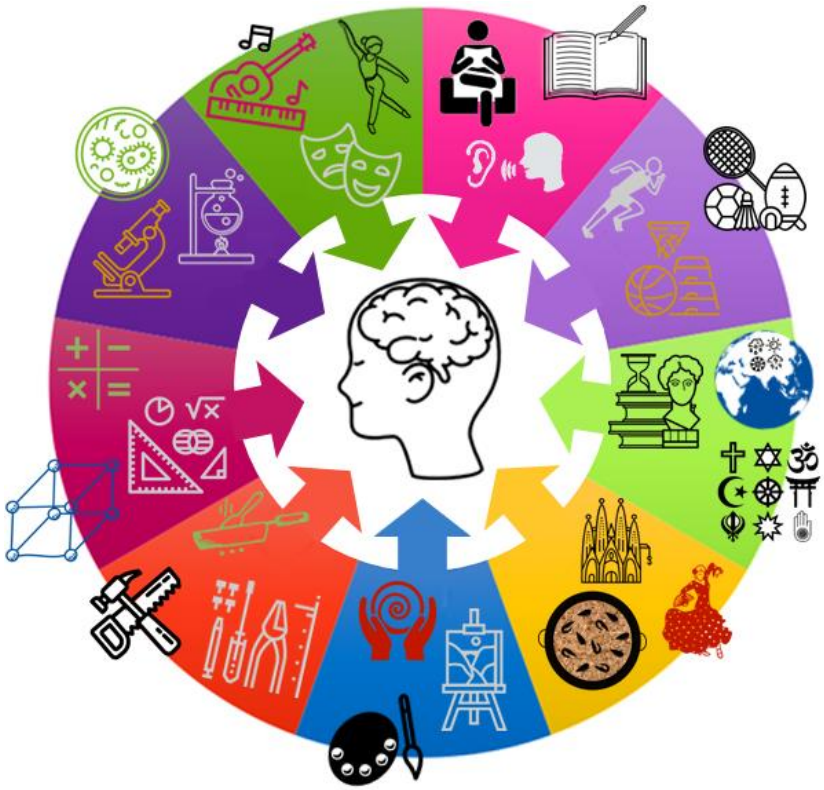
100% book - Year 8 Grammar

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



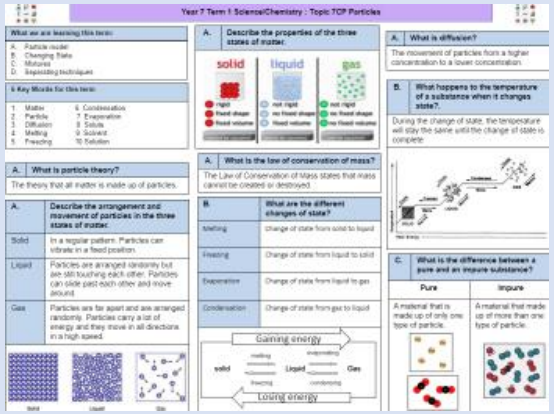
Term 4

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

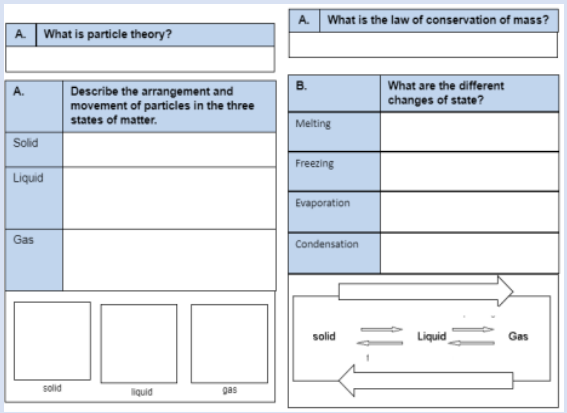
Knowledge Organisers



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.

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!

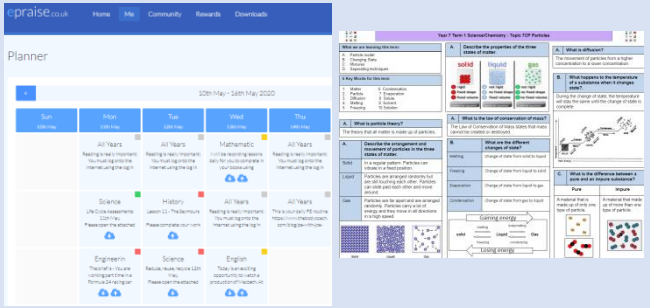
Expectations for Prep and for using your Knowledge Organisers

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?

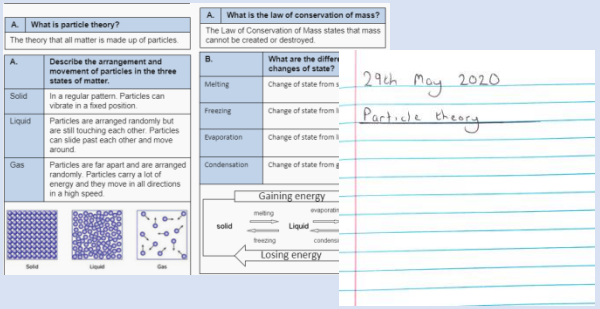
Step 1

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



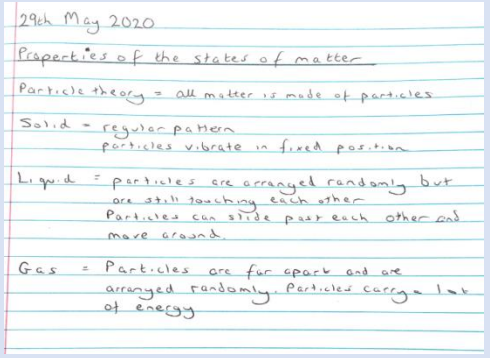
Step 2

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



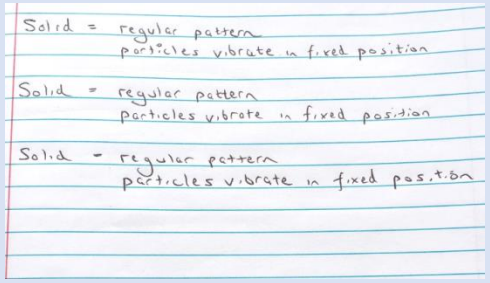
Step 3

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



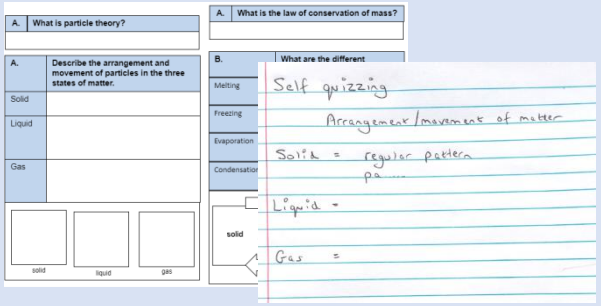
Step 4

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



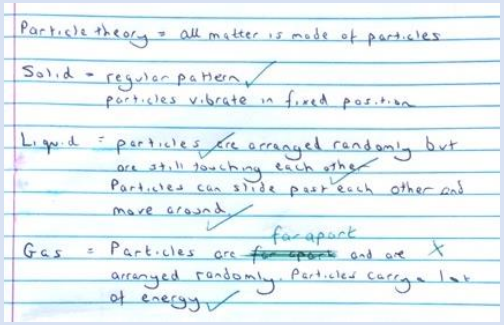
Step 5

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.

‘Animal Farm’: Knowledge Organiser

Chapter breakdown

1	The animals gather to listen to old Major. He gives them a vision of a life without man.
2	The animals rebel and overthrow Jones. The commandments are written.
3	The animals’ first harvest is a success. The pigs keep the milk and apples to themselves.
4	The Battle of the Cowshed: Jones attempts to reclaim the farm.
5	Snowball and Napoleon debate the windmill. Napoleon uses dogs to chase Snowball from the farm. Napoleon makes himself leader.
6	Work begins on the windmill. The pigs move into the farmhouse. Winds destroy the windmill.
7	Work on the windmill starts again. Napoleon demands eggs from the hens. Napoleon slaughters animals at the show trials.
8	Napoleon betrays Mr. Pilkington and sells timber to Mr. Frederick. Frederick pays with counterfeit money. Frederick attacks the farm. The animals suffer losses in the Battle of the Windmill. The windmill is destroyed.
9	Boxer is sold to the knacker’s yard.
10	The pigs are leaders on the farm. They start walking on two legs and carrying whips. There is no difference between the pigs and the humans they sought to overthrow at the start of the novel.

The seven commandments

1	Whatever goes upon two legs is an enemy.
2	Whatever goes upon four legs, or has wings, is a friend.
3	No animal shall wear clothes.
4	No animal shall sleep in a bed.
5	No animal shall drink alcohol.
6	No animal shall kill any other animal.
7	All animals are equal.

Characters

Napoleon
‘a large, rather fierce-looking Berkshire boar, the only Berkshire on the farm, not much of a talker, but with a reputation for getting his own way.’

Snowball
‘a more vivacious pig than Napoleon, quicker in speech and more inventive, but was not considered to have the same depth of character.’

Squealer
‘with very round cheeks, twinkling eyes, nimble movements, and a shrill voice. He was a brilliant talker, and when he was arguing some difficult point he had a way of skipping from side to side and whisking his tail which was somehow very persuasive. The others said of Squealer that he could turn black into white.’

Boxer
‘an enormous beast, nearly eighteen hands high, and as strong as any two ordinary horses put together… in fact he was not of first-rate intelligence, but he was universally respected for his steadiness of character and tremendous powers of work.’

Biographical information

1	‘Animal Farm’ was written in 1945.
2	It was written by George Orwell.
3	Orwell was born in 1903.
4	‘Animal Farm’ was influenced by the events of World War II.
5	Orwell wanted to write about the cruel leaders of Europe during World War II.
6	‘Animal Farm’ is an allegory for the events of the Russian Revolution.

Key words

allegory – a story with two meanings. It has a literal meaning, which is what actually happens in the story. But it also has a deeper meaning. The deeper meaning is often a moral. It teaches you a lesson about life.

tyrant – someone who has total power and uses it in a cruel and unfair way. A **tyranny** is a situation in which a leader or government has too much power and uses that power in a cruel and unfair way.

rebellion – a rebellion is a situation in which people fight against those who are in charge of them.

harvest – the time when crops are cut and collected from fields.

corrupt – when people use their power in a dishonest way order to make life better for themselves.

propaganda – Information that is meant to make people think a certain way. The information may not be true.

cult of personality – a cult of personality is where a leader convinces people to worship him or her and treat them like a god.

treacherous – If you betray someone who trusts you, you could be described as **treacherous**.

declarative: describes something that makes information known. A statement

hierarchy: a system of organising people into different levels of importance

imperative: a command.

‘Animal Farm’: Knowledge Organiser

Chapter breakdown

1	The animals gather to _____. He gives them a _____ _____.
2	The animals _____ and _____ Jones. The _____.
3	The animals’ first _____ is a _____. The pigs keep _____ _____.
4	The Battle of the _____: _____ _____.
5	_____ and _____ debate the _____. _____ uses _____ _____ _____. Napoleon _____ _____ _____.
6	Work begins on the _____. The _____ _____ _____. _____ _____ _____.
7	Work on the _____ _____. Napoleon demands _____ _____. Napoleon _____ _____ _____.
8	Napoleon betrays Mr. Pilkington _____ to Mr. Frederick. Frederick _____. Frederick _____ _____. The animals _____. The _____ _____.
9	Boxer is _____.
10	The pigs are _____. They _____ _____ _____. There is _____ _____ _____and the _____ _____ _____.

The seven commandments

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2	It was written by _____ _____.
3	_____ was born in _____.
4	‘Animal Farm’ was _____ by the events of _____.
5	_____ wanted to write about the _____ _____ of _____ during _____.
6	‘Animal Farm’ is an _____ for the events of the _____ _____.

Key words

allegory – _____ _____ _____ _____ _____

tyrant – _____ _____. A **tyranny** is _____ _____ _____.

rebellion – _____. _____ _____ _____

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cult of personality – a cult of personality is _____ _____

treacherous – I_____ _____.

declarative: _____ _____.

hierarchy: a _____ _____ _____.

imperative: a _____.

Year 8 Grammar Term 4 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?

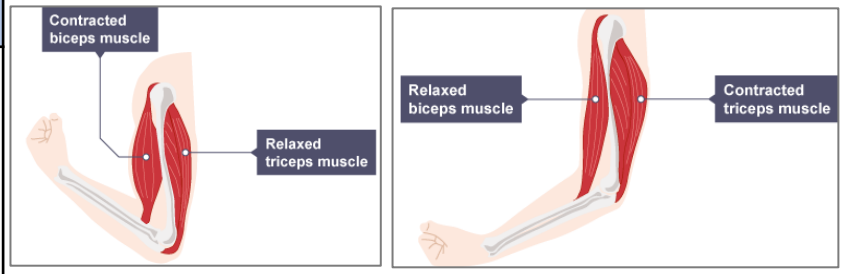
Biomechanics is the working together of the skeletal system and the muscular system to help us move.

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 8 Grammar Term 4 Science/Biology : Topic 9BB Biological Systems and Processes

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6 Key Words for this term

1.
2.
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4.
5.
6.

A.	Movement and muscles

What are the following:

Ligaments	
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Tendons	

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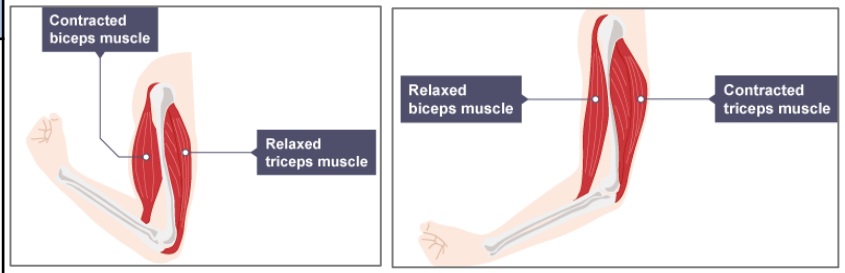


A Making blood cells – what part of the bone makes blood cells?

Why are bones hollow?

A. What is Osteoporosis

What are rickets?

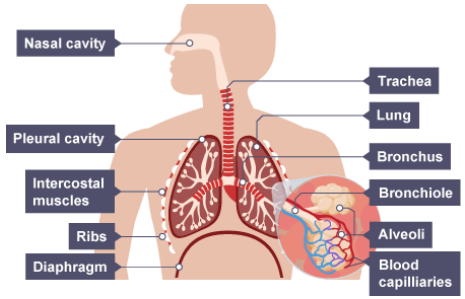
A. What happens if you overstretch a tendon?

What is Tendonitis?

Year 8 Grammar Term 4 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?

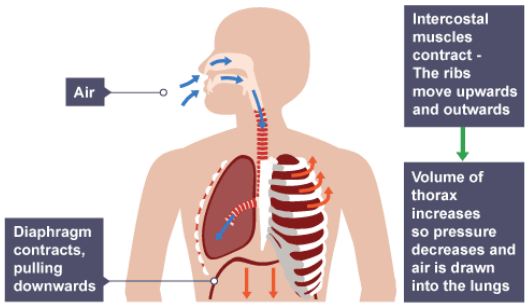
$$Lung\ capacity = vital\ capacity + residual\ volume$$

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?

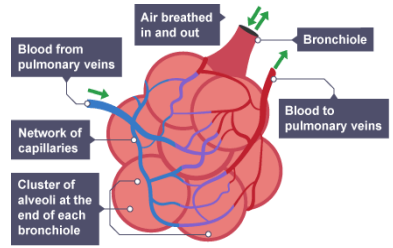
Asthma is treated using **steroids**.

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?

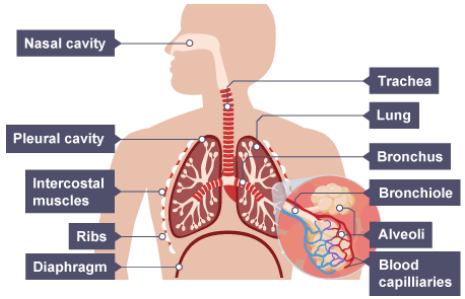
Diffusion is the net movement of anything (for example, atom, ions, molecules) from a region of higher concentration to a region of lower concentration.

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 8 Grammar Term 4 Science/Biology : Topic 9BB Biological Systems and Processes

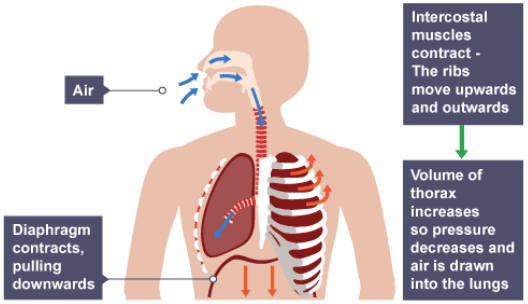
B. What is the Respiratory System?



How does the respiratory system work?

B. What is Ventilation?

Why are ventilation and Respiration different?



B. Where does gas exchange happen?

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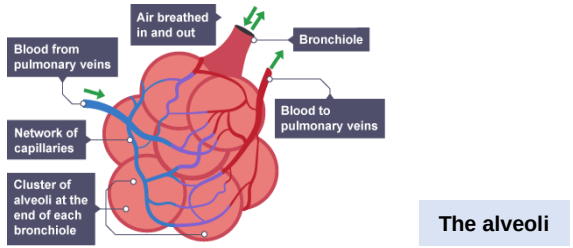

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What adaptations do the alveoli have?

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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 8 Grammar Term 4 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 8 Grammar Term 4 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 8 Grammar Term 4 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?

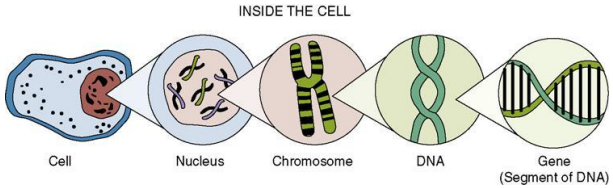
- The bases are **adenine**, **thymine**, **cytosine** and **guanine** (A, T, C, and G)
- A has a **complementary shape** to T
- C has a **complementary shape** to G

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?

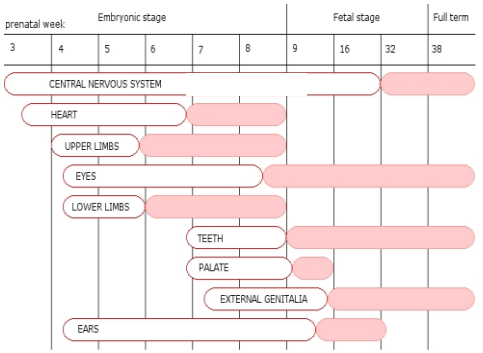
Heredity is the process by which genetic information is transmitted from one generation to the next

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.

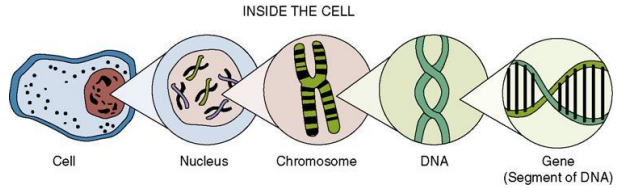
Year 8 Grammar Term 4 Science/Biology : Topic 9BB Biological Systems and Processes

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?		

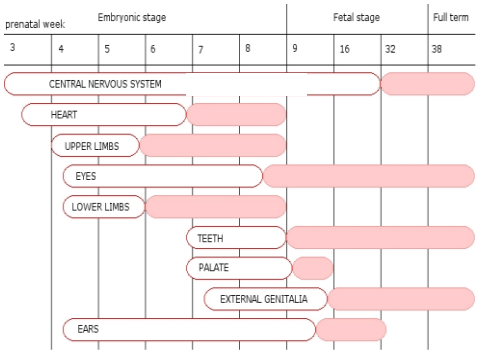
E.	What is Heredity?

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

Year 8 Grammar Term 4 Science/chemistry : Topic = 9CR Reactivity

What we are learning this term:

A. Symbol equations
B. Metals and non-metals
C. Reactivity of metals
D. Displacement reactions

8 Key Words for this term

1. Reactant
2. Product
3.Salts
4. Displacement
5. Reactivity
6. Properties
7. Extraction
8.Electrolysis

A. What is a symbol equation?

A symbol equation is a short-hand way of showing a chemical reaction using chemical symbols

What would the symbol equation be?
Potassium + Chlorine → Potassium Chloride

$2K + Cl_2 \rightarrow 2KCl$

Why are symbol equations important?

- They are a quick way of showing a reaction.
- They are universal – all languages recognise them
- You can see how many of each molecule is used in the reaction if you balance it

B. What products are made when a metal reacts with water?

Some metals are so reactive they react with water. The products are hydrogen gas and a metal hydroxide

What are the word and symbol equations for the reaction of Sodium metal with water?

Sodium + Water → Sodium Hydroxide + Hydrogen
$2Na + 2H_2O \rightarrow 2NaOH + H_2$

Which metals have a strong reaction with water?

Lithium, Sodium, Potassium and Calcium

B. What differences are there between metals and non-metals?

	Metals	Non-metals
Where are they found in the periodic table?	Metals are found on the left of the periodic table	Non-metals are found on the right hand side
What charge do they form?	Metals form positive ions (Lose electrons)	Non-metals form negative ions (Gain electrons)

B. What products are made when a metal reacts with acid?

When a metal reacts with acid, a **salt and hydrogen gas are made**.

What is a salt?

A compound where a metal is bonded to a non-metal – example is sodium chloride

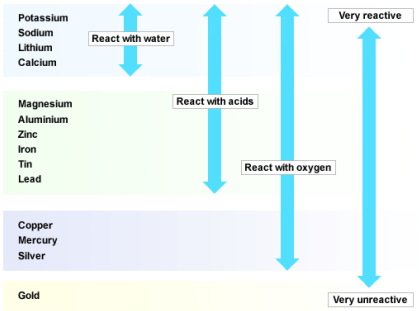
What are the word and symbol equations for the reaction of Sodium metal with Hydrochloric acid?

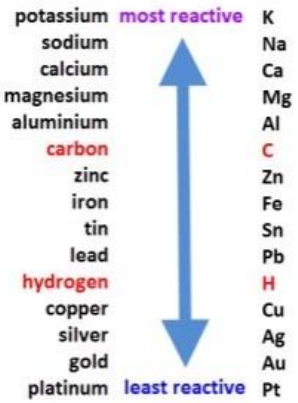
Sodium + Hydrochloric acid → Sodium Chloride + Hydrogen
$2Na + 2HCl \rightarrow 2NaCl + H_2$

C. What is the reactivity series?

A table which ranks metals on relative reactivity.

Can you come up with a way to remember the order of the metals in the reactivity series?





Year 8 Grammar Term 4 Science/chemistry : Topic = 9CR Reactivity

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Where are they found in the periodic table?		
What charge do they form?		

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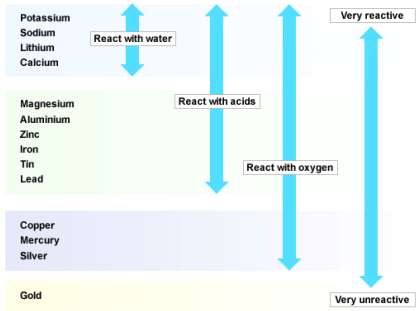
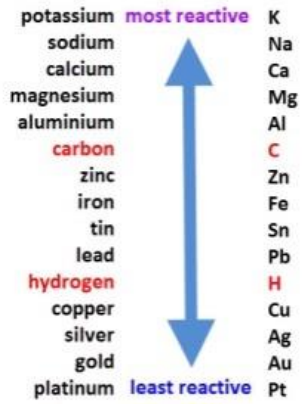




Year 8 Grammar Term 4 Science/chemistry : Topic = 9CR Reactivity

D,	What is a displacement reaction?

A more reactive metal will displace a less reactive metal from its compounds

What will happen when Magnesium metal is added to copper sulphate solution?

Magnesium will displace copper to form Magnesium Sulphate and Copper

What is the word and symbol equation for this reaction?

Copper Sulphate + Magnesium → Magnesium Sulphate + Copper

$CuSO_4 + Mg \rightarrow MgSO_4 + Cu$

Why do displacement reactions happen?

A more reactive metal is more stable as an ion

D,	What is Extraction by Carbon?

Carbon can displace elements that are below it from their compounds. This means they can be used to extract some metals from their ores.

Which metals is extraction by carbon used to extract?

Carbon can be used to extract metals from zinc downwards
(Zinc, iron, tin, lead, copper)

What is an example word and symbol equation?

- **Example: Lead Oxide + Carbon → Lead + Carbon Dioxide**

$$PbO_2 + C \rightarrow Pb + CO_2$$

This reaction is an example of a reduction reaction as the lead has lost oxygen.

What is a reduction reaction?

When an atom loses an oxygen atom

What are the downsides of using this method?

High temperatures needed. Very expensive. Production of CO_2.

D,	What is an ore?

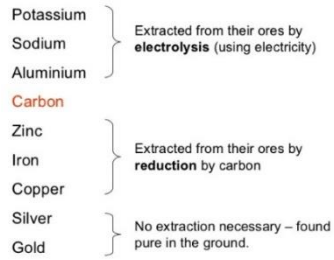
Most metals are found in compounds in the Earth's crust. We call these compounds **ores.** You usually dig them up and extract the metal.

What is a Native metal?

A metal which does not need to be extracted from its compound.

D,	How are some metals extracted?

Metals are either found in the ground as a native metal, extracted by carbon, or extracted by electrolysis



D,	What is electrolysis?

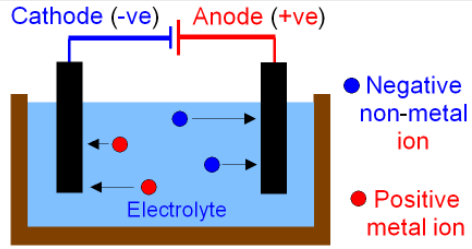
The breaking down of a substance using electricity

Which metals are extracted by electrolysis

Metals more reactive than carbon – potassium, sodium, aluminium

What are the downsides of this method?

It is very expensive, compounds have to be molten or in solution for it to work



Year 8 Grammar Term 4 Science/chemistry : Topic = 9CR Reactivity

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What will happen when Magnesium metal is added to copper sulphate solution?

What is the word and symbol equation for this reaction?

Why do displacement reactions happen?

D,	What is Extraction by Carbon?

Which metals is extraction by carbon used to extract?

What is an example word and symbol equation?

What is a reduction reaction?

What are the downsides of using this method?

D,	What is an ore?

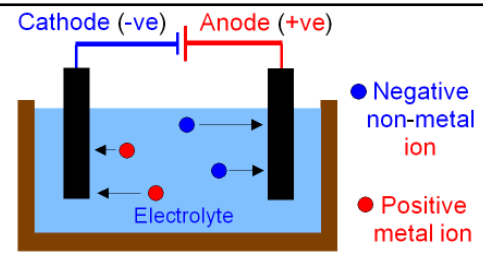
What is a Native metal?

D,	How are some metals extracted?

D,	What is electrolysis?

Which metals are extracted by electrolysis

What are the downsides of this method?



Year 8 Grammar Term 4 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

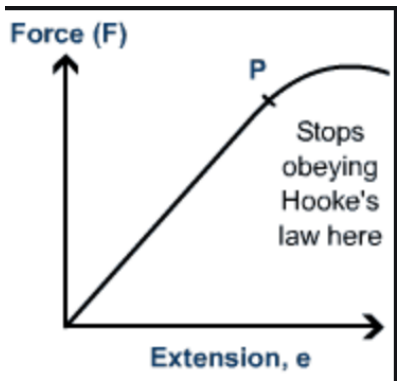
All	What Unit is usually used?
Force	N (newton)
Energy	J (joule)
Distance	m (metre)
Moments	Nm (newton metres)

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 8 Grammar Term 4 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.

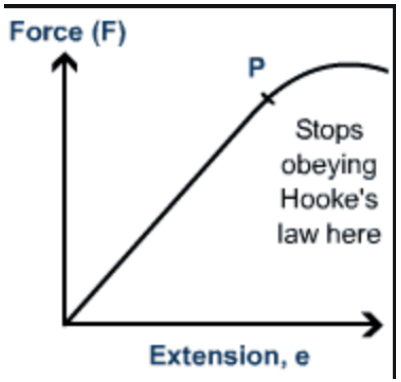
C.	What do these phrases mean?
Deformation	
Compression	
Tension	

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 <u>usually</u> used?
Force	
Energy	
Distance	
Moments	

C.	Hookes Law is a linear relationship



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

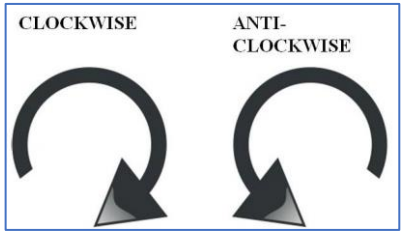
D.	What is the equation for Work Done?	
Applying a force to get an object to move is one way to transfer energy between stores. Transferring energy is also known as '**doing work**'.	Work is done (energy is transferred) when elastic objects are ?	What is the amount of work done?

Year 8 Grammar Term 4 Science/Physics: Topic 9PF Forces in action

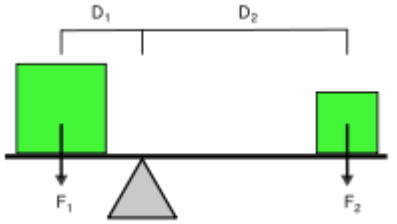
E.	Turning effects
Both the effort and load are forces that have a turning effect – they make the lever rotate	
What is the **moment** of the force?	
The size of the forces **turning effect**	
How can you increase the moment of a force?	
• Increase the force • Increase the perpendicular distance from 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 8 Grammar Term 4 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?	

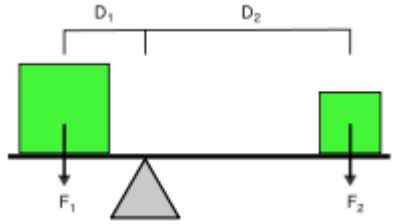
E.	What are levers and what are the different parts?
Levers involve turning, or rotation. Levers allow forces applied to be multiplied.	
Pivot	
Effort	
Load	

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.

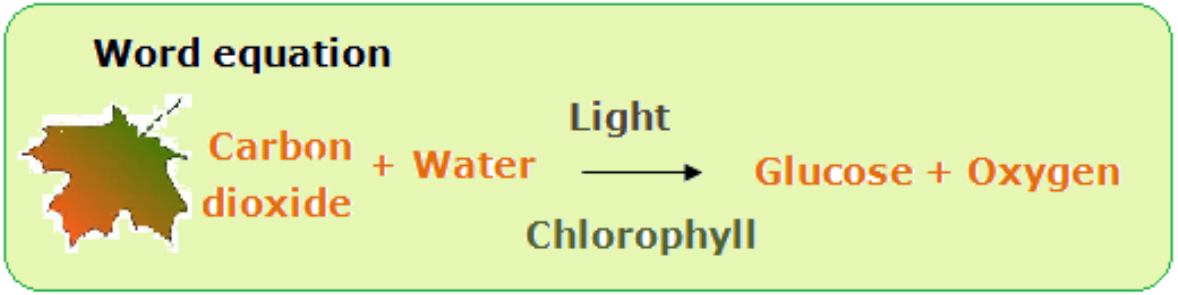
What we are learning this term:

A. Photosynthesis
B. Roots
C. Leaf adaptations
D. The importance of photosynthesis

4 Key Words for this term

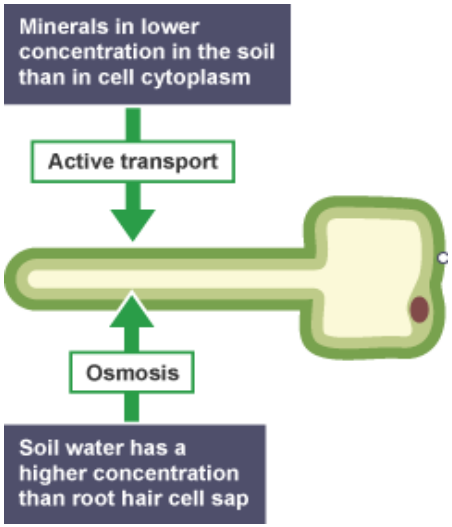
1. Chloroplast
2. Phloem
3. Xylem
4. Photosynthesis

A. State the word equation for photosynthesis



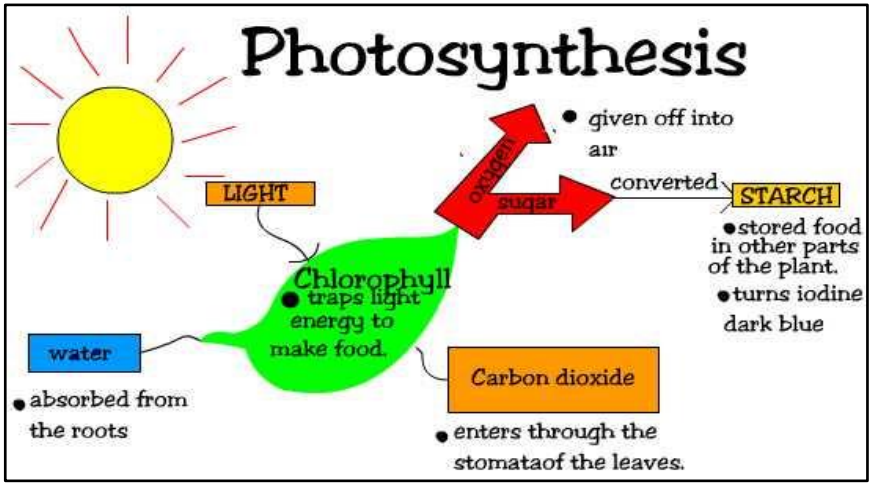
B. Describe the function of the roots

- Made up of **root hair cells**.
- These cells **absorb minerals** through **active transport** (which requires energy).
- They also **absorb water** through **osmosis** (which doesn't require energy).



A. Describe testing leaves for starch

1. The leaf is **boiled** to break open cells.
2. Then boiled in **ethanol** to remove the chlorophyll.
3. Finally test with **iodine**. **Blue/black** is a positive result.



What we are learning this term:

A. Photosynthesis
B. Roots
C. Leaf adaptations
D. The importance of photosynthesis

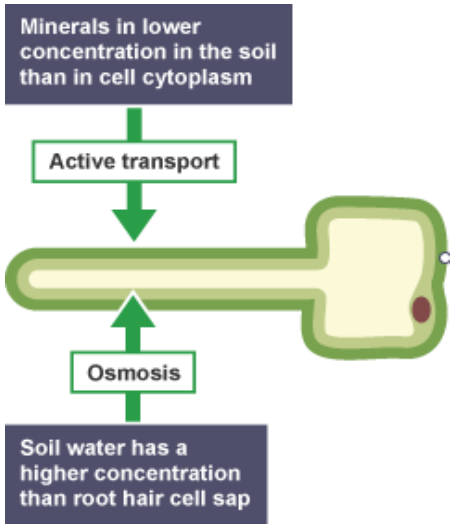
4 Key Words for this term

1. 3.
2. 4.

A. State the word equation for photosynthesis

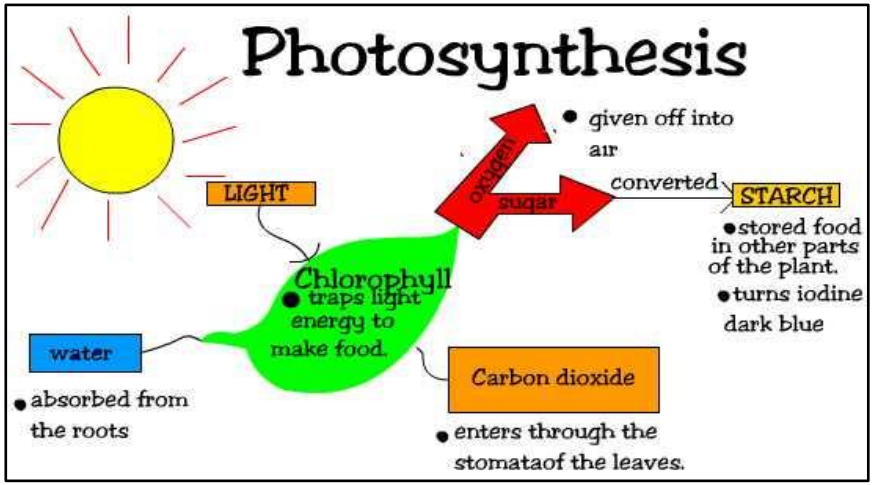
B. Describe the function of the roots

- Made up of _____ _____ _____.
- These cells **absorb** _____ through _____ _____ (which requires energy).
- They also **absorb** _____ through _____ (which doesn't require energy).



A. Describe testing leaves for starch

1.
2.
3.

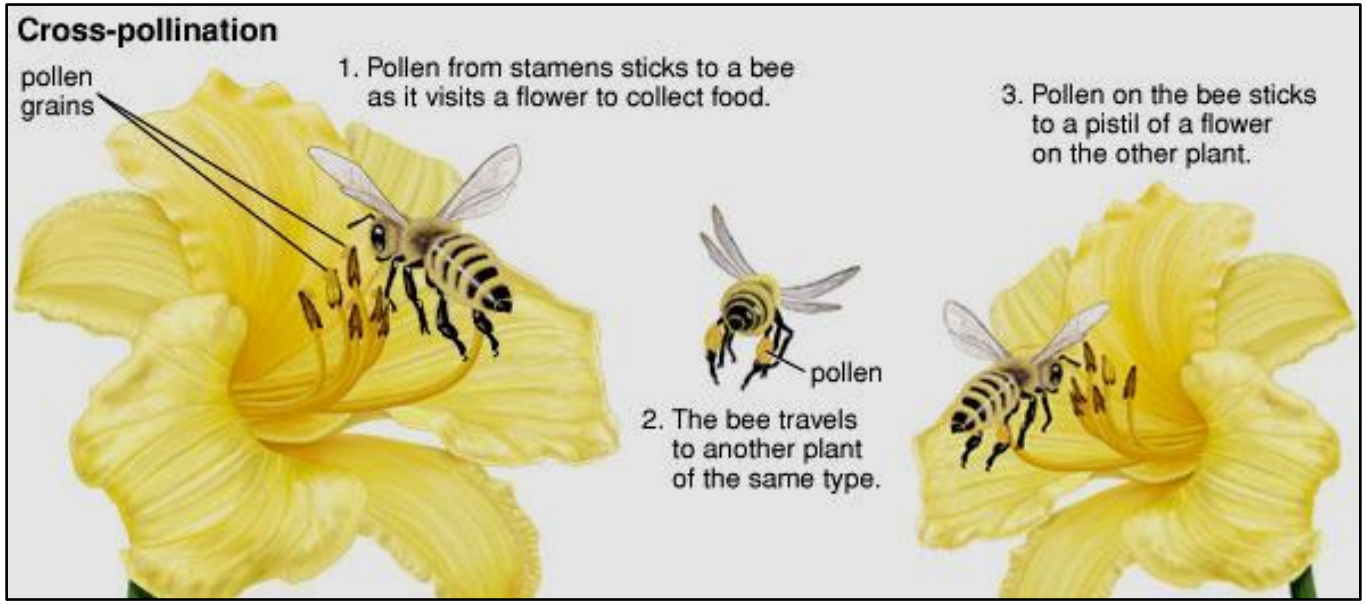


C.	Describe the adaptations of leaves for photosynthesis
Large surface area	To absorb lots of **light**.
Waxy coat	To prevent **water loss and damage**.
Palisade cells	Long, thin and contain lots of chloroplasts for **photosynthesis**.
Stomata	**Small holes** on the bottom of the leaf which allow **carbon dioxide** into the leaf and **oxygen** out.
Guard cells	Control the **opening and closing** of the stomata.

D.	Explain the importance of plant pollination in food security

Lots of the **foods** we eat come from plants which **reproduce by pollination**.

So if plant pollination is not occurring enough then food will be less secure.

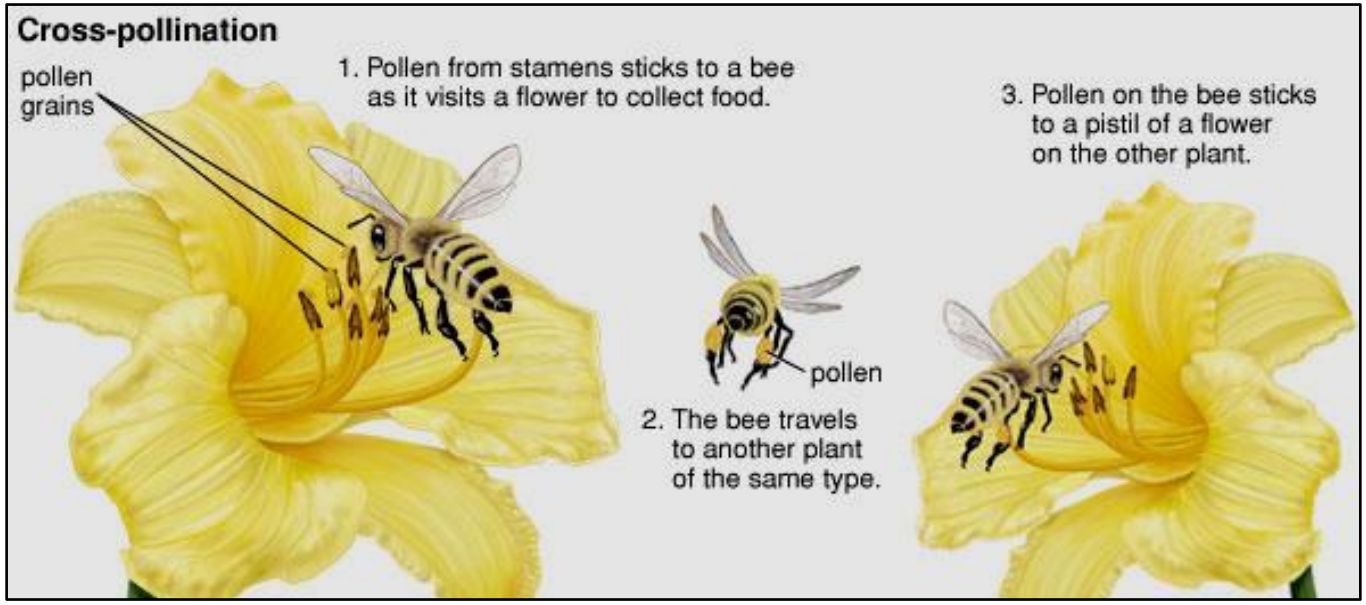


D.	Define pollination

Pollination is the **transfer of pollen** from a **male** part of a plant to a **female** part of a plant, enabling later fertilisation and the production of seeds.

C.	Describe the adaptations of leaves for photosynthesis
Large surface area	
Waxy coat	
Palisade cells	
Stomata	
Guard cells	

D.	Explain the importance of plant pollination in food security



D.	Define pollination

Year 8 Grammar Term 4 Science / Physics : Topic 9PS Sound

What we are learning this term:

A. Compare Light and Sound waves
B. Wave behaviour
C. Sound waves
D. Hearing ranges
E. Uses of sound

3 Key Words for this term

1. Ultrasound
2. Frequency
3. Transverse

A. How do sound waves compare with Electromagnetic waves (e.g. Light)

Sound	EM waves, like light
Requires a medium (particles) to travel	Does not require a medium (particles)
Longitudinal waves	Transverse Waves
Travels faster in more dense media. In air 330m/s	Travels slower in more dense material. In vacuum 3 x 10^8 m/s

A. Types of Waves

Waves **transfer energy** without transferring matter.

A. What are the two types of waves?

Transverse	Longitudinal
• **Oscillations are perpendicular** to the direction of **energy transfer.**	• **Oscillations are parallel** to the direction of **energy transfer.**

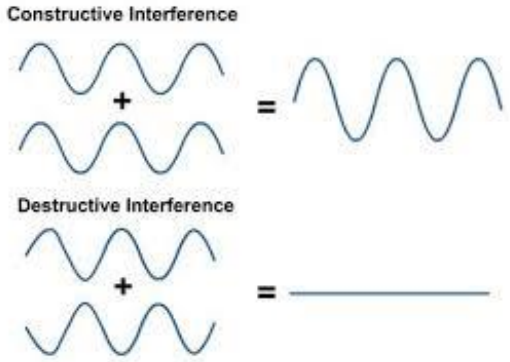
B. What different behaviours do waves show?

Waves can travel through all sorts of media, and different things can happen at the **boundary** between different media:

Transmission	**Passing through**, we say a wave is 'transmitted' through a medium
Reflection	When a wave **bounces back** from a boundary between media at the same angle as which it hit the boundary.
Refraction	When a wave **changes direction** at the boundary between media due to a change in speed.
Absorption	When the energy a wave transfers goes into heating a material.
Diffraction	The spreading out of a wave after it passes through a gap.

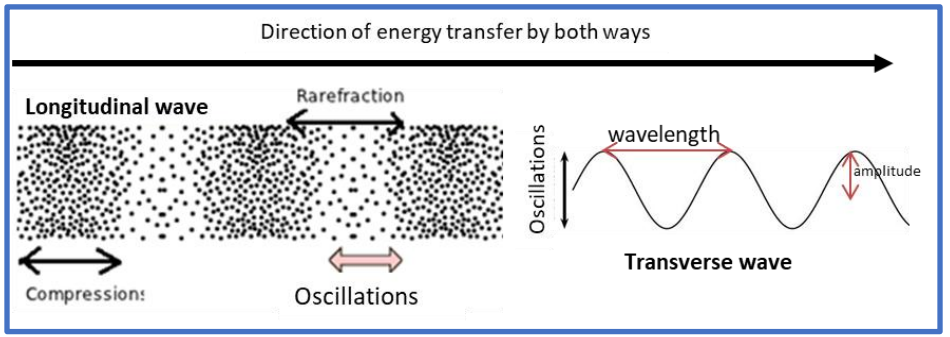
B. What is Superposition

Superposition occurs when two or more of the same kind of waves are travelling together. The waves can add up or cancel each other out depending on how they line up.



C. Changes in sounds

What is pitch?	The highness/lowness of a sound. Higher sounds have a higher frequency
What is frequency?	The number of oscillations in a wave per second. This is also the number of waves passing a point per second. It is measured in Hertz (Hz)
What is volume?	The intensity of a sound. Louder sounds have a larger amplitude. It is measured in decibels (dB)



Year 8 Grammar Term 4 Science / Physics : Topic 9PS Sound

What we are learning this term:

A. Compare Light and Sound waves
B. Wave behaviour
C. Sound waves
D. Hearing ranges
E. Uses of sound

3 Key Words for this term

1.
2.
3.

A. How do Sound waves compare to Electromagnetic waves (e.g. Light)?

Sound	EM waves, like light

A. Types of Waves

Waves transfer energy without transferring matter.

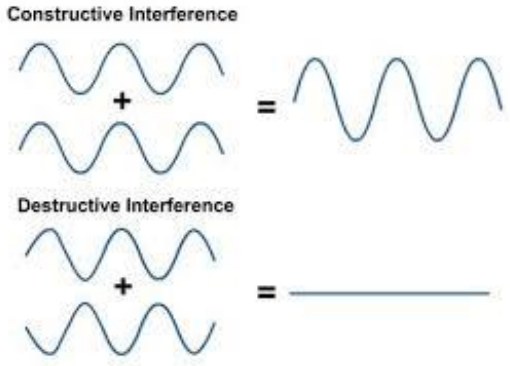
A. What are the two types of waves?

B. What different behaviours do Waves show?

Waves can travel through all sorts of media, and different things can happen at the **boundary** between different media:

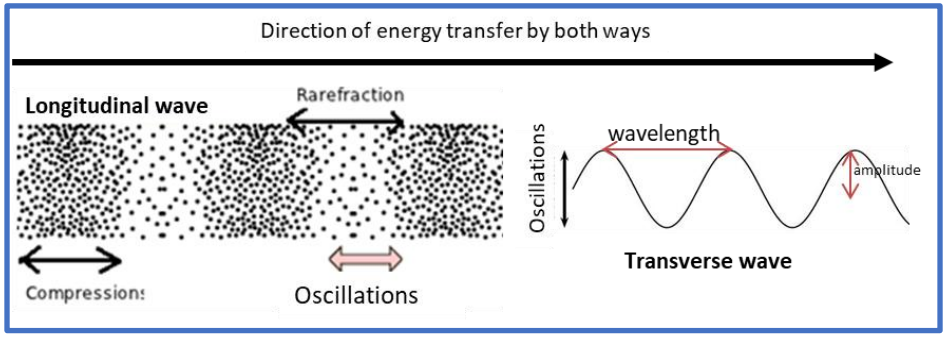
Transmission	
Reflection	
Refraction	
Absorption	
Diffraction	

B. What is Superposition?



C. Changes in sounds

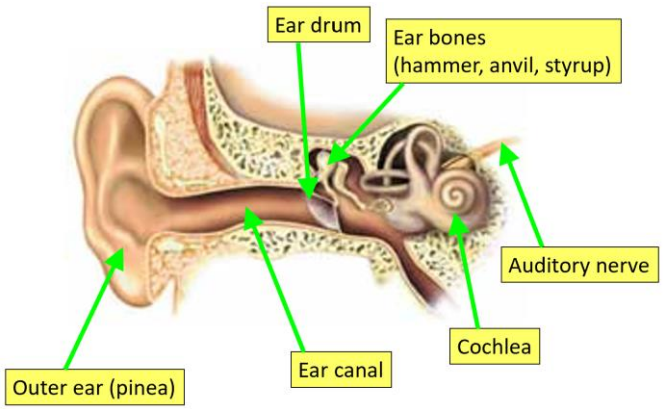
What is pitch?	
What is frequency?	
What is volume?	



Year 8 Grammar Term 4 Science / Physics : Topic 9PS Sound

C.	How is sound produced?
Sound is produced by **vibrations**	
How does sound travel?	
Vibrations transfer energy through particles.	
Which media does sound travel fastest in and why?	
Solids – the particles are closer together	

C.	Part of the Ear	What is the Function?
1. Outer ear (pinea)		Collects the sound like a funnel.
2. Ear canal		Transmits sounds from the pinea to the ear drum
3. Ear drum		Sound waves causes this to vibrate
4. Ear bones (hammer, anvil, stirrup)		After the ear drum vibrates, it passes the vibrations on to these. They transfer the vibrations to the cochlea
5. Cochlea		Receives vibrations and converts these to nerve impulses
6. Auditory nerve		Carries nerve impulses (messages) to the brain

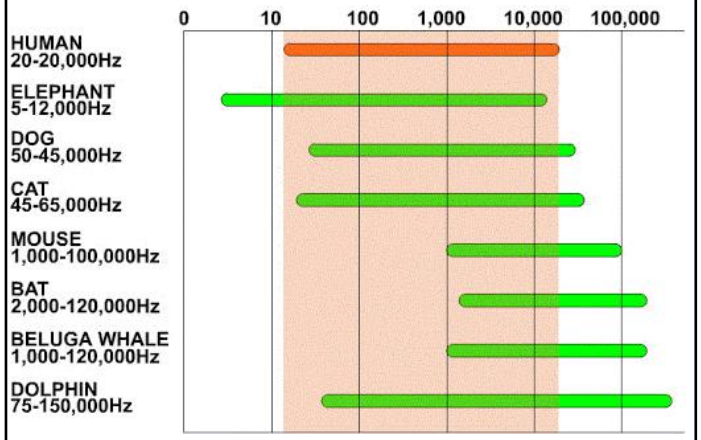


D.	Hearing ranges
What is the hearing range of humans?	Humans have a hearing range between 20 – 20 000 Hz
What is ultrasound?	Sounds with a frequency **above 20 000 Hz**
What is ultrasound used for?	Uses of ultrasound: • Prenatal scans of unborn babies • Ultrasonic cleaning of fragile objects (eg jewellery) • Breaking up kidney stones to prevent harm.

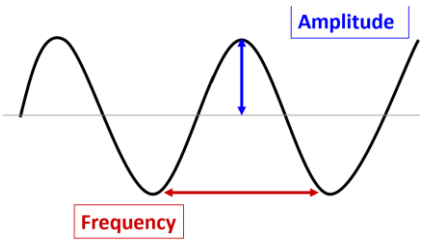
E.	What is an echo?
A reflected sound	

E.	How do loudspeakers work?
• Loudspeakers are vibrating cones. • The pattern and frequency of the vibrations (oscillations) determines the sound.	
How do Microphones work?	
Microphones have a vibrating <u>diaphragm</u> inside, which converts the sound wave into an electrical signal in a circuit.	

D.	What are the hearing ranges of animals?



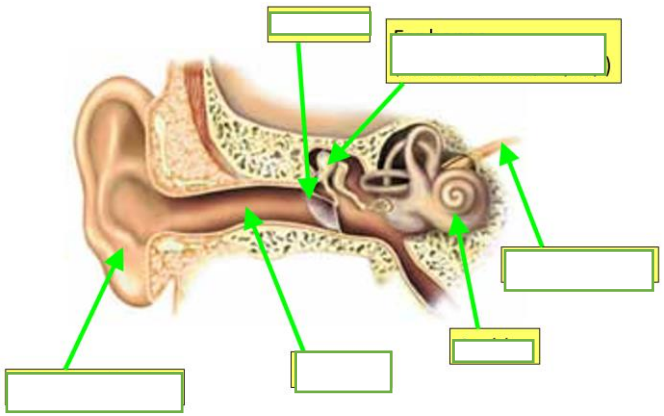
D.	Seeing sounds – How can you see sounds?
You can use an instrument called an oscilloscope to see a sound wave	
Amplitude (volume) is shown by the height. The higher the waves, the louder the sound.	
The frequency (pitch) is shown by how close the waves are to each other. The closer they are, the higher the pitch.	



Year 8 Grammar Term 4 Science / Physics : Topic 9PS Sound

C.	How is sound produced?
How does sound travel?	
Which media does sound travel fastest and why?	

C.	Part of the Ear	What is the Function?
1. Outer ear (pinea)		
2. Ear canal		
3. Ear drum		
4. Ear bones (hammer, anvil, stirrup)		
5. Cochlea		
6. Auditory nerve		

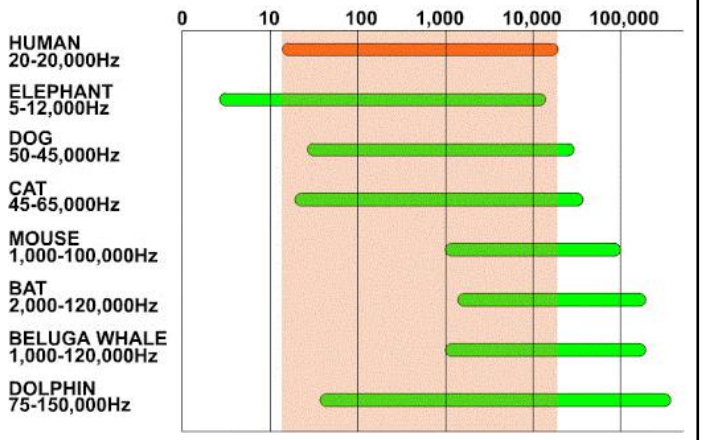


D.	Hearing ranges
What is the hearing range of humans?	
What is Ultrasound?	
What is ultrasound used for?	

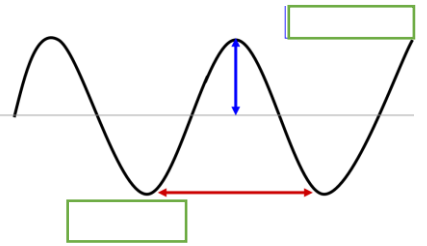
E.	What is an echo?

E.	How do loudspeakers work?
How do Microphones work?	

D.	What are the hearing ranges of animals



D.	Seeing sounds – How can you see sounds?
Amplitude (volume) is shown by:	
The frequency is shown by:	



Geography Knowledge Organiser: Year 8 Term 4 Weather and Climate

Background:

1. Weather and climate are different, however both are influenced, measured and described by a few factors. ***(A)***
2. The climatic conditions of an area are determined by several factors. ***(B)***
3. There are four distinct climatic zones in the UK, which are determined by the direction of the prevailing wind. ***(C)***
4. Precipitation is caused when warm air rises. There are three ways that this can happen. ***(B, D)***
5. High pressure air systems bring warm, settled weather conditions. ***(E)***
6. Low pressure air systems bring wet, changeable weather conditions. ***(F)***
7. Tropical storms (an example of a low pressure climatic hazard) need certain conditions to form. ***(G)***
8. Hurricane Katrina is a famous tropical storm that affected the USA in 2005. ***(H)***

A.	**Weather and climate *(5)***
Weather	The day-to-day conditions of the atmosphere which change quickly.
Climate	The average weather conditions over longer periods of time.
Precipitation	Any form of water falling from the sky.
Humidity	The amount of moisture in the air.
Air pressure	The force exerted onto the Earth's surface by the weight of the air.

B.	**Factors affecting weather and climate *(4)***
Latitude	Higher latitudes are colder. Lower latitudes (nearer the equator) are hotter.
Winds	Wind can bring different weather conditions depending on where it comes from.
Altitude	Higher areas get more rainfall and are colder than low land.
Urban areas	Can be 2.2°C warmer than the surrounding rural areas.

C.	**The UK's air masses *(4)***
Tropical maritime	Wind from the south west brings wet weather, with warm temperatures in the summer, but mild in the winter.
Tropical continental	Wind from the south east brings dry weather with hot temperatures in the summer, but mild in the winter.
Polar continental	Wind from the north east brings dry weather with cold temperatures in the summer, and often freezing conditions in the winter.
Polar maritime	Wind from the north west brings wet weather with cold temperatures.

D.	**The types of precipitation *(3)***
Convectional	Produced when warm air rises, cools and condenses, forming clouds and then rainfall.
Frontal	Warm air meets cold air and rises because it is less dense. It cools, condenses forming clouds, then precipitation.
Relief	Warm air is forced to rise as it meets a hill or mountain. It cools at high altitude, condenses and forms clouds, then precipitation.

E.	**High pressure systems**	
How is the air moving?	Areas where air is sinking, this air has little moisture.	
Conditions *(3)*	**Positive impacts *(2)***	**Negative impacts *(2)***
1. Calm weather with a cloudless sky. 2. Hot weather in summer, cold weather in winter. 3. Morning frost is common.	1. Lots of sunlight means farmers can grow more crops. 2. Increase in tourism, which boosts the local economy.	1. Places such as Spain and Portugal are at high risk of forest fires during prolonged dry periods. 2. Can cause fog in the winter, which can lead to traffic accidents.

F.	**Low pressure systems**	
How is the air moving?	Air is rising, it cools and condenses causing high levels of precipitation.	
Conditions *(3)*	**Positive impacts *(2)***	**Negative impacts *(3)***
1. Unsettled weather which can change quickly. 2. High winds and high cloud cover. 3. Precipitation occurs as rising air cools and condenses.	1. Rainfall refills stores of water, such as reservoirs. 2. Wind farms will generate more energy.	1. Low pressure systems can cause large, destructive storms. 2. Bad weather can harm the tourist industry as tourists are put off. 3. Areas can be flooded.

G.	**Causes of tropical storms *(3)***
High temperatures	Oceans have to be 26.5°C or higher.
Weather system	A low pressure system means air rushes in and causes high winds.
Deep ocean	Warm water is the power source for a tropical storm and should be 60 metres deep or more.

H.	**Case study example: Hurricane Katrina 2005**
Where?	New Orleans, south coast of the USA.
Effects *(3)*	**Responses *(2)***
1. 1,836 died. 2. 10,000 people homeless. 3. Floods were up to 3 metres deep in places.	1. $105 billion was spent on rebuilding. 2. 10,000 people evacuated to the Superdome for shelter.

Geography Knowledge Organiser: Year 8 Term 4 Weather and Climate

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A.	**Weather and climate *(5)***
Weather	
Climate	
Precipitation	
Humidity	
Air pressure	

B.	**Factors affecting weather and climate *(4)***
Latitude	
Winds	
Altitude	
Urban areas	

C.	**The UK's air masses *(4)***
Tropical maritime	
Tropical continental	
Polar continental	
Polar maritime	

D.	**The types of precipitation *(3)***
Convectional	
Frontal	
Relief	

E.	**High pressure systems**	
How is the air moving?	Areas where air is sinking, this air has little moisture.	
Conditions *(3)*	**Positive impacts *(2)***	**Negative impacts *(2)***

F.	**Low pressure systems**	
How is the air moving?	.	
Conditions *(3)*	**Positive impacts *(2)***	**Negative impacts *(3)***

G.	**Causes of tropical storms *(3)***
High temperatures	
Weather system	
Deep ocean	

H.	**Case study example: Hurricane Katrina 2005**
Where?	.
Effects *(3)*	**Responses *(2)***

Year 8 T4 History : Year 8 Unit 4 Age of Exploration

What we are covering whilst working from home: Age of Exploration

We will be looking studying: The exploration and expansion of the Spanish empire – Christopher Columbus and the actions of Spanish conquistadors. (A,B), How the expansion of the empire and its involvement in the slave trade led to developments in British industry and economy (C, D)

C.	*Can you define these key words?*
Transatlantic Slave Trade	The transportation by slave traders of enslaved African people, mainly to the Americas from the 16th to the 19th century.
Empire	a group of countries ruled over by a single monarch or ruling power
Plantation	A large area of farmland on which crops are grown by workers (typically slaves) who live on the farm.
Scavenger	Child labourer made to crawl below spinning machines and collect loose cotton
Conquistador	Spanish armed adventurers who conquered parts of North and South America
Abolition	The act of officially ending or stopping something, e.g. slavery.
Middle Passage	The sea journey undertaken by slave ships from West Africa across the Atlantic Ocean to The Americas.

A. Key Events that led to Columbus sighting land in the New World

Sponsorship	Contact with Natives	Expedition
- King Ferdinand and Queen Isabella of Spain agreed to sponsor Columbus voyage. - This was because they wanted to spread Christianity to newly discovered lands and to give Spain international status. - This meant Columbus was able to hire a crew, 3 ships and a translator.	- Columbus came into contact with peaceful natives and found that they were wearing small items of gold jewellery. - They did not tell him where they got the gold from, however seeing these gold items spurred him on to continue exploring in the hopes of finding their gold reserves. - Columbus took precious metals, exotic food and animals back to Spain – led to further exploration.	- Four weeks without sighting land – men losing moral - Running out of food and water – men wanted to turn back - Columbus convicted them to stay for 4 more days, if they didn't sight land within those days then they would turn back - On the second day a sailor sighted land

B. Conquistadors

Balboa	Cortez - Mexico	Pizarro - Peru
- Established the first European settlement on the American mainland (Darian) - Tortured the natives in his position as governor of Darian. - Explored and took back pearls for Spain.	- Found stockpiles of gold at Tenochtitlan the Aztec capital city - Got into a disagreement with their leader (Montezuma) and decided to invade the city. - Aztecs were a stone age civilisation so stood no chance - Tenochtitlan destroyed and built over.	- Landed in Peru and brought with him European diseases - ravaged the population. - Defeated an Inca force of 80,000 with 168 men due to the panic and confusion of his cannons and horses. - Inca bought him off with rooms of gold and silver.

D. How did Britain benefit from the Slave Trade?

Employment (Workers)	Investment	Trade
• The slave trade provided thousands of job e.g. in Liverpool by 1774 there were eight sugar refineries and fifteen rope factories all of which provided plenty of new jobs • These factories made chains, anchors, rope and iron, copper and brass goods for the slave ships	• Money poured into Britain from the slave trade • Banks did well by lending money to traders, but slave merchants also used their profits to set up important banks • The trade was so profitable that it was not just the rich who wanted to be part of it - many tradespeople bought a share in a slave ship. • This money was used to improve and invest in things like education which impacted everyone in Britain.	• In a period that **saw Britain industrialise**, profits could be made by exporting manufactured British goods to Africa and then further profits made from imported slave products such as sugar, which became very fashionable with the British people. • The slave trade was **important in the development of the wider economy** • The slave trade played an important role in **providing British industry with access to raw materials** (cotton). This contributed to the increased production of manufactured goods (leading to the Industrial Revolution)

Year 8 T4 History : Year 8 Unit 4 Age of Exploration

What we are covering whilst working from home: Age of Exploration
We will be looking studying: The exploration and expansion of the Spanish empire – Christopher Columbus and the actions of Spanish conquistadors. (A,B), How the expansion of the empire and its involvement in the slave trade led to developments in British industry and economy (C, D).

A. Key Events that led to Columbus sighting land in the New World		
Sponsorship	**Contact with Natives**	**Expedition**

B. Conquistadors		
Balboa	**Cortez - Mexico**	**Pizarro - Peru**

C.	*Can you define these key words?*
Transatlantic Slave Trade	
Empire	
Plantation	
Scavenger	
Conquistador	
Abolition	
Middle Passage	

D. How did Britain benefit from the Slave Trade?		
Employment (Workers)	**Investment**	**Trade**

Year 8 Religious Education: The Philosophy of Religion

A. *Can you define these key words?*

Key word	Key definition
Omnipotent	The belief that God is all-powerful
Omniscient	The belief that God is all-knowing
Omnibenevolent	The belief that God is all-loving
Theism	The belief in God
Atheism	Disbelief or lack of belief in God
Agnosticism	The belief that nothing can be known about the existence or nature of God
Empirical evidence	Evidence for something based on observation or experience
Analogy	A comparison between things that have similar features, often used o help explain a principle or idea.
Theodicy	An argument which defends God against the problem of evil.
Fallacy	A mistaken belief, especially one based on unsound arguments.

B. *Design Argument*

- This is the argument for the existence of God based on evidence of design in the world.
- Examples of design include purpose and regularity in the world. For example, the laws of physics mean the planets move around the sun in a regular and ordered way. The human eye has all the complex structures to enable it to fulfil a purpose- vision

C. *Cosmological Argument*

- **This is t**he argument for the existence of God which argues that God is the cause of the universe.
- Things in the world must have a cause – if a door opens then something must have opened it – this argument suggests that there must have been a first cause to begin life in the universe and that first cause is God.
- Something cannot come from nothing, therefore something must have caused the world into existence. Without a first cause there could be no second cause etc.

D. *The Problem of Evil*

- **This is t**he argument that the existence of evil undermines belief in an omnipotent and omnibenevolent God.
- If God is meant to be omnibenevolent, omnipotent and omniscient, then the existence of evil cancels out one of these attributes of God.
- The problem of evil is frequently known as the inconsistent triad.
- The inconsistent triad is only a challenge to the god of classical theism/ monotheistic Abrahamic faiths, as this is the description of God they offer.

E. *Religious Experience*

- **This is a**n experience which has a religious meaning for the person who experienced it.
- Religious experiences are where you experience God. It can include visions / dreams where you are visited/ hearing God/ seeing a miracle/ prayers being answered or just feeling the presence of God/ Near death experiences
- Bernadette at Lourdes had religious experiences where the Virgin Mary spoke to her.

F. Criticisms

Design Argument

- God is supposed to be perfect therefore how can there be flawed design such as corruptions in DNA which cause cancers or damage to bodies
- The 'Design' of the world may be coincidence. For example, sometimes we see pictures in the clouds, like a rabbit or a face. We know this is just a random coincidence. Just like clouds that move into and out of shape quickly, without a designer, the atoms in the universe have moved into this shape and will move out of it again before long. We think we see design, but it is just coincidence

Cosmological Argument

- Just because something is true of the part, it does not mean it is true of the whole- eg a brick is small, so a wall is small.
- Our understanding of the universe is limited to the world around us – because things require a cause in this world, does not mean that the entire universe requires a first cause.
- If the existence of God as a 'necessary' being without a cause can be a fact, why can't the universe itself just be a 'brute fact'?

Theodicies

- Many religions explain the origin of evil in the world – such as in Christianity with Adam and Eve and the original sin.
- God gave humans free will, and through free will humans can choose evil.
- Some people argue that experiencing the bad in the world allows humans to grow and develop.
- Do we need evil to understand what good is? If we lived in a world that was all red, we wouldn't have an understanding of what red really meant. So if we lived in a world that was only good, would we understand what good really meant?

Religious Experience

- There is no evidence that people who claim to have had religious experiences are telling the truth.
- Factors such as certain foods, drugs and alcohol make people have strange feelings.
- There have been times when there seems to be an increase in reported religious experiences.
- If God is able to give people religious experiences that they cannot deny, why doesn't He give them to everyone so there is no doubt that God exists?
- People who have religious experiences have often had some form of religious upbringing. Could this mean that they are more likely to think that a mysterious experience has an obvious explanation?

Year 8 Religious Education: The Philosophy of Religion

A. *Can you define these key words?*

Key word	Key definition
Omnipotent	
Omniscient	
Omnibenevolent	
Theism	
Atheism	
Agnosticism	
Empirical evidence	
Analogy	
Theodicy	
Fallacy	

B. *Design Argument*

C. *Cosmological Argument*

D. *The Problem of Evil*

E. *Religious Experience*

F. Criticisms

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- God is supposed to be _____ therefore how can there be flawed design such as _____ in DNA which cause cancers or damage to bodies
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Theodicies

- Many religions explain the _____ of evil in the world – such as in _____ with Adam and Eve and the original sin.
- God gave humans _____, and through free will humans can choose evil.
- Some people argue that experiencing the_____ in the world allows humans to grow and _____.
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Religious Experience

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- Factors such as certain _____ and _____ make people have strange feelings.
- There have been times when there seems to be an increase in reported _____ experiences.
- If God is able to give people religious experiences that they cannot _____, why doesn't He give them to everyone so there is no _____ that God exists?
- People who have religious experiences have often had some form of religious _____. Could this mean that they are more likely to think that a mysterious experience has an obvious _____?

Year 8 Term 4 SPANISH Knowledge organiser: Topic = Adict@s a la moda

What we are learning this term:

A. Describing what you wear
B. Describing fashion in greater detail
C. Talking about shopping on the high street
D. Visiting a shopping centre
E. Dealing with problems when shopping
F. Fashion in the Hispanic world
G. Translation practice

6 Key Words for this term

1. la moda	4. rebajas
2. vestirse	5. lo/la/los/las
3. la ropa	6. la talla

A. ¡Es imposible comprar así! – It's impossble to buy like that!

tiene un agujero	It has a hole
está roto/a	It's broken
cambiar	to (ex)change
el cambio	exchange
funcionar	to work / function
pedir	to ask for
probar	to try (on)
quedar bien	to suit / fit
el reembolso	refund
¿en serio?	really?
lo siento	I'm sorry
el tique de compra	receipt
vale	right/Good//ok
vender	to sell
otros/as	other
pocos/as	few
todos/as	all
varios/as	several

B. Estrellas con estilo – Stars with style

los estampados	patterns
amplio/a	baggy
corto/a	short
de cuadros	checked
estampado/a	patterned
estrecho/a	tight
de flores	floral
hortera	tacky
largo/a	long
liso/a	plain
de lunares	spotted
de rayas	striped
apropiado/a	appropriate
distinto/a	different

C. Si ganara la lotería – If I won the lottery

Si fuera millionario/a	If I were a millionaire
Si fuera possible…	If it were possible…
Si ganara la lotería..	If I won the lottery…
cambiaría de peinado	I would change my hairstyle
compraría…	I would buy
un montón de ropa de marca	lots of designer clothes
unas gafas de sol de marca	designer sunglasses
iría a la peluquería	I would go to the hairdresser
tendría un asistente personal	I would have a personal assistant
tendría un teléfono movíl de lujo	I would have an expensive mobile

D. Esto es lo que llevo – This is what I wear

la ropa	clothing
llevar	to wear
¿Qué llevas?	What do you wear?
Llevo…	I wear…
los calcetines	socks
la camisa	shirt
la chaqueta	jacket
la corbata	tie
la falda	skirt
la gorra	cap
el jersey	jumper
los pantalones	trousers
el uniforme	uniform
los vaqueros	jeans
el vestido	dress
las zapatillas (de deporte)	trainers
los zapatos	shoes
bonito/a	pretty
cómodo/a	comfortable
elegante	smart / stylish
guay	cool
tradicional	traditional
este/este	this
estos/estas	these
ese/esa	that
esos/esas	those
aquel/aquella	that (further away)
aquellos/aquellas	those (further away)
la blusa	blouse
la cinta para el pelo	headband
el cinturón	belt
el estilo	style

Key Verbs

Vestirse To get dressed	Comprar To buy	Probar To try on	Devolver To return (item)	Cambiar To (ex)change
Me visto I get dressed	Compro I buy	Pruebo I try on	Devuelvo I return	Cambio I (ex)change
Te vistes You get dressed	Compras You buy	Pruebas You try on	Devuelves You return	Cambias You (ex)change
Se viste s/he gets dressed	Compra s/he buys	Prueba s/he tries on	Devuelve s/he returns	Cambia s/he (ex)changes
Nos vestimos We get dressed	Compramos We buy	Probamos We try on	Devolvemos We return	Cambiamos We (ex)change
Se visten They get dressed	Compran They buy	Prueban They try on	Devuelven They return	Cambian They (ex)change

E. En el centro commercial – In the shopping centre

los centros comerciales	shopping centres
por internet	online
las tiendas pequeñas	small shops
la agencia de viajes	travel agency
las alfombras	rugs
la alimentación	food
la azotea	rooftop
el jugete	toy
la jugetería	toy shop
el hogar	homewares/home
la moda deportiva	sportswear
los muebles	furniture
la planta baja	ground floor
la relojería	watch shop
el anuncio	advert
devolver	to return
en línea	online
hacer clic	to click (mouse)
la oferta	offer
el ratón	mouse (computer)
la variedad	variety
primero	first
segundo	second
tercero	third
cuarto	fourth
quinto	fifth
sexto	sixth
séptimo	seventh

F. De tiendas – At the shops

la carnicería	butchers
la chocolatería	chocolate shop
la joyería	jewellers
la panadería	bakery
la papelería	stationery shop
la perfumería	perfume shop
la pescadería	fishmongers
la tienda de disfraces	fancy dress shop
la tienda de ropa	clothes shop
la zapatería	shoe shop
el abrigo	coat
abrir	to open
alquilar	to rent / hire
cerrar	to close
los complementos	accessories
loco/a	crazy
nuevo/a	new
algunos/as	some
ciertos/as	certain
muchos/as	many
la camiseta	T – shirt
el coche cuatro por cuatro	4 x 4 vehicle
el equipamiento	equipment
propio/a	own (possessive)
la ropa de marca	designer clothes
salir de fiesta	to go out partying

Year 8 Term 4 SPANISH Knowledge organiser: QUIZZABLE Topic = Adict@s a la moda

What we are learning this term:

A. Describing what you wear
B. Describing fashion in greater detail
C. Talking about shopping on the high street
D. Visiting a shopping centre
E. Dealing with problems when shopping
F. Fashion in the Hispanic world
G. Translation practice

6 Key Words for this term

1. la moda
2. vestirse
3. la ropa
4. rebajas
5. lo/la/los/las
6. la talla

A. ¡Es imposible comprar así! – It's impossble to buy like that!

_____
_____
_____
el cambio
funcionar
_____
probar
quedar bien
el reembolso
_____
_____
_____
_____
vender
otros/as
pocos/as
todos/as
varios/as

It has a hole
It's broken
to (ex)change
_____
_____
to ask for
_____
_____
_____
really?
I'm sorry
receipt
right/Good//ok
_____
_____
_____
_____
_____

B. Estrellas con estilo – Stars with style

_____
_____
_____
de cuadros
estampado/a
estrecho/a
_____
_____
_____
liso/a
de lunares
de rayas
apropiado/a
_____

patterns
baggy
short
_____
_____
_____
floral
tacky
long
_____
_____
_____
_____
different

C. Si ganara la lotería – If I won the lottery

_____
_____
_____
_____
_____
compraría…
un montón de ropa
de marca
_____
_____
iría a la peluquería
_____
_____
tendría un teléfono
movíl de lujo

If I were a millionaire
If it were possible…
If I won the lottery…
I would change my hairstyle
_____
_____
_____
designer sunglasses
I would go to the hairdresser
I would have a personal assistant
_____
_____

D. Esto es lo que llevo – This is what I wear

_____
_____
_____
_____
los calcetines
la camisa
la chaqueta
la corbata
_____
_____
el jersey
_____
_____
_____
el vestido
las zapatillas (de deporte)
los zapatos
_____
_____
_____
_____
tradicional
_____
estos/estas
ese/esa
esos/esas
_____
_____
la blusa
la cinta para el pelo
el cinturón
_____

clothing
to wear
What do you wear?
I wear…
_____
_____
_____
_____
skirt
cap
_____
trousers
uniform
jeans
_____
_____
_____
pretty
comfortable
smart / stylish
cool
_____
this
_____
_____
_____
that (further away)
those (further away)
_____
_____
_____
style

Key Verbs

Vestirse _____	Comprar To_____	Probar _____	Devolver To return (item)	_____ To (ex)change
Me visto I get dressed	Compro I _____	Pruebo I _____	Devuelvo _____	Cambio _____
_____ You get dressed	_____ You buy	Pruebas You try on	Devuelves _____	_____ You (ex)change
Se viste s/he gets dressed	Compra _____	_____ s/he tries on	_____ s/he returns	_____ s/he (ex)changes
Nos vestimos _____	Compramos _____	Probamos We try on	_____ We return	Cambiamos _____
Se visten They get dressed	_____ They buy	_____ They try on	Devuelven They return	Cambian They (ex)change

E. En el centro commercial – In the shopping centre

_____
_____
por internet
las tiendas
pequeñas
la agencia de viajes
_____
_____
la azotea
el jugete
la jugetería
_____
_____
_____
la planta baja
la relojería
_____
devolver
en línea
_____
_____
el ratón
_____
primero
segundo
tercero
_____
_____
sexto
_____

shopping centres
_____
_____
_____
rugs
food
_____
_____
_____
homewares/home
sportswear
furniture
_____
_____
advert
_____
_____
to click (mouse)
offer
_____
variety
_____
_____
_____
fourth
fifth
_____
seventh

F. De tiendas – At the shops

_____
la chocolatería
_____
la panadería
_____
la perfumería
_____
la tienda de disfraces
la tienda de ropa
la zapatería
_____
_____
_____
cerrar
_____
_____
_____
algunos/as
ciertos/as
muchos/as
_____
el coche cuatro por cuatro
_____
_____
la ropa de marca
_____

butchers
_____
jewellers
_____
stationery shop
_____
fishmongers
_____
_____
_____
coat
to open
to rent / hire
_____
accessories
crazy
new
_____
_____
_____
T – shirt
_____
equipment
own (possessive)
_____
to go out partying

Year 8 Term 4 SPANISH Knowledge organiser: Topic = Adict@s a la moda

G. Translation Practice	
The shoes and the T – shirt	L z y l c
The trousers and a jumper	L p y u j b
I wear some white trainers	L u z b
The black jumper is more expensive than the shoes	E j n e m c q l z
The white socks are less expensive than the trainers	L c b s m c q l z
I like the green shoes more than the white shoes	M g l z v m q l z b
I don't like the red shirt but I like red dresses	N m g l c r p m g e v r
I wear socks but he wears trainers	L c p l z
The jeans are more comfortable than the trousers	L v s m c q l p
To go to the party, I'm going to wear a black suit	P i a l f v a l u t n
I would like to wear blue jeans to school	M g l v a a c
I would like to wear white Nike trainers to school	M g l z d N a c
I love those boots	M e e b
I want that T-shirt	Q e c
Can I try it on?	¿M l p p?
It suits me well.	M q b

H . Key Questions: Answer the following in your own words. Use these model answers	
¿Qué llevas normalmente? What do you normally wear?	Normalmente, llevo una camiseta y unos vaqueros. A veces llevo un vestido.
¿Cómo es tu uniforme? What is your uniform like?	Para ir al colegio, llevo una camisa azul, unos pantalones negros, una corbata y una chaqueta granate. De vez en cuando llevo una falda negra con medias, y unos zapatos negros.
¿Qué piensas de tu uniforme? What do you think of your uniform?	No me gusta mi uniforme porque en mi opinión es muy incómodo y no es elegante. Sin embargo, pienso que llevar uniforme es una buena idea porque todos los estudiantes son iguales.
¿Cómo sería el uniforme de tus sueños? What would your ideal uniform be like?	El uniforme de mis sueños sería más cómodo y de moda. Me gustaría llevar unos vaqueros y una camiseta. También me gustaría llevar unas zapatillas de deporte.

I. Key Questions: Translate these model answers using the KO	
¿Qué llevas normalmente? What do you normally wear?	Normally, I like to wear blue jeans with a black jumper. I think that it is very comfortable. Sometimes I wear a white T – shirt.
¿Cómo es tu uniforme? What is your uniform like?	My uniform is very Smart. I wear a white shirt with a black tie. I wear a black jacket and black trousers. I wear black shoes too. Sometimes I wear my blue jeans.
¿Qué piensas de tu uniforme? What do you think of your uniform?	I love my uniform because it's very smart; it's not ugly! I think that my uniform is very comfortable but expensive to buy.
¿Cómo sería el uniforme de tus sueños? What would your ideal uniform be like?	The uniform of my dreams would be less smart and cheaper. I would like to wear black jeans everyday with trainers. I would also love to wear a black jumper.

J. Key Grammar	
Using demonstrative adjectives	este/esta – this estos/estas – these ese/esa – that aquel/aquella - that (further away) aquellos/as – those (further away) **Demonstrative adjectives need to agree with the noun they are referring to.** *e.g. Me gustan est**as** bot**as** – I like these boots* *e.g. No me gustan nada est**os** jers**eys** – I don't like these jumpers at all*
Using DOP (direct object pronouns)	lo/la/los / las Basically, a DOP means 'it/them' it saves you from having to keep repeating the noun all the time. DOPs must agree with the noun you are replacing / referring to. *e.g. Me gusta llevar la camiseta – I like to wear the T-shirt OR you can use DOP and say Me gusta **llevarla.** (la on the end refers to the noun which in this case is FEM. SINGULAR)* *e.g. La voy a comprar = I'm going to buy it (the DOP is LA so we know the noun is FEM. SINGULAR).* *e.g. Voy a comprar el jersey = I'm going to buy the jumper OR lo voy a comprar = I'm going to buy IT. (LO in this case refers to MASC. SINGULAR. noun which is 'el jersey')*

Year 8 Digital Literacy

A.	Creating Strong Passwords
A strong password should:	
A	Use a mixture of 10-15 characters.
B	Use symbols and numbers.
C	Use upper and lower case letters.
D	Avoid sequences.
E	Not contain personal information
A weak password	
A	Is short (less than 10 characters long)
B	Uses popular terms.
C	Uses common phrases.
D	Uses sequences of letters or numbers.
E	Uses personal information (individual's name, date of birth).

What we are learning this term:			
A. Creating strong passwords	B. File Handling	C. Word	D. Powerpoint

B.	File Handling
Keyboard shortcuts	
Renaming a file	F2
Copy	Ctrl+C
Paste	Ctrl+V
Cut	Ctrl+X
New folder	Ctrl+Shift+N

C.	Word
Ribbon	The bar at the top of a word document which has all the tools and tabs
Tab	The sections along the top row. Each one has its own set of tools and options.
Font	A graphical representation of text in many different designs
Bold	Makes text appear darker making the letters thicker
Italics	A style of font that slants the letters evenly to the right.
Bullet Points	An asterisk, black dot, circle, or another mark found before the text. Usually used to make lists.
Layout	Formatting options that affects how content appears on the page.

D.	Powerpoint
Slide	A single screen of a presentation
Theme	A predefined set of colours, fonts, and visual effects that you apply to your slides for a unified, professional look
Animation	The movement of slide objects, which can include text, pictures, charts, SmartArt graphics, shapes, and movie clips
Transition	A visual effect that occurs when moving from one slide to another during a presentation
Hyperlink	A link added to a text or image that leads to a new document or a new section within the document when clicked on

Year 8 Digital Literacy

A.	Creating Strong Passwords
A strong password should:	
A	
B	
C	
D	
E	
A weak password	
A	
B	
C	
D	
E	

What we are learning this term:
A. Creating strong passwords B. File Handling C. Word D. Powerpoint

B.	File Handling
Keyboard shortcuts	
Renaming a file	
Copy	
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Cut	
New folder	

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	The bar at the top of a word document which has all the tools and tabs
	The sections along the top row. Each one has its own set of tools and options.
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ART: Year 8 Term 4 - Topic = Day of the Dead

What we are learning during these term:

A. About Day of the Dead (DOTD) Mexican Holiday.
B. How to use the Grid Method for accurate drawing of a skull.
C. DOTD artists: Thaneeya McArdle and Laura Barbosa.
D. Positive/negative collage.
E. Papier mâché sugar skulls.

6 Key Words for this project

1. Sugar Skull
2. Mexican Day of the Dead
3. Symmetry
4. Armature
5. Papier Mâché
6. Outcome

B. How to use the Grid Method for accurate drawing.

1. Use a ruler to draw an equally spaced grid onto your image.
2. Draw an identical grid **LIGHTLY** onto paper.
3. Draw in the main *outlines* of your image, focusing on one square at a time Use a ruler to help you *measure* the positioning of lines if needed.
4. Add main details before erasing he grid on the paper.
5. Add fine *details* and build in *tone.*

D. How to make a positive/negative collage.

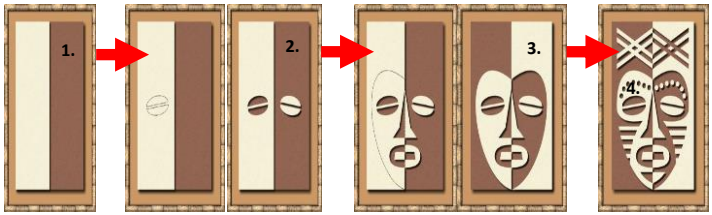
Collage is a form of art by cutting and ripping paper to create interesting artworks.

Steps for making your collage:

1. Cut a piece of light A4 piece of paper in half and place one half over the top of the darker A4 piece of paper.
2. Draw and cut out one facial feature at a time from the light piece of paper and flip it over onto the dark piece of paper. ***DO NOT*** *cut into the dark piece of paper, only the light. Remove the dark piece of paper from underneath the light piece before cutting.*
3. Draw the shape of the face on the light piece of paper and flip it over to the dark piece of paper, aligned with the rest of the face.
4. Add additional details on the face and in the background, following the same technique as step 2.

What each tool is used for:

Cutting mat	To protect the table from damage.
Craft knife	To precisely cut shapes from paper.
Glue stick	To cleanly stick the shapes onto paper.



Keywords for this project in detail:

Sugar Skull 	A colourful an and heavily patterned skull. The term is often applied to edible version of a skull, with colour and pattern. They are made and eaten in celebrating ancestors who have died.
Mexican Day of the Dead 	Or known as 'Día de Muertos' in Spanish, is a festival held in Mexico from 31st October to 2nd November every year to remember the deceased.
Symmetry 	Same on both sides, like a reflection.
Armature 	A support and foundations (starting point) for a sculpture.
Papier Mâché 	A technique using watered down PVA glue and paper.
Outcome 	The final piece of art for a project, which shall be the DOTD papier mâché sugar skull sculptures.

A. About Day of the Dead, Mexican Holiday.

What?

- It is a Mexican Christian holiday.
- It began as a day of thanks for the harvest.
- The festival lasts 3 days. It Occurs 31st October – 2nd November every year.

Why?

It is a festival that celebrates the lives of those who have died.

How?

Different things happen on each day….
DAY 1:
- ❖ Relatives put flowers on graveyards or in vases.
- ❖ They create an altar somewhere in the house with pictures of the dead, along with favourite objects. The rest of this day is spent making the favourite foods of the person(s).

DAY 2:
- ❖ Families have big celebrations at their homes. They serve all the food they made the day before. They eat candies shaped like skeletons. Friends stop by and people dance and sing.

DAY 3:
- ❖ The holiday expands to the town. There are parades and floats and characters in costume.

C. DOTD artists: Thaneeya McArdle and Laura Barbosa.

Thaneeya McArdle

- Inspired by Indian Art.
- Works with a range of materials including acrylic. paint and various programmes on the computer.
- Her work shows a creative and personal. interpretation of Day of the Dead and has Indian like qualities.
- Designs are vibrant, symmetrical and include the use of intricate patterns.

Laura Barbosa

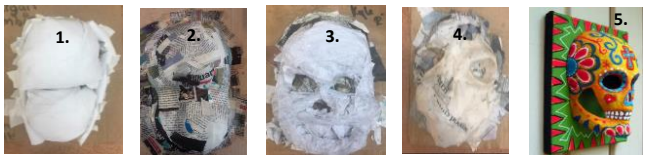
- Self-taught painter
- Produces artwork based on the theme Mexican day of the dead
- Uses fluorescent and vibrant colours that also have contrasting areas.
- Her brush strokes are dominant in her work and
- Her use of patterns are simplistic.

E. How to make a papier mâché sugar skull.

Papier mâché is made from newspaper and PVA glue, which hardens solid once dry.

Steps for making your sugar skull:

1. Roll two balls of white tissue, one slightly bigger than the other and tape it to a piece of A4 card. This is the armature, the bare bones of starting the sculpture.
2. Apply the first layer of papier mâché using newspaper as smoothly as possible using PVA glue.
3. Mould the facial features with papier mâché using white tissue and PVA glue, building it up to make it three dimensional and as smooth as possible.
4. Apply a final thin layer of newsprint and PVA papier mâché for a smooth and even finish.
5. Paint the sugar skull with white emulsion paint and allow to dry. Apply colourful poster paint in the background and use acrylic paint and pens to add the final details.



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6 Key Words for this project

1. Sugar Skull
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3. Symmetry
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5. Papier Mâché
6. Outcome

B. Explain how to use the Grid Method for accurate drawing.

1
2
3
4
5

D. Explain how to make a positive/negative collage.

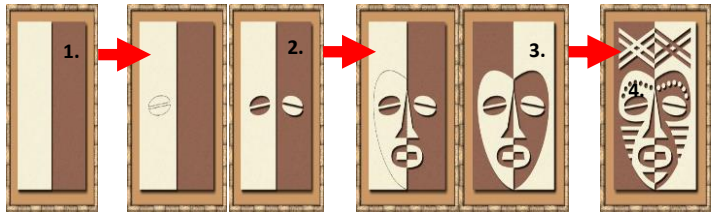
Collage is:

Steps for making your collage:

1
2
3
4

What each tool is used for:

Cutting mat	
Craft knife	
Glue stick	



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- Her use of patterns are simplistic.

E. Explain how to make a papier mâché sugar skull.

Papier mâché is:

Steps for making your sugar skull:

1
2
3
4
5

Year 8 PRODUCT DESIGN Rotation Knowledge Organiser

What we are learning this term:

A. Workshop Tools B. Materials C. CAD D. CAM E. Memphis Design Movement

A. Workshop Tools

Steel Rule	Wooden Vice	Clamp	Bench Hook	Tenon Saw	Pillar Drill	Bandfacer
						

B. Materials

Timbers come from **trees**

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

Softwoods come in planks and boards

Manufactured Boards come from **wood pulp**

Plywood – which you used as your Memphis shapes – is a **manufactured board**

Manufactured Boards come in sheets

Polymers come from **crude oil**

Acrylic – which you used as your Memphis shapes – is a **polymer**

Polymers come in sheets, graduals and filament

C. CAD

Computer-aided design (CAD) is the process of using **computer software** to create **2D** or **3D designs**.

Advantages of CAD	Disadvantages of CAD
Designs can be **created**, **saved** and **edited** quickly, saving time	CAD takes a **long time** to **learn**
Designs or parts of design can be easily viewed from **different angles**, **copied** or **repeated**	Software can be **very expensive**
CAD is **very accurate**	CAD files can become **corrupted** or **lost**

D. CAM

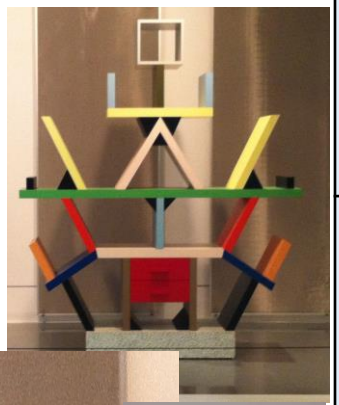
By using **computer aided manufacture (CAM),** designs can be sent to **CAM machines** such as **laser cutters and 3D printers**

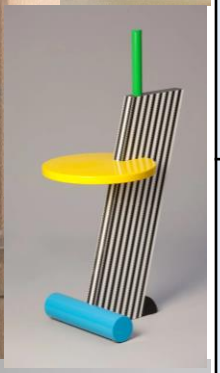
Advantages of CAM	Disadvantages of CAM
Quick – Speed of production can be **increased**	CAM takes a **long time** to **learn**
Consistency – All parts manufactured are all the **same**	High initial cost can be **very expensive**
CAM is **very accurate**	Production **stoppage** – If the machines break down, the production will **stop**

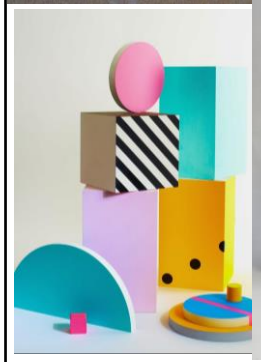
E. Memphis Design Movement

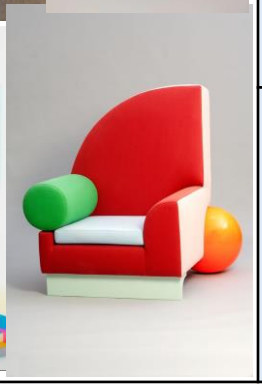
The **Memphis Design** movement was a collection of designers and artists that wanted to create something to break the rules of **traditional design** and still function in the sense of traditional design.

The idea was for the products to be **bright, colourful, playful.**









Key Designer

Ettore Sottsass

Key Features:

Crazy patterns; animal print, geometric, pinstripes. Strange shapes thrown together. **Contrast!**

Colours:

Bright, bold, Contrasting primary and secondary colours. Black patterns.

Line Styles:

Very geometric; rectangles, triangles, squares, circles and arcs.

Year 8 PRODUCT DESIGN Rotation Knowledge Organiser

What we are learning this term:

A. Workshop Tools B. Materials C. CAD D. CAM E. Memphis Design Movement

A. Workshop Tools







B. Materials

Timbers come from **trees**

Manufactured Boards come from **wood pulp**

Polymers come from **crude oil**

C. CAD

Advantages of CAD	Disadvantages of CAD

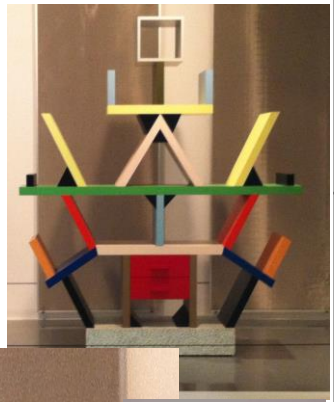
D. CAM

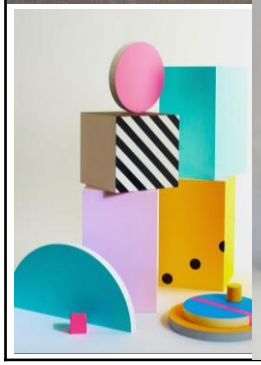
Advantages of CAM	Disadvantages of CAM

E. Memphis Design Movement

The **Memphis Design** movement was a collection of designers and artists that wanted to create something to break the rules of **traditional design** and still function in the sense of traditional design.

The idea was for the products to be **bright, colourful, playful.**


Key Designer

Ettore Sottsass

FOOD: Year 8: Topic = Planning a Healthy Meal

What we are learning this term:

A. Health, safety and hygiene in the kitchen
B. The Eatwell guide and nutrients
C. Design Ideas
D. Weighing
E. Practical skills
F. Evaluation Work

6 Key Words for this term

1 Hygiene
2 Health
3 Food Poisoning
4 Balanced
5 Nutritional
6 Target Market

A.	What are the three macronutrients in the diet?
Carbohydrates	Foods that are eaten to give the body energy
Protein	Food that are eaten to build and repair muscles and cells
Fats	Food that are eaten to protect your vital organs and insulate your body.

B. *Can you give 5 reasons for why someone should eat healthily?*

1 to avoid obesity
2 it can be less expensive
3 to keep a healthy heart
4 to keep your body fit
5 it can make a positive impact on your family

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.

B. *What is the image on the left showing and how is it used?*

In the photo you can see a food temperature probe. You use it to check that food it cooked. First you need to make sure that the probe is clean, then you insert it into the thickest part of the food and then check the temperature. If the food is cooked it can be served, if the food is not the correct temperature it needs to be cooked for longer.

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

Rule

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

Why it is important

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

E. Keywords

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

FOOD: Year 8 : Topic = Planning a Healthy Meal - QUIZZABLE

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B. The Eatwell guide and nutrients
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D. Weighing
E. Practical skills
F. Evaluation Work

6 Key Words for this term

1 Hygiene
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A.	What are the three macronutrients in the diet?

B.	*Can you give 5 reasons for why someone should eat healthily?*
	1 2 3 4 5

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

B. *What is the image on the left showing and how is it used?*

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

Rule	Why it is important
• 1	• 1
• 2	• 2
• 3	• 3
• 4	• 4
• 5	• 5

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

Year 8: Tonality and Structure (The Blues) — Term 4

What we are learning this term:

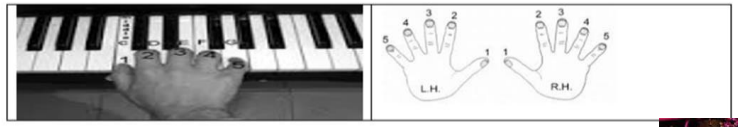
A. 12 Bar Blues Structure (Chords)
B. Playing the Keyboard – left hand / right hand
C. History of Blues Music – Check out this youtube video here!

SCAN ME

F	Keywords
Chord	A group of **notes played together**.
Accompaniment	A musical line that **supports the melody**
12 Bar Blues	**A chord progression** used in Blues music using chords 1,4,and 5.
Improvisation	**Music that is created spontaneously**, or without preparation
Walking Bass	Bass line that **moves up and down** the scale note by note.
Riff	**Similar to ostinato.** A repeating chord progression, pattern or melody.
Syncopation	A placement of rhythmic stresses/accents where they wouldn't normally occur. **Off-beat sounding.**
Blues Music	A **musical style originating in the US** at the end of the 19th century, mostly performed by Black Americans.
Blues Scale	A **six-note scale** based on the major/minor pentatonic

C — Playing the Keyboard

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



Chords:

C = CEG
F = FAC
G = GBD

C — !2 bar blues Structure

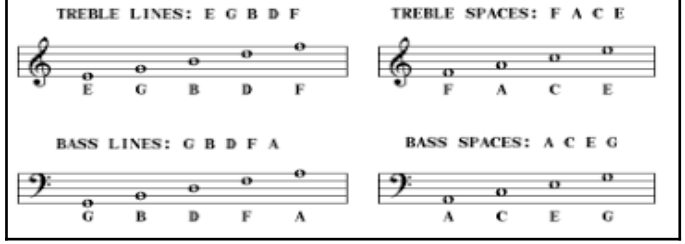
12 Bar Blues Chord Progression in C

1 C	2 C	3 C	4 C
5 F	6 F	7 C	8 C
9 G	10 F	11 C	12 G

E — What are the music symbols?

Note	Name	Beats	Rest	Note	Name	Beats	Rest
𝅝	Semibreve, Whole Note	4 beats	𝄻	𝅝.	Dotted Semibreve, Dotted Whole Note	6 beats	𝄻.
𝅗𝅥	Minim, Half Note	2 beats	𝄼	𝅗𝅥.	Dotted Minim, Dotted Half Note	3 beats	𝄼.
♩	Crotchet, Quarter Note	1 beat	𝄽	♩.	Dotted Crotchet, Dotted Quarter Note	1½ beats	𝄽.
♪	Quaver, Eighth Note	1/2 beat	𝄾	♪.	Dotted Quaver, Dotted Eighth Note	¾ beat	𝄾.

G — 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 8: Tonality and Structure (The Blues)

Term 4

What we are learning this term:

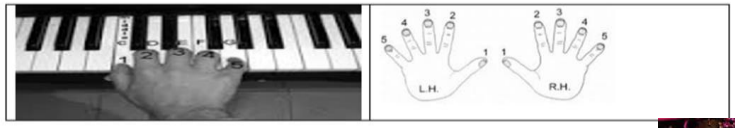
A. 12 Bar Blues Structure (Chords)
B. Playing the Keyboard – left hand / right hand
C. History of Blues Music – Check out this youtube video here!

SCAN ME

F	Keywords

C — Playing the Keyboard

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



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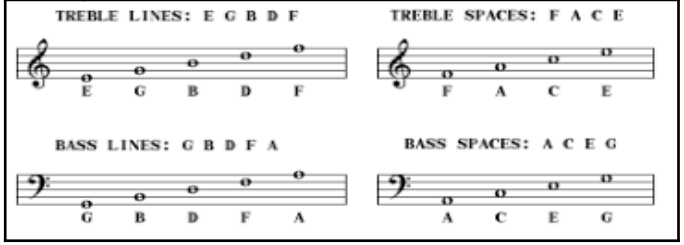
𝅗𝅥			𝄼	𝅗𝅥.			𝄼.
♩			𝄽	♩.			𝄽.
♪			𝄾	♪.			𝄾.

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



G — Describing music – MAD T SHIRT

M	A	D	T	S	H	I	R	T

Drama – Year 8 Term 4

SLAPSTICK

For GCSE drama, you need to understand and be able to apply techniques from different genres of performance. This genre is COMEDY

Background	Characters
Its roots go back to Ancient Greece and Rome. The term arises from a device developed for use in the physical comedy style known as commedia dell'arte The slapstick was a two-piece paddle that actors would use to accentuate the impact of a hit. Shakespeare incorporated slapstick into his comedies, such as in his play *The Comedy of Errors*	BOSS- The only character who talks. Always thinks they have control. Has pain inflicted on them more so than the sidekick.  
The BOSS character is the only one to talk. Deliberately clumsy actions and humorously embarrassing events. There are elements of stage combat 	SIDEKICK- Works against the boss character. Inflicts pain towards the boss. Does not speak.
Simple and predictable storylines. Music and sound effects are key Genre of COMEDY	KEY WORDS- Exaggeration, Mime Pain, comedic timing, gestures, sound effects, music.

How can you create humour without the use of words? Why ?

Why is it important that the characters have specific roles? What is a BOSS CHARACTER?

How would you mark the moment of the sidekick inflicting pain? What role do sound effects play in this genre?

Drama – Year 8 Term 4

SLAPSTICK

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Background	Characters
	BOSS-  
	SIDEKICK-
	KEY WORDS-.

How can you create humour without the use of words?
Why is it important that the characters have specific roles?
How would you mark the moment of the sidekick inflicting pain?

Why ?
What is a BOSS CHARACTER?
What role do sound effects play in this genre?

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

#ReadingisPower