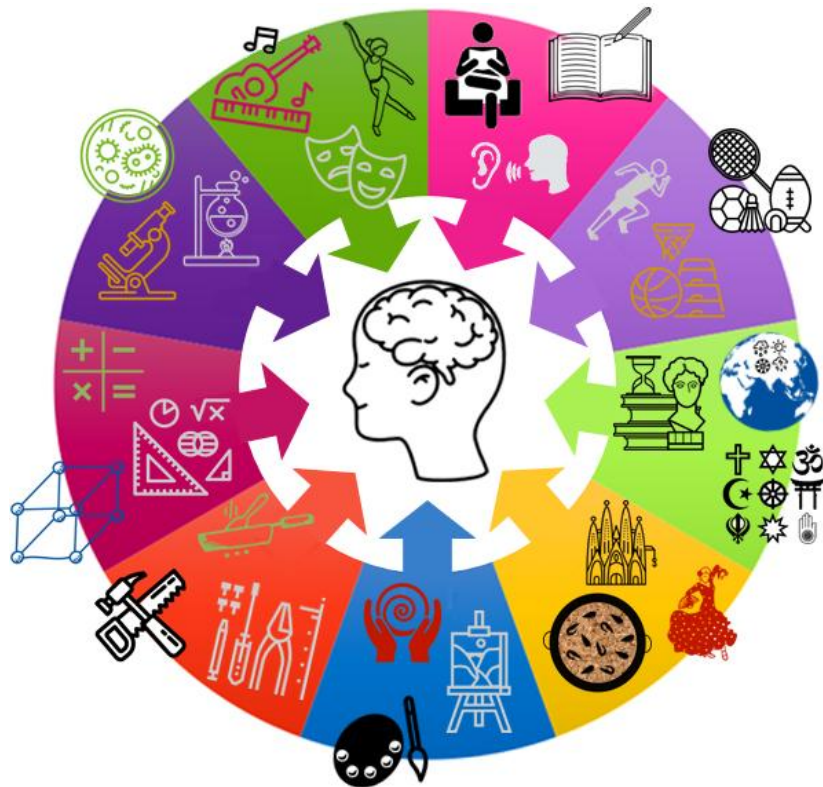


100% book - Year 7 Booster

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

Term 4



Swindon Academy 2025-26

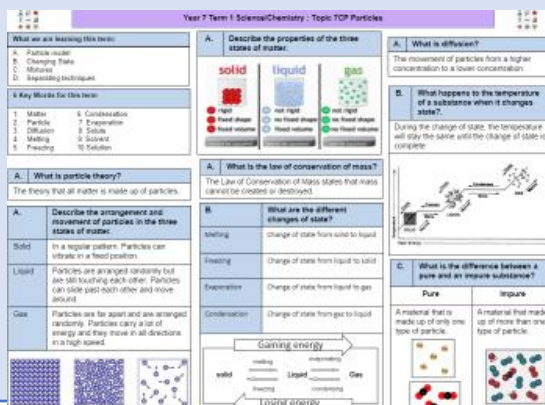
Name:	
Tutor Group:	
Tutor & Room:	

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

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

Using your Knowledge Organiser and Quizzable Knowledge Organiser

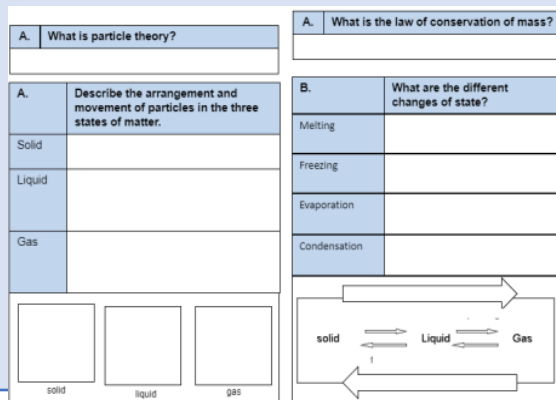
Knowledge Organisers



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

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

Quizzable Knowledge Organisers



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

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

Top Tip

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

Expectations for Prep and for using your Knowledge Organisers

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

How do I complete Knowledge Organiser Prep?

Step 1

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

Step 2

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

Step 3

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

Step 4

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

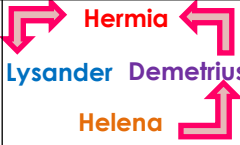
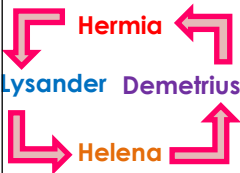
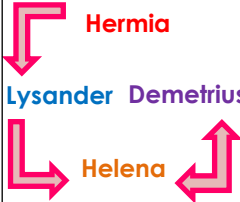
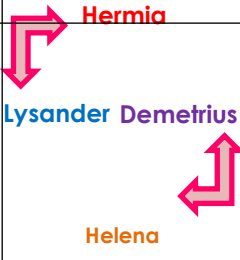
Step 5

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

Step 6

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

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

Plot Summary	Who loves Whom
Act 1: Hermia and Lysander love each other but are not allowed to marry so decide to run away to the forest to get married in secret. Demetrius wants to marry Hermia . Helena loves Demetrius . They follow Hermia and Lysander into the forest.	
Act 2: In the forest, Oberon and Titania are arguing. Oberon sees Demetrius and Helena arguing and commands Puck to use the potion on the Athenian man to make him fall in love with Helena . However, the first Athenian man Puck sees is Lysander , so he puts the love potion on him. Lysander falls madly in love with Helena .	
Act 3: Puck sees Bottom in the forest and transformed his head into a donkey's head. He puts the love potion on Titania, who falls in love with Bottom. Puck puts the love potion on Demetrius so that he falls in love with Helena . As a result, both men love Helena so there is chaos. Puck eventually drops a herb in Lysander's eyes to put him back to normal.	
Acts 4 and 5: Oberon finds Titania and Bottom and decides that he has had enough fun. Puck drops a herb in her eyes, she wakes and leaves with Oberon. The lovers return to Athens where Bottom and the other actors perform their play at the wedding of the three happy couples: Theseus and Hippolyta, Lysander and Hermia and Demetrius and Helena .	

Background Information of AMND

Shakespeare went to a grammar school where he was taught Ancient Greek.

The play is set in Ancient Greece and follows the rules of a comedy from Ancient Greece.

When the play was written, Elizabeth 1st was Queen. The play is written in the Elizabethan era.

Both wealthy and poorer Elizabethan people went to the Globe to watch plays.

Cupid is the ancient god of love. He is usually presented as a baby whose arrows make people fall in love.



The Love Potion

The love potion is made from a flower in the forest. The flower is magical because Cupid hit it with his arrow when he was aiming at a young girl. When the potion is put on characters' eyes, they fall in love with the first person they see. It is very powerful.

Characters

Athenians

Theseus: The Duke of Athens and Hippolyta's fiancé (later husband).

Hippolyta: The Queen of the Amazons and Theseus's fiancé (later wife).

Egeus: Hermia's father.

The Lovers

Hermia: the daughter of Egeus and good friend of Helena. She is in love with Lysander.

Helena: in love with Demetrius and a good friend of Hermia.

Lysander: an Athenian nobleman who is in love with Hermia.

Demetrius: an Athenian nobleman who also loves Hermia, but has wooed Helena in the past.

Fairies (Mythical characters)

Titania: The Queen of the Fairies and Oberon's wife.

Oberon: The King of the Fairies and Titania's husband.

Puck: Oberon's mischievous servant.

The workmen/theatre performers

Bottom: a weaver who believes he is a great actor.



Vocabulary: Key words

severe – very strict or harsh

conflict – a serious disagreement, battle or struggle between two sides or ideas.

unrequited love – If a person loves someone who doesn't love them back, the person's love is unrequited

to mock – To mock someone is to make fun of them

chaos – a situation where there is no order and everyone is confused

to resolve – to solve a problem or difficulty

Terminology: Key Words

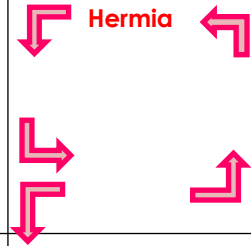
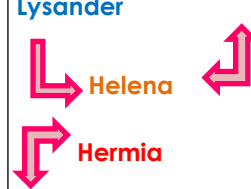
soliloquy - a speech in a play that the character speaks to himself or herself or to the audience, rather than to the other characters

comedy – a type of play that is comical and ends with a happy ending.

play - a play is a piece of writing which is performed in the theatre.

stage directions - Instructions written into the script of a play

'A Midsummer Night's Dream': F Knowledge Organiser

Plot Summary	Who loves Whom	Characters
Act 1: Hermia and Lysander _____ each other but are _____ to marry so decide to run away to the forest to get married in secret. Demetrius wants to marry _____. Helena loves _____. They follow _____ and _____ into the forest.	 Demetrius Helena	Athenians Theseus: _____ Hippolyta: _____ Egeus: _____
Act 2: In the forest, _____ and _____ are arguing. Oberon sees _____ and _____ arguing and commands Puck to use _____ on the Athenian man to make him _____ with Helena . However, the first Athenian man Puck sees is _____, so he puts the _____ on him. Lysander falls madly in love with _____.	 Hermia Lysander	The Lovers Hermia: the daughter of Egeus and _____ Helena: in love with Demetrius and _____ Lysander: an Athenian nobleman _____ Demetrius: an Athenian nobleman who _____
Act 3: Puck sees _____ in the forest and transformed his head into a _____'s head. He puts the _____ on _____, who falls in love with Bottom. Puck puts the love potion on _____ so that he falls in love with _____. As a result, both men love _____ so there is _____. Puck eventually drops a herb in Lysander's eyes to put him back to normal.	 Lysander Helena Hermia	Fairies (Mythical characters) Titania: _____ Oberon: _____ Puck: _____
Acts 4 and 5: _____ finds _____ and _____ and decides that he has had enough fun. Puck drops a herb in her eyes, she wakes and leaves with Oberon. The lovers return to _____ where Bottom and the other actors perform their play at the wedding of the _____ happy _____: Theseus and Hippolyta, _____ and _____ and _____ and _____.	 Demetrius Hermia	The workmen/theatre performers Bottom: _____

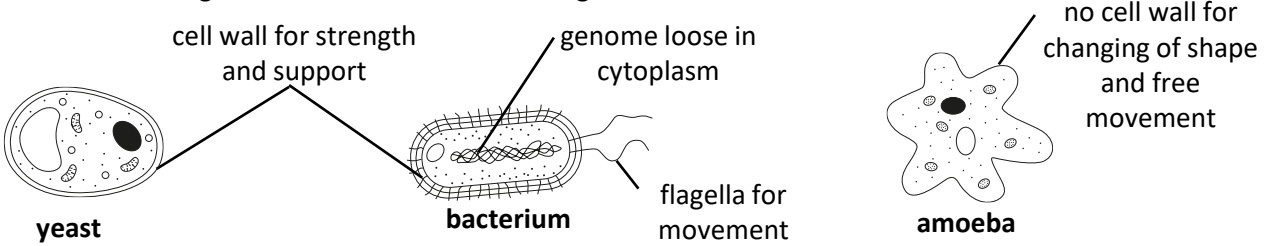
Background Information of AMND	The Love Potion	Vocabulary: Key words
Shakespeare went to a grammar school where he was taught Ancient Greek. The play is set in Ancient Greece and follows the rules of a comedy from Ancient Greece. When the play was written, Elizabeth 1 st was Queen. The play is written in the Elizabethan era. Both wealthy and poorer Elizabethan people went to the Globe to watch plays. Cupid is the _____. He is usually presented as a baby whose arrows make people _____.	The love potion is made from a flower in the forest. The flower is magical because Cupid hit it with his arrow when he was aiming at a young girl. When the potion is put on characters' _____. It is very _____.	severe – _____ conflict – _____ unrequited love – _____ to mock – _____ chaos – _____ to resolve – _____
		Terminology: Key Words soliloquy – _____ comedy – _____ play – _____ stage directions – _____



7.05 Organ systems

Unicellular organisms are made of only one cell (e.g. bacteria, amoeba and yeast).

- They can carry out the 7 life processes of living organisms, all in one cell.
- Unicellular organisms share common organelles, but they also have adaptations.
- Unicellular organisms can be helpful or harmful.
- Unicellular organisms use diffusion to exchange substances.



- Used in baking
 - Used to make alcoholic drinks
- Supports digestion
 - Used to make cheese and yoghurt

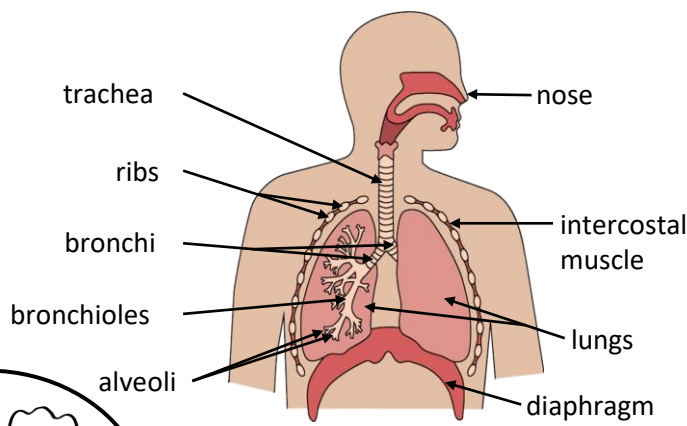
Multicellular organisms are made of many cells (e.g. plants and humans).

- They are larger and more complex than unicellular organisms.
- They cannot rely on diffusion alone for exchanging substances.
- Multicellular organisms depend on tissues, organs, and organ systems working together to exchange and transport substances to cells of the body, to keep cells alive.
- Organ systems in humans include the **gas exchange system**, **digestive system**, **circulatory system**, **skeletal system** and **muscular system**.

Gas exchange system

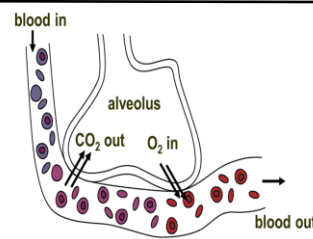
Air is a mixture of gases, including oxygen and carbon dioxide.

The human gas exchange system allows for the exchange of oxygen and carbon dioxide between an organism and its environment. Inhaled air contains more oxygen than exhaled air. Exhaled air contains more carbon dioxide than inhaled air. Oxygen moves from the alveoli into cells and then into the blood vessels (capillaries), while carbon dioxide moves in the opposite direction via diffusion.



Alveoli are adapted for efficient diffusion:

- **good blood supply** maintains the concentration difference
- **large surface area** for faster rate of diffusion
- **thin walls** (one cell thick) to provide a shorter diffusion pathway



Breathing involves changes in pressure and volume inside the chest, helped by the movement of intercostal muscles and diaphragm, which causes the movement of the ribcage.

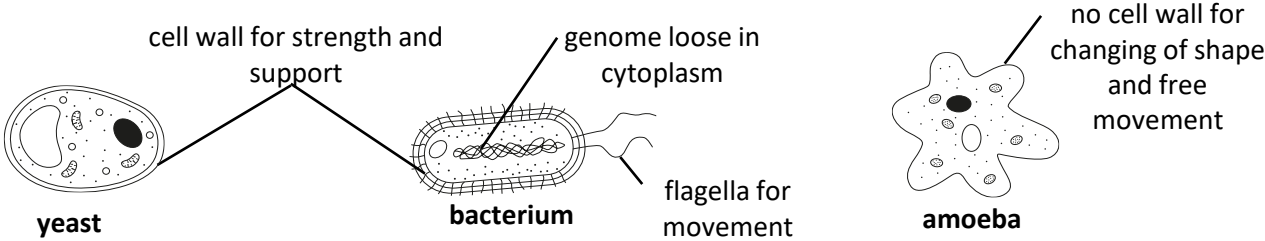
Vital capacity is the maximum volume of air exhaled after inhaling fully and can be used to estimate lung volume.

	Inhalation	Exhalation
Intercostal muscles	contract	relax
Ribcage	pulled up and out	released down and in
Diaphragm	contracts and moves downwards	relaxes and moves upwards
Volume in the chest	increases	decreases
Pressure in the chest	decreases	increases
Movement of air	into the lungs	out of the lungs

Organ systems

_____ organisms are made of only one cell (e.g. bacteria, amoeba and yeast).

- They can carry out the 7 life processes of living organisms, all in one cell.
- Unicellular organisms share common organelles, but they also have adaptations.
- Unicellular organisms can be helpful or harmful.
- Unicellular organisms use _____ to exchange substances.



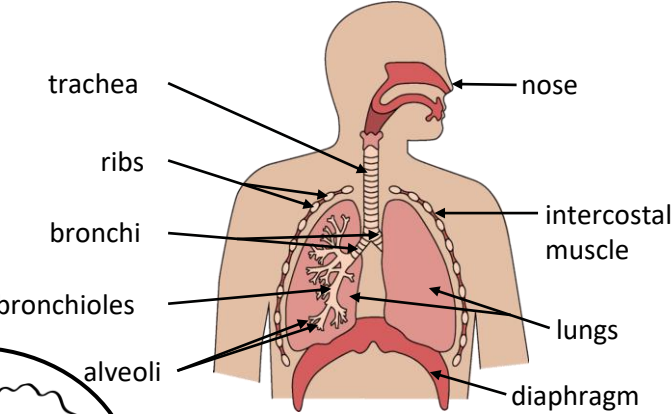
- Used in _____
 - Used to make _____
- Supports _____
 - Used to make _____

Gas exchange system

Inhaled air contains more _____ than exhaled air. Exhaled air contains more _____ than inhaled air.

The human gas exchange system allows for the exchange of _____ and _____ between an organism and its _____.

_____ moves from the _____ into _____ and then into the blood vessels (capillaries), while carbon dioxide moves in the opposite direction via diffusion.



Alveoli are adapted for efficient diffusion:

- **Good** _____ maintains the concentration difference
- **large** _____ for faster rate of diffusion
- **thin** _____ (one cell thick) to provide a shorter diffusion pathway

_____ organisms are made of many cells (e.g. plants and humans).

- They are _____ and more _____ than unicellular organisms.
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- Organ systems in humans include the **gas exchange system**, **digestive system**, **circulatory system**, **skeletal system** and **muscular system**.

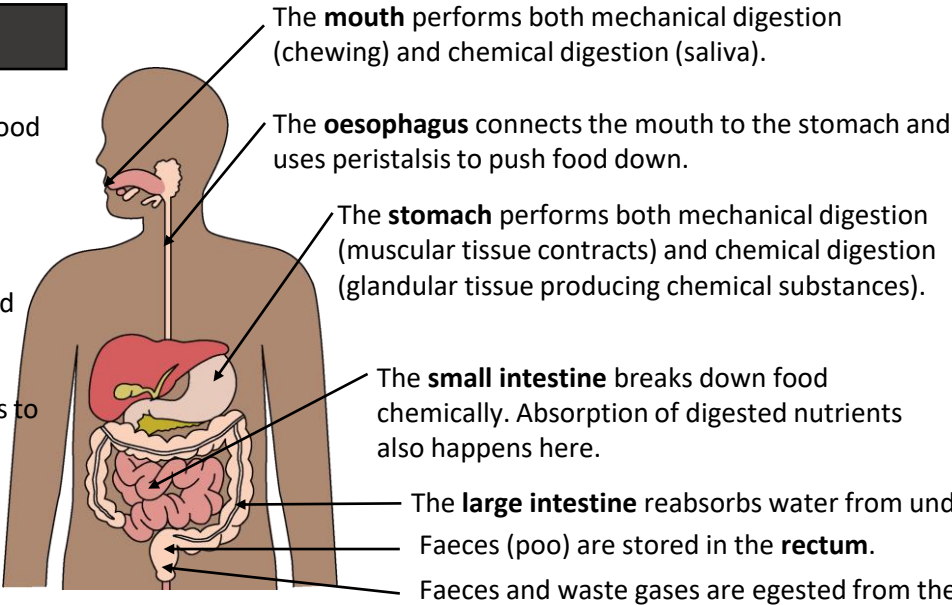
_____ involves changes in pressure and volume inside the chest, helped by the movement of intercostal muscles and diaphragm, which causes the movement of the ribcage.
Vital capacity is the maximum volume of air exhaled after inhaling fully and can be used to estimate lung volume.

	Inhalation	Exhalation
Intercostal muscles		
Ribcage		
Diaphragm		
Volume in the chest		
Pressure in the chest		
Movement of air		

Organ systems

Digestive system

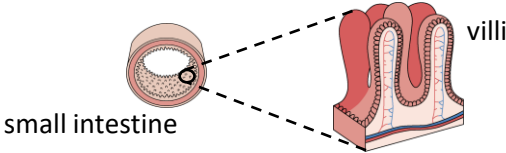
- The human digestive system breaks down large, insoluble food molecules into small, soluble molecules so that they can be absorbed into the blood.
- **Mechanical digestion:** the physical breakdown of food into smaller pieces.
- **Chemical digestion:** the use of chemical substances to break food down into smaller molecules.



Adaptations:

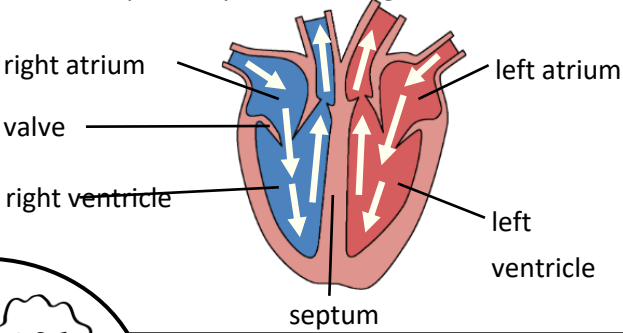
The small intestine is covered in many villi for efficient absorption by diffusion:

- villi provide a **large surface area** for faster rate of diffusion
- villi have **good blood supply** to maintain the concentration difference
- villi have **thin walls** (one cell thick) to provide a shorter diffusion pathway

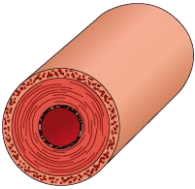


Circulatory system

- The circulatory system transports useful molecules and waste around the body. The human circulatory system consists of the heart, blood and blood vessels.
- The heart has four chambers: two atria and two ventricles.
- Valves ensure blood flows in the right direction.
- The septum separates the right and left sides of the heart.



The heart pumps oxygenated blood from the lungs to the body and deoxygenated blood from the body to the lungs (double circulatory system).



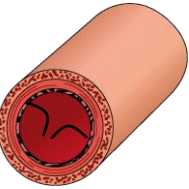
Arteries

- Blood taken away from heart
- High pressure blood
- Thick muscular and elastic walls
- Small lumen



Capillaries

- Exchange substances between blood and cells
- Very low pressure blood
- Very thin walls (one cell thick)
- Very small lumen



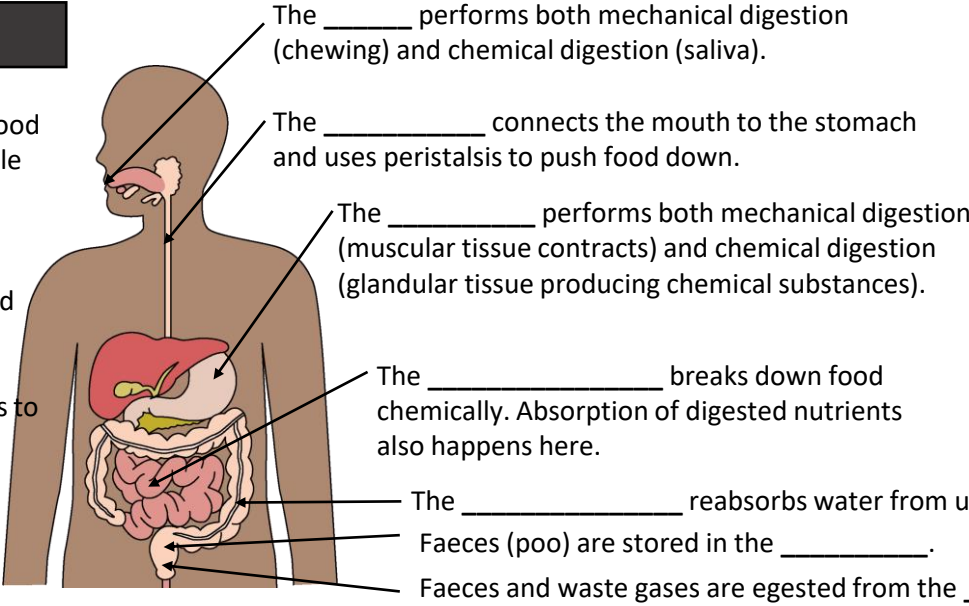
Veins

- Blood brought back to heart
- Low pressure blood
- Thin walls
- Large lumen
- Valves prevent back flow

Organ systems

Digestive system

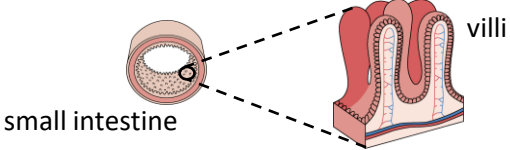
- The human digestive system breaks down _____, insoluble food molecules into _____, soluble molecules so that they can be _____ into the blood.
- _____ **digestion:** the physical breakdown of food into smaller pieces.
- _____ **digestion:** the use of chemical substances to break food down into smaller molecules.



Adaptations:

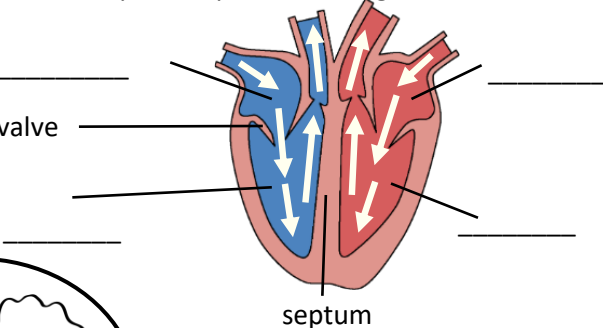
The small intestine is covered in many _____ for efficient absorption by diffusion:

- villi provide a _____ for faster rate of diffusion
- villi have _____ to maintain the concentration difference
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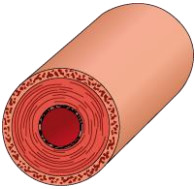


Circulatory system

- The circulatory system transports useful molecules and waste around the body. The human circulatory system consists of the _____, _____ and _____.
- The heart has four chambers: two _____ and two _____.
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The heart pumps oxygenated blood from the _____ to the _____ and deoxygenated blood from the _____ to the _____ (_____ circulatory system).

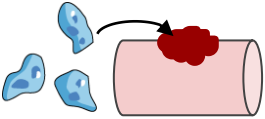


• Blood taken away from heart • High pressure blood • Thick muscular and elastic walls • Small lumen	• Exchange substances between blood and cells • Very low pressure blood • Very thin walls (one cell thick) • Very small lumen	• Blood brought back to heart • Low pressure blood • Thin walls • Large lumen • Valves prevent back flow

Organ systems

Circulatory system (continued)

Blood is a fluid that transports substances, useful molecules and waste around the body. Blood helps the body to defend against diseases and to form scabs to heal cuts.



Platelets help with blood clotting for wound healing.



Plasma carries the other blood parts, nutrients, waste and carbon dioxide. It is yellow coloured and mostly water.



Red blood cells carry oxygen to all the cells of the body.



White blood cells help defend against disease.

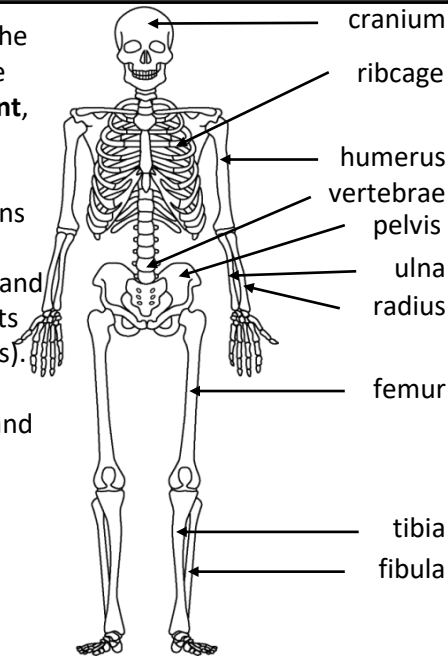
Red blood cells, white blood cells and platelets are made in the **bone marrow** - soft tissue inside large bones protected by the hard part of the bone around it.

Adaptations of the red blood cells:

- biconcave shape → large surface area for faster oxygen diffusion
- contains haemoglobin → carry oxygen
- no nucleus → space for more haemoglobin → more oxygen

Skeletal system

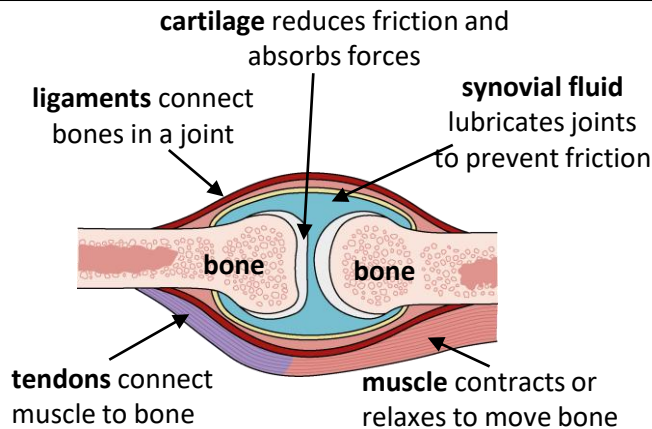
Four functions of the skeletal system are **support, movement, making new blood cells** and **protection** of organs (e.g. the cranium protects the brain and the ribcage protects the heart and lungs). **Bones** are living tissues that grow and change.



Joints, muscles and movement

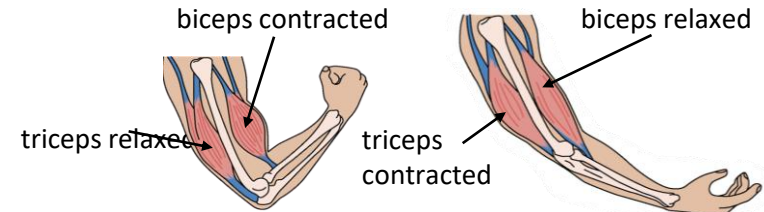
A joint is the point where two or more bones meet in the body. Joints connect bones and allow the body to move and bend. Different joint types allow various movements:

- **hinge** joint: movement backwards and forwards e.g. the knees and elbows
- **ball-and-socket** joint: movement in many directions e.g. the hips and shoulders
- **pivot** joint: twisting movement around a fixed point e.g. the neck
- **fixed** joint: does not allow for any movement e.g. in the cranium



Ageing can lead to joint wear, inflammation and arthritis. Arthritis causes joint pain and affects synovial fluid and cartilage.

- Muscles can **only** pull, they **cannot push**;
- Muscles work in **antagonistic muscle** pairs. When one muscle contracts to pull the bone in one direction, the other muscle relaxes to allow movement.

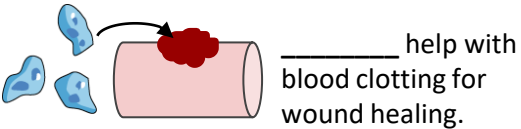


- The way in which muscles and bones work together to exert forces is called **biomechanics**.
- **Muscle strength** varies based on muscle size, age, sex, training, nutrition and injury.

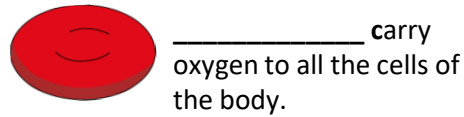
Organ systems

Circulatory system (continued)

Blood is a fluid that transports substances, useful molecules and waste around the body. Blood helps the body to defend against diseases and to form scabs to heal cuts.



_____ carries the other blood parts, nutrients, waste and carbon dioxide. It is yellow coloured and mostly water.



Red blood cells, white blood cells and platelets are made in the _____ - soft tissue inside large bones protected by the hard part of the bone around it.

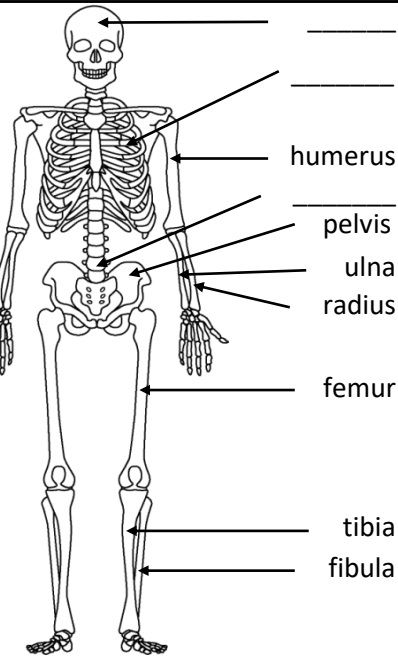
Adaptations of the red blood cells:

- biconcave shape → _____ for faster oxygen diffusion
- contains haemoglobin → carry _____
- no _____ → space for more haemoglobin → more oxygen

Skeletal system

Four functions of the skeletal system are _____, _____, _____, _____

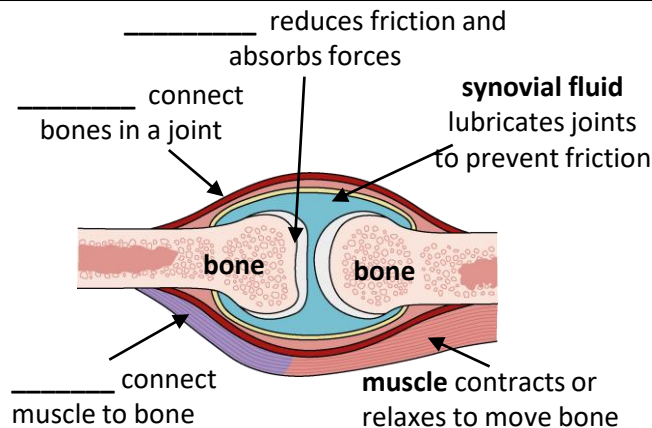
making _____ and _____ of organs (e.g. the cranium protects the brain and the ribcage protects the heart and lungs). **Bones** are living tissues that grow and change.



Joints, muscles and movement

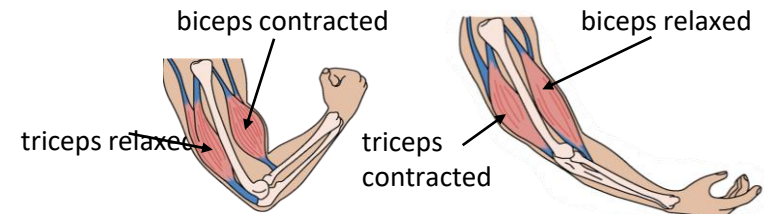
A _____ is the point where two or more bones meet in the body. Joints connect bones and allow the body to move and bend. Different joint types allow various movements:

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- _____ joint: movement in many directions e.g. the hips and shoulders
- _____ joint: twisting movement around a fixed point e.g. the neck
- _____ joint: does not allow for any movement e.g. in the cranium



Ageing can lead to joint wear, inflammation and arthritis. Arthritis causes joint pain and affects synovial fluid and cartilage.

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- Muscles work in _____ **muscle** pairs. When one muscle _____ to pull the bone in one direction, the other muscle _____ to allow movement.



- The way in which muscles and bones work together to exert forces is called **biomechanics**.
- **Muscle strength** varies based on muscle size, age, sex, training, nutrition and injury.

**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 3×10^8 m/s

A. Types of Waves

Waves **transfer energy** without transferring matter.

A. What are the two types of waves?**Transverse**

- **Oscillations are perpendicular** to the direction of **energy transfer**.

Longitudinal

- **Oscillations are parallel** to the direction of **energy transfer**.

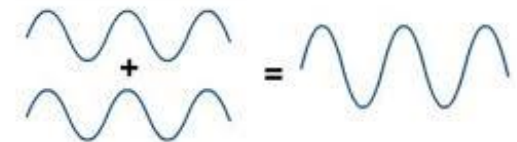
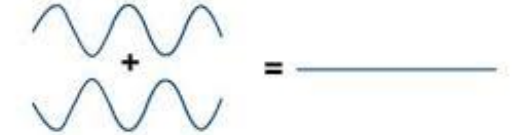
B. What different behaviours do waves show?

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

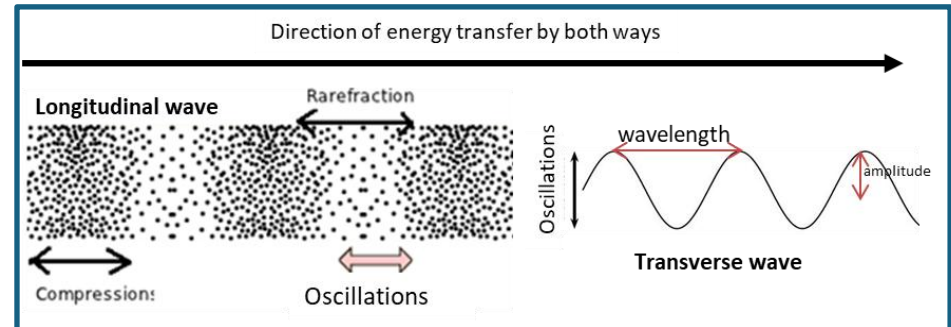
Transmission	Passing through , we say a wave is 'transmitted' through a medium
Reflection	When a wave bounces back from a boundary between media at the same angle as which it hit the boundary.
Refraction	When a wave changes direction at the boundary between media due to a change in speed.
Absorption	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.

Constructive Interference**Destructive Interference****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)





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.

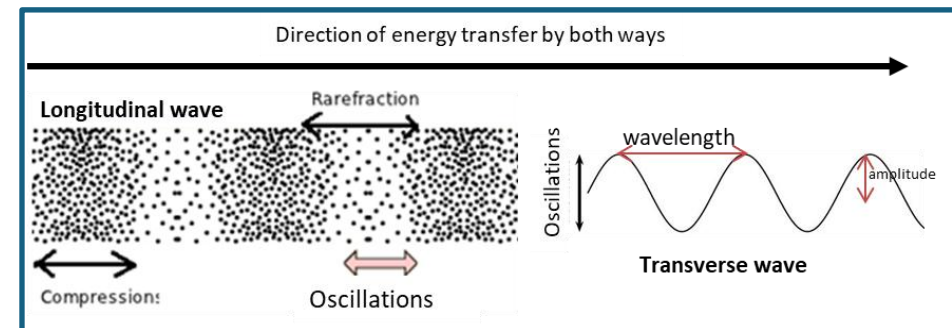
A.	How do Sound waves compare to Electromagnetic waves (e.g. Light)?
Sound	EM waves, like light

A.	Types of Waves
	Waves <u>transfer energy</u> 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?
	Constructive Interference Destructive Interference

C.	Changes in sounds
What is pitch?	
What is frequency?	
What is volume?	

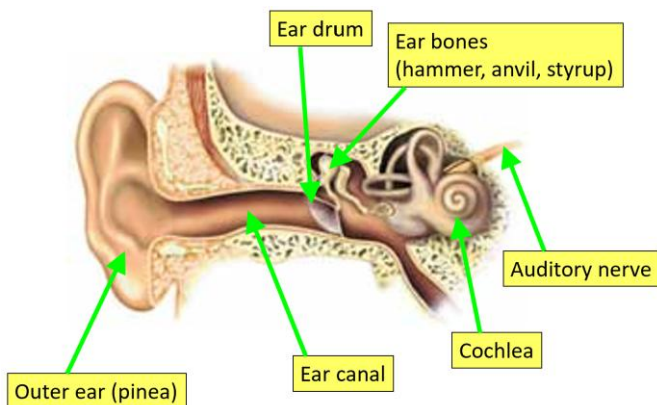




C.	How is sound produced?
	Sound is produced by vibrations
	How does sound travel?
	Vibrations transfer energy through particles.
	Which media does sound travel fastest in and why?
	Solids – the particles are closer together

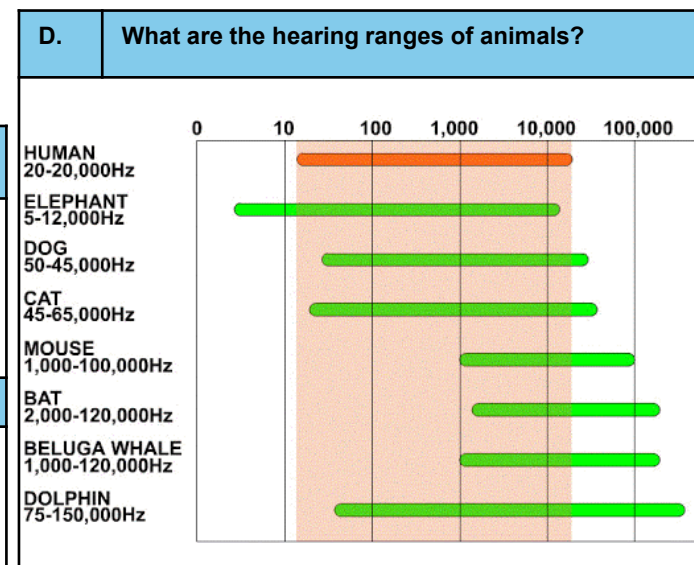
D.	Hearing ranges
What is the hearing range of humans?	Humans have a hearing range between 20 – 20 000 Hz
What is ultrasound?	Sounds with a frequency above 20 000 Hz
What is ultrasound used for?	Uses of ultrasound: • Prenatal scans of unborn babies • Ultrasonic cleaning of fragile objects (eg jewellery)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

C.	Part of the Ear	What is the Function?
	1. Outer ear (pinna)	Collects the sound like a funnel.
	2. Ear canal	Transmits sounds from the pinna 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



E.	What is an echo?
	A reflected sound

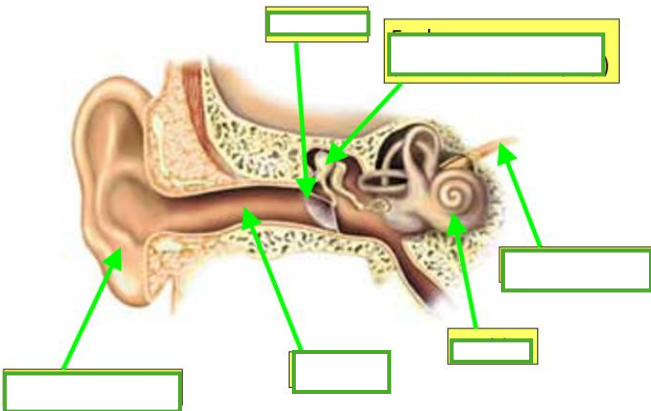
E.	How do loudspeakers work?
	• Loudspeakers are vibrating cones. • The pattern and frequency of the vibrations (oscillations) determines the sound.
	How do Microphones work?
	Microphones have a vibrating <u>diaphragm</u> inside, which converts the sound wave into an electrical signal in a circuit.



D.	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.	Labels in the diagram: Amplitude, Frequency.
The frequency (pitch) is shown by how close the waves are to each other. The closer they are, the higher the pitch.	

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

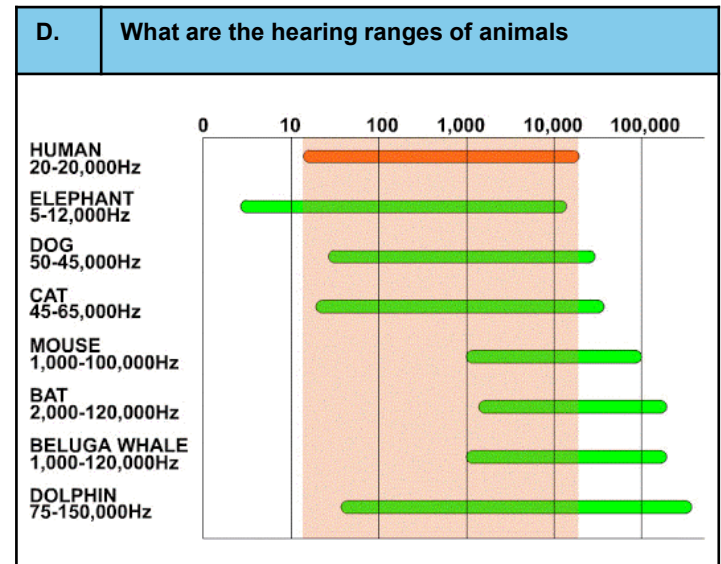
C.	Part of the Ear	What is the Function?
1.	Outer ear (pinna)	
2.	Ear canal	
3.	Ear drum	
4.	Ear bones (hammer, anvil, stirrup)	
5.	Cochlea	
6.	Auditory nerve	

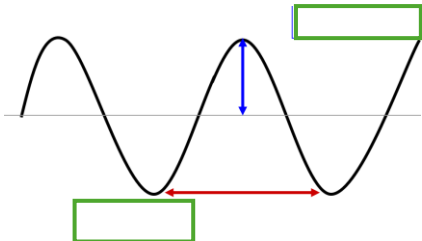


D.	Hearing ranges	
What is the hearing range of humans?		
What is Ultrasound?		
What is ultrasound used for?		

E.	What is an echo?

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



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

**What we are learning this term:**

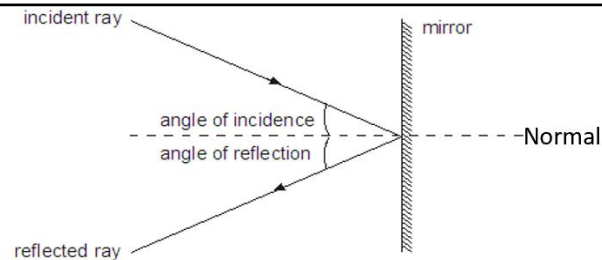
- A. Light and materials
- B. Ray model
- C. Colour
- D. Weight and mass
- E. Astronomical structures and distances
- F. Days, years and seasons

6 Key Words for this term

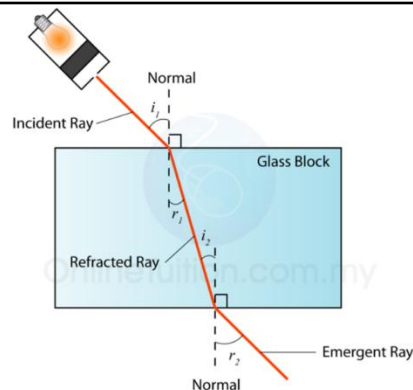
- 1. Vacuum
- 2. Refraction
- 3. Absorption
- 4. Transmission
- 5. Wavelength
- 6. Reflection

B. What is reflection?

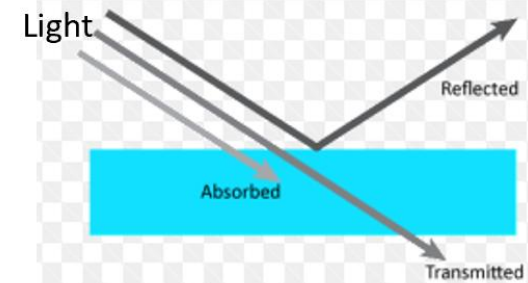
When a ray of light (**incident ray**) reflects off a material and the reflected ray of light then goes into your eye, for you to see it.

**B. What is refraction?**

When light **changes direction** as it enters or leaves a different medium (material).

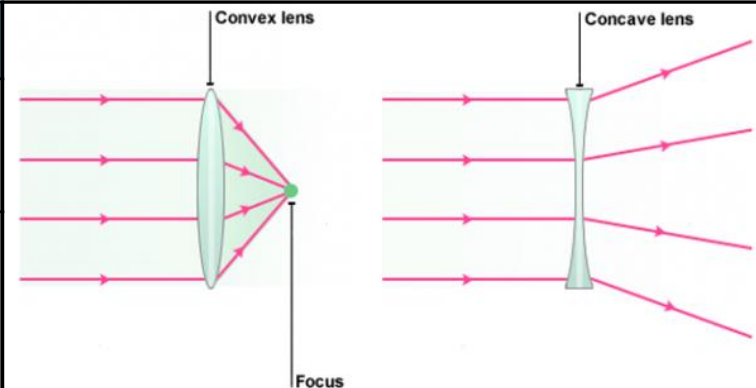
**A. What are the three different ways light interacts with material?**

Light is transmitted	it passes straight through
Light is absorbed	it does not pass through
Light is reflected	light bounces off the surface of the material

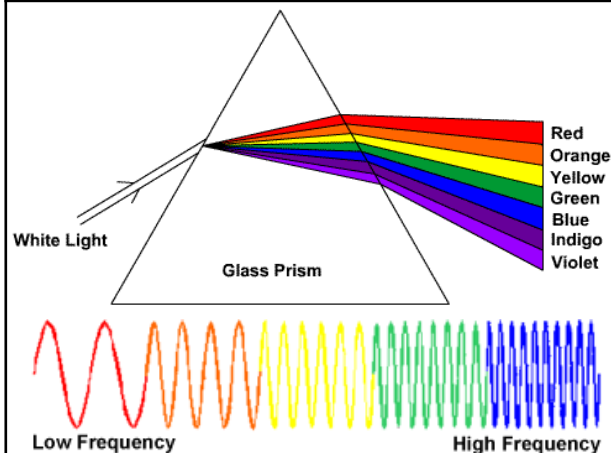
**B. What are the two types of lenses?**

Convex lens – light rays are refracted then **converge** (meet up).

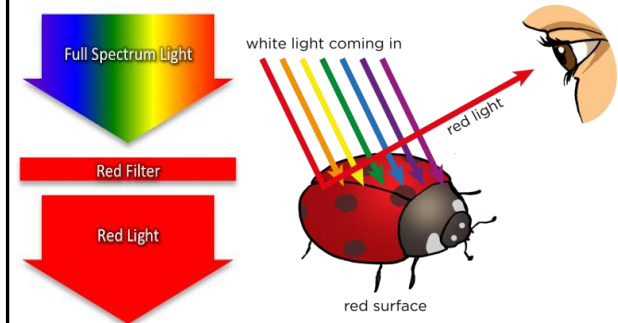
Concave lens – light rays are refracted then **diverge** (move apart).

**C. What is light dispersion?**

The **separation of white light** into colours according to frequency.



- **Black** – all colors absorbed, nothing reflected
- **White** – all colors reflected, nothing absorbed

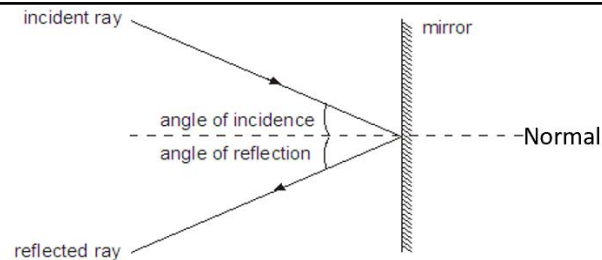
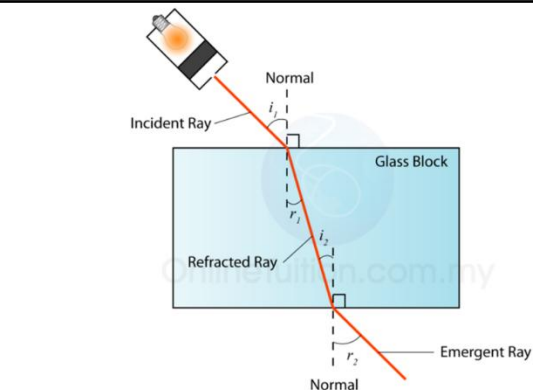


**What we are learning this term:**

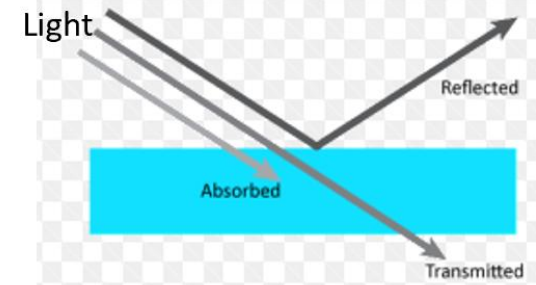
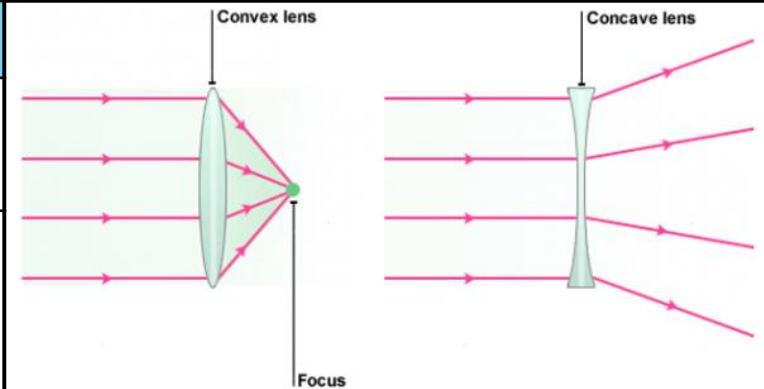
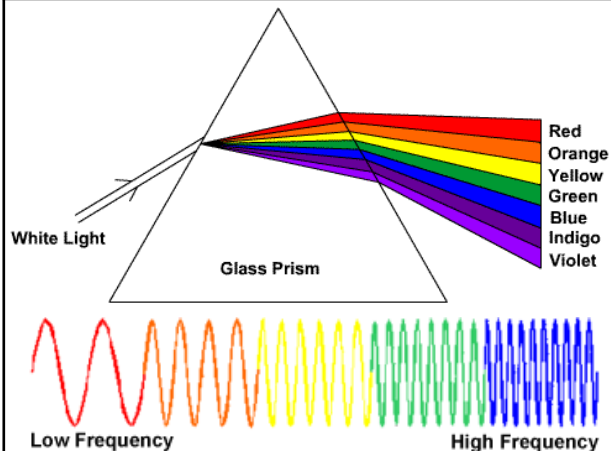
- A. Light and materials
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6 Key Words for this term

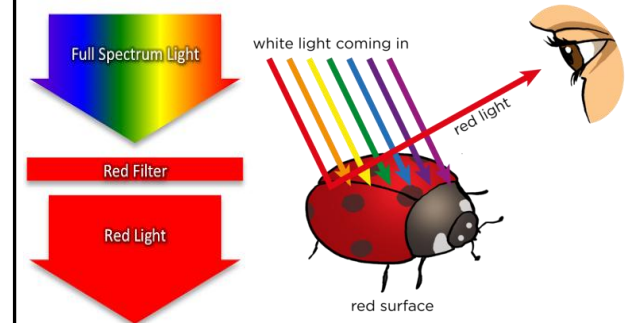
- | | |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

B. What is reflection?**B. What is refraction?****A. What are the three different ways light interacts with material?**

Light is _____	it passes straight through
Light is _____	it does not pass through
Light is _____	light bounces off the surface of the material

**B. What are the two types of lenses?****C. What is light dispersion?**

- Black – all colors absorbed, nothing reflected
- White – all colors reflected, nothing absorbed



7.05: World of work



Background

A	The world of work can be classified into four different employment sectors.
B	Many factors influence the type of employment sector which will be found within a particular country.
C	Industrial location is influenced by some key factors, which are more important for some industries in comparison to others.
D	Employment structure within countries varies based upon the level of development.
E	Trade, imports and exports.
F	Employment sectors and impact of industry in Russia.

A) Employment sectors

1	employment	(n) when people are in work, receiving a wage and paying tax.
2	unemployment	(n) when people are not in work, therefore do not receive a wage and do not pay tax.
3	primary industries	(n) industries which collect or extract natural resources from the environment, such as farming or fishing.
4	secondary industries	(n) industries which manufacture goods into products, such as builders, car manufacturers or food processing
5	tertiary industries	(n) industries that provide a service, such as teachers, doctors, sales, hairdressers or bus drivers.
6	quaternary industries	(n) industries that involve using technology, design and research, including computer scientists, game designers, computer engineers and research scientists.

B) Influences on employment structures

1	industrialisation	(n) a move from primary employment to secondary employment, with a rise in manufacturing.
2	mechanisation	(n) when machinery begins to do the jobs which once required humans.
3	disposable income	(n) the money a person has left to spend after they have paid all their bills.
4	public services	(n) a service that is given or funded for the benefit of the community.

C) The location of industries

1	site	(n) the actual place where a settlement first grew up. This refers mainly to its physical setting.
2	situation	(n) the location of a place relative to other features nearby.
3	footloose	(adj) industries which are not tied to a specific location and can operate from anywhere.
4	raw materials	(n) natural resources that are used to make other things.
5	labour	(n) workers, employed people.
6	market	(n) a place where things are bought and sold.

E) Trade

1	trade	(n) the exchange of goods and materials between countries.
2	import	(v) goods brought into a country.
3	export	(v) sending goods to another country for sale.
4	trade bloc	(n) an arrangement in which participant countries lower trade barriers with one another.
5	tariff	(n) a tax imposed on goods when they are imported or exported between countries.

D) Employment structures and development

Countries	Industries
developing countries	Large primary sector, growing secondary sector and a moderate tertiary sector.
emerging countries	large secondary sector, rapidly falling primary sector and growing tertiary sector.
developed countries	A large tertiary sector, a growing quaternary sector, both secondary and primary employment is low.
Change	Cause
Falling primary and secondary sector	1. Cheaper to import. 2. Mechanisation has taken jobs. 3. Raw materials have been exhausted in certain areas.
Growing tertiary sector	1. Disposable income has increased, so a greater demand for services. 2. A large public sector e.g. health and education, due to a high tax revenue.

F) Case study: World of work in Russia

Factors effecting trade in Russia	
Opportunities	Challenges
With a working population of over 75 million people, Russia has one of the largest workforces in the world.	Russia is at war with Ukraine which affects international relationships.
The Steppe and temperate woodlands of western Russia are fertile and flat.	Russia has the largest land mass of any country.
Russia has an extensive network of roads, railways, ports and pipelines.	Russia does not have a warm water port.
Russia has vast reserves of natural resources including oil and natural gas.	Many countries aim to buy and use less oil and natural gas in the future to mitigate the effects of climate change.
Russia's education system puts a strong focus on science, technology, engineering and maths (STEM).	



7.05: World of work



Background

- A The world of work can be classified into four different employment sectors.
- B Many factors influence the type of employment sector which will be found within a particular country.
- C Industrial location is influenced by some key factors, which are more important for some industries in comparison to others.
- D Employment structure within countries varies based upon the level of development.
- E Trade, imports and exports.
- F Employment sectors and impact of industry in Russia.

A) Employment sectors

- 1 employment
- 2 unemployment
- 3 primary industries
- 4 secondary industries
- 5 tertiary industries
- 6 quaternary industries

B) Influences on employment structures

- 1 industrialisation
- 2 mechanisation
- 3 disposable income
- 4 public services

C) The location of industries

- 1 site
- 2 situation
- 3 footloose
- 4 raw materials
- 5 labour
- 6 market

E) Trade

- 1 trade
- 2 import
- 3 export
- 4 trade bloc
- 5 tariff

D) Employment structures and development

Countries	Industries
developing countries	
emerging countries	
developed countries	
Change	Cause
Falling primary and secondary sector	
Growing tertiary sector	

F) Case study: World of work in Russia

Factors effecting trade in Russia	
Opportunities	Challenges

Year 7 History : Challenges to medieval kings

What we are learning this term:

How similar were the challenges to medieval kings and how well did the monarchs deal with them?

- A. Keywords /
- B. *Disagreements between Becket and King Henry II – a religious challenge*
- C. King John, the Barons and Magna Carta – a political challenge
- D. Comparing the reigns of King John, Henry II and Richard II
- E. King Richard II and causes of the Peasants Revolt

A.	Can you define these key words?
Epidemic	a widespread outbreak of an infectious disease
Leniency	Being merciful or tolerant towards someone
Pardons	Letters from a king forgiving a person for a crime.
Statute	a law
Martyr	Somebody who is willing to die for their beliefs.
Political	referring to politics (eg. Who is in charge, who has power, the king, parliament, barons ect.)
Social	Referring to people's lives (living conditions, wages, access to food and housing ect.)
Religious	Referring to religion (different religions, priests, popes, bishops, catholic, protestant ect.)
Interdict	The Pope banning all religious services in a country as a punishment for supposed sinful activity committed in that country or by its ruler
Labour Service	Free labour peasants were expected to do for knights and barons
Coronation	To crown someone to be the new king. In medieval England this could be done before the previous king had died.
Benefits of the clergy	The right for priests to be tried in church courts, avoiding the harsh penalties in normal courts
Miasma	The idea that disease is caused by foul smelling air.

E.	Comparing the reigns of King John, Henry II and Richard II	
	Similarities	Differences
Religious	King John and Henry II both had issues with the church. John wanted to abolish church courts and Henry wanted to choose his bishops	However these were for different reasons: - Henry II wanted control of the church courts and had conflict with Becket the Archbishop of Canterbury. This led to the bishops who had crowned Henry's son Richard got excommunicated as a punishment from the church. - John fought with the Pope over who to appoint Archbishop of Canterbury. This led to the Pope excommunicating him and putting England under interdict
Political	In all 3 cases there are conflicts/ violence brought about because people are challenging the absolute (complete) power of the kings. This has come from 3 different sources: the barons, the people and the church.	King John and the Barons – King John is the only medieval king who had a direct political conflict. This was with the Barons who demanded that they be treated better and made attempts to limit the power of the king through Magna Carta.
Social	King John, King Henry and Richard II all lost social support but for a variety of different reasons	- King John – lost social support due to losing land and wars in France and also due to the supposed 'murder' of his nephew. This meant that backing was behind the Barons. - Henry II – lost support after public death of Becket (was whipped at Becket's tomb as punishment) - Richard – Poll Tax, Labour Service and limiting wages after the Black Death all contributed to the Peasants' Revolt.

Key individuals

Henry II – King from 1154, tried to bring the Church under royal control leading to Thomas Becket's (Archbishop of Canterbury) murder.
Eleanor of Aquitaine – Queen married to Henry II, she ruled England while Henry was away.
John I – King 1199 who was unpopular with his barons who rebelled against him. Signed the Magna Carta 1215.
Richard II – King 1377 and was 10 years old as King during the peasant's revolt.
Wat Tyler – Leader of the rebels during the Peasants revolt in 1381.

C.	King John, the Barons and Magna Carta – a political challenge
What mistakes did King John make that led to the barons rebelling.	John had lost many wars with France which made him look weak (he had the nicknames 'Lackland' and 'Softsword'). These defeats meant that the barons lost land they owned in France. John kept asking for a number of taxes to pay for his wars which he carried on losing. John was seen as a cruel man – he made blind monks homeless and may have murdered his nephew. John fell out with the pope over who got to promote bishops. This led to England being placed under interdict meaning all church was cancelled. The barons feared for their souls and was angry with John. John started fining the barons for many different things and made them pay large taxes when they inherited land.
What were the key points of Magna Carta?	<u>Short term</u> - a £100 limit on the tax barons had to pay to inherit their lands - the king could not sell or deny justice to anyone - the royal forests were to be reduced in size - an heir could not be made to marry someone of a lower social class - foreign knights had to be deported - no-one could be arrested on the accusation of a woman <u>Long term</u> Eventually it gave everyone freedoms such as stopping people being arrested for no reason
Why is it still relevant today?	Still forms parts of English law. Additionally most see it as the basis of rights and freedoms so countries such as Australia and the USA include parts of it in their constitutions.

B.	<i>Disagreements between Becket and King Henry II – a religious challenge</i>
Banning of Church Courts	Henry II wanted to get rid of the church courts and appointed his friend Thomas Becket as Archbishop of Canterbury to do so in 1162. However once Thomas became Archbishop, he became very religious and refused to get rid of them.
Coronation of the king's son	After the argument over church courts Becket fled to France in 1164, as he feared for his life. King Henry II wanted to have his son Richard I crowned to be the next king. However he needed the archbishop of Canterbury to do it. With Becket out of the country Henry II got other bishops to do the job instead.
Excommunication of the bishops	In 1170 Becket and Henry made up and Becket returned to England. However once he returned, he excommunicated the other bishops. This made Henry II very angry and he shouted, "will no one rid me of this troublesome priest". This led to four knights going to Canterbury and murdering Thomas Becket.

D.	King Richard II and causes of the Peasants Revolt
Labour Services	Ever since 1066 most peasants (known as villains) had to do free labour services their local lords (knights and barons). Some peasants, known as freemen, did not want to do this work. Peasants wanted everyone to become freemen ending the free labour they had to do for their lords.
The impact of the Black Death on wages	The Black Death had killed around 40% of the population of England in 1348. This meant that there was a severe labour shortage. Now the peasants were in demand they could demand more money for their work. The barons were upset by this and got King Richard II to pass a law limiting how much a peasant could earn and banned them from declining to do work for this low amount of pay. This made the peasants angry as they now had their earnings greatly reduced.
Poll taxes	Between the years 1377 and 1381 the king demanded a number of Poll Taxes to fund his losing war with the French. These meant everyone over 15 had to pay a tax and impacted the poorest in society most of all. The tax of 1381 was particularly bad demanding 4 pence per person over 15.

What we are learning this term:	
How similar were the challenges to medieval kings and how well did the monarchs deal with them?	
A.	Keywords
B.	<i>Disagreements between Becket and King Henry II – a religious challenge</i>
C.	King John, the Barons and Magna Carta – a political challenge
D.	Comparing the reigns of King John, Henry II and Richard II
E.	King Richard II and causes of the Peasants Revolt

A.	<i>Can you define these key words?</i>
Epidemic	
Leniency	
Pardons	
Statute	
Martyr	
Political	
Social	
Religious	
Interdict	
Labour Service	
Coronation	
Benefits of the clergy	
Miasma	

Year 7 History : Challenges to medieval kings

D.	Comparing the reigns of King John, Henry II and Richard II	
	Similarities	Differences
Religious		
Political		
Social		

Key individuals
Henry II – King from 1154, tried to bring the Church under royal control leading to Thomas Becket's (Archbishop of Canterbury) murder. Eleanor of Aquitaine – Queen married to Henry II, she ruled England while Henry was away. John I – King 1199 who was unpopular with his barons who rebelled against him. Signed the Magna Carta 1215. Richard II – King 1377 and was 10 years old as King during the peasant's revolt. Wat Tyler – Leader of the rebels during the Peasants' revolt in 1381.

C.	King John, the Barons and Magna Carta – a political challenge
What mistakes did King John make that led to the barons rebelling.	
What were the key points of Magna Carta?	
Why is it still relevant today?	

B.	<i>Disagreements between Becket and King Henry II – a religious challenge</i>
Banning of Church Courts	
Coronation of the king's son	
Excommunication of the bishops	

E.	King Richard II and causes of the Peasants Revolt
<i>Labour Services</i>	
<i>The impact of the Black Death on wages</i>	
<i>Poll taxes</i>	

What we are learning this term:	
What was England's relationship like with its neighbours and how this impacted the country.	
A.	Keywords
B.	The relationships between England and her neighbours.
C.	The actions and influences of key individuals during this time.
D.	The links between heritage and locations, being linked to something or somewhere.

A.	Can you define these key words?
Artillery	Very large guns, in this period this included gunpowder cannons that fire long distances.
Hatchet	Single handed wooden axe with a handle
Heresy	A belief that goes against the teachings of the Church
Homage	Special honour or respect paid to someone in public or private
Lance	A spear used by soliders on horseback
Mace	A type of blunt weapon used for close combat
Polearms	A sharp bladed handheld weapon on a wooden pole
Relations	A way in which two people or countries behave towards one another.
Resistance	Refusal to obey or accept something
Siege	A military act of surrounding a city or base, attacking it, and cutting off supplies. The goal of a siege is to force the city or base to surrender/.



Hatchet



Mace

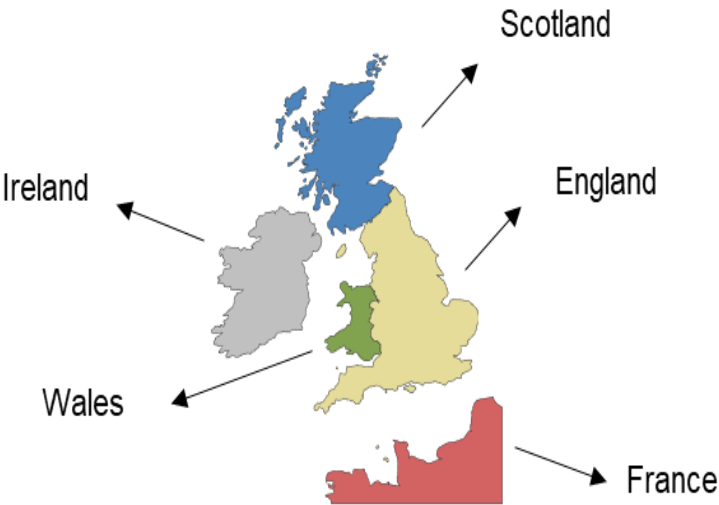


Lance



Polearm

Year 7 History : England and her neighbours



Key individuals
Henry III – King from 1216-1272 his poor and weak rule contributed to the second Barons war in 1264-67
Edward I – King following his father Henry III antagonized and started war with Llywelyn after imprisoning his bride-to-be.
Alexander III – 1249 – 1286 He is well known for his capture of the western isles previously held by Norway.
William Wallace – Commander of the Scottish army at Stirling Bridge. He defeated the English and was knighted "Guardian of Scotland.

E.	Causes of the 100 year war
Land in France	The English controlled a lot of land in France that was used to produce Wine. This made the English a lot of money, but the French were threatening to take it back.
Control of Flanders	The English controlled Flanders where a lot of wool was made benefitting the English. Yet again, the French were threatening to take their land back from the English.
French Succession	Charles IV had died without an heir, so Edward III attempted to claim the French throne as his mother was Charles' sister. Philip of Valois, Charles Cousin was crowned instead by authorities.

Power

The control a person or group has in a country.

For example, resistance grew in Scotland by people such as William Wallace and Robert Bruce.

This includes threads such as succession, warfare, protest, democracy, crime and punishment.

Identity

The qualities and characteristics that make a person who they are and what they value as important.

For example, Joan of Arc inspired French troops.

This includes threads such as the role of women.

Connectivity

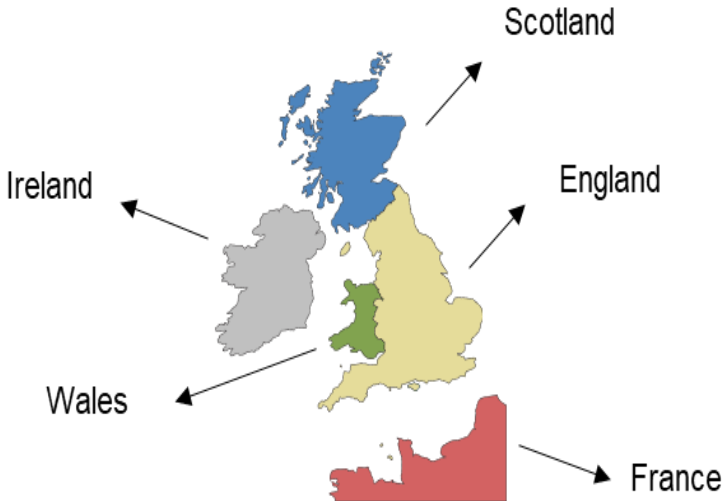
The act of joining or being linked to somewhere, someone or something else.

For example, the people who lived in medieval Wales were mostly descendants of Celtic Britons who migrated during the Anglo-Saxon period.

This includes threads such as migration.

What we are learning this term:
What was England's relationship like with its neighbours and how this impacted the country.
A. Keywords
B. <i>The relationships between England and her neighbours.</i>
C. The actions and influences of key individuals during this time.
D. The links between heritage and locations, being linked to something or somewhere.

Year 7 History : England and her neighbours



Key individuals
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Alexander III – 1249 – 1286 He is well known for his capture of the western isles previously held by Norway.
William Wallace – Commander of the Scottish army at Stirling Bridge. He defeated the English and was knighted "Guardian of Scotland.

Power	The control a person or group has in a country. For example, resistance grew in Scotland by people such as William Wallace and Robert Bruce. <i>This includes threads such as succession, warfare, protest, democracy, crime and punishment.</i>
Identity	The qualities and characteristics that make a person who they are and what they value as important. For example, Joan of Arc inspired French troops. <i>This includes threads such as the role of women.</i>
Connectivity	The act of joining or being linked to somewhere, someone or something else. For example, the people who lived in medieval Wales were mostly descendants of Celtic Britons who migrated during the Anglo-Saxon period. <i>This includes threads such as migration.</i>



E.	Causes of the 100 year war
Land in France	
Control of Flanders	
French Succession	

7.03: Judaism



Key Vocabulary

1	Abraham	The founder of Judaism and husband of Sara.
2	Covenant	An agreement between two sides (between humans and God).
3	Sara	Female leader, mother of nations and wife of Abraham.
4	Isaac	The son of Abraham and Sara.
5	Moses	Leader who freed the Israelites from slavery and was given the 10 commandments.
6	Miriam	Prophetess who helped her brother Moses lead the Israelites out of slavery.
7	Exodus	A book in the Bible which tells the story of the Israelites being freed from slavery.
8	Ten Commandments	Ten rules given to Moses by God about how humans should behave.
9	Esther	A Jewish queen who saved her people from a plot to destroy them.
10	Monotheism	The belief that there is only one God.
11	Shema	An important prayer, declaring the oneness of God.
12	Messiah	A future Jewish king who is expected to bring peace.
13	Genesis	A book in the Bible which describes the creation of the world.
14	Mitzvot	613 rules in the Torah which guide Jews in their behaviour.
15	Tikkun Olam	“Repairing the world”, encouraging actions that improve society and bring justice.
16	Synagogue	A Jewish place of worship, study and community.
17	Bar/Bat Mitzvah	Coming of age ceremony (Bar Mitzvah for boys and Bat Mitzvah for girls).
18	Pesach/Passover	A Jewish holiday which commemorates the Exodus story.
19	Shabbat	A day of rest and worship observed from Friday evening to Saturday evening.
20	Orthodox	A branch of Judaism that follows traditional beliefs, laws and practices.
21	Reform	A branch of Judaism that adapts traditional beliefs, laws and practices to fit modern life.
22	Prophecy	A message given to humans from God, usually to a prophet.

Holy Books introduced

The Tanakh	Hebrew Bible, which includes three parts: the Torah, Nevi'im and Ketuvim.
The Torah	Holiest scripture for Judaism. The word means “law” in Hebrew. Written by Moses. Also important in Christianity and Islam.
Nevi'im	Contains books of the Prophets, which tell the history of Israel God’s messages through the prophets.
Ketuvim	Contains various writings, including poetry, wisdom literature and historical accounts.
Talmud	Contains discussions and interpretations of the Torah, which guides Jewish law and practice.

Tools for Studying Religion

Theology is the study of God and ideas about God. Theologians look at how ideas about God influence beliefs in religions and the actions people will do.



Social Scientists use evidence to see how people are influenced by society. Social Scientists look at patterns in what people believe about God and how this may change due to time and place.



7.03: Judaism



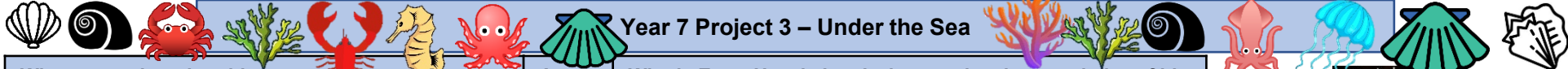
Key Vocabulary

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3	Sara	
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6	Miriam	
7	Exodus	
8	Ten Commandments	
9	Esther	
10	Monotheism	
11	Shema	
12	Messiah	
13	Genesis	
14	Mitzvot	
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18	Pesach/Passover	
19	Shabbat	
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21	Reform	
22	Prophecy	

Holy Books introduced	
The Tanakh	
The Torah	
Nevi'im	
Ketuvim	
Talmud	

Tools for Studying Religion





Year 7 Project 3 – Under the Sea

What we are learning this term:

- About the illustrator Ernst Haeckel and his work
- How to use the grid method for accuracy
- Drawing from observation of primary sources
- How to work using oil pastels
- How to make a simple clay pinch pot
- How to decorate clay using glazes and oxides
- What is texture
- How to produce a mixed media outcome

A.

Who is Ernst Haeckel and what are the characteristics of his work?

Who?

philosopher, physician, professor, marine biologist, and artist who discovered, described and named thousands of new species,

What?

Beautifully detailed natural history illustrations depicting mostly marine life

Why?

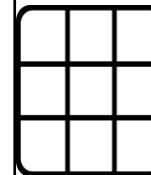
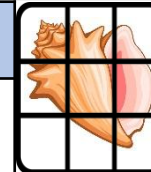
To document and record newly discovered species of animals and plants



B.

How to use the Grid Method for accurate drawing

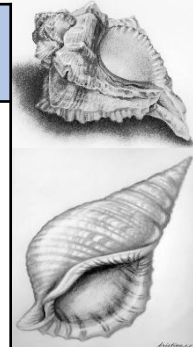
- Use a ruler to draw an equally spaced grid onto your image
- Draw an identical grid **LIGHTLY** onto paper
- Draw in the main **outlines** of your image, focusing on one square at a time Use a ruler to help you **measure** the positioning of lines if needed
- Add main details before erasing the grid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



C

Drawing primary sources from observation

Drawing from a primary source means drawing something from real life
Observe the objects closely
Lay out the basic shape(s) you can see
Refine and add detail
Add tone to show how light is hitting the object(s)



Key word	Key definition
illustration 	a drawing, painting or printed work of art which visually represents or explains something
observation 	the action of closely looking at something
source 	Where something originates from
texture 	the feel or appearance of a surface
tone 	Lightness and darkness within an artwork
outcome 	The final piece produced as a result of an art project

D How to work using oil pastels



Oil pastels are bright, oil-based crayon that is used as a painting and drawing medium
Oil pastels can be applied thickly, overlapping to blend colours.
White can also be used to blend.
Clean the end of the pastel to avoid colour contamination

F.

How to use glazes and oxides

oxide



Powder made from minerals
Mixed with water and applied to the bisque fired clay
Highlights the texture in the clay surface
Can be applied thickly or thinly to get different effects

glaze



Coloured liquid applied to bisque fired clay
Can be applied with or over oxides
Gives the clay a shiny finished once fired a second time
Usually applied in layers

E

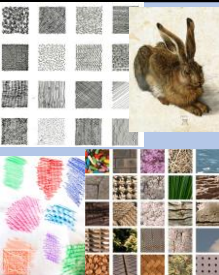
What is a pinch pot and how to make one



A pinch pot is A small vessel created inserting the thumb into a ball of clay then through 'pinching' the clay into the desired shape.
A successful pinch pot has even thickness walls, and a smooth finish.
The wet clay can be decorated by additive or subtractive methods

G

What is texture?



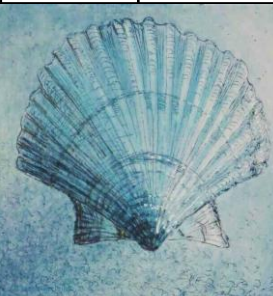
Texture is the surface quality of a particular surface – how it feels to the touch
Actual texture is what it actually feels like
Visual or implied texture is when a surface appears to have texture but in reality it doesn't

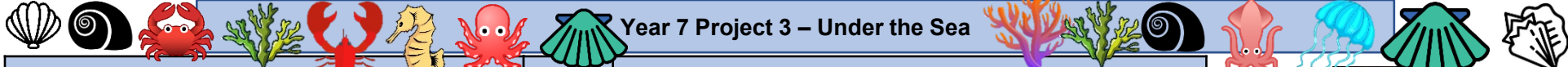
H

How to produce a mixed media outcome

A mixed media artwork uses multiple different materials rather than just one
We used collage, ink and pen to create ours

Step 1	Lay out your drawing using pencil lightly
Step 2	Add newspaper collage
Step 3	Apply an ink wash using varied colours
Step 4	Add tissue paper collage over the wash in places
Step 5	Use black ink or pen to go over your drawing, adding detail and texture using mark making





Year 7 Project 3 – Under the Sea

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- Drawing from observation of primary sources
- How to work using oil pastels
- How to make a simple clay pinch pot
- How to decorate clay using glazes and oxides
- What is texture
- How to produce a mixed media outcome

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Who?

What?

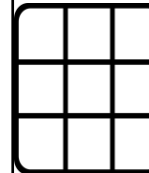
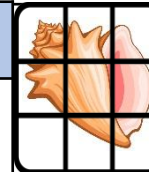
Why?



B.

How to use the Grid Method for accurate drawing

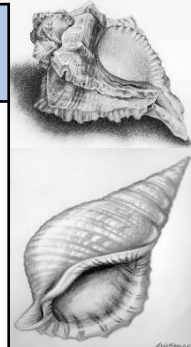
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Drawing primary sources from observation

Drawing from a primary source means.....
Observe the objects
Lay out the basicyou can see
.....and add
.....
Add to show how light is hitting the object(s)



Key word	Key definition
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Step 2

Step 3

Step 4

Step 5



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What is a pinch pot and how to make one



A pinch pot is
A successful pinch pot has
The wet clay can be decorated by

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What is texture?



Texture is
Actual texture is
Visual or implied texture is



Year 7 PRODUCT DESIGN Rotation Knowledge Organiser



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

A.	Workshop Tools						
Steel Rule	Wooden Vice	Clamp	Bench Hook	Tenon Saw	Pillar Drill	Bandfacer	
							

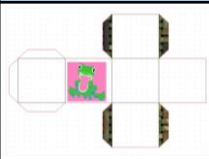
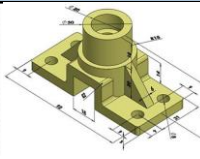
B.	Materials
Timbers come from trees	
	Scots pine – which you used for your maze frame – is a softwood Softwoods come in planks and boards

Manufactured Boards come from wood pulp	
	Plywood – which you used as your base, insert and maze walls – is a manufactured board Manufactured Boards come in sheets

Polymers come from crude oil	
	Acrylic – which you used as your lid for your maze – is a polymer Polymers come in sheets, graduals and filament

C.	Modelling
Creating a 3D representation of your product before you manufacture it.	

You can use a variety of different materials and computer programs to create a mock up model or prototype such as;

		
Cardboard	Foamboard	Scrap Wood
		
3D Printing	2D Design	Solidworks

Modelling is used to test a product before manufacture, to see what works and what doesn't.

Advantages	Disadvantages
Allows a designer to physically handle or view from all sides	Can be time-consuming and complicated
Changes can be made quickly and easily	Testing can be unreliable as they don't use the same materials as the end product

D.	Key Words
Specification 	A specific list of things that your product should be or do.
Modelling 	A way of making a 3D representations of your proposed design. To see what went well and how it can be improved.
Sustainable 	Limited negative impact on the environment.
Manufacture 	Making a product using tools and machinery.

E.	Evaluation of Products
----	------------------------

Evaluate 	To judge and give an opinion.
--	-------------------------------

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

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

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

For example:

My maze looks really fun and challenging to play. However, when tested the model version of my game, it was too difficult to complete. One improvement I could make is by taking away some of the traps or moving some of the walls around, so that it is more fun to play.



Year 7 PRODUCT DESIGN Rotation Knowledge Organiser



What we are learning this term:

A. Workshop Tools B. Materials C. Modelling D. Data Analysis & Evaluation

A. Workshop Tools



B. Materials

Timbers come from _____



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

Softwoods come in _____ and _____

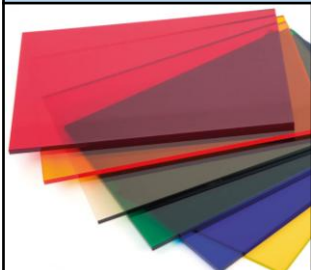
Manufactured Boards come from _____



Plywood – which you used as your base, insert and maze walls – is a **manufactured board**

Manufactured Boards come in _____

Polymers come from _____



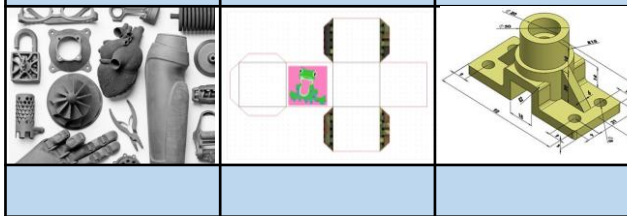
Acrylic – which you used as your lid for your maze – is a **polymer**

Polymers come in _____, _____ and _____

C. Modelling

Creating a _____ before you manufacture it.

You can use a variety of different materials and computer programs to create a mock up model or _____ such as;



Modelling is used to _____ before manufacture, to see what works and what doesn't.

Advantages



Disadvantages



D. Key Words

Specification



Modelling



Sustainable



Manufacture



E. Evaluation of Products

Evaluate



Think back to your completed handheld maze hand game. Evaluate one positive aspect of it, one negative aspect of it and an improvement you would like to have made if you had time.

Possible sentence starters:

- One thing that was successful.....
- One thing that I had issues with was.....
- If I had more time, I could improve this by.....

Y7 Food technology

What we are learning this term:

1. Health, safety and hygiene in the kitchen
2. The Eatwell guide and nutrients
3. Storing food safely
4. Food origins
5. Food fortification and modification
6. Practical skills

A.	What are the nutrients required in the diet?
Carbohydrates	To give the body energy e.g bread.
Protein	To grow and repair the body, and to give energy e.g eggs.
Fats	To insulate your body, give you energy, and protect your organs i.e butter.
Vitamins	For general body health and function i.e carrots for eyesight.
Minerals	For general body health and function i.e iron to make blood cells.

c. Storing food safely

Perishable foods should be stored out of the **temperature danger zone** to reduce the risk of **food poisoning**. Hot foods should be kept above 63°C and cold foods should be kept below 5°C.

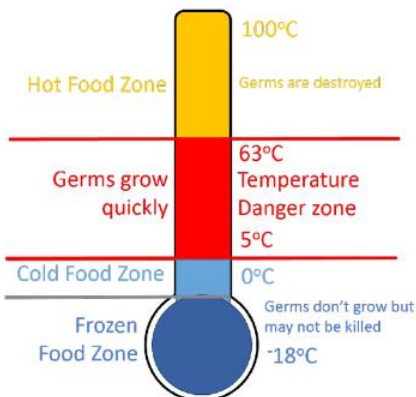
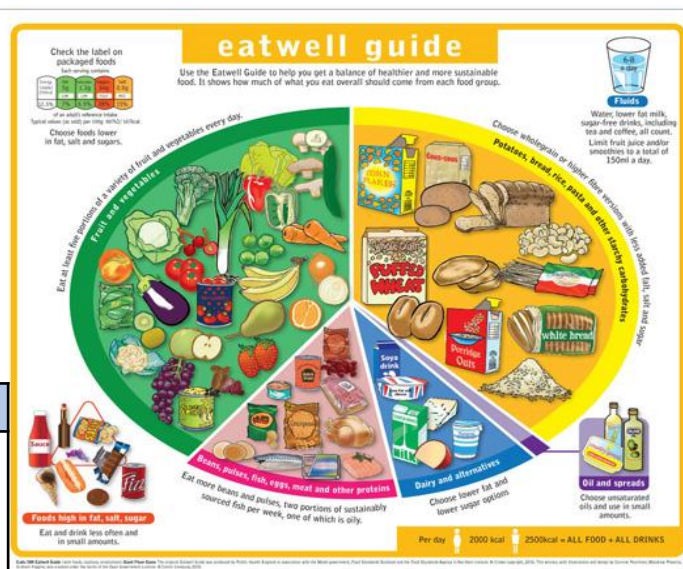


Image: TAFE NSW

B. What are the 5 different sections of the Eatwell plate?

- 1 **Fruit and Vegetables** – provides minerals, vitamins & fibre
- 2 **Carbohydrates** – provides carbs and fibre
- 3 **Protein** - provides protein, omega 3, come vitamins
- 4 **Dairy** - provides vitamins, minerals (calcium)
- 5 **Fats and Oils**



E.	Keywords
Hygiene	A method of keeping yourself and equipment clean
Cross contamination	The transfer of contaminants onto food through either the hands, the equipment or the surfaces. Causes food poisoning.
Spoilage	When food becomes unsafe to eat i.e rot, mould.
Perishable food	Food that spoils if not kept in the fridge or freezer e.g ham.
Fibre	Foods that keep your digestive system healthy and avoid constipation.
Allergen	A substance (sometimes food) that causes an immune system response that can be fatal i.e throat swelling up. Nuts are common allergens.
Intolerance	When the body cannot digest a food and rejects it i.e vomiting, diarrhea. Many people are lactose intolerant (milk intolerance).
Coeliac	When someone cannot eat gluten (wheat), similar to an intolerance but more dangerous.
Vegan	When someone does not eat anything that comes from an animal including eggs, milk, honey.

c. Food origins

Grown food- plants i.e wheat

Intensive farming – bad for the environment, uses chemical fertilisers and pesticides. Gives a high yield (amount of food).

Organic farming – "natural" farming, is slower and more expensive to do.

Reared food – animals kept on a farm, bred and raised for use i.e cows to give milk

Intensive (battery) farming – animals are kept indoors all year round in small cages, poor treatment. Lots of food produced.

Free range – animals have a large amount of space and outdoor space, good living conditions. Expensive and slow.

Caught food – animals hunted in the wild i.e fish, game animals

Trawling – large nets dragged through the sea, lots of bycatch (unwanted fish) and damages habitats.

Line caught – catching one fish at a time on a fishing line. Much slower and more expensive.

c. Food fortification and modification

Fortify – to make stronger/better

Food fortification – adding extra nutrients to food to improve how nutritious it is
Examples: butter with added vitamins, cereal with added iron and vitamins

Modification – to change the properties of something
Additives – chemicals added to food, can be natural or artificial
Examples – flavourings, colourants, preservatives, stabilisers
Genetically modified (GM) - the genes (DNA) of the crop or animal have been changed to improve their yield i.e more seeds.

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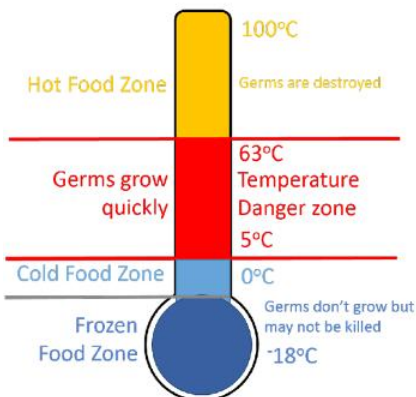
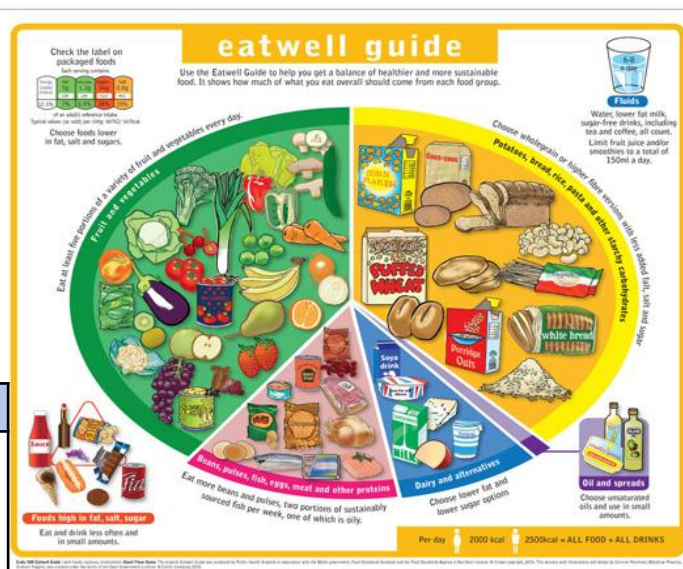


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YEAR 7 GRAPHIC COMMUNICATION

What are we learning this term?

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

A | Personification

What is personification?

Personification makes sentences more exciting by:

- describing objects as if they are *people*
- describing objects as if they have *feelings*



How does Paul Thurlby use personification?

Paul Thurlby personifies his letters by giving the turning the letters that he works with into characteristics so that you can clearly see an emotion.

B | Draw the letter A in the following font styles. Write the description of the font style too.

Serif: Serif is a traditional style font. It usually has flicks on the end of each letter.	A
Sans Serif: Sans serif fonts are modern in style; Sans serif fonts good for large pieces of text.	A
Script: Script font often resembles everyday handwriting.	A
Decorative: decorative fonts are unique in style and have an artistic flair. They are often hard to read.	A

C | Computer skills

What is the shortcut for copy?

Ctrl + C

What is the shortcut for paste?

Ctrl + V

What does this symbol stand for?



Photoshop

What does this symbol mean?



Cropping

D | Key words

Graphics	Visual images or designs on a surface which communicate a message such as a brand advertisement or logo.
Typography	The arrangement of type to make written language legible.
Font	The term 'font' refers to a specific style of typeface such as its size and weight, it can come in regular, bold or <i>italic</i> .
Photoshop	A software for editing photos and graphics. It is used for image editing, making illustrations or web design.

E | Evaluation

Evaluation: To judge or give an opinion

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

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

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

For example:

My word sticker looks great, the colours are bright which appeals to the audience. However, some of the letters are hard to read. One improvement I could make is to simplify the personification on some of the letters to make the final word clearer and easier to read.

YEAR 7 GRAPHIC COMMUNICATION

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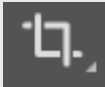
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Graphics	
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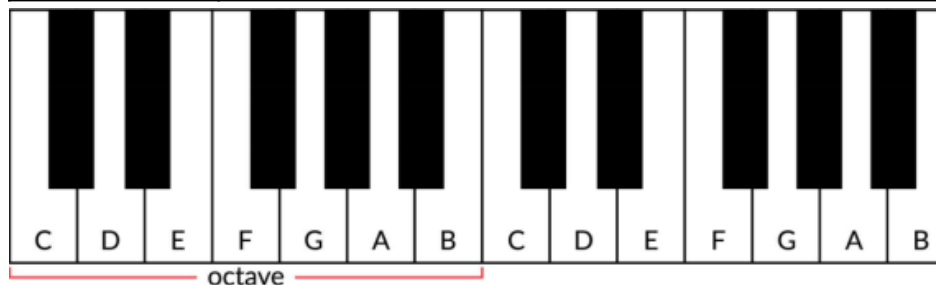


A What we are learning about this term...

- 1 Treble Clef Notation
- 2 Hand Positions on the Keyboard
- 3 Sharps, Flats and Natural Notes
- 4 Chords on the Keyboard



C Layout of a Keyboard/Piano



A piano or keyboard is laid out with **WHITE KEYS** and **BLACK KEYS** (as above). **C** is to the left of the two **BLACK KEYS** and the notes continue to **G** when they go back to **A** again. Notes with the same letter name/pitch are said to be an **OCTAVE** apart. **MIDDLE C** is normally in the centre of a piano keyboard.

E Black Keys and Sharps and Flats

There are five different black notes or keys on a piano or keyboard. They occur in groups of two and three right up the keyboard in different pitches. Each one can be a **SHARP** or a **FLAT**. The **#** symbol means a **SHARP** which raises the pitch by a semitone (e.g. C# is higher in pitch (to the right) than C). The **b** symbol means a **FLAT** which lowers the pitch by a semitone (e.g. Bb is lower in pitch (to the left) than B).

Each black key has two names:

- C# is the same as Db
- there's just two different ways of looking at it!

Remember, black notes

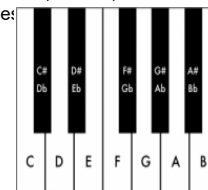
or keys that are to the

RIGHT of a white note

are called **SHARPS** and

black notes to the **LEFT**

of a white note are called **FLATS**.



B Keywords

Stave

Name given to 5 lines and 4 spaces where musical notes are written.

Treble Clef

Symbol used to show high pitched notes.

Sharp

When a note is raised by a semitone e.g. C to C sharp.

Flat

When a note is lowered by a semitone e.d. B to B flat.

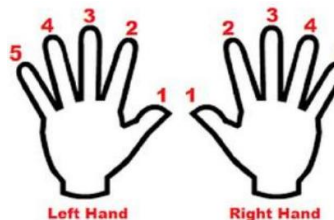
Chord

3 notes played at the same time.

Middle C

Note in the middle of a keyboard – Played with your thumb of your right hand.

D Keyboard chords - Left hand – Right hand



Play one – Miss one – play one – miss one – play one

F Treble Clef & Treble Clef Notation

A **STAVE** or **STAFF** is the name given to the five lines where musical notes are written. The position of notes on the stave or staff shows their **PITCH** (how high or low a note is). The **TREBLE CLEF** is a symbol used to show high-pitched notes on the stave and is usually used for the right hand on a piano or keyboard to play the **MELODY** and used by high pitched instruments such as the flute and violin. The stave or staff is made up of 5 **LINE**s and 4 **SPACE**s.

Every Green Bus Drives Fast. Notes in the **SPACES** spell "FACE"



Notes from **MIDDLE C** going up in pitch (all of the white notes) are called a **SCALE**.

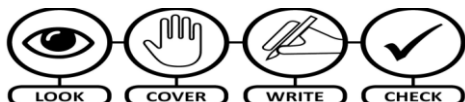


G Describing music – MAD T SHIRT

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

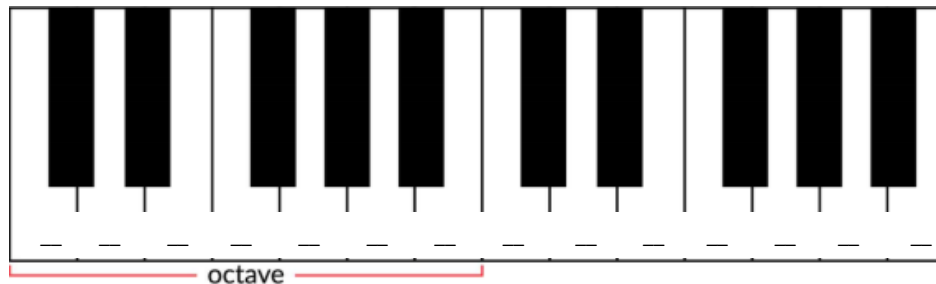


A What we are learning about this term...

1
2
3
4

C

Layout of a Keyboard/Piano



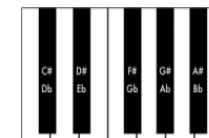
E

Black Keys and Sharps and Flats

There are five different black notes or keys on a piano or keyboard. They occur in groups of two and three right up the keyboard in different pitches. Each one can be a _____ or a **F** _____. The _____ symbol means a **SHARP** which raises the pitch by a semitone (e.g. C# is higher in pitch(to the right) than C). The _____ symbol means a **F** _____, which lowers the pitch by a semitone (e.g. Bb is lower in pitch(to the left) than B). Each black key has two names

- C# is the same as Db
- there's just two different ways of looking at it!

Remember, black notes or keys that are to the **RIGHT** of a white note are called **SHARPS** and black notes to the **LEFT** of a white note are called **FLATS**.

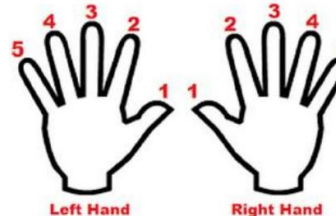


B

Keywords

D

Keyboard chords - Left hand – Right hand



Play one – Miss one – play one – miss one – play one

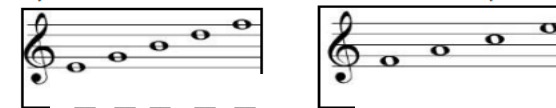
F

Treble Clef & Treble Clef Notation

What is the name of the 5 lines and 4 spaces? S _____

Musical notation shows us how high or low the P _____ of notes are.

High pitch notes are shown by using the symbol T _____ C _____

Every Green Bus Drives Fast. Notes in the **SPACES** spell ' _ _ _ _ _Notes from **MIDDLE C** going up in pitch (all of the white notes) are called a **SCALE**.

G

Describing music – MAD T SHIRT

M

A

D

T

S

H

I

R

T

M _____

A _____

D _____

T _____

S _____

H _____/T _____

I _____

R _____

T _____



Melodrama

“MELO” – Music “DRAMA” – Drama . A combination of acting and music , with sensational stories where the villain is always overcome by the hero.

Historical context

The INDUSTRIAL REVOLUTION
1800's

Shift from rural to urban living.
Scientific discoveries led to
machines which meant that some
people became extremely rich and
some became extremely poor.

This led to MELODRAMA being
created.
People needed hope .
They created stories where the
villain (based on landlords)
were always beaten by the hero
(everyday man.)



Stock characters

Hero
Heroine
Villain
Side Kick



Key features of MELODRAMA

Chronological stories
Plot always centred around the
villain.
Good always wins
MUSIC

Stereotypes - widely held but fixed and oversimplified image or idea
of a particular type of person or thing.

Performance Skills

Characterisation: Using a range
of performance skills to create a
character that is different to yourself.



Posture: The way that
you sit or stand. The
alignment of your spine.



Gesture: A movement
(usually of the arm/hand)
that communicates a
specific meaning.



Facial Expression:
Using your face to
show how a character
is feeling.



Vocals - Pitch: How
high or low your
voice is.



Pause/Stillness:
A moment of silence,
where you are not
moving in any way



Vocals - Pace: The
speed that you speak
at.



Exaggeration: Making your vocals or physicality more extreme/bigger.





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Historical context



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Key features of MELODRAMA



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Characterisation: Using a range of performance skills to create a character that is different to yourself.



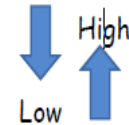
Posture: The way that you sit or stand. The alignment of your spine.



Gesture: A movement (usually of the arm/hand) that communicates a specific meaning.



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SWINDON ACADEMY READING CANON

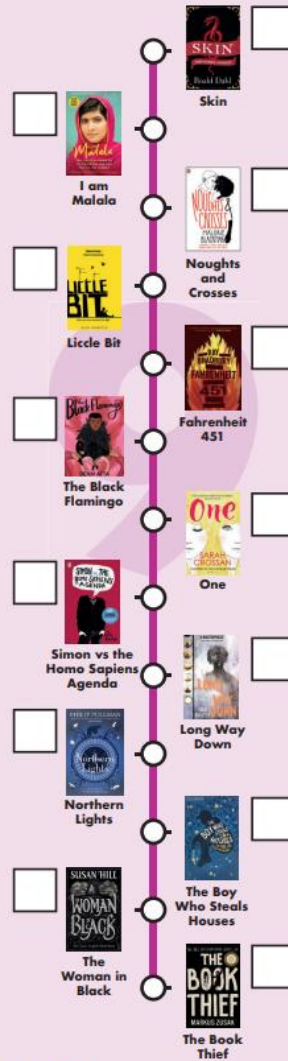
Year 7



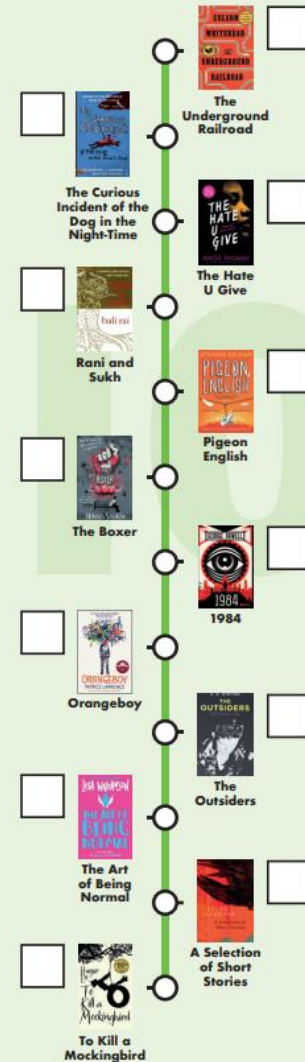
Year 8



Year 9



Year 10



#ReadingisPower