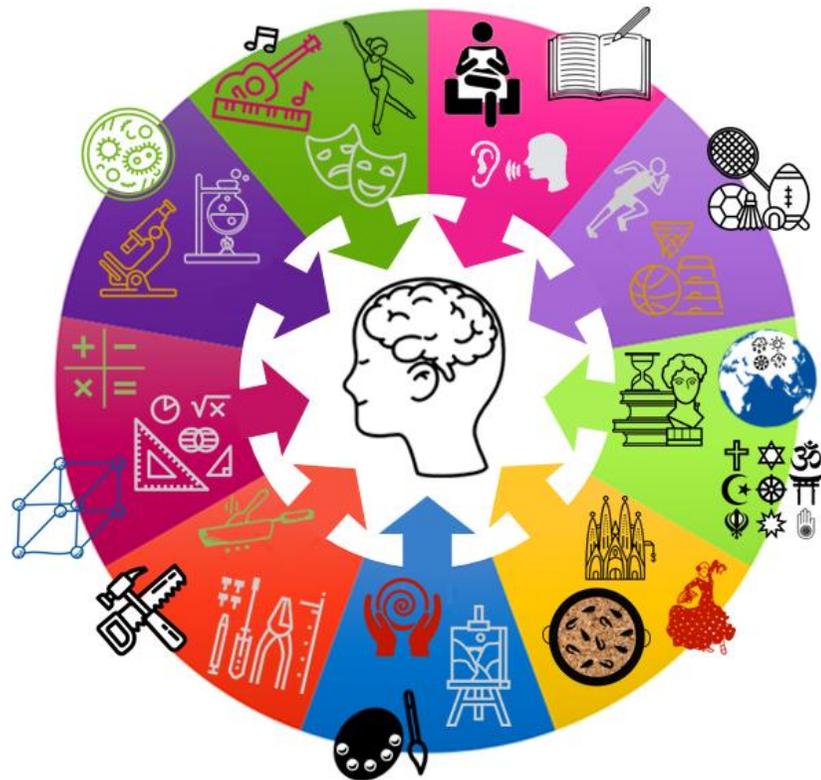


100% book - Year 7 Mainstream

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

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

What we are learning this term:

- Particle model
- Changing State
- Mixtures
- Separating Techniques

Key Words for this term:

1. Matter	6. Condensation
2. Particle	7. Evaporation
3. Celsius	8. Solids
4. Making	9. Solvent
5. Freezing	10. Solution

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

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

Solid In a regular pattern. Particles can vibrate in a fixed position.

Liquid Particles are arranged randomly but are still touching each other. Particles can slide past each other and move around.

Gas Particles are far apart and are arranged randomly. Particles carry a lot of energy and they move in all directions in a high speed.

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

What are the different changes of state?

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

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

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

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

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

A. What is particle theory?

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

Solid	
Liquid	
Gas	

What is the law of conservation of mass?

What are the different changes of state?

Melting	
Freezing	
Evaporation	
Condensation	

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

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

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

Diagram showing state changes: solid, liquid, gas with arrows for melting, freezing, evaporation, condensation, and a cycle with 'Gaining energy' and 'Losing energy'.

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

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

Expectations for Prep and for using your Knowledge Organisers

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

Top Tip

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

How do I complete Knowledge Organiser Prep?

Step 1

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

The screenshot shows the epraise.com website interface. On the left is a 'Planner' with a calendar for 10th May to 14th May 2020. The main area displays a grid of knowledge organisers categorized by subject (Science, History, Mathematics, English) and year level (All Years). A specific knowledge organiser for 'What is particle theory?' is highlighted, showing its title, description, and a diagram of particle arrangements in solid, liquid, and gas states.

Step 2

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

This screenshot shows a printed knowledge organiser for 'What is particle theory?'. The title and date '29th May 2020' are handwritten in blue ink. The text includes: 'The theory that all matter is made up of particles.', 'Describe the arrangement and movement of particles in the three states of matter.', and 'What are the differences between the three states of matter?'. A diagram at the bottom shows particles in solid, liquid, and gas states. The 'Gaining energy' and 'Losing energy' arrows are also visible.

Step 3

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

Handwritten notes in a blue-lined prep book. The date '29th May 2020' is written at the top. The title 'Properties of the states of matter' is underlined. The notes define particle theory as 'all matter is made of particles'. It then describes the three states: 'Solid = regular pattern particles vibrate in fixed position', 'Liquid = particles are arranged randomly but are still touching each other. Particles can slide past each other and move around.', and 'Gas = Particles are far apart and are arranged randomly. Particles carry a lot of energy'.

Step 4

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

Handwritten notes in a blue-lined prep book showing the definition of a solid repeated three times: 'Solid = regular pattern particles vibrate in fixed position'.

Step 5

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

This screenshot shows a quizzable knowledge organiser for 'What is the law of conservation of mass?'. The title and date '29th May 2020' are handwritten. The text includes: 'The Law of Conservation of Mass states that mass cannot be created or destroyed.', 'What are the different changes of state?', and 'What is the difference between a solid and a liquid?'. A diagram at the bottom shows particles in solid, liquid, and gas states. The 'Gaining energy' and 'Losing energy' arrows are also visible. Handwritten answers in blue ink are: 'Self quizzing' for the first question, and 'Arrangement/movement of matter' for the second question.

Step 6

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

Handwritten notes in a blue-lined prep book showing the definition of a solid repeated three times: 'Solid = regular pattern particles vibrate in fixed position'. The first two instances have checkmarks next to them, indicating they were correct. The third instance has a checkmark next to 'regular pattern' and an 'X' next to 'particles vibrate in fixed position', indicating it was incorrect.

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

Plot Summary

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

A Midsummer Night's Dream (AMND) was written by William Shakespeare in 1595.

Shakespeare wrote lots of light-hearted funny plays: Comedy's.

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

Shakespeare was a poet and a play write. He wrote multiple plays that were performed in the Globe theatre in London.

His first theatre group was called Lord Chamberlain's Men, later changed to the King's Men (1603) under the patronage of King James I.

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.



Who loves Whom

Who loves Whom



Year 7 English: Sets 2-5

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

captivate - attract and hold the interest and attention of someone

infatuated - intense but short-lived passion for someone else

patriarchy – a society in which power lies with men

to resolve – to solve a problem or difficulty

forsaken - abandoned or deserted

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

connotations – linked idea, meaning or feeling

epitomises – a perfect example of

Characters in AMND

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.

Philostrate: Master of Revels for Theseus; in charge of arranging entertainments for the court.

The Lovers

Hermia: the daughter of Egeus and good friend of Helena.

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.

Peasebody/Cobweb/Mustard seed/Moth: Titania's fairies.

The workmen/theatre performers

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

Quince: a carpenter; writer and director of the play put on by his fellow workmen.

Snug/ Snout/Flute/Starveling: tradesmen and players in the theatre company performing the play 'Pyramus and Thisbe'.

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.



'A Midsummer Night's Dream': T Knowledge Organiser

Plot Summary	Who loves Whom	Vocabulary: Key words	Characters in AMND
<u>Act 1:</u>		severe –	<u>Athenians</u> Theseus: _____
		conflict –	Hippolyta: _____
<u>Act 2:</u>		unrequited love –	Egeus: _____ Philostrate: <i>Master of</i> _____
		to mock –	_____
<u>Act 3:</u>		chaos –	<u>The Lovers</u> Hermia: <i>the</i> _____
		captivate -	_____
		infatuated -	Helena: _____
<u>Acts 4 and 5:</u>		patriarchy –	Lysander: <i>an</i> _____
		to resolve –	_____
		forsaken -	Demetrius: <i>an</i> _____

Background Information of AMND

A *Midsummer Night's Dream (AMND)* was written by _____.

Shakespeare wrote lots of light-hearted funny plays: _____.

Shakespeare went to a grammar school where he was taught _____.

Shakespeare was a poet and a play write. He wrote multiple plays that were performed in the _____ in London.

His first theatre group was called _____ later changed to the _____ (1603) under the patronage of King James I.

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

When the play was written, _____ was _____. The play is written in the _____ era.

Both _____ and poorer _____ people went to the Globe to watch plays.

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

Terminology: Key Words

soliloquy -

comedy –

play -

stage directions -

connotations –

epitomises –

Fairies (Mythical characters)

Titania: _____

Oberon: _____

Puck: _____

Peasebody/Cobweb/Mustard seed/Moth: *Titania's fairies.*

The workmen/theatre performers

Bottom: _____

Quince: _____

Snug/ Snout/Flute/Starveling: _____

The Love Potion

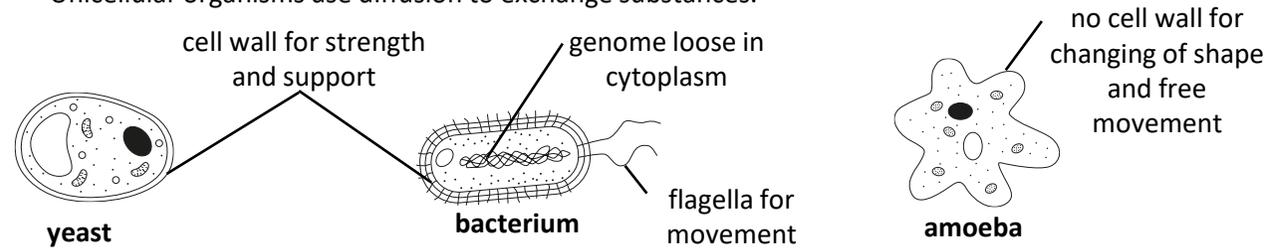
The _____ is made from a _____ in the _____. The _____ is magical because _____ hit it with _____ when he was _____ at a young girl. When the potion is put on a _____'s _____, they _____ with the _____ person they _____. It is _____.



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

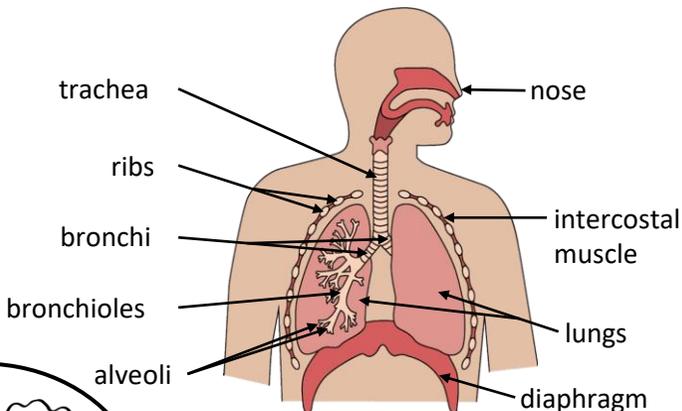
Air is a mixture of gases, including oxygen and carbon dioxide.

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.

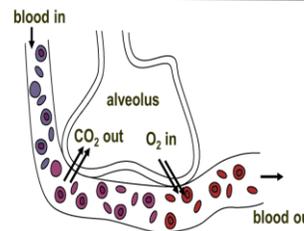
	Inhalation	Exhalation
Intercostal muscles	contract	relax
Ribcage	pulled up and out	released down and in
Diaphragm	contracts and moves downwards	relaxes and moves upwards
Volume in the chest	increases	decreases
Pressure in the chest	decreases	increases
Movement of air	into the lungs	out of the lungs

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:

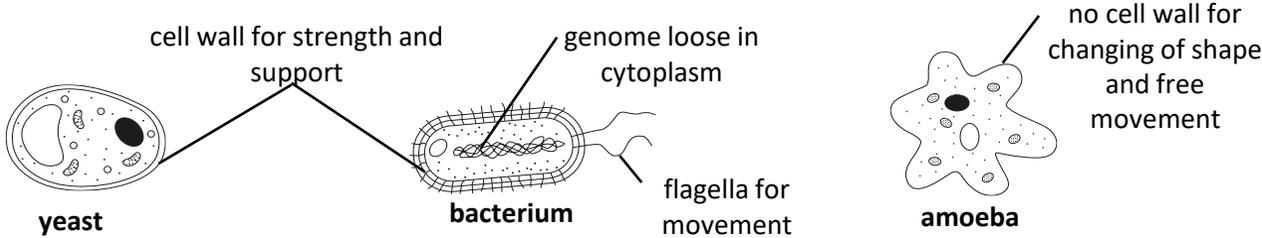
- **good blood supply** maintains the concentration difference
- **large surface area** for faster rate of diffusion
- **thin walls** (one cell thick) to provide a shorter diffusion pathway



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.



- | | |
|---|--|
| <ul style="list-style-type: none"> • Used in _____ • Used to make _____ | <ul style="list-style-type: none"> • Supports _____ • Used to make _____ |
|---|--|

Gas exchange system

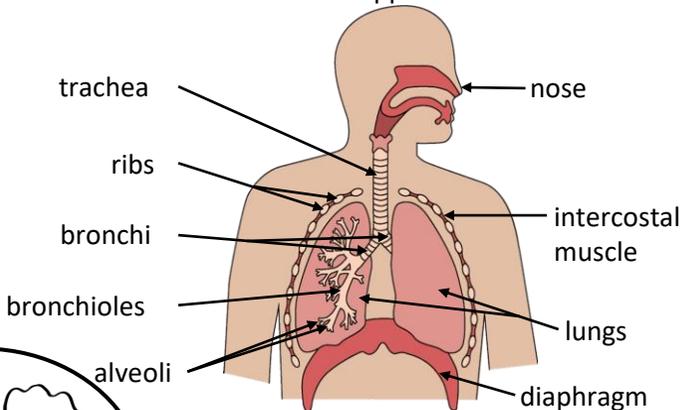
Inhaled air contains more _____ than exhaled air. Exhaled air contains more _____ than inhaled air.

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

- They are _____ and more _____ than unicellular organisms.
- They cannot rely on _____ alone for exchanging substances.
- Multicellular organisms depend on tissues, _____, and _____ 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.**

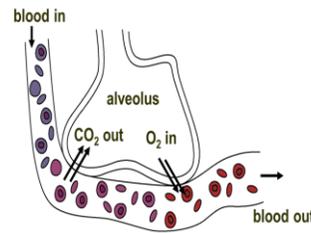
The human gas exchange system allows for the exchange of _____ and _____ between an organism and its _____.

_____ 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



_____ 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.

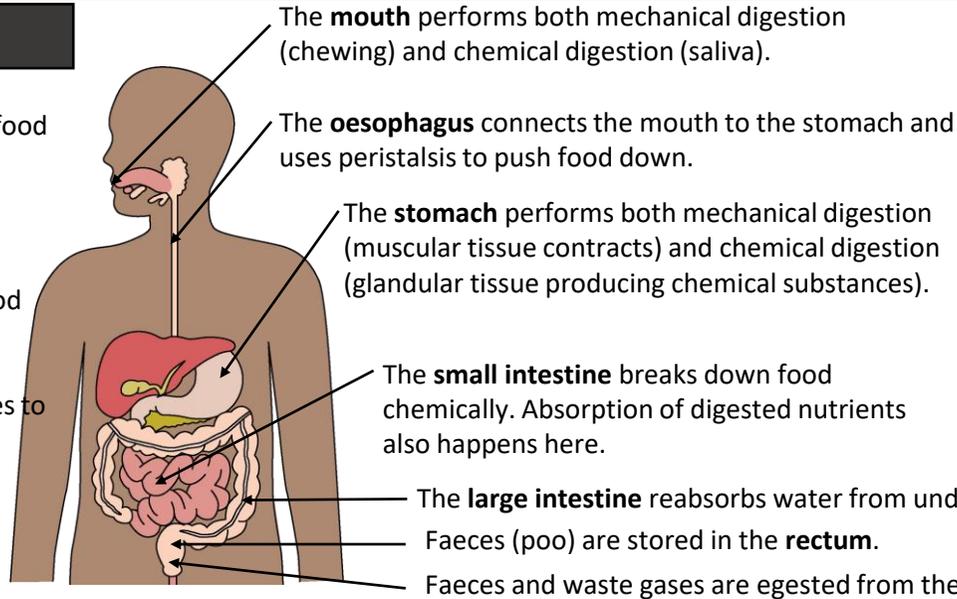
Vital capacity is the maximum volume of air exhaled after inhaling fully and can be used to estimate lung volume.

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

Organ systems

Digestive system

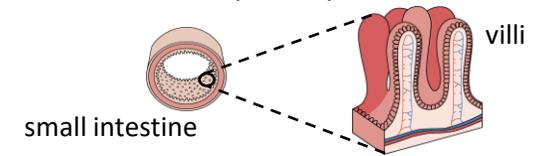
- The human digestive system breaks down large, insoluble food molecules into small, soluble molecules so that they can be absorbed into the blood.
- Mechanical digestion:** the physical breakdown of food into smaller pieces.
- Chemical digestion:** the use of chemical substances to break food down into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



Adaptations:

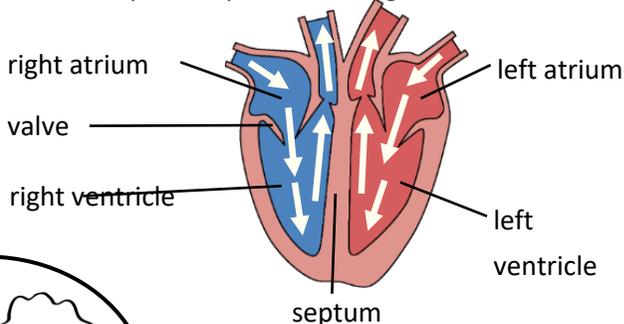
The small intestine is covered in many villi for efficient absorption by diffusion:

- 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.



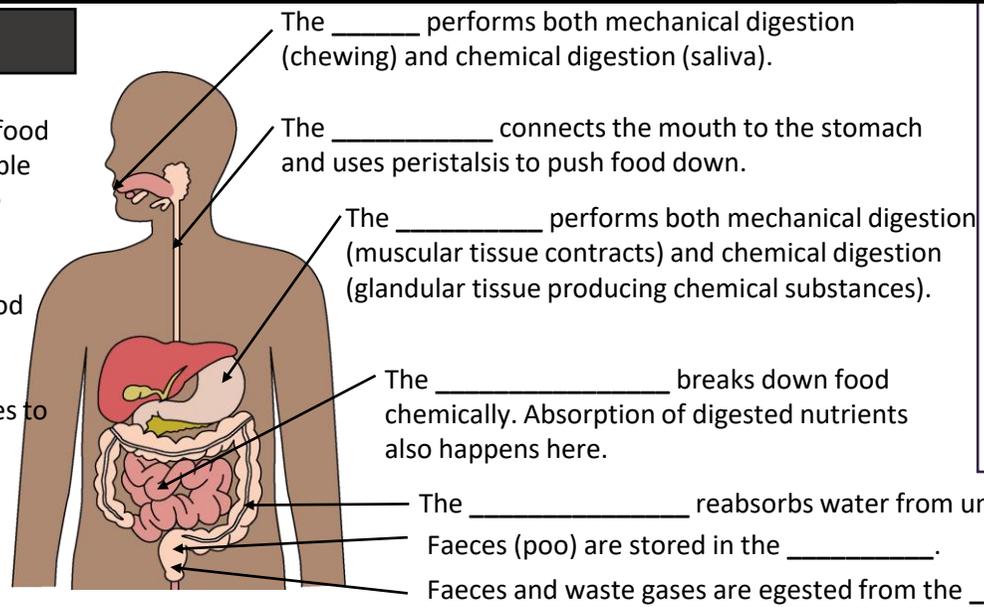
The heart pumps oxygenated blood from the lungs to the body and deoxygenated blood from the body to the lungs (double circulatory system).

Arteries	Capillaries	Veins
<ul style="list-style-type: none"> Blood taken away from heart High pressure blood Thick muscular and elastic walls Small lumen 	<ul style="list-style-type: none"> Exchange substances between blood and cells Very low pressure blood Very thin walls (one cell thick) Very small lumen 	<ul style="list-style-type: none"> Blood brought back to heart Low pressure blood Thin walls Large lumen Valves prevent back flow

Organ systems

Digestive system

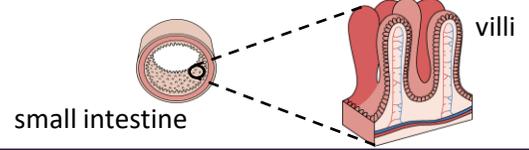
- The human digestive system breaks down _____, insoluble food molecules into _____, soluble molecules so that they can be _____ into the blood.
- _____ **digestion:** the physical breakdown of food into smaller pieces.
- _____ **digestion:** the use of chemical substances to break food down into smaller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



Adaptations:

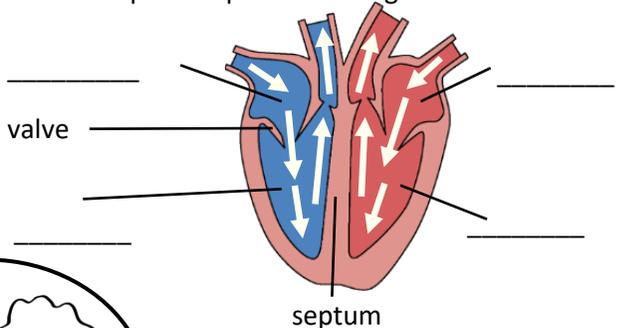
The small intestine is covered in many _____ for efficient absorption by diffusion:

- villi provide a _____ for faster rate of diffusion
- villi have _____ to maintain the concentration difference
- villi have _____ (one cell thick) to provide a shorter diffusion pathway

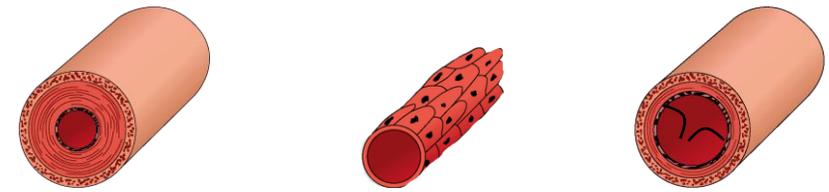


Circulatory system

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



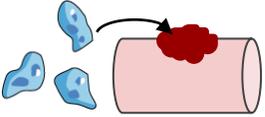
<ul style="list-style-type: none"> Blood taken away from heart High pressure blood Thick muscular and elastic walls Small lumen 	<ul style="list-style-type: none"> Exchange substances between blood and cells Very low pressure blood Very thin walls (one cell thick) Very small lumen 	<ul style="list-style-type: none"> Blood brought back to heart Low pressure blood Thin walls Large lumen Valves prevent back flow
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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.

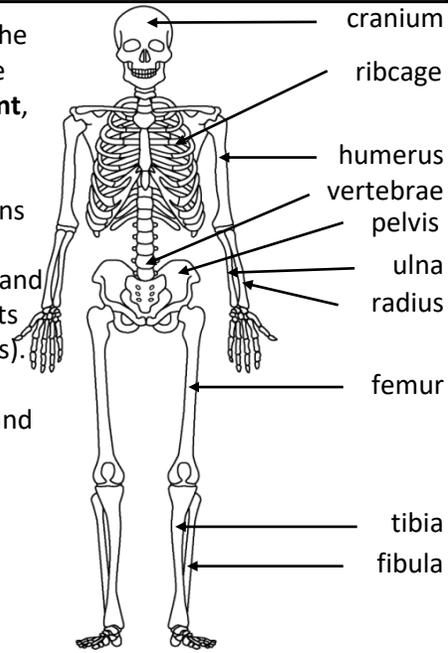
Red blood cells, white blood cells and platelets are made in the **bone marrow** - soft tissue inside large bones protected by the hard part of the bone around it.

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

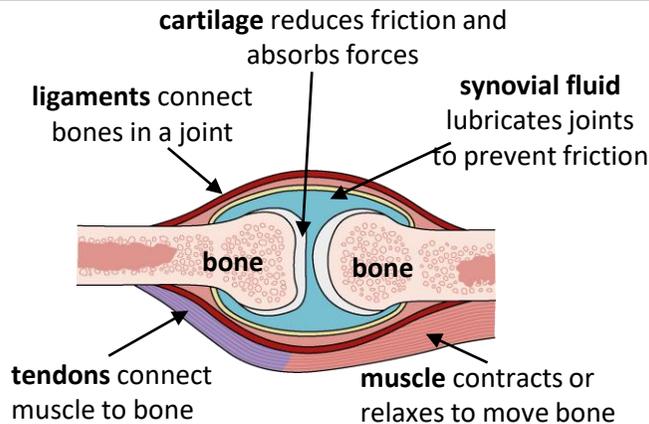
Four functions of the skeletal system are **support, movement, making new blood cells and protection of organs** (e.g. the cranium protects the brain and the ribcage protects the heart and lungs). **Bones** are living tissues that grow and change.



Joints, muscles and movement

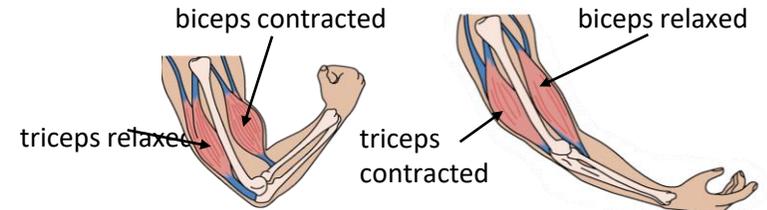
A joint is the point where two or more bones meet in the body. Joints connect bones and allow the body to move and bend. Different joint types allow various movements:

- **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.

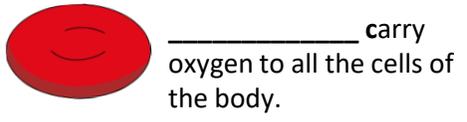
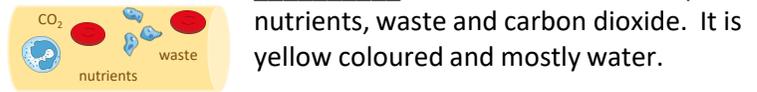
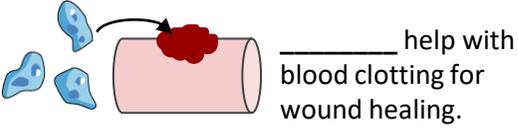


- The way in which muscles and bones work together to exert forces is called **biomechanics**.
- **Muscle strength** varies based on muscle size, age, sex, training, nutrition and injury.

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.



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.

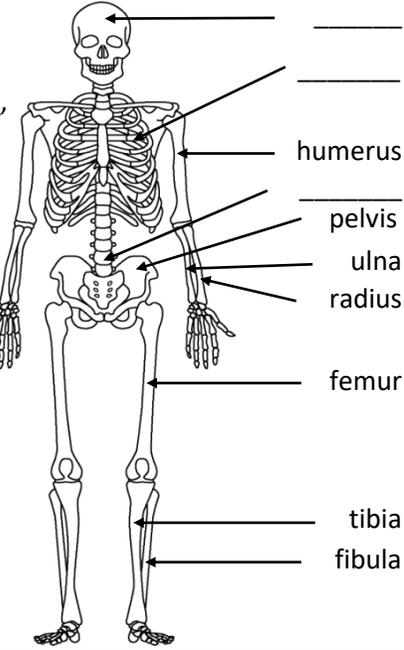
Adaptations of the red blood cells:

- 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.

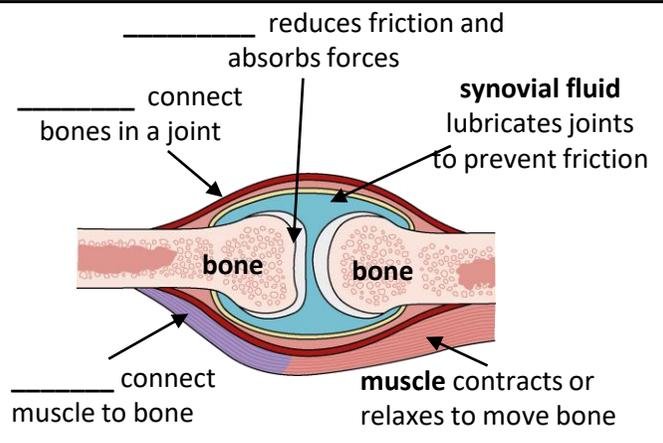


Joints, muscles and movement

A _____ is the point where two or more bones meet in the body.

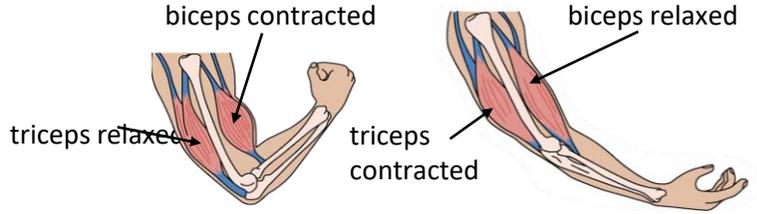
Joints connect bones and allow the body to move and bend. Different joint types allow various movements:

- _____ joint: movement backwards and forwards e.g. the knees and elbows
- _____ 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.

- Muscles can **only** _____, they **cannot push**;
- 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:
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> 1. Ultrasound 2. Frequency 3. Transverse

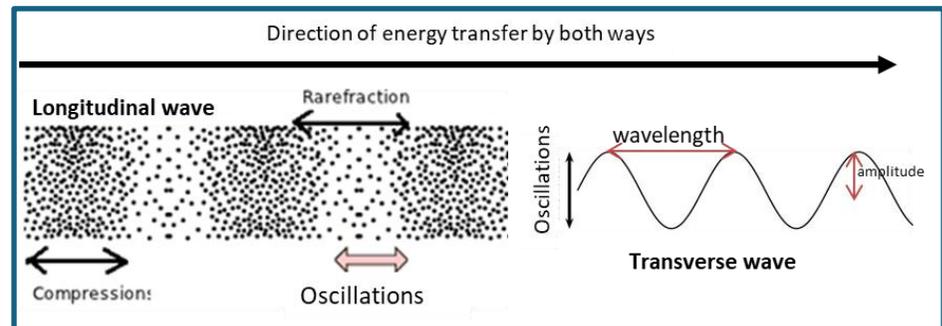
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Waves transfer energy without transferring matter.				
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B. What different behaviours do waves show?										
Waves can travel through all sorts of media, and different things can happen at the boundary between different media:										
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B. What is Superposition
<p>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.</p>
<p>Constructive Interference</p> <p>Destructive Interference</p>

C. Changes in sounds						
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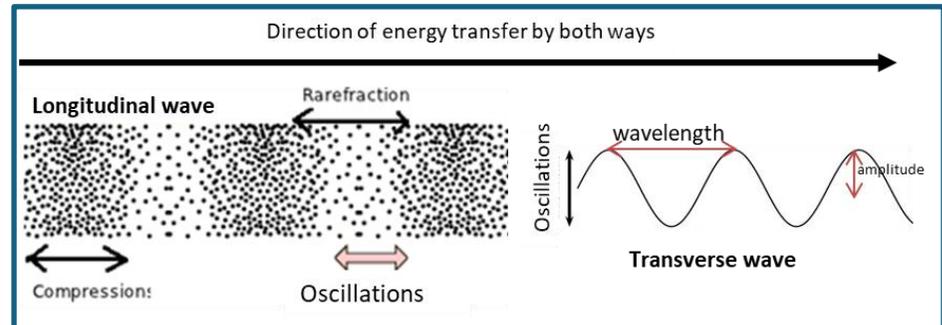
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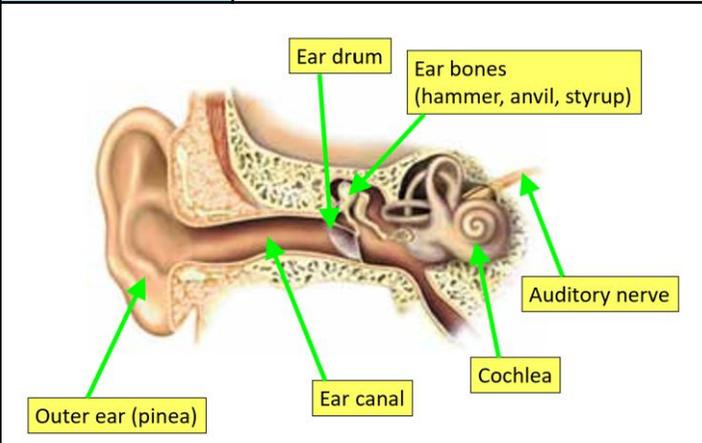




C.	How is sound produced?
Sound is produced by vibrations	
How does sound travel?	
Vibrations transfer energy through particles.	
Which media does sound travel fastest in and why?	
Solids – the particles are closer together	

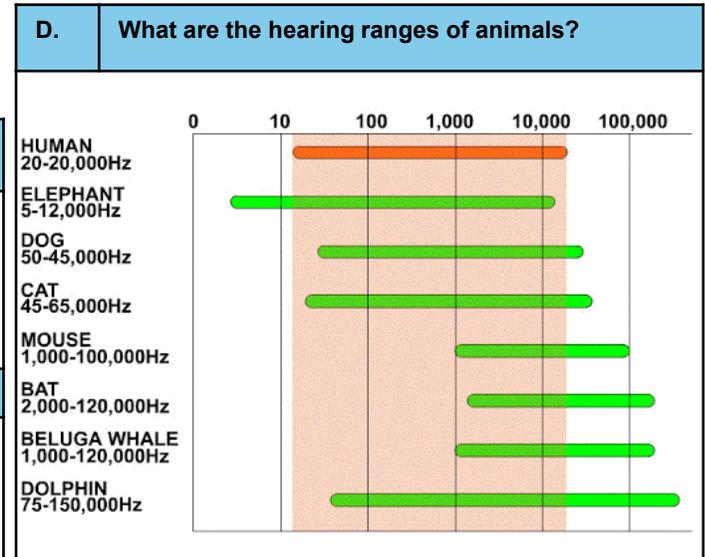
D.	Hearing ranges
What is the hearing range of humans?	Humans have a hearing range between 20 – 20 000 Hz
What is ultrasound?	Sounds with a frequency above 20 000 Hz
What is ultrasound used for?	Uses of ultrasound: <ul style="list-style-type: none"> • Prenatal scans of unborn babies • Ultrasonic cleaning 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?
<ul style="list-style-type: none"> • 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	
<p>Amplitude (volume) is shown by the height. The higher the waves, the louder the sound.</p>	
<p>The frequency (pitch) is shown by how close the waves are to each other. The closer they are, the higher the pitch.</p>	



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

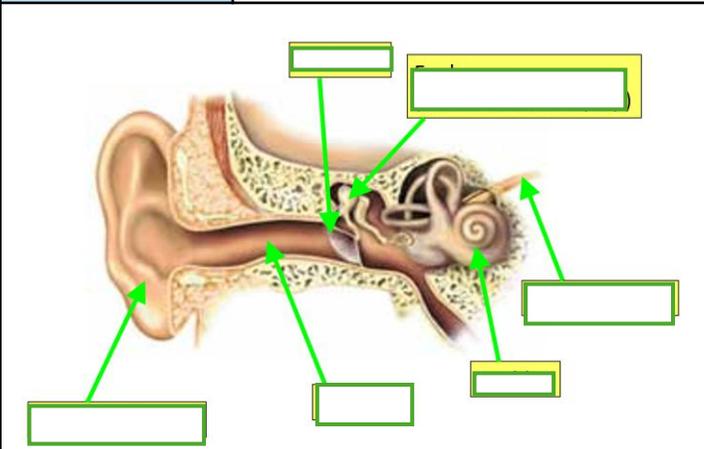
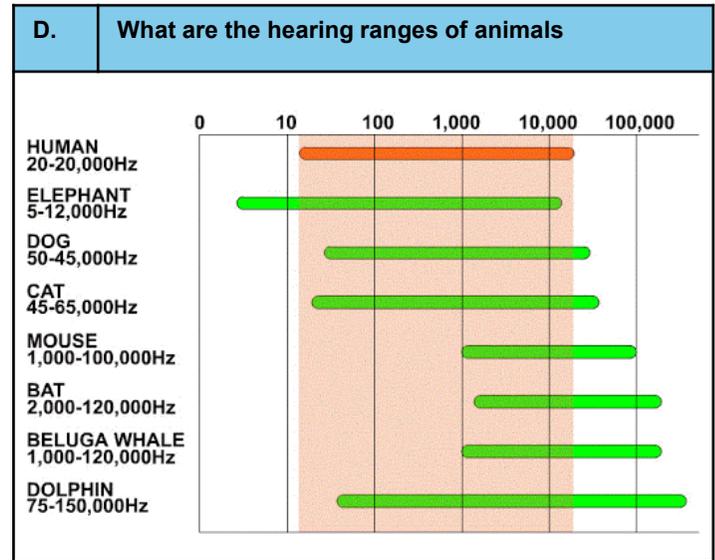
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D.	Seeing sounds – How can you see sounds?
Amplitude (volume) is shown by:	
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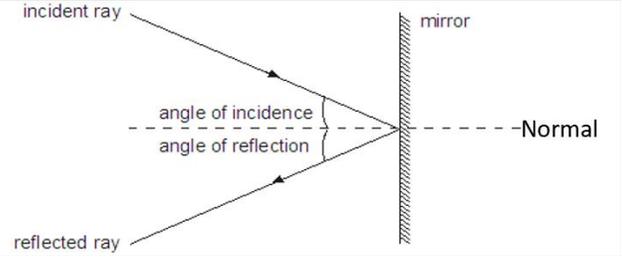
- Light and materials
- Ray model
- Colour
- Weight and mass
- Astronomical structures and distances
- Days, years and seasons

6 Key Words for this term

- Vacuum
- Refraction
- Absorption
- Transmission
- Wavelength
- Reflection

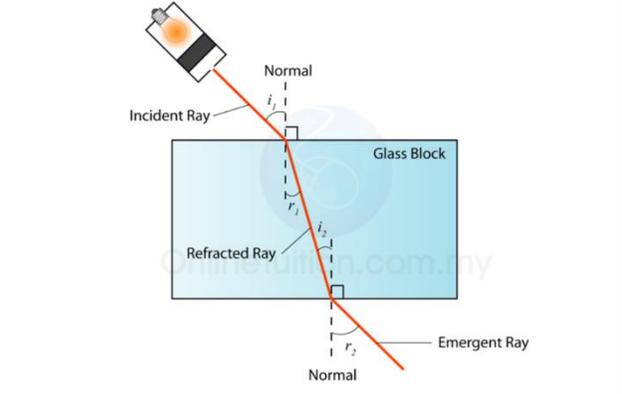
B. What is reflection?

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.



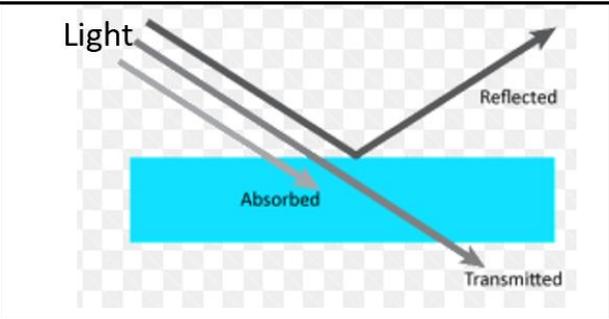
B. What is refraction?

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



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

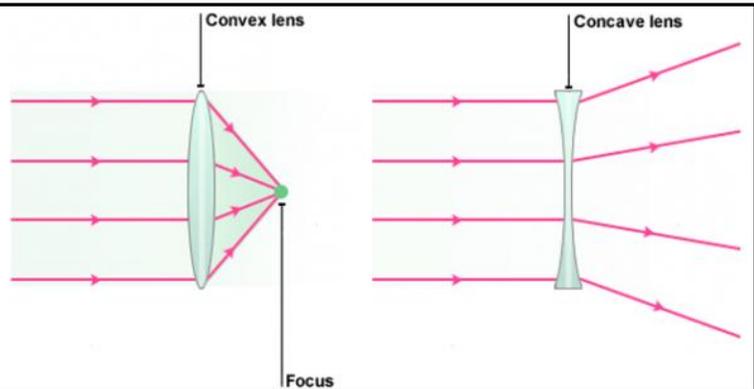
Light is transmitted	it passes straight through
Light is absorbed	it does not pass through
Light is reflected	light bounces off the surface of the material



B. What are the two types of lenses?

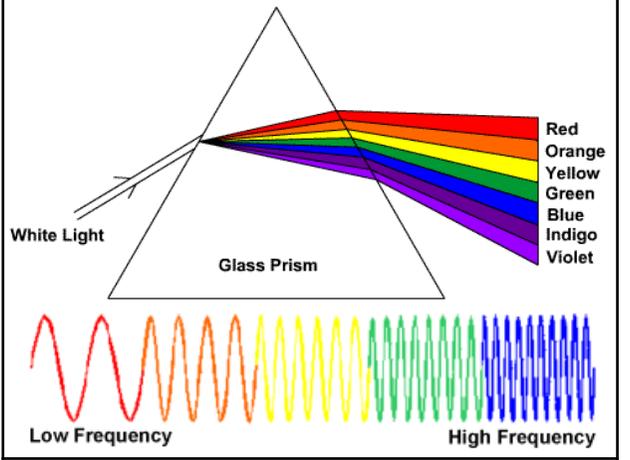
Convex lens – light rays are refracted then **converge** (meet up).

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

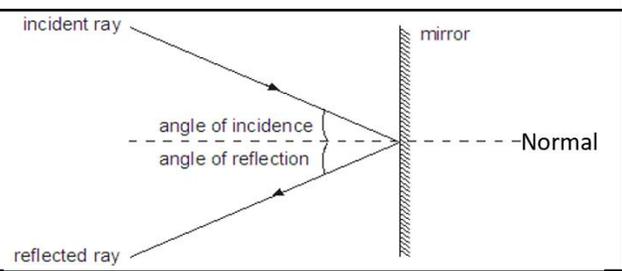
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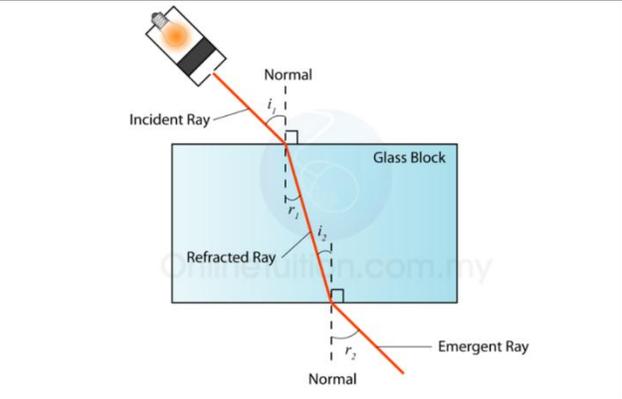
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1.	4.
2.	5.
3.	6.

B. What is reflection?

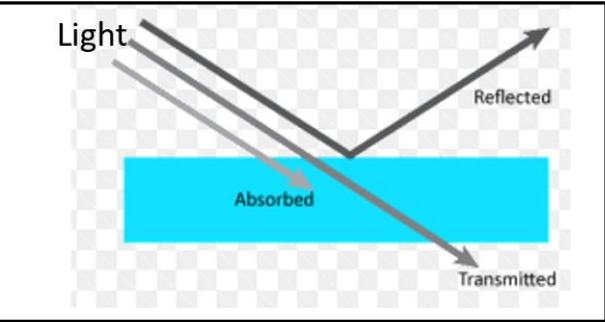


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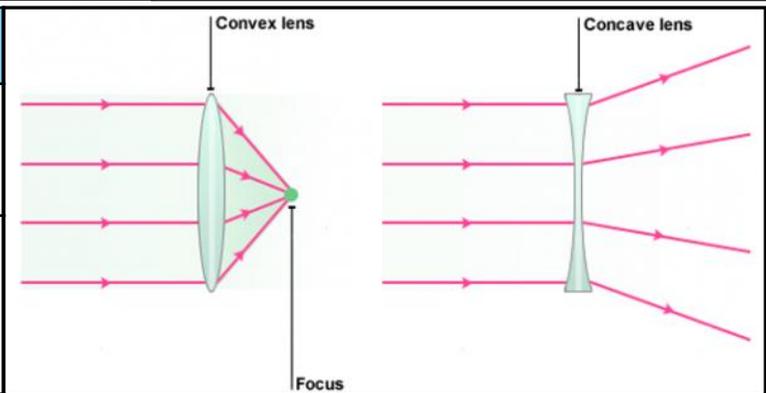


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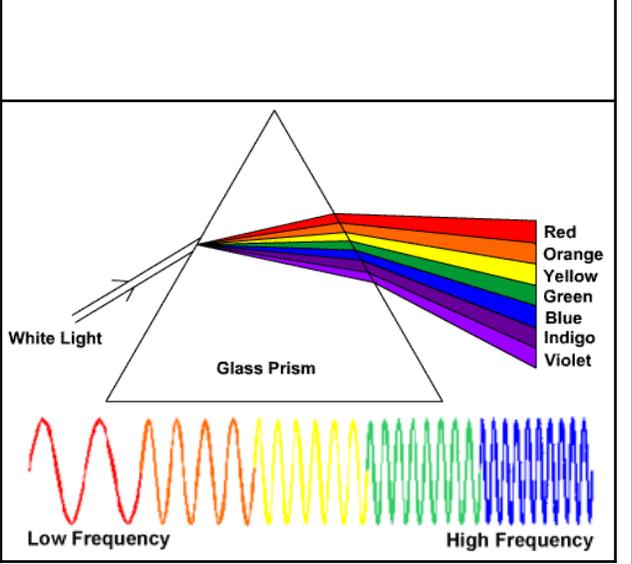
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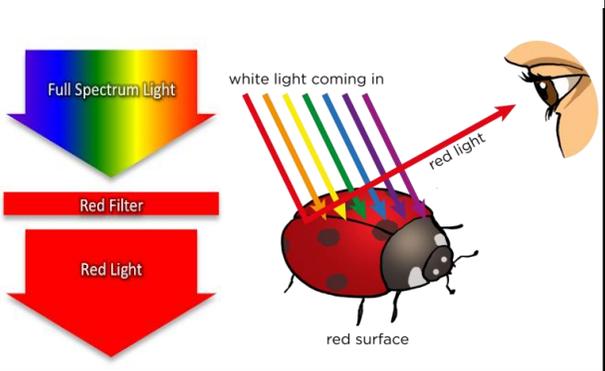
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7.05: World of work



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



D) Employment structures and development

Countries	Industries
developing countries	
emerging countries	
developed countries	
Change	Cause
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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

A) Employment sectors

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

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

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: <ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 soft sword). 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?	<p><u>Short term</u></p> <ul style="list-style-type: none"> 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 <p><u>Long term</u></p> <p>Eventually it gave everyone freedoms such as stopping people being arrested for no reason</p>
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.

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.

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
<i>Labour Services</i>	Ever since 1066 most peasants (known as villains) had to do free labour services their local lords (knights and barons). Some peasants, known as freeman, did not want to do this work. Peasants wanted everyone to become freeman ending the free labour they had to do for their lords.
<i>The impact of the Black Death on wages</i>	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.
<i>Poll taxes</i>	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. *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

Year 7 History : Challenges to medieval kings

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?

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.

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

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>	

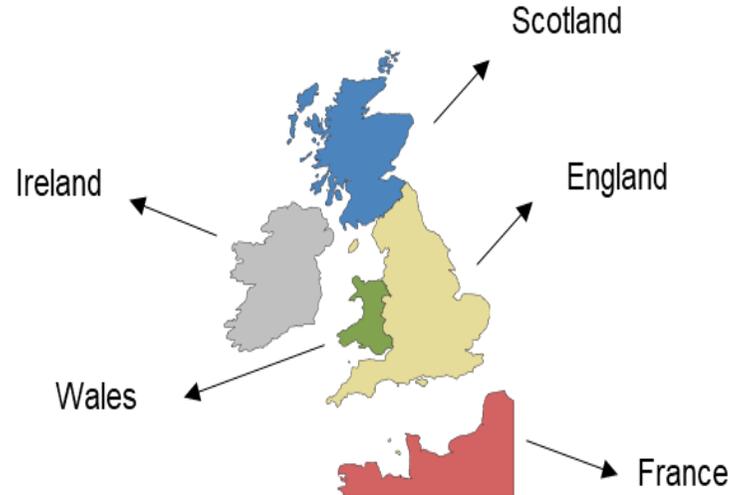
Year 7 History : England and her neighbours

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/.



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."

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>



Hatchet



Mace

Lance



Polearm



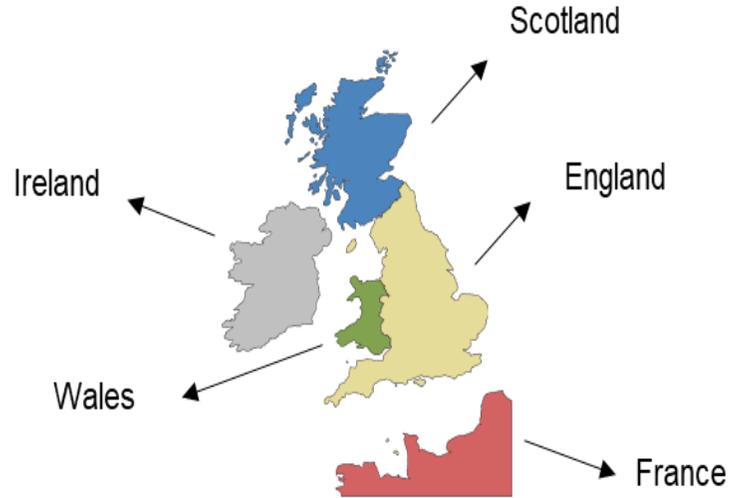
E.	Causes of the 100 year war
<i>Land in France</i>	The English controlled a lot of land in France that was used to produce Wine. This made the English a lot of money, but the French were threatening to take it back.
<i>Control of Flanders</i>	The English controlled Flanders where a lot of wool was made benefitting the English. Yet again, the French were threatening to take their land back from the English.
<i>French Succession</i>	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.

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.

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
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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

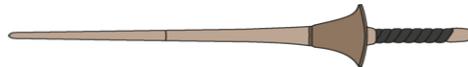
The act of joining or being linked to somewhere, someone or something else.

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.

A. Can you define these key words?

Artillery	
Hatchet	
Heresy	
Homage	
Lance	
Mace	
Polearms	
Relations	
Resistance	
Siege	



E.

Causes of the 100 year war

<i>Land in France</i>	
<i>Control of Flanders</i>	
<i>French Succession</i>	

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

1	Abraham
2	Covenant
3	Sara
4	Isaac
5	Moses
6	Miriam
7	Exodus
8	Ten Commandments
9	Esther
10	Monotheism
11	Shema
12	Messiah
13	Genesis
14	Mitzvot
15	Tikkun Olam
16	Synagogue
17	Bar/Bat Mitzvah
18	Pesach/Passover
19	Shabbat
20	Orthodox
21	Reform
22	Prophecy

Holy Books introduced

The Tanakh	
The Torah	
Nevi'im	
Ketuvim	
Talmud	

Tools for Studying Religion



What we are learning this term: A. Name places in town B. Describe a town / city C. Say where you are going D. Give and understand directions E. Saying where things are F. Talking about distance G. Translation practice		C. ¿Cómo es tu casa? What's your house like? Mi casa es... acogedor(a) adosado/a antiguo/a bonito/a cómodo/a grande moderno/a nuevo/a pequeño/a reformado/a muy bastante My house is... cosy semi – detached old pretty comfortable big modern new small renovated very quite		Key Verbs				
6 Key Words for this term				Ser To be	Tener To have	Hablar To speak	Comer To eat	Vivir To live
1. Voy	4. la ciudad			Soy I am	Tengo I have	Hablo I speak	Como I eat	Vivo I live
2. ir	5. ¿Dónde está?			Eres You are	Tienes You have	Hablas You speak	Comes You eat	Vives You live
3. el pueblo	6. está			Es s/he is	Tiene He/she has	Habla s/he speaks	Come s/he eats	Vive s/he lives
A. La Ciudad – The City		D. Las Direcciones – Directions		Somos We are	Tenemos We have	Hablamos We speak	Comemos We eat	Vivimos We live
el aeropuerto	the airport	A la derecha A la izquierda Sigue todo recto Por dónde se va al/a la...? Dónde está...? toma... la primera a la derecha la primera a la izquierda la segunda la tercera baja cruza dobla sube por tuerce una Avenida un castillo un edificio una fábrica un puerto		son They are	Tienen They have	Hablan They speak	Comen They eat	viven They live
e café de internet	the internet café	To the right To the left Go straight ahead How do you get to...? Where is...? Take... the 1 st on the right the 1 st on the left the 2 nd the 3 rd go down cross turn go up turn the avenue the castle the building the factory the port		E. Mi Ciudad – My city				
la calle	the Street	E. ¿Adónde vas? – Where are you going?		Cómo es tu barrio? Es... antiguo/a bonito/a grande histórico/a importante industrial pequeño/a tranquilo/a Me gusta mucho Porque ¿Te gustaría visitar? Me gustaría visitar ¿Qué hay en tu barrio? el pueblo la ciudad Hay... tiene... un monumento un palacio un parque nacional un quiosco ruidoso/a animado/a limpio/a sucio/a pintoresco/a				
la capital	the capital	I go He/she goes They go We go I'm going to the shopping centre See you later!		What's your neighbourhood like? It's... old pretty big historic important industrial small quiet I really like because Wld you like to visit? I wld like to visit What's in your neighbourhood? the town the city There is / there are It has a monument a palace a national park a kiosk noisy lively clean dirty picturesque				
la catedral	the cathedral			F. Key Opinions/ Verbs across topics				
el centro comercial	the shopping centre			tener ser ir hacer jugar ver escuchar comprar beber salir leer trabajar pensar escribir Me gusta Me encanta Odio porque divertido/a aburrido/a útil inútil cómodo/a interesante entretenido/a emocionate guay genial soso asqueroso/a malo bueno				
el cine	the cinema			to have to be to go to do/ to make to play to see to listen to buy to drink to go out to read to work to think to write I like I love I hate because fun boring useful pointless comfortable interesting entertaining exciting cool amazing dull disgusting bad good				
la estación de autobuses	the bus station							
la estación de servicio	the petrol station							
la estación de trenes	the train station							
el estadio	the stadium							
el hospital	the hospital							
el instituto	the school							
el mercado	the market							
la oficina de turismo	the tourist office							
el parque	the park							
la piscina	the pool							
la playa	the beach							
B. Más lugares – More places								
la plaza	the square							
la plaza de toros	the bull ring							
la plaza mayor	the main square							
el polideportivo	the sports centre							
el puente	the bridge							
el río	the river							
las tiendas	the shops							
la tienda de regalos	the gift shop							
la bolera	the bowling alley							
el cine	the cinema							
la universidad	the university							
la iglesia	the church							
el museo	the musuem							
la galería de arte	the art gallery							

What we are learning this term:
A. Talking about places in town / city B. Saying what there is to do in town / city C. Talking about sports and hobbies D. Saying what you like to do in free time E. Talking about household chores F. Talking about plans for the weekend G. Opinions H. Extending your writing I. Translation skills J. Working on questioning

Ser	To be	Tener	To have	Infinitive	Present	Past	Future
soy	I am	tengo	I have	hablar to speak	Habl_ I speak	Habl_ I spoke	_____ I am going to speak
eres	You are	tienes	You have	comer to eat	Com_ I eat	Com_ I ate	_____ I am going to eat
es	s/he is	tiene	s/he has	ir to go	_____ I go	_____/_____ I am/it was	_____ I am going to go
somos	We are	tenemos	We have	ser to be	soy I ____	_____ I was	_____ I am going to be
son	They are	tienen	They have	tener to have	T_____ I have	T_____ I had	_____ I am going to have

A. La Ciudad – The City

_____	the airport
_____ e café de internet	_____
_____ la capital	the Street
_____ el centro comercial	_____
_____	the cathedral
_____ la estación de autobuses	the cinema
_____	_____
_____ la estación de trenes	the petrol station
_____	_____
_____ el hospital	the stadium
_____ el mercado	_____
_____ el parque	the school
_____ la playa	_____
	the tourist office

	the pool

B. Más lugares – More places

_____	the square
_____ la plaza de toros	_____
_____	the main square
_____ el puente	the sports centre
_____ el río	_____
_____ las tiendas	_____
_____	the gift shop
_____ el cine	the bowling alley
_____ la universidad	_____
_____ la iglesia	_____
_____ la galería de arte	the musuem

C. ¿Cómo es tu casa? What's your house like?

Mi casa es...	_____
_____	_____
_____	cosy
_____	semi – detached
_____ antiguo/a	_____
_____ bonita/a	_____
_____ cómodo/a	_____
_____	big
_____ nuevo/a	modern
_____ pequeño/a	_____
_____ reformado/a	_____
_____	very
_____	quite

D. Las Dirrecciones – Directions

_____	To the right
A la izquierda	_____
Por dónde se va al/a la...?	Go straight ahead
_____	_____
_____	Where is...?
_____	Take...
_____	the 1 st on the right
_____ la primera a la izquierda	_____
_____ la segunda	_____
_____ la tercera	_____
_____ baja	_____
_____ cruza	_____
_____ dobla	_____
_____	go up
_____	turn
_____	the avenue
_____	the castle
_____	the building
_____ un puerto	the factory

G. Translation Practice	
I go to the beach	V a l p
We go to the stadium	V a e
They go to the park	V a p
I go to the sports centre	V a p
I live in quite a small town	v e u p b p
I live in a big city	V e u c g
There is a train station and a museum	H u e d t y u m
But there isn't a river	P n h r
There is a school but there isn't a square	H u i p n h p
It's an industrial city and very historic.	E u c m i y m h
It's in the north of the country and is a very noisy city.	E e e n d p y e u c m r
It has a port and lots of factories but there isn't a bullring.	T u p y m f p n h p d t
It's an old town	E u p a
It's a historic city	E u c h
It's in the south of the country	E e e l d p
There are lots of things to do	H m c q h
It has lots of beaches and museums	T m p y m
I love my city because there are lots of things to do	M e m c p h m c q h

H . Key Questions: Answer the following in your own words. Use these model answers	
¿Dónde vives? Where do you live?	Vivo en una casa grande en una ciudad que se llama Swindon. Swindon esta en el sur de Inglaterra.
¿Qué hay en tu pueblo? What is in your town?	Mi pueblo es bastante grande. En mi pueblo, hay una estación de trenes, dos polideportivos, muchas casas pero no hay playa. Necesitamos un aeropuerto.
¿Cómo es tu pueblo? What is your town like?	Es una ciudad industria. Es muy antigua y histórica pero no es tranquila. Es un poco turística porque hay un museo y un centro comercial grande.
¿Cómo sería tu pueblo ideal? What would your ideal town be like?	Si fuera rico/a, me gustaría vivir en una ciudad grande en España. Me gustaría vivir en Barcelona en España porque es una ciudad muy turística, bonita y tiene una playa.

I. Key Questions: Translate these model answers using the KO	
¿Dónde vives? Where do you live?	I live in Portsmouth near to the sea. I live in a small house. I love my house because it's very cosy. Portsmouth is in the south of England.
¿Qué hay en tu pueblo? What is in your town?	In my town we have a lot of parks, a cathedral and 3 cinemas. There is a main square, a bullring and many markets. My town does not have an airport but it does have a port. In the future there is going to be a new school and an airport.
¿Cómo es tu pueblo? What is your town like?	My town is very small but very lively. There are a lot of tourists because my town is very near to the sea. In the summer there is a lot of traffic in my town. In the winter my town is very quiet.
¿Cómo sería tu pueblo ideal? What would your ideal town be like?	My ideal town would be very modern with lots of people. It would be very quiet with not much traffic. My ideal town would be pretty with lots of shops and lots of parks.

J. Key Grammar	
Use the verb ESTAR to talk about location	Mi casa está en Swindon = My house is in Swindon
Make sure adjectives agree e.g. blanco/blanca/blancos/blancas	Mi casa es blanca = My house is white Mi perro es blanco = My dog is white Mis zapatos son blancos = My shoes are white Las mesas son blancas = The tables are white
Justify opinions with because	Me gusta mi casa porque es blanca = I like my house because it's white
Saying 'to the'	Use AL or A LA (a + el = al) Al museo A la playa

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

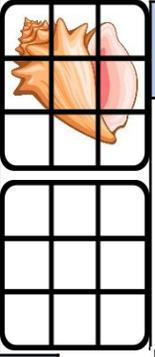
Why? To document and record newly discovered species of animals and plants



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

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

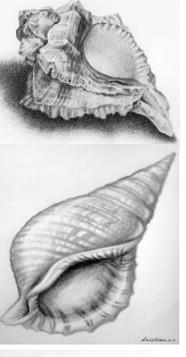
Drawing from a primary source means drawing something from real life

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)



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

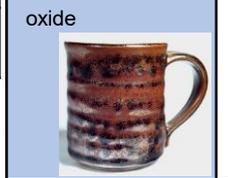
glaze

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



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

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



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



What we are learning this term:

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- B. How to use the grid method for accuracy
- C. Drawing from observation of primary sources
- D. How to work using oil pastels
- E. How to make a simple clay pinch pot
- F. How to decorate clay using glazes and oxides
- G. What is texture
- H. How to produce a mixed media outcome

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

Who? _____

What? _____

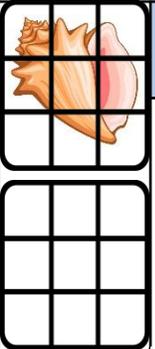
Why? _____



Key word	Key definition
illustration 	
observation 	
source 	
texture 	
tone 	
outcome 	

B. How to use the Grid Method for accurate drawing

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



C. Drawing primary sources from observation

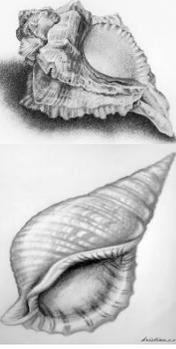
Drawing from a primary source means.....

Observe the objects

Lay out the basic you can see

.....and add

Add to show how light is hitting the object(s)



F. How to use glazes and oxides

oxide

Powder made from

Mixed withand applied to the bisque fired clay

Highlights the in the clay surface

Can be appliedor 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



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 _____

Step 2 _____

Step 3 _____

Step 4 _____

Step 5 _____

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



E. 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




G. What is texture?

Texture is

Actual texture is

Visual or implied texture is






What we are learning this term:

A. Workshop Tools B. Materials C. Modelling D. Key Words E. Evaluating Work

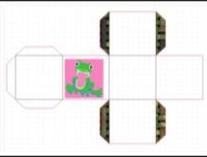
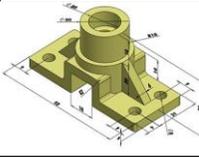
A. Workshop Tools 						
Steel Rule	Wooden Vice	Clamp	Bench Hook	Tenon Saw	Pillar Drill	Bandfacer
						

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

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

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

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:	
<ol style="list-style-type: none"> Positives – what works well Negatives – what doesn't work well 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.	



What we are learning this term:
A. Workshop Tools B. Materials C. Modelling D. Data Analysis & Evaluation

A. Workshop Tools

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B. Materials

Timbers come from _____

	<p>Scots pine – which you used for your maze frame – is a softwood</p> <p>Softwoods come in _____ and _____</p>
--	--

Manufactured Boards come from _____

	<p>Plywood – which you used as your base, insert and maze walls – is a manufactured board</p> <p>Manufactured Boards come in _____</p>
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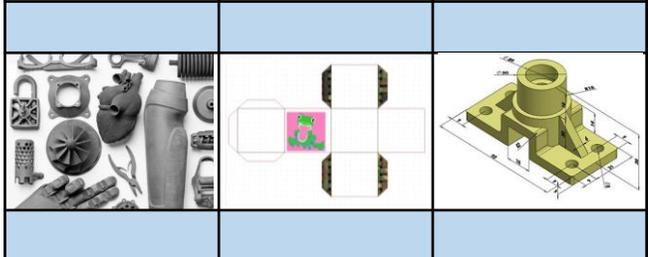
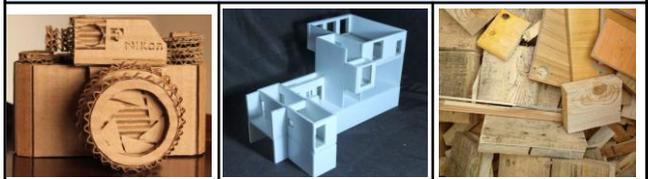
Polymers come from _____

	<p>Acrylic – which you used as your lid for your maze – is a polymer</p> <p>Polymers come in _____, _____ and _____</p>
--	--

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.

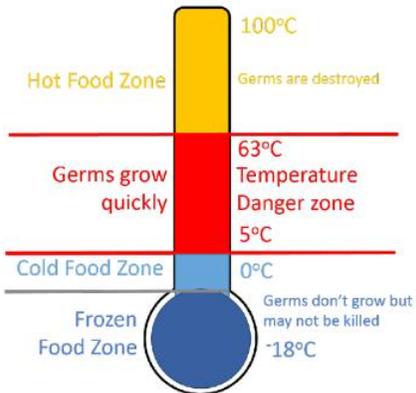
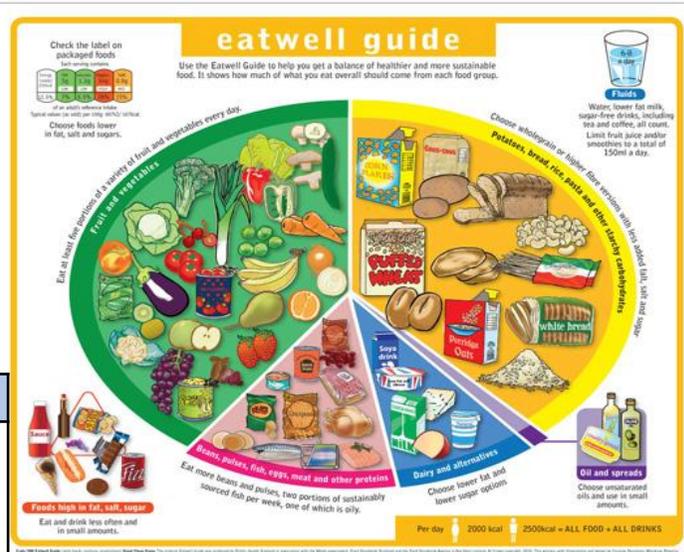


Image: TAFE NSW

B.	What are the 5 different sections of the Eatwell plate?
	<ol style="list-style-type: none"> 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	Reared food – animals kept on a farm, bred and raised for use i.e cows to give milk	Caught food – animals hunted in the wild i.e fish, game animals
	Intensive farming – bad for the environment, uses chemical fertilisers and pesticides. Gives a high yield (amount of food).	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.	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.
	Organic farming – "natural" farming, is slower and more expensive to do.		

c.	Food fortification and modification
	<p>Fortify – to make stronger/better</p> <p>Food fortification – adding extra nutrients to food to improve how nutritious it is Examples: butter with added vitamins, cereal with added iron and vitamins</p> <p>Modification – to change the properties of something</p> <p>Additives – chemicals added to food, can be natural or artificial Examples – flavourings, colourants, preservatives, stabilisers</p> <p>Genetically modified (GM) - the genes (DNA) of the crop or animal have been changed to improve their yield i.e more seeds.</p>

Y7 Food technology

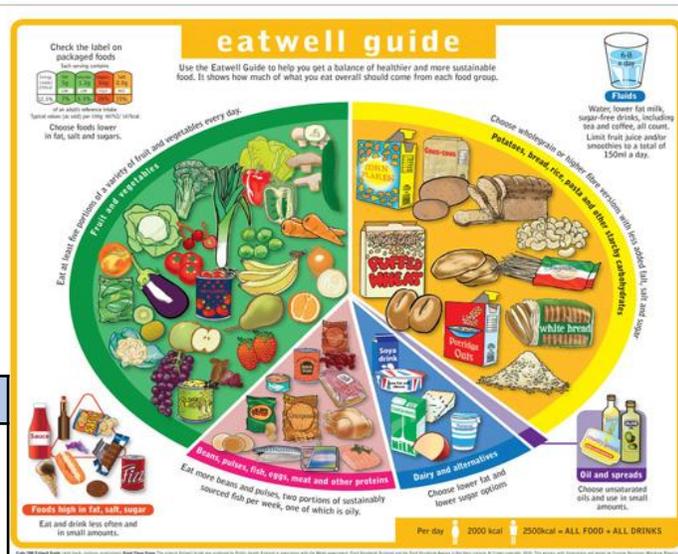
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- 5 **Fats and Oils**



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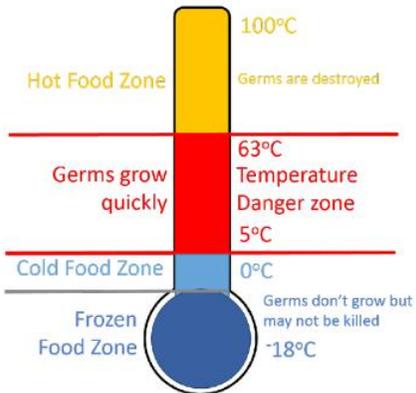


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YEAR 7 GRAPHIC COMMUNICATION

What are we learning this term?

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

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.

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

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

What are we learning this term?

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

D | Key words

Graphics

Typography

Font

Photoshop

A | Personification

What is personification?



How does Paul Thurlby use personification?

E | Evaluation

Evaluation: To judge or give an opinion

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

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Sans Serif:

Script:

Decorative:

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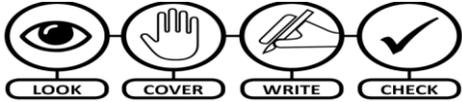


What does this symbol mean?





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

octave

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
Staff	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 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 staff 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 staff 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**.

C D E F G A B c' d' e' f'

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



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.)



Key features of MELODRAMA

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

Stock characters

Hero
Heroine
Villain
Side Kick



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.

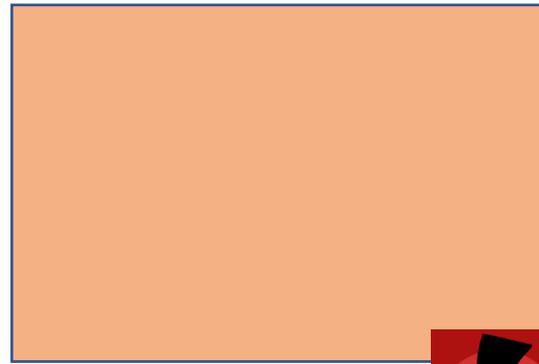




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SWINDON ACADEMY READING CANON

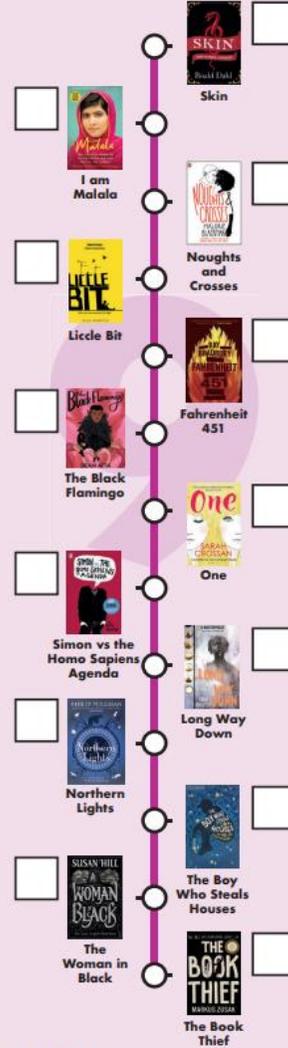
Year 7



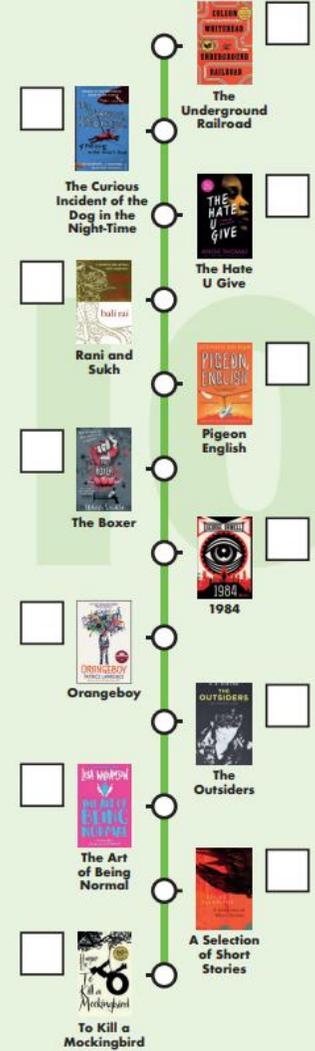
Year 8



Year 9



Year 10



#ReadingisPower