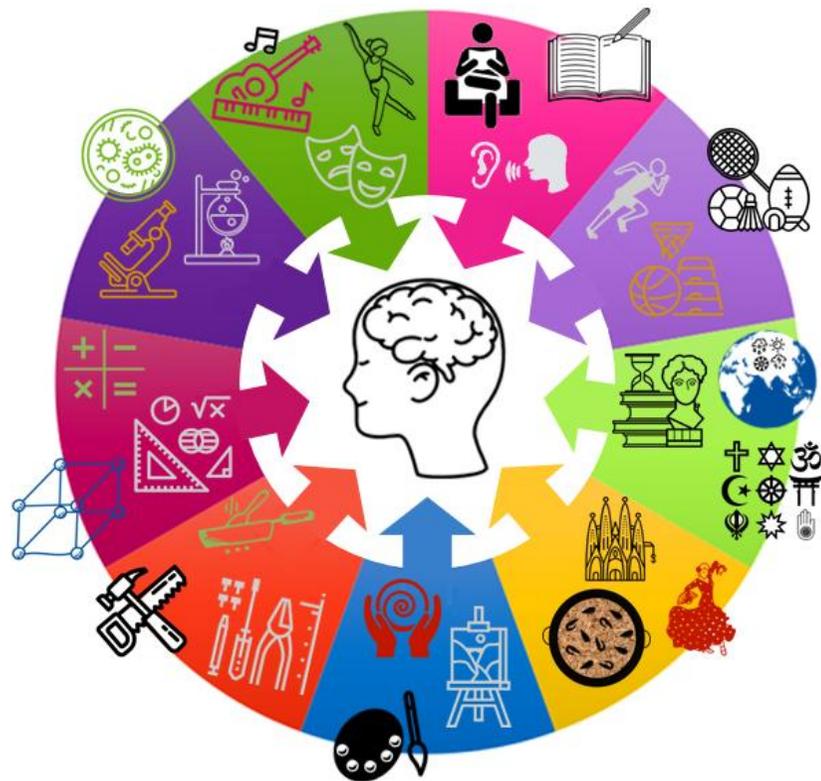


# 100% book - Year 7 Grammar

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.**

<b>Solid</b>	In a regular pattern. Particles can vibrate in a fixed position.
<b>Liquid</b>	Particles are arranged randomly but are still touching each other. Particles can slide past each other and move around.
<b>Gas</b>	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?**

<b>Melting</b>	change of state from solid to liquid
<b>Freezing</b>	change of state from liquid to solid
<b>Evaporation</b>	change of state from liquid to gas
<b>Condensation</b>	change of state from gas to liquid

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

<b>Pure</b>	A material that is made up of only one type of particle.
<b>Impure</b>	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	
Impure	

Diagram showing particle arrangements for solid, liquid, and gas states.

Diagram showing changes of state: solid to liquid (melting), liquid to solid (freezing), liquid to gas (evaporation), gas to liquid (condensation).

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 May 2020. On the right is a 'Knowledge Organiser' for the topic 'What is particle theory?'. It includes sections for 'What is particle theory?', 'Describe the arrangement and movement of particles in the three states of matter', and 'What is the law of conservation of mass?'. There are also diagrams of particle arrangements for solid, liquid, and gas states.

## Step 2

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

The screenshot shows a student's prep book. The date '29th May 2020' and the title 'Particle theory' are written in the top right corner of the knowledge organiser template. The template includes sections for 'What is particle theory?', 'Describe the arrangement and movement of particles in the three states of matter', and 'What is the law of conservation of mass?'. There are also diagrams of particle arrangements for solid, liquid, and gas states.

## Step 3

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

The screenshot shows a student's prep book with handwritten notes. The date '29th May 2020' is written at the top. Below it, the title 'Particle theory' is written. The notes describe the properties of the three states of matter: Solid (regular pattern, particles vibrate in fixed position), Liquid (particles are arranged randomly but are still touching each other, particles can slide past each other and move around), and Gas (particles are far apart and are arranged randomly, particles carry a lot of energy).

## Step 4

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

The screenshot shows a student's prep book with the handwritten notes from Step 3 repeated three times. Each repetition includes the definition of solid, liquid, and gas states of matter.

## Step 5

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

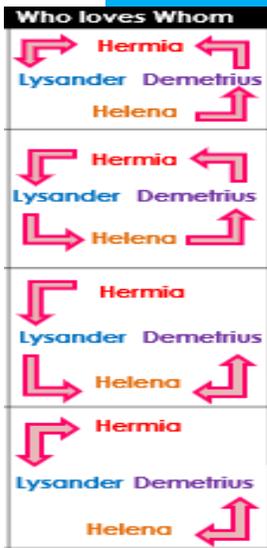
The screenshot shows a student's prep book with the quizzable Knowledge Organiser template. The student has written 'Self quizzing' for the title, 'Arrangement/movement of matter' for the description, and 'Solid = regular pattern', 'Liquid =', and 'Gas =' for the states of matter.

## Step 6

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

The screenshot shows a student's prep book with the handwritten notes from Step 3. The notes are marked with checkmarks, indicating that the student has checked their answers and is confident.

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



**The Big Ideas in AMND**

**Comedy** - The play is an example of one of Shakespeare's comedies:

- The plot is ridiculous and designed to point fun at the way love can make people behave
- The play ends with marriage; a happy ending, but is it really a happy ending?

**Power of Love** - Struggle of young lovers against all. Shakespeare is emphasising the power that love holds over human beings – it can turn us against our friends and family, cause us to lie and hurt other people. Love can both control and humiliate us.

**Gender Roles** - Hermia defies gender roles when she defies her father and the King. Lysander and Demetrius act out violently, thus, conforming to gender roles. Titania is a strong woman, but Shakespeare chooses to make a mockery of her. Why?

**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

**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. She is in love with Lysander.  
**Helena:** in love with Demetrius and a good friend of Hermia.  
**Lysander:** an Athenian nobleman who is in love with Hermia.  
**Demetrius:** an Athenian nobleman who also loves Hermia but has wooed Helena in the past.

**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 1<sup>st</sup> was Queen. The play is written in the Elizabethan era.

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

**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

**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 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.

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



Who loves Whom	The Big Ideas in AMND	Vocabulary: Key words	Characters in AMND
<p>↻ Hermia ↻ Lysander Demetrius Helena ↻</p>	Comedy -	severe –	<p><u>Athenians</u> Theseus:  Hippolyta:  Egeus:  Philostrate:</p>
<p>↻ Hermia ↻ Lysander Demetrius ↻ Helena ↻</p>	Power of Love -	conflict –	<p><u>The Lovers</u> Hermia:  Helena:  Lysander:  Demetrius:</p>
<p>↻ Hermia Lysander Demetrius ↻ Helena ↻</p>	Gender Roles -	unrequited love –	<p><u>Fairies (Mythical characters)</u> Titania:  Oberon:  Puck:  Peasebody/Cobweb/Mustard seed/Moth:</p>
<p>↻ Hermia Lysander Demetrius Helena ↻</p>		to mock –	<p><u>The workmen/theatre performers</u> Bottom:  Quince:  Snug/ Snout/Flute/Starveling:</p>

**Historical Context of AMND**


**Terminology: Key Words**

soliloquy -
comedy –
play -
stage directions -
connotations –
epitomises –

**The Love Potion**

The love potion...





**What we are learning this term:**

- A. Male & female reproductive system
- B. Menstruation, fertilisation, gestation and birth
- C. Plant reproductive systems
- D. Variation and types of variation

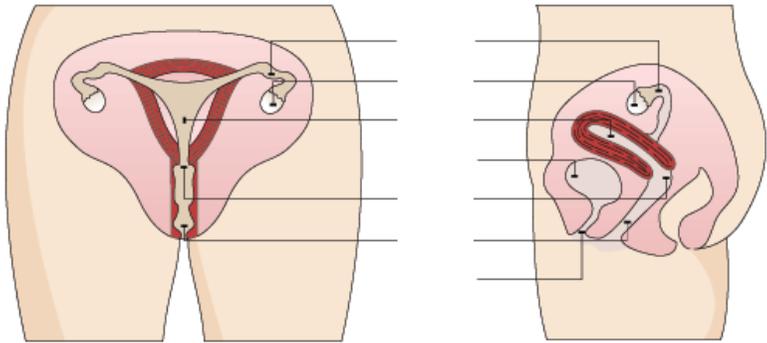
**6 Key Words for this term**

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

A.	What are the main parts of the female reproductive system?
Ovary	
Oviduct	
Uterus	
Uterus lining	
Cervix	
Vagina	

A.	What are the main parts of the male reproductive system?
Testes	
Scrotum	
Sperm ducts	
Glands	
Urethra	
Penis	
Foreskin	

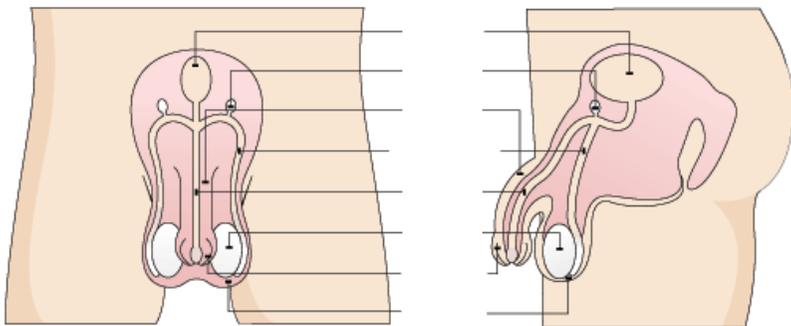
A. What are the parts to the female reproductive system?



B. What is the menstrual cycle and what happens on each day?

Days 1-5	
Days 6-13	
Day 14	
Days 15-28	

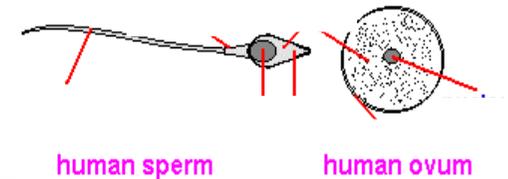
A. What are the parts to the male reproductive system?



B. What is fertilisation?

Blank space for notes on fertilisation.

What are the parts to the egg and sperm cell?



B. What is gestation?

Blank space for notes on gestation.

B. What is the process of birth?

Blank space for notes on the process of birth.



**What we are learning this term:**

- Male & female reproductive system
- Menstruation, fertilisation, gestation and birth
- Plant reproductive systems
- Variation and types of variation

**6 Key Words for this term**

- Gamete
- Fertilisation
- Variation
- Menstrual
- Pollination
- Reproduction

A.	What are the parts of the female reproductive system?
Ovary	The organ where eggs are produced and where they mature ready for release each month
Oviduct	The small tube leading from each ovary to the uterus – the egg travels along here and fertilisation happens here
Uterus	The organ where an embryo grows into a foetus and eventually a baby
Uterus lining	The wall of the uterus
Cervix	A ring of tissue between the uterus and vagina; this helps keep a foetus in place during pregnancy
Vagina	The organ that is entered by the penis during sexual intercourse and also part of the birth canal

A.	What are the parts of the male reproductive system?
Testes	The organ where sperm cells are made
Scrotum	The skin that holds the testes
Sperm ducts	The tubes that carry sperm from the testes to the urethra
Glands	These add liquids, including nutrients for the sperm, to the sperm cells from the testes to make semen
Urethra	The tube that carries either urine or semen out of the body through the penis
Penis	The organ that enters the vagina during sexual intercourse
Foreskin	The skin that protects the end of the penis

**A. What are the parts to the female reproductive system?**

Labels for the diagrams:

- Oviduct
- Ovary
- Uterus
- Bladder
- Cervix
- Vagina
- Urethra

**B. What is the menstrual cycle and what happens on each day?**

The menstrual cycle prepares the female body for pregnancy by causing eggs to mature and be released. It lasts for 28 days.

- Days 1-5:** 'period' happens (menstruation), where uterus lining breaks down.
- Days 6-13:** Uterus lining builds up (thickens) to prepare for pregnancy. The egg (ovum) matures in the ovary
- Day 14:** Egg (ovum) released from the ovary and travels down the oviduct
- Days 15-28:** Uterus lining stays thick, in case the egg is fertilised

**B. What is gestation?**

The time when the embryo/foetus develops inside the womb between conception and birth.

**A. What are the parts to the male reproductive system?**

Labels for the diagrams:

- Bladder
- Glands
- Penis
- Sperm duct
- Urethra
- Testis
- Foreskin
- Scrotum

**B. What is fertilisation?**

Fertilisation is when a sperm cell and an ovum (egg) fuse. Sperm cells are released into the female reproductive system during sexual intercourse (ejaculation). One sperm cell breaks through the cell membrane and enters the ovum. The nuclei fuse together.

**B. What is the process of birth?**

After pregnancy, the foetus is ready to be born.

- The muscles in the wall of the uterus contract, contractions get stronger and faster – 'labour'
- The amniotic sac breaks, which releases some liquid
- Contractions push the baby headfirst through the cervix and out through the vagina

**What are the parts to the egg and sperm cell?**

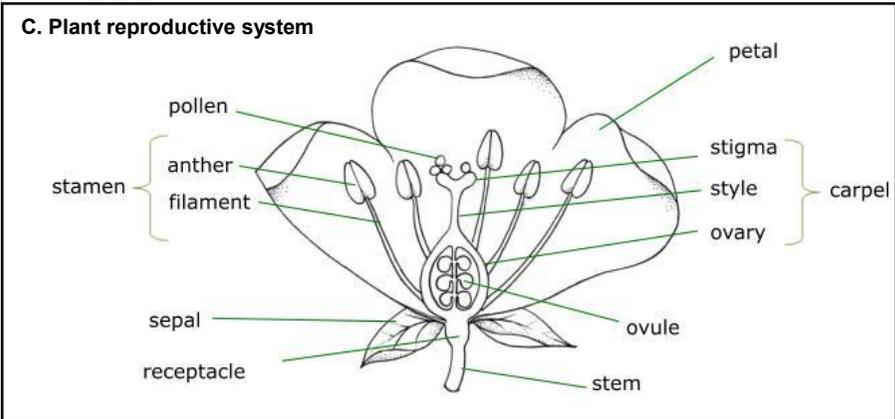
Labels for the sperm cell:

- tail
- membrane
- cytoplasm
- nucleus
- head

Labels for the ovum cell:

- nucleus
- membrane

human sperm      human ovum



C.	What are the main parts of the plant reproductive system?
Pollen	The male gamete (sex cell)
Stigma	Structure that the pollen sticks to
Style	Connects the stigma to the ovary
Ovary	Produces and stores ovules
Ovule	The female gamete (sex cell)
Anther	Produces the pollen
Filament	Holds the anther to the edge of the flower
Pollen	The male gamete (sex cell)

C.	What is pollination & what are the 2 types?
<p>Pollination is the transfer of pollen from the anthers of one flower to the stigma of another</p> <ul style="list-style-type: none"> <li>In <b>wind pollination</b>, the wind carries the pollen</li> <li>In <b>insect pollination</b>, insects carry the pollen.</li> </ul>	
C.	What is seed dispersal & what are 3 types of seed dispersal?
<p>Plants spread their seeds out so their offspring don't compete with them for light/soil nutrients.</p> <ul style="list-style-type: none"> <li>By animals – they eat the fruit and release the seeds in their waste</li> <li>By wind – for example sycamore seeds</li> <li>By water – for example coconuts</li> </ul>	

C.	How does fertilisation occur in plants?
<p>The pollen makes a pollen tube down the style into the ovary. The nucleus of the pollen cell travels down the tube to get to the ovum and the cells join (fertilisation). The cell made when the pollen and ovum fuse will become a seed, which can become a new plant.</p>	

D.	What are the two types of variation and what are examples of these?
<p><b>Continuous variation</b></p> <ul style="list-style-type: none"> <li>Variation which can have any value, within a range</li> <li>Due to a combination of environmental and inherited variation</li> </ul>	<p><b>Discontinuous variation</b></p> <ul style="list-style-type: none"> <li>Variation with discrete (separate) categories</li> <li>Physical, it is usually inherited</li> </ul>

D.	What is variation?
<p>Differences between living things of the same species is called variation. It can be caused by environmental or genetic factors, or both.</p>	

Plant examples	Animal examples	Plant examples	Animal examples
Height Size of leaves	Height Skin/fur colour Size of horns	Flower colour e.g. pea plants have either white or red flowers	Eye colour Blood group Lobed/lobe-less ears

	Plant examples	Animal examples
<b>Inherited variation</b>	Length of antlers	Eye colour
<b>Environmental variation</b>	Hydrangeas produce blue flowers in acidic soil and pink in alkaline soil	Muscle strength due to training
<b>Variation caused by a combination of genes and environment</b>	Height is the result of genes and nutrition	Skin colour is the result of genes and weather

What types of graph would you draw for continuous and discontinuous variation?	
<p><b>Continuous variation: Line graphs</b> Because it falls on a continuous spectrum it is represented using line graphs.</p>	<p><b>Discontinuous variation: Bar graphs</b> Because of its categories, it is represented using bar graphs, such as this one for blood group</p>



**C. What are the parts to the plant reproductive system?**

<b>C.</b>	<b>What are the main parts of the female reproductive system?</b>
Pollen	
Stigma	
Style	
Ovary	
Ovule	
Anther	
Filament	
Pollen	

<b>C</b>	<b>What is pollination &amp; what are the 2 types?</b>
<b>C.</b>	<b>What is seed dispersal &amp; what are 3 types of seed dispersal?</b>

**C. How does fertilisation occur in plants?**

**D. What are the two types of variation and what are examples of these?**

<b>Plant examples</b>	<b>Animal examples</b>

**D. What is variation?**

	Plant examples	Animal examples
<b>Inherited variation</b>		
<b>Environmental variation</b>		
<b>Variation caused by a combination of genes and environment</b>		

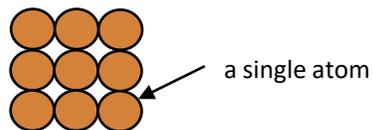
**What types of graph would you draw for continuous and discontinuous variation?**

<p><b>Continuous variation:</b></p>	<p><b>Discontinuous variation</b></p>
-------------------------------------	---------------------------------------

## 7.04: Chemical changes

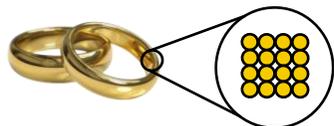
### Atom

The smallest particle of matter, which all things are made of.



### Element

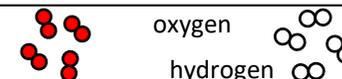
A pure substance that is made of only one type of atom. All atoms of an element are identical, e.g. Gold is an element made up of gold atoms only. The 118 known elements are listed on the periodic table of elements.



The atoms of some elements do not join together, but instead they stay as separate atoms, e.g. helium.



The atoms of other elements join together to make **molecules**, e.g. oxygen and hydrogen.



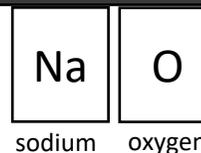
### Properties of elements

Individual atoms do not have the properties of the element. The properties of an element are because of the arrangement and behaviour of the atoms as a group.

Metals	Non-metals
most are shiny	most are dull
most are hard	solid non-metals are soft and easy to cut, <b>except carbon as diamond</b>
most are strong	most are not strong
most are sonorous (makes a ringing sound when hit)	most are not sonorous
malleable (easy to reshape without breaking)	not malleable
most are ductile (can be drawn out into a long wire without breaking)	not ductile
most have very high melting and boiling points	most have very low melting and boiling points
some but not all are magnetic	not magnetic
conduct electricity	non-metals do not conduct electricity, <b>except carbon as graphite</b>
good at conducting heat	poor at conducting heat

### Writing element symbols

The first letter is always written as a capital letter and if there is a second letter, it is always written as a lowercase letter. Element symbols make writing elements easier and allow scientists all over the world to communicate and write about them.



sodium oxygen

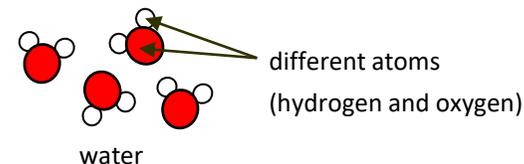




## 7.04: Chemical changes

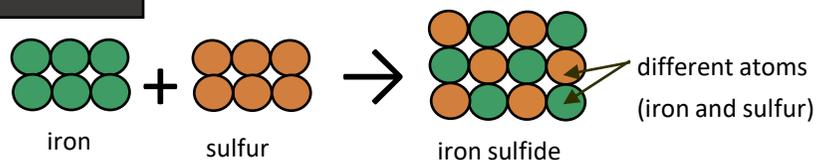
### Compound

A substance made of two or more different elements chemically joined (bonded) together. A chemical bond is a strong force that holds atoms together in a compound. Lots of energy is needed to break a chemical bond. A compound cannot be easily separated. A compound may have very different properties to those of the elements from which it is made. Water is a compound of hydrogen and oxygen. Each of its molecules contains two hydrogen atoms and one oxygen atom.



### Chemical reactions

When chemicals react, the atoms are rearranged. For example, iron reacts with sulfur to make iron sulfide. Iron sulfide, the compound formed in this reaction, has different properties to the elements it is made from.



	iron	sulfur	iron sulfide
Type of substance	element	element	compound
Colour	silvery grey	yellow	black
Is it attracted to a magnet?	yes	no	no

### Conservation of mass

Atoms are not destroyed nor created during chemical reactions, so in any reaction:

**Total mass of reactants = total mass of products**

### Naming metal and non-metal compounds

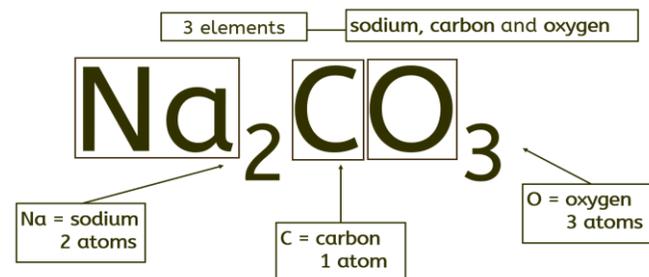
The metal element (furthest left on the periodic table) comes first in the name of the compound. The ending for the non-metal is shortened and changed to '-ide'. E.g. iron + sulfur → iron sulfide

### Naming three element compounds containing oxygen

The metal element (furthest left on the periodic table) comes first in the name of the compound. If there are three elements in the compound, and one of them is oxygen, the ending of the non-metal is shortened and changed to '-ate'. E.g. lithium + nitrogen + oxygen → lithium nitrate

### Chemical formulae

A chemical formula uses chemical symbols and numbers to show how many of each atom is present in a compound. The small numbers (subscript) go at the bottom. For example: CO<sub>2</sub> is correct; CO<sub>2</sub> and CO<sup>2</sup> are wrong.

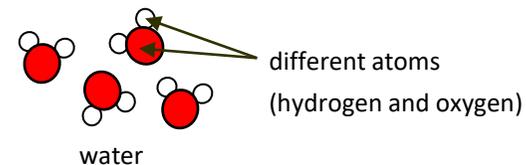


The formula for sodium carbonate is Na<sub>2</sub>CO<sub>3</sub>. It tells you that sodium carbonate contains two sodium atoms (Na x 2), one carbon atom (C) and three oxygen atoms (O x 3).



## 7.04: Chemical changes Blank

### Compound

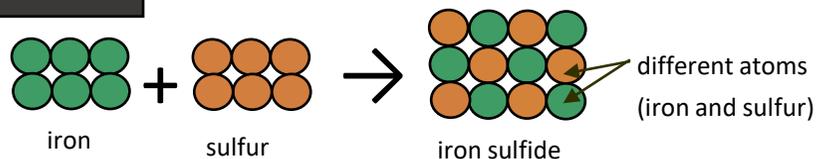


### Chemical reactions

When chemicals react, the atoms are rearranged.

For example, iron reacts with sulfur to

make iron sulfide. Iron sulfide, the compound formed in this reaction, has different properties to the elements it is made from.



	iron	sulfur	iron sulfide
Type of substance			
Colour			
Is it attracted to a magnet?			

### Conservation of mass

### Naming metal and non-metal compounds

### Naming three element compounds containing oxygen

### Chemical formulae



The formula for sodium carbonate is:



## 7.04: Chemical changes

### Chemical equations

We summarise chemical reactions using equations:

reactants → products

- **Reactants** are shown on the **left** of the arrow;
- **Products** are shown on the **right** of the arrow.

**Do not** write an '=' sign instead of an arrow.

If there is more than one reactant or product, they are separated by a '+' sign. For example:

copper + oxygen → copper oxide

**Reactants:** copper and oxygen  
**Products:** copper oxide

A **word equation** shows the names of each substance involved in a reaction and **must not include any chemical symbols or formulae**.

### Oxidation reactions

In oxidation reactions, a substance gains oxygen. Metals and non-metals can take part in oxidation reactions (be oxidised).

Magnesium reacts with oxygen to form magnesium oxide:  
magnesium + oxygen → magnesium oxide  
 $2\text{Mg(s)} + \text{O}_2\text{(g)} \rightarrow 2\text{MgO(s)}$

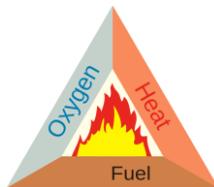
Carbon reacts with oxygen to form carbon dioxide:  
carbon + oxygen → carbon dioxide  
 $\text{C(s)} + \text{O}_2\text{(g)} \rightarrow \text{CO}_2\text{(g)}$

Another example is a combustion reaction, where we burn fuels in oxygen:

**Fuel + oxygen → carbon dioxide + water**

**methane + oxygen → water + carbon dioxide**

- Combustion is another name for burning fuels.
- It is an exothermic reaction.
- The fire triangle shows three components which, when combined, provide the right conditions for combustion to happen.



### Thermal decomposition reactions

This is the breaking down of a substance, using heat, to form two or more products. It is an endothermic reaction.

Many metal carbonates take part in thermal decomposition reactions. For example, copper carbonate:

copper carbonate is green; copper oxide is black.  
**copper carbonate → copper oxide + carbon dioxide**  
 $\text{CuCO}_3\text{(s)} \rightarrow \text{CuO(s)} + \text{CO}_2\text{(g)}$

### Exothermic and Endothermic reactions

- **Exothermic** reaction - **transfers** energy to the thermal store of the surroundings. This causes a **rise** in temperature (**positive** temperature change).
- Hand warmers transfer energy to the thermal store of the surroundings by an exothermic oxidation reaction.
- **Endothermic** reaction – **transfers** energy in from the thermal store of the surroundings. This causes a **drop** in temperature (**negative** temperature change).
- Sports injury packs transfer energy from the thermal store of the surroundings by an endothermic reaction.

Temperature data collected from exothermic and endothermic reactions can be improved by:

- Using a **polystyrene** cup as an insulator, as it reduces energy transfers to or from the surroundings.
- Using a **lid** to reduce energy transferred from the surface.
- Using a **digital thermometer**, which is easier to read than a regular thermometer and, if it measures in decimal places, also has better resolution.

**State symbols** in chemical formulae provide information about the physical state of the reactants and products.

(s) – solid, (l) – liquid, (g) – gas, and (aq) – aqueous solution (i.e. dissolved in water).

The state symbol comes after the chemical formula and is written in lower case and in brackets. E.g.  $\text{CuCO}_3\text{(s)} \rightarrow \text{CuO(s)} + \text{CO}_2\text{(g)}$



## 7.04: Chemical changes Blank

### Chemical equations

We summarise chemical reactions using equations:

- **Reactants**
- **Products**

**Do not** write an '=' sign instead of an arrow.

If there is more than one reactant or product, they are separated by a '+' sign. For example:

**Reactants:**

**Products:**

### Oxidation reactions

Magnesium reacts with oxygen to form magnesium oxide:  
magnesium + oxygen →  
 $2\text{Mg(s)} + \text{O}_2\text{(g)} \rightarrow$

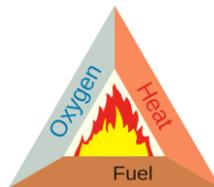
Carbon reacts with oxygen to form carbon dioxide:  
carbon + oxygen →  
 $\text{C(s)} + \text{O}_2\text{(g)} \rightarrow$

Another example is a combustion reaction, where we burn fuels in oxygen:

**Fuel + oxygen →**

**methane + oxygen →**

- Combustion is



### Thermal decomposition reactions

copper carbonate is green; copper oxide is black.  
**copper carbonate →**  
 $\text{CuCO}_3\text{(s)} \rightarrow$

### Exothermic and Endothermic reactions

- **Exothermic** reaction –

- **Endothermic** reaction –

- Temperature data collected from exothermic and endothermic reactions can be improved by:

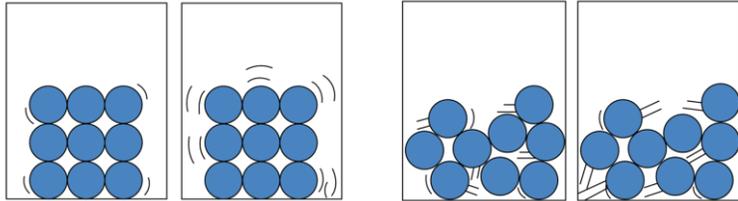
**State symbols**



# 8.01: Heating and Cooling



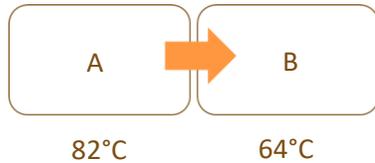
## Temperature



- a physical quantity which is a measure of the **average energy** of particles due to their **motion**

## Changing Temperature

- Heating and cooling affect an object's **thermal store** of energy.



- Net flow of energy is **always** from hotter to colder objects' thermal store.

- A thermal store can be changed by **any energy pathway** depending on the mechanism causing it.



## 'Mixing' Objects



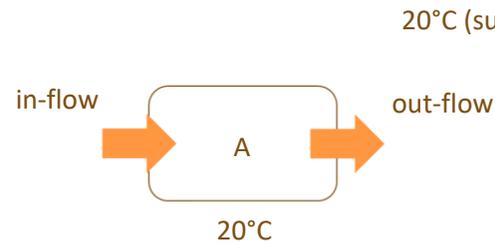
Resulting temperature: halfway between initial temperatures.



Resulting temperature: between initial temperatures and closer to that of larger mass.

## Thermal Equilibrium

- when two objects reach the **same temperature**
- with no net flow of energy between thermal stores



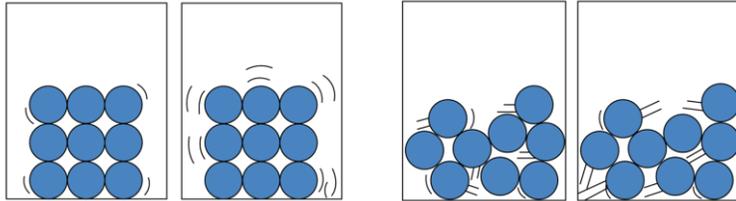
- Often the result of energy **dissipating** to the cooler surroundings.



# 8.01: Heating and Cooling



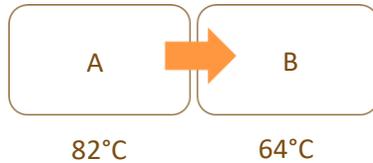
## Temperature



- a physical quantity which is a measure of the \_\_\_\_\_ of particles due to their \_\_\_\_\_

## Changing Temperature

- Heating and cooling affect an object's \_\_\_\_\_ store of energy.

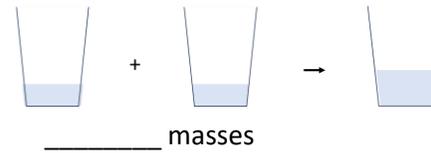


- Net flow of energy is **always** from \_\_\_\_\_er to \_\_\_\_\_er objects' thermal store.

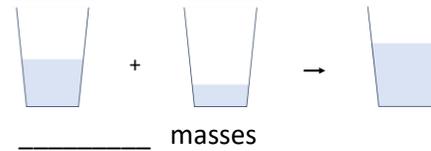
- A thermal store can be changed by **any energy pathway** depending on the mechanism causing it.



## 'Mixing' Objects



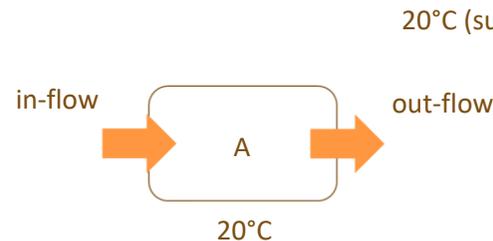
Resulting temperature: \_\_\_\_\_ between initial temperatures.



Resulting temperature: between initial temperatures and closer to that of \_\_\_\_\_ mass.

## Thermal Equilibrium

- when two objects reach the \_\_\_\_\_
- with no net flow of \_\_\_\_\_ between thermal stores



- Often the result of energy \_\_\_\_\_ to the cooler surroundings.



# 8.01: Heating and Cooling



## Unchanging Temperature

But not thermal equilibrium (i.e. two objects **not** the same temperature).

**higher** than surroundings

rate of supply



rate dissipated to surroundings

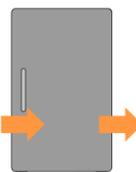
**lower** than surroundings

rate supplied by surroundings



rate of removal

air at 22°C

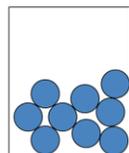


set at 5°C

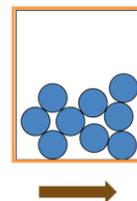
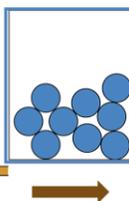
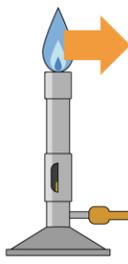
## Changing Temperature

For the **same energy** supplied:

- Greater mass/volume,  
→ smaller temperature change.



- Different starting temperature,  
→ same temperature change.

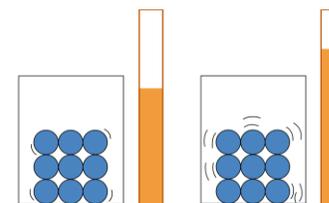


constant supply

## Energy in Thermal Stores

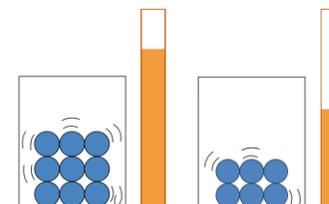
**Hotter objects** have more energy in their thermal store.

- Particles moving more.
- Each particle has more energy.
- Total energy of all particles: more.



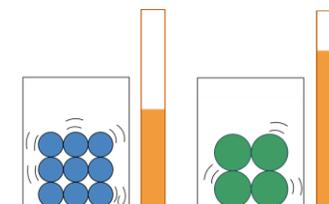
**Larger masses** have more energy in their thermal store.

- Greater mass: more particles.
- At same temperature, each particle has same energy.
- Total energy of all particles: more.



**Some materials** have more energy in their thermal store.

- Some materials have particles that require more energy to vibrate.
- At same temperature, each particle is vibrating the same, but they required more energy to do so.
- Total energy of all particles: more.



# 8.01: Heating and Cooling



## Unchanging Temperature

But not thermal equilibrium (i.e. two objects **not** the same temperature).

\_\_\_\_\_ than surroundings

rate of supply



rate dissipated to surroundings

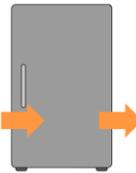
\_\_\_\_\_ than surroundings

rate supplied by surroundings



rate of removal

air at 22°C

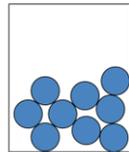


set at 5°C

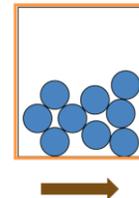
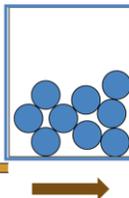
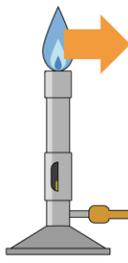
## Changing Temperature

For the **same energy** supplied:

- Greater mass/volume,  
→ \_\_\_\_\_ temperature change.



- Different starting temperature,  
→ \_\_\_\_\_ temperature change.

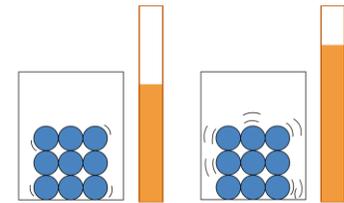


constant supply

## Energy in Thermal Stores

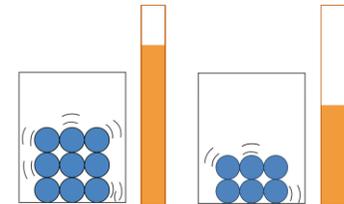
**Hotter objects** have more energy in their thermal store.

- Particles \_\_\_\_\_.
- Each particle has \_\_\_\_\_.
- Total energy of all particles: more.



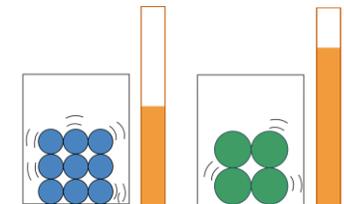
**Larger masses** have more energy in their thermal store.

- Greater mass: more \_\_\_\_\_.
- At same \_\_\_\_\_, each particle has same \_\_\_\_\_.
- Total energy of all particles: more.



**Some materials** have more energy in their thermal store.

- Some materials have particles that require more energy to \_\_\_\_\_.
- At same temperature, each particle is vibrating the same, but they required more energy to do so.
- Total energy of all particles: more.



# 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	<b>employment</b>	(n) when people are in work, receiving a wage and paying tax.
2	<b>unemployment</b>	(n) when people are not in work, therefore do not receive a wage and do not pay tax.
3	<b>primary industries</b>	(n) industries which collect or extract natural resources from the environment, such as farming or fishing.
4	<b>secondary industries</b>	(n) industries which manufacture goods into products, such as builders, car manufacturers or food processing
5	<b>tertiary industries</b>	(n) industries that provide a service, such as teachers, doctors, sales, hairdressers or bus drivers.
6	<b>quaternary industries</b>	(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	<b>industrialisation</b>	(n) a move from primary employment to secondary employment, with a rise in manufacturing.
2	<b>mechanisation</b>	(n) when machinery begins to do the jobs which once required humans.
3	<b>disposable income</b>	(n) the money a person has left to spend after they have paid all their bills.
4	<b>public services</b>	(n) a service that is given or funded for the benefit of the community.

## C) The location of industries

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

## E) Trade

1	<b>trade</b>	(n) the exchange of goods and materials between countries.
2	<b>import</b>	(v) goods brought into a country.
3	<b>export</b>	(v) sending goods to another country for sale.
4	<b>trade bloc</b>	(n) an arrangement in which participant countries lower trade barriers with one another.
5	<b>tariff</b>	(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
Falling primary and secondary sector	
Growing tertiary sector	

## 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.

## 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

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

E.	Comparing the reigns of King John, Henry II and Richard II	
	Similarities	Differences
<b>Religious</b>	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"> <li>• 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.</li> <li>• John fought with the Pope over who to appoint Archbishop of Canterbury. This led to the Pope excommunicating him and putting England under interdict</li> </ul>
<b>Political</b>	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"> <li>• 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.</li> </ul>
<b>Social</b>	King John, King Henry and Richard II all lost social support but for a variety of different reasons	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Henry II – lost support after public death of Becket (was whipped at Becket's tomb as punishment)</li> <li>• Richard – Poll Tax, Labour Service and limiting wages after the Black Death all contributed to the Peasants' Revolt.</li> </ul>

### Key individuals

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

C.	King John, the Barons and Magna Carta – a political challenge
What mistakes did King John make that led to the barons rebelling.	John had lost many wars with France which made him look weak (he had the nicknames 'Lackland' and 'Softsword'). These defeats meant that the barons lost land they owned in France. John kept asking for a number of taxes to pay for his wars which he carried on losing. John was seen as a cruel man – he made blind monks homeless and may have murdered his nephew. John fell out with the pope over who got to promote bishops. This led to England being placed under interdict meaning all church was cancelled. The barons feared for their souls and was angry with John. John started fining the barons for many different things and made them pay large taxes when they inherited land.
What were the key points of Magna Carta?	<p><u>Short term</u></p> <ul style="list-style-type: none"> <li>• a £100 limit on the tax barons had to pay to inherit their lands</li> <li>• the king could not sell or deny justice to anyone</li> <li>• the royal forests were to be reduced in size</li> <li>• an heir could not be made to marry someone of a lower social class</li> <li>• foreign knights had to be deported</li> <li>• no-one could be arrested on the accusation of a woman</li> </ul> <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.

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 villeins) had to do free labour services for their local lords (knights and barons). Some peasants, known as freemen, did not want to do this work. Peasants wanted everyone to become freemen ending the free labour they had to do for their lords.
<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	

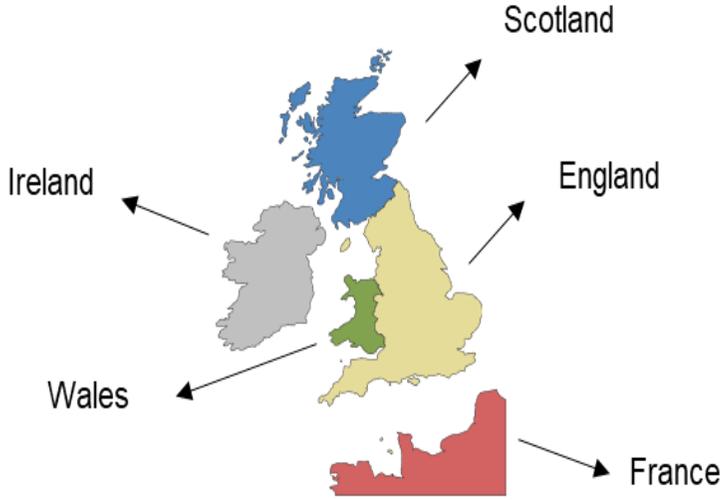
B.	<i>Disagreements between Becket and King Henry II – a religious challenge</i>
Banning of Church Courts	
Coronation of the king's son	
Excommunication of the bishops	

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."

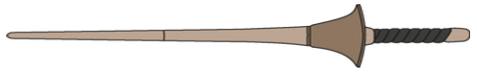
<b>Power</b>	The control a person or group has in a country. For example, resistance grew in Scotland by people such as William Wallace and Robert Bruce. <i>This includes threads such as succession, warfare, protest, democracy, crime and punishment.</i>
<b>Identity</b>	The qualities and characteristics 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>
<b>Connectivity</b>	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>



Mace



Lance



Polearm



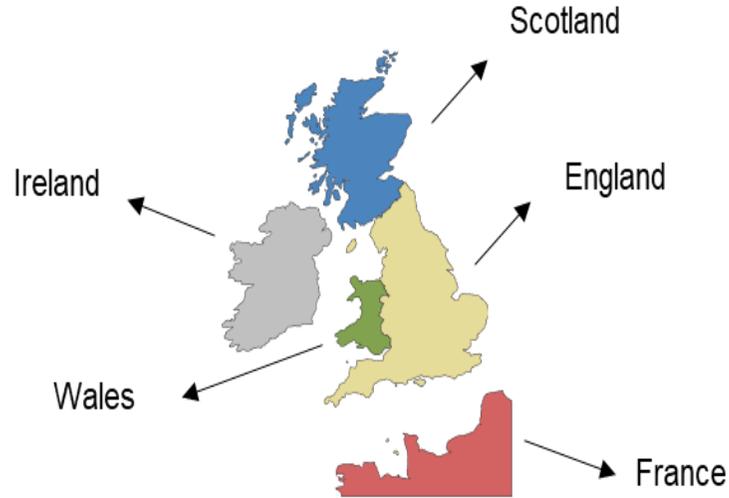
E.	Causes of the 100 year war
<i>Land in France</i>	The English controlled a lot of land in France that was used to produce Wine. This made the English a lot of money, but the French were threatening to take it back.
<i>Control of Flanders</i>	The English controlled Flanders where a lot of wool was made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

*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
Land in France	
Control of Flanders	
French Succession	





# 7.03: Judaism

## Key Vocabulary

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

## Holy Books introduced

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



<b>What we are learning this term:</b> 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		<b>C. ¿Cómo es tu casa? What's your house like?</b> 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		<b>Key Verbs</b>				
<b>6 Key Words for this term</b>				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
<b>A. La Ciudad – The City</b>		<b>D. Las Direcciones – Directions</b>		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 <sup>st</sup> on the right  the 1 <sup>st</sup> on the left  the 2 <sup>nd</sup> the 3 <sup>rd</sup> go down cross turn go up turn the avenue the castle the building the factory the port		<b>E. Mi Ciudad – My city</b>				
la calle	the Street			<b>F. Key Opinions/ Verbs across topics</b>				
la capital	the capital			Cómo es tu barrio?	What's your neighbourhood like?	tener	to have	
la catedral	the cathedral			Es...	It's...	ser	to be	
el centro comercial	the shopping centre			antiguo/a	old	ir	to go	
el cine	the cinema			bonito/a	pretty	hacer	to do/ to make	
la estación de autobuses	the bus station			grande	big	jugar	to play	
la estación de servicio	the petrol station			histórico/a	historic	ver	to see	
la estación de trenes	the train station			importante	important	escuchar	to listen	
el estadio	the stadium			industrial	industrial	comprar	to buy	
el hospital	the hospital			pequeño/a	small	beber	to drink	
el instituto	the school			tranquilo/a	quiet	salir	to go out	
el mercado	the market			Me gusta mucho	I really like	leer	to read	
la oficina de turismo	the tourist office			Porque	because	trabajar	to work	
el parque	the park			¿Te gustaría visitar?	Would you like to visit?	pensar	to think	
la piscina	the pool			Me gustaría visitar	I would like to visit	escribir	to write	
la playa	the beach			¿Qué hay en tu barrio?	What's in your neighbourhood?	Me gusta	I like	
<b>B. Más lugares – More places</b>		<b>E. ¿Adónde vas? – Where are you going?</b>		el pueblo	the town	Me encanta	I love	
la plaza	the square	Voy Va Van Vamos Voy al centro commercial ¡Hasta luego!		la ciudad	the city	Odio	I hate	
la plaza de toros	the bull ring			Hay...	There is / there are	porque	because	
la plaza mayor	the main square			tiene...	It has	divertido/a	fun	
el polideportivo	the sports centre			un monumento	a monument	aburrido/a	boring	
el puente	the bridge			un palacio	a palace	útil	useful	
el río	the river			un parque nacional	a national park	inútil	pointless	
las tiendas	the shops			un quiosco	a kiosk	cómodo/a	comfortable	
la tienda de regalos	the gift shop			ruidoso/a	noisy	interesante	interesting	
la bolera	the bowling alley			animado/a	lively	entretenido/a	entertaining	
el cine	the cinema			limpio/a	clean	emocionante	exciting	
la universidad	the university			sucio/a	dirty	guay	cool	
la iglesia	the church			pintoresco/a	picturesque	genial	amazing	
el museo	the museum							
la galería de arte	the art gallery							

What we are learning this term:
<p>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</p>

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

**B. Más lugares – More places**

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

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

Mi casa es...	_____
_____	_____
_____	cosy
_____	semi – detached
antiguo/a	_____
bonito/a	_____
cómodo/a	_____
_____	big
_____	modern
nuevo/a	_____
pequeno/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 <sup>st</sup> on the right
la primera a la izquierda	_____
la segunda	_____
la tercera	_____
baja	_____
crucza	_____
dobla	_____
_____	go up
_____	turn
_____	the avenue
_____	the castle
_____	the building
_____	the factory
un puerto	_____

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 <b>ESTAR</b> 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

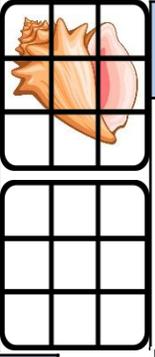
**Why?** To document and record newly discovered species of animals and plants



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**

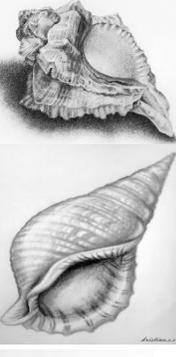
Drawing from a primary source means drawing something from real life

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

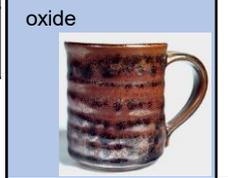
**glaze**

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:**

- A. About the illustrator Ernst Haeckel and his work
- 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

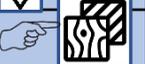
**A. Who is Ernst Haeckel and what are the characteristics of his work?**

Who? \_\_\_\_\_

What? \_\_\_\_\_

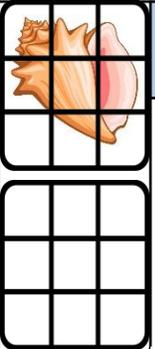
Why? \_\_\_\_\_



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**

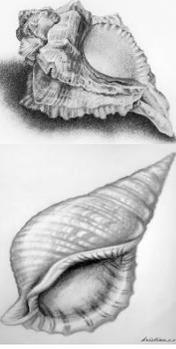
Drawing from a primary source means.....

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 with ..... and applied to the bisque fired clay Highlights the ..... in the clay surface Can be applied ..... or ..... 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	
<b>Timbers</b> come from <b>trees</b>	
	<p><b>Scots pine</b> – which you used for your maze frame – is a <b>softwood</b></p> <p><b>Softwoods</b> come in planks and boards</p>
<b>Manufactured Boards</b> come from <b>wood pulp</b>	
	<p><b>Plywood</b> – which you used as your base, insert and maze walls – is a <b>manufactured board</b></p> <p><b>Manufactured Boards</b> come in sheets</p>

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

C. Modelling	
<b>Creating a 3D representation of your product before you manufacture it.</b>	
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	
<b>Specification</b> 	A specific list of things that your product should be or do.
<b>Modelling</b> 	A way of making a 3D representations of your proposed design. To see what went well and how it can be improved.
<b>Sustainable</b> 	Limited negative impact on the environment.
<b>Manufacture</b> 	Making a product using tools and machinery.

E. Evaluation of Products	
<b>Evaluate</b>	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.	
<b>When writing an evaluation it is important to include the following three things:</b>	
<ol style="list-style-type: none"> <li>Positives – what works well</li> <li>Negatives – what doesn't work well</li> <li>Possible improvements – how could you make it better?</li> </ol>	
<b>For example:</b>	
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**

--	--	--	--	--	--	--

**B. Materials**

**Timbers** come from \_\_\_\_\_

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

**Manufactured Boards** come from \_\_\_\_\_

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

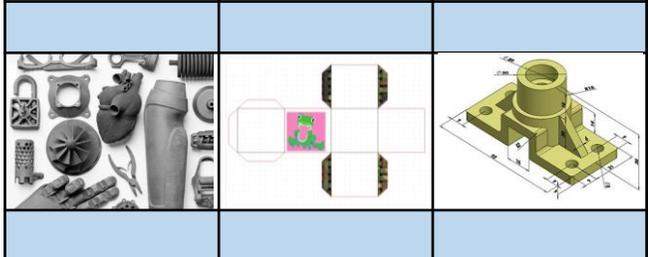
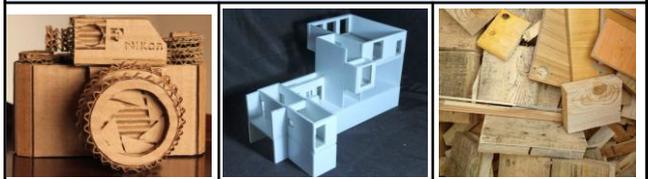
**Polymers** come from \_\_\_\_\_

	<p><b>Acrylic</b> – which you used as your lid for your maze – is a <b>polymer</b></p> <p><b>Polymers</b> 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.

<b>Advantages</b>	<b>Disadvantages</b>

**D. Key Words**

<b>Specification</b> 	_____
<b>Modelling</b> 	_____
<b>Sustainable</b> 	_____
<b>Manufacture</b> 	_____

**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:
<ol style="list-style-type: none"> <li>1. Health, safety and hygiene in the kitchen</li> <li>2. The Eatwell guide and nutrients</li> <li>3. Storing food safely</li> <li>4. Food origins</li> <li>5. Food fortification and modification</li> <li>6. Practical skills</li> </ol>

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

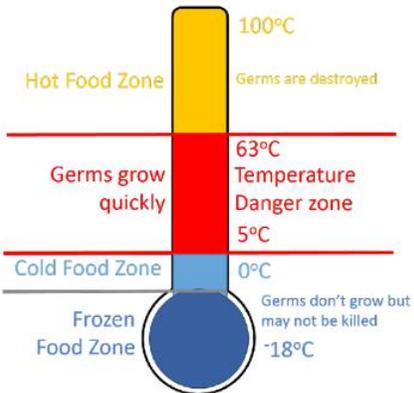
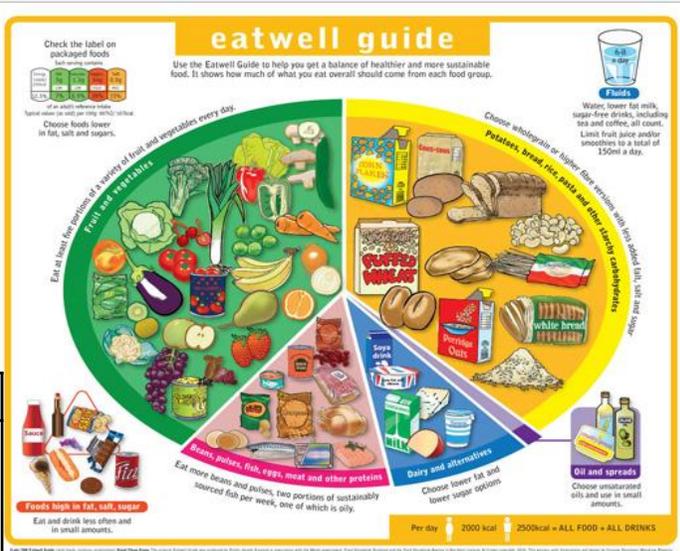


Image: TAFE NSW

B.	What are the 5 different sections of the Eatwell plate?
	<ol style="list-style-type: none"> <li>1 <b>Fruit and Vegetables</b> – provides minerals, vitamins &amp; fibre</li> <li>2 <b>Carbohydrates</b> – provides carbs and fibre</li> <li>3 <b>Protein</b> - provides protein, omega 3, some vitamins</li> <li>4 <b>Dairy</b> - provides vitamins, minerals (calcium)</li> <li>5 <b>Fats and Oils</b></li> </ol>



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		
	<b>Grown food</b> - plants i.e wheat	<b>Reared food</b> – animals kept on a farm, bred and raised for use i.e cows to give milk	<b>Caught food</b> – animals hunted in the wild i.e fish, game animals
	<b>Intensive farming</b> – bad for the environment, uses chemical fertilisers and pesticides. Gives a high yield (amount of food).	<b>Intensive (battery) farming</b> – animals are kept indoors all year round in small cages, poor treatment. Lots of food produced. <b>Free range</b> – animals have a large amount of space and outdoor space, good living conditions. Expensive and slow.	<b>Trawling</b> – large nets dragged through the sea, lots of bycatch (unwanted fish) and damages habitats. <b>Line caught</b> – catching one fish at a time on a fishing line. Much slower and more expensive.
	<b>Organic farming</b> – "natural" farming, is slower and more expensive to do.		

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

# Y7 Food technology

What we are learning this term:
<ol style="list-style-type: none"> <li>1. Health, safety and hygiene in the kitchen</li> <li>2. The Eatwell guide and nutrients</li> <li>3. Storing food safely</li> <li>4. Food origins</li> <li>5. Food fortification and modification</li> <li>6. Practical skills</li> </ol>

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

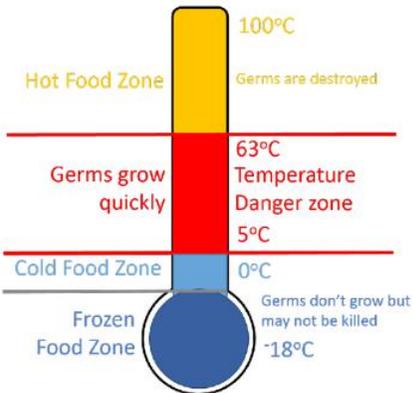
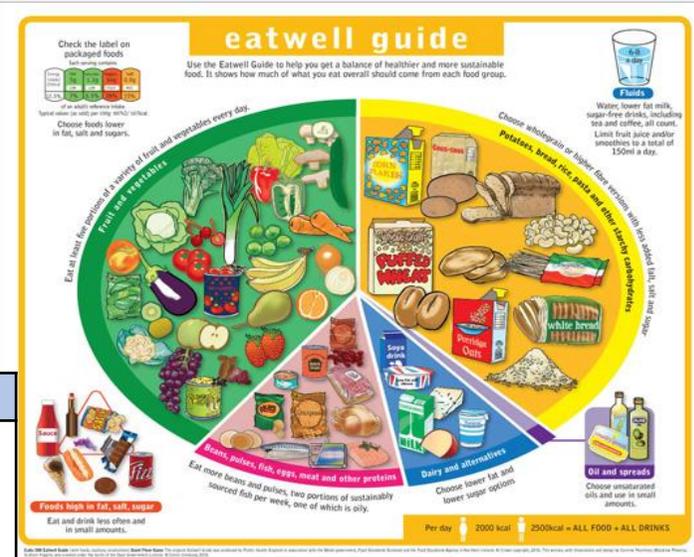


Image: TAFE NSW

B.	What are the 5 different sections of the Eatwell plate?
	<ol style="list-style-type: none"> <li>1 <b>Fruit and Vegetables</b> – provides minerals, vitamins &amp; fibre</li> <li>2 <b>Carbohydrates</b> – provides carbs and fibre</li> <li>3 <b>Protein</b> - provides protein, omega 3, come vitamins</li> <li>4 <b>Dairy</b> - provides vitamins, minerals (calcium)</li> <li>5 <b>Fats and Oils</b></li> </ol>



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		
	<b>Grown food</b> - plants i.e wheat	<b>Reared food</b> – animals kept on a farm, bred and raised for use i.e cows to give milk	<b>Caught food</b> – animals hunted in the wild i.e fish, game animals
	<b>Intensive farming</b> – bad for the environment, uses chemical fertilisers and pesticides. Gives a high yield (amount of food).	<b>Intensive (battery) farming</b> – animals are kept indoors all year round in small cages, poor treatment. Lots of food produced. <b>Free range</b> – animals have a large amount of space and outdoor space, good living conditions. Expensive and slow.	<b>Trawling</b> – large nets dragged through the sea, lots of bycatch (unwanted fish) and damages habitats. <b>Line caught</b> – catching one fish at a time on a fishing line. Much slower and more expensive.
	<b>Organic farming</b> – "natural" farming, is slower and more expensive to do.		

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

# YEAR 7 GRAPHIC COMMUNICATION

## What are we learning this term?

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

## A | Personification

What is personification?

Personification makes sentences more exciting by:

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



How does Paul Thurlby use personification?

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

## 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, <b>bold</b> 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:**

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

---



---



---



---



---



---



---



---

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

Serif:	
Sans Serif:	
Script:	
Decorative:	

## C | Computer skills

What is the shortcut for copy?

What is the shortcut for paste?

What does this symbol stand for?

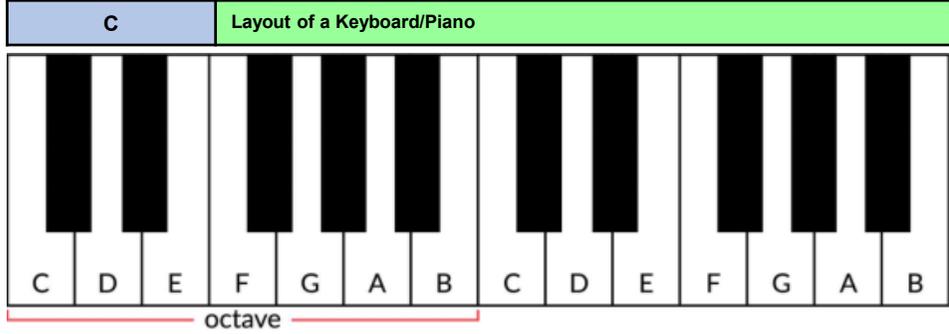
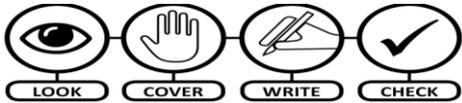


What does this symbol mean?





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



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
<p>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 <b>SHARP</b> or a <b>FLAT</b>. The # symbol means a <b>SHARP</b> which raises the pitch by a semitone (e.g. C# is higher in pitch(to the right) than C). The b symbol means a <b>FLAT</b> 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:</p> <ul style="list-style-type: none"> <li>- C# is the same as Db</li> <li>- there's just two different ways of looking at it!</li> </ul> <p>Remember, black notes or keys that are to the <b>RIGHT</b> of a white note are called <b>SHARPS</b> and black notes to the <b>LEFT</b> of a white note are called <b>FLATS</b>.</p>	

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
<p>Play one – Miss one – play one – miss one – play one</p>	

F	Treble Clef & Treble Clef Notation
<p>A <b>STAVE</b> or <b>STAFF</b> is the name given to the five lines where musical notes are written. The position of notes on the staff shows their <b>PITCH</b> (how high or low a note is). The <b>TREBLE CLEF</b> 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 <b>MELODY</b> and used by high pitched instruments such as the flute and violin. The staff or staff is made up of 5 <b>LINE</b>s and 4 <b>SPACE</b>s.</p>	
<p>Every Green Bus Drives Fast. Notes in the <b>SPACES</b> spell "FACE"</p>	
<p>Notes from <b>MIDDLE C</b> going up in pitch (all of the white notes) are called a <b>SCALE</b>.</p>	

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.





## 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



### Stock characters



Stereotypes -

### Key features of MELODRAMA

### 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.

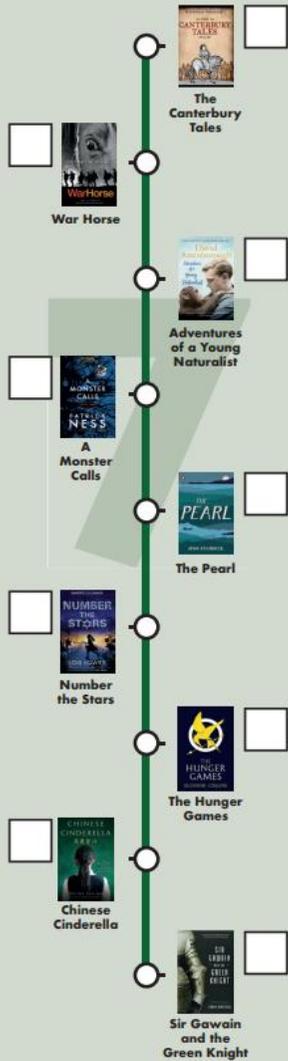


**Exaggeration:** Making your vocals or physicality more extreme/bigger.



# SWINDON ACADEMY READING CANON

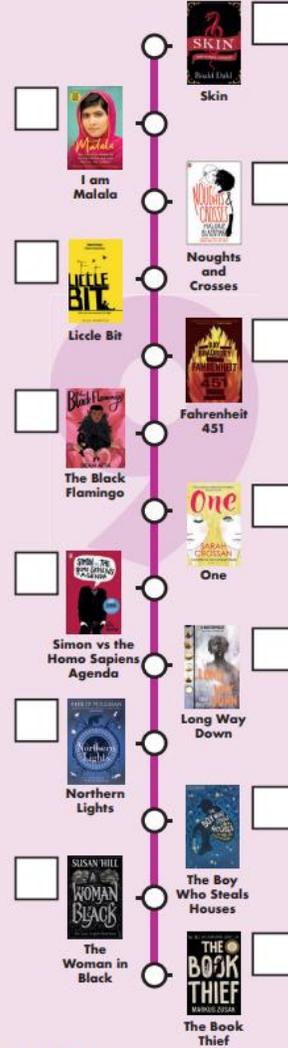
## Year 7



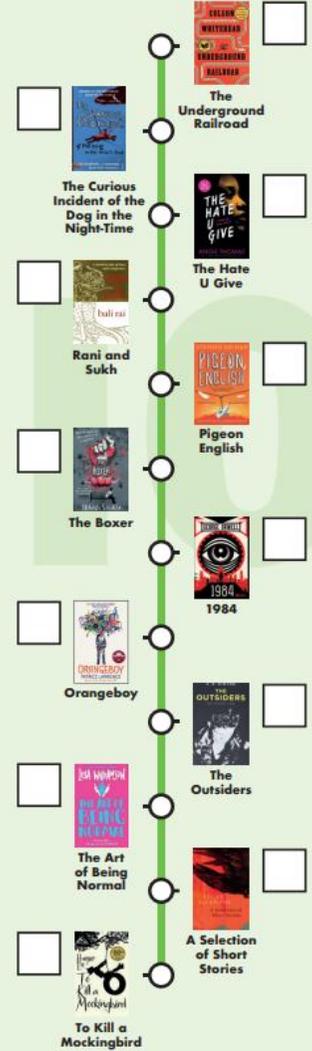
## Year 8



## Year 9



## Year 10



#ReadingisPower