



# Year 7 Knowledge Organiser

You will receive a Knowledge Organiser booklet on a termly basis, which includes revision for: English, Maths, Science, MFL, History and Geography

## **Knowledge Organiser instructions:**

You will be set three pieces of homework per week and you should use the information from each topic to make a poster or a mind map. You will need to bring your work in to school and will be quizzed on each topic in class.

At the back of the knowledge organiser there are some suggested extra tasks that could be completed on top of the homework you will be set.

## **Email address for any queries:**

English: Miss Pett	pettr035@sflt.org.uk
Maths: Mr Huston	hustj008@sflt.org.uk
Science: Mrs Gilbey	gilbl117@sflt.org.uk
History: Miss Gurung	gurua221@sflt.org.uk
Geography: Mr Butters	buttf095@sflt.org.uk
MFL: Miss Lara	larae006@sflt.org.uk

**For further support, scan the QR Code  
and it will take you to the school website:**



**Preparing you for the Future**

## Homework schedule for the term:

Week	Subject and section	Revision technique
1 (B)	English, MFL and Maths Topic 1	Create a mind map for the information in Topic 1
2 (A)	Science, History and Geography Topic 1	Create a mind map for the information in Topic 1
3 (B)	English, MFL Maths Topic 2	Create a poster using the information in Topic 2
4 (A)	Science, History and Geography Topic 2	Create a poster using the information in Topic 2
5 (B)	English, MFL Maths Topic 3	Create a mind map for the information in Topic 3
6 (A)	Science, History and Geography Topic 3	Create a mind map for the information in Topic 3

## Optional Extra Tasks

If you would like to spend more time working independently to develop excellence in your subjects. Here is a suggested timetable for you to follow. If you have forgotten your usernames and passwords for these apps, speak to your form tutor and they will be able to support you.

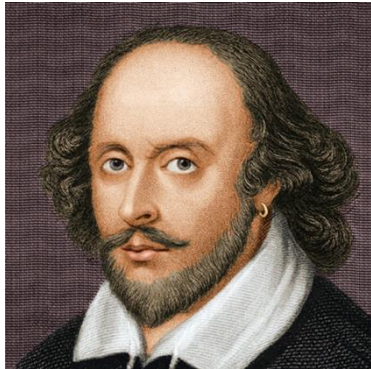
<b>Monday</b>	Spend 30 minutes on Spell Zone	<b>Thursday</b>	Complete 30 minutes DEAR Time using your library book
<b>Tuesday</b>	Complete 30 minutes on Sparx	<b>Friday</b>	Spend 30 minutes learning the key words from your subjects this week.
<b>Wednesday</b>	Spend 30 minutes completing revision using BBC Bitesize		





**Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.**

**Topic 1: Context and writer**



Context means the background information for a text. The following information will help you revise key contextual points for your quiz

- Romeo and Juliet is a play written **by William Shakespeare.**
- It is a **tragic love story.**
- The play was written in the **late 1500s.**
- **Religion** was very important in Elizabethan England. It was a **'Catholic' society** which has a strong belief in

punishment for your sins.

- Suicide and bigamy (marrying more than one person) were mortal sins.
- In Elizabethan times, **people got married much earlier than they do today.** It would be common practice to get married at 13 years of age.
- Normally, **parents would choose their child's partner** and this would be based on wealth, potential titles and family ties.
- Romeo and Juliet both decide who they are going to marry - this would have been highly disrespectful to their families, particularly as they both decided to marry their family's sworn enemy.



The Globe Theatre. Where Shakespearean plays were performed (and still are!)



Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

Topic 2: Romeo - Characterisation

Revise these key characteristics of **Romeo**:

- Romeo is one of the protagonists (main characters)
- Romeo is the only child of Lord and Lady Montague.
- Romeo is a young, passionate and impulsive character.
- When we first meet him, he is heartbroken because Rosaline does not return the love he has for her. However, things change as soon as he meets Juliet at the party. He sneaks to her balcony at night and declares his undying love for her. They arrange to get married in secret the very next day, showing how impulsive he really is.

Romeo's friends are:

- **Benvolio** - his cousin
- **Mercutio** – his best friend
- **Friar Lawrence** – marries Romeo and Juliet

He is enemies with: **Tybalt** - a Capulet and Juliet's cousin.



Key quotations:

- "she doth teach the torches to burn bright!"
- "consequence yet hanging in the stars"
- "O brawling love, O loving hate"



*Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.*

**Topic 3: Juliet characterisation**

Revise these key characteristics of **Juliet**:

- Juliet is the young daughter of Capulet and Lady Capulet.
- Juliet Capulet is a young and innocent teenage girl
- She is **decisive, passionate** and **headstrong**.
- Early in the play the nobleman, Paris asks her father whether he might be allowed to marry her. Capulet organises a party as an opportunity for the two to meet and get to know each other.
- When the audience first meets Juliet, it is at her father's party. Here, she meets Romeo and flirts with him, not knowing he is a Montague.
- Juliet is completely smitten with Romeo and when she finds out he is a Montague, she is devastated. However, knowing her own feelings, she decides to speak to Romeo more and when he reveals his true love for her, she persuades him to promise his love and they arrange their marriage.

Juliet doesn't have friends her own age. She obviously loves Romeo and she also takes advice from The Nurse and Friar Lawrence



Key quotations:

- "my only love sprung from my only hate"
- "it is an honour that I dream not of"
- "I must love a loathed enemy"



Vocabulary	Wider Research	Apply
<ol style="list-style-type: none"><li>1. Tragedy</li><li>2. Beginning</li><li>3. Middle</li><li>4. End</li><li>5. Act</li><li>6. Play</li><li>7. Theme</li><li>8. Death</li><li>9. Love</li><li>10. Conflict</li><li>11. Hatred</li><li>12. Shakespearean</li><li>13. Elizabethan</li><li>14. Religion</li><li>15. Sexism</li><li>16. Society</li><li>17. Marriage</li><li>18. Protagonist</li><li>19. Climax</li><li>20. Structure</li></ol>	<ul style="list-style-type: none"><li>- Romeo and Juliet plot summary: <a href="https://www.youtube.com/watch?v=dRrvQ1vZxcg">https://www.youtube.com/watch?v=dRrvQ1vZxcg</a></li><li>- Revise the flash cards: <a href="https://www.cram.com/flashcards/romeo-and-juliet-act-1-important-quotes-5653779">https://www.cram.com/flashcards/romeo-and-juliet-act-1-important-quotes-5653779</a></li><li>- Act 1 summary: <a href="https://www.sparknotes.com/shakespeare/romeojuliet/section2/">https://www.sparknotes.com/shakespeare/romeojuliet/section2/</a></li><li>- No Fear Shakespeare (modern translation): <a href="https://www.sparknotes.com/nofear/shakespeare/romeojuliet/">https://www.sparknotes.com/nofear/shakespeare/romeojuliet/</a></li><li>- Romeo characterisation details: <a href="https://www.sparknotes.com/shakespeare/romeojuliet/character/romeo/">https://www.sparknotes.com/shakespeare/romeojuliet/character/romeo/</a></li><li>- Graphic novel: <a href="https://www.sparknotes.com/shakespeare/romeojuliet/graphic-novel/">https://www.sparknotes.com/shakespeare/romeojuliet/graphic-novel/</a></li></ul>	<ol style="list-style-type: none"><li>1. Write a poem that summarises the life and times of Shakespeare</li><li>2. Create a family tree of the Capulet's and Montague's</li><li>3. Create a diagram of the Globe Theatre</li><li>4. Write a diary entry of Paris (the man who loved Juliet)</li><li>5. Write a speech that encourages Elizabethan men to give women more freedom</li><li>6. Write a letter from Romeo to Juliet in Act 1</li><li>7. Create some song lyrics about love and conflict</li><li>8. Re-create a police interview about the conflict that occurs with Tybalt</li><li>9. Create flash cards for the key quotations of Romeo and Juliet</li><li>10. Draw the structure of the play as a narrative arc</li></ol>



Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

**Topic 1: Fractions**

The term **equivalent** means of equal value. You can find **equivalent fractions** by multiplying the numerator and the denominator by the same value.

A **fraction** is in its **simplest form** if you cannot divide both numerator and denominator by any whole number, other than 1. If you are asked to **simplify** a fraction it means finding its simplest form.

When **adding and subtracting fractions** you need to make sure the denominators are the same.

For example:

For example:

$$\frac{3}{7} + \frac{2}{7} = \frac{5}{7} \quad \text{and} \quad \frac{3}{7} - \frac{2}{7} = \frac{1}{7}$$

When the **denominators** are not the same, you first have to find the **lowest common denominator**.

For example, if the denominators were 2 and 3, the lowest common denominator would be 6. Find equivalent fractions with a common denominator, and then add or subtract the numerators.

$$\frac{1}{2} + \frac{1}{3} = ?$$

$$\frac{1 \times 3}{2 \times 3} = \frac{3}{6} \quad \frac{1 \times 2}{3 \times 2} = \frac{2}{6}$$

$$\frac{3}{6} + \frac{2}{6} = \frac{5}{6}$$

A **mixed number** is a whole number and a fraction, e.g.  $3\frac{1}{4}$ . This can be converted to an **improper fraction**. An **improper fraction** is where the numerator is bigger than the denominator. To convert  $3\frac{1}{4}$  into a **mixed number**: the **mixed number** has  $\frac{1}{4}$  in it so the improper fraction will have 4 as the denominator.

Three whole ones =  $3 \times 4 = 12$ , so  $3\frac{1}{4} = 12 + 1 \text{ quarter} = 13 \text{ quarters, written as } \frac{13}{4}$ .

To convert an **improper fraction** to a **mixed number**: if you have 5 halves,  $\frac{5}{2}$ , work out  $5 \div 2 = 2 \text{ remainder } 1$ , or  $2\frac{1}{2}$ .

When you add **mixed numbers**, add the whole numbers and the fraction parts separately. Then combine the two parts after.

$$3\frac{1}{2} + 1\frac{1}{4} = 3 + 1 = 4, \text{ and } \frac{1}{2} + \frac{1}{4} = \frac{2}{4} + \frac{1}{4} = \frac{3}{4}. \text{ Combining your two answers then gives } 4\frac{3}{4}.$$

When you subtract **mixed numbers**, you must first **convert** both fractions to **improper fractions**.

$$3\frac{1}{2} - 1\frac{1}{4} = \frac{7}{2} - \frac{5}{4} = \frac{14}{4} - \frac{5}{4} = \frac{9}{4} = 2\frac{1}{4}$$

To **multiply fractions** you multiply the numerator and multiply the denominators, and **simplify** if necessary:

$$\frac{3}{4} \times \frac{5}{6} = \frac{15}{24} = \frac{5}{8}$$

To **divide fractions** you keep the first fraction the same, change the  $\div$  to an  $\times$  and flip the second fraction. (Keep, Change, Flip)

**Simplify** if necessary:

$$\frac{3}{4} \div \frac{5}{6} = \frac{3}{4} \times \frac{6}{5} = \frac{18}{20} = \frac{9}{10}$$

Steps to Simplify Fractions

- List ALL the factors of the numerator and denominator.
 

9	4: 1, 3, 4
33	33: 1, 3, 11
- Find ALL of the factors they have in common.
 

9	4 + 3 = 3
33	33 ÷ 3 = 11
- Divide BOTH the numerator AND the denominator by their **Greatest Common Factor**.
 

3	4. Write the Simplified fraction!
11	





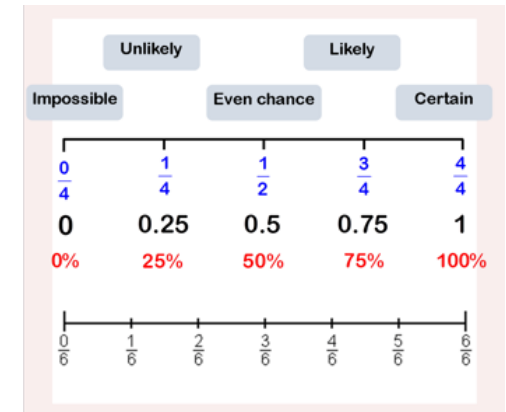
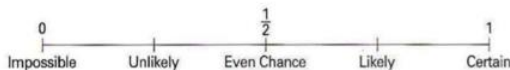
Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

**Topic 2: Probability**

In **probability**, when something happens, such as rolling a dice, it is called an **event**. The possible results are called **outcomes** of the event. For example, rolling a dice has six possible outcomes: a score of 1, 2,3,4,5 or 6.

You can use probability to decide how likely it is that different outcomes will happen. We use the words impossible, unlikely, even chance, likely, and certain. They can be written on a **probability scale**. The **probability scale** is from 0 (impossible) to 1 (certain). Probability can be written as fractions or decimals, and sometimes percentages.

**PROBABILITY SCALE**



**Example:** When you throw a fair dice, what is the probability of getting a 4?

This question can also be written as find P(4).

There are 6 **outcomes** - 1, 2, 3, 4, 5 and 6. There is only one 4. This means that there is only a one in six chance of getting a 4. This is written as a **probability fraction**  $\frac{1}{6}$ . A probability that is calculated in this way is called **theoretical probability**.

Sometimes, you can find a probability only by carrying out a series of experiments and recording the results in a table.

Then you can use these results to **estimate** the probability of an outcome. A probability found this way is called an **experimental probability**, or a **relative frequency**.

**Probability**

- The probability of an event, denoted P(E), is the likelihood of that event occurring.

The **Probability of an Event** =

$$P(\text{Event}) = \frac{\text{the number of ways it can happen}}{\text{the number of possible outcomes}}$$

**Experimental Probability**

For a given experiment:

$$\text{Experimental probability} = \frac{\text{number of times the event occurs}}{\text{total number of trials}}$$



Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

**Topic 3: Averages and Range**

**Pie Charts:** In a pie chart, the circle (or pie) represents the whole of the data. Each category of data is represented by a sector of the circle (or slice of the pie). The angle of each sector is proportional to the frequency of the category it represents.

**Average** - is a typical value of a set of data, which can be used to represent the whole data set: mean, median and mode are all types of average.

**Mean** - is found by adding all the values and dividing the sum by the number of values in the set; for example, the mean of 5, 6, 14, 15 and 45 is  $(5 + 6 + 14 + 15 + 45) \div 5 = 17$ .

**Median** - is the middle value in set of data that is arranged in order: for example, write the data set 4, 2, 6, 2, 2, 3, 7 in order, to give 2, 2, 2, 3, 4, 6, 7, then the median is the middle value, which is 3. If you are left with two values in the middle, the median is the mean of the two values; for example, 2, 3, 6, 8, 8, 9 has a median of  $(6 + 8) \div 2 = 7$ .

**Mode/Modal** - is the value that occurs the most often. The mode is the only average that you can use for non-numerical data, such as favourite colours or football teams. Sometimes there may be no mode, because all the values are different. 1, 2, 3, 4, 5, 6, has no mode. 1, 2, 2, 4, 5, 3, 2 has a mode of 2.

**Range** - to find the range you find the difference between the largest and smallest values; for example, the range of 5, 3, 4, 2, 8, 3, 4 is 6, because  $8 - 2 = 6$ .

**Statistical diagrams:**

A **bar chart** is a display of data using bars of different heights. Shown on the right are some examples of statistical diagrams.

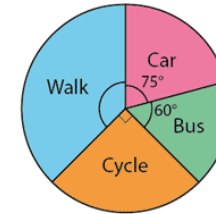
**Frequency Tables:**

When a lot of data needs to be sorted, one of the most efficient ways is to use a frequency table. See the example on the right.

A Frequency diagram, often called a line chart or frequency polygon shows the frequency for different groups.

The chart below shows the results from the frequency table.

The pie chart shows how pupil in class 8C travelled to school one morning. 5 pupils in class 8C travelled by car.

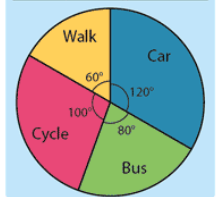


a) Work out how many pupils walked to school.

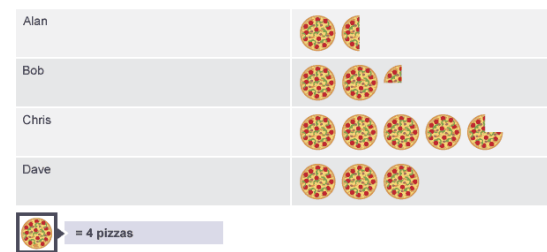
b) Work out how many pupils were included in the survey.

Working with Pie Charts

Transport	Frequency	Working
Car	6	$\frac{6}{15} \times 360^\circ = 120^\circ$
Bus	4	$\frac{4}{15} \times 360^\circ = 80^\circ$
Cycle	5	$\frac{5}{15} \times 360^\circ = 100^\circ$
Walk	3	$\frac{3}{15} \times 360^\circ = 60^\circ$

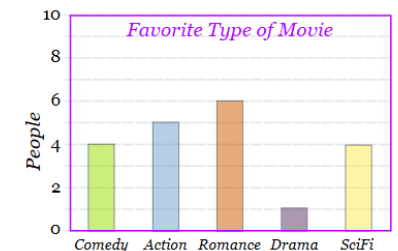


This pictogram shows the number of pizzas eaten by four friends in the past month:



**Table: Favorite Type of Movie**

Comedy	Action	Romance	Drama	SciFi
4	5	6	1	4





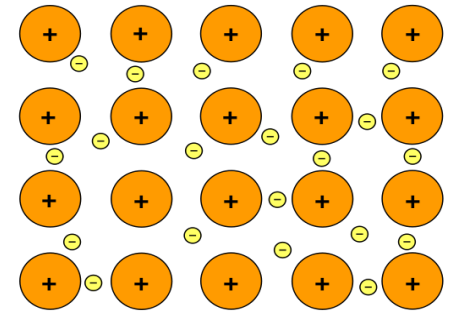
Vocabulary	Wider Research	Apply
<p>Average Median Mode Range Tally Mean Sum Product Fraction Numerator Denominator Equivalent Simplify Improper Fraction Convert Mixed Number Probability Event Outcome Chance Biased Trial Theoretical Experiment Certain Impossible Scale Random</p>	<p><b>Topic 1:</b> Equivalent fractions: <a href="https://www.mathsisfun.com/equivalent_fractions.html">https://www.mathsisfun.com/equivalent_fractions.html</a> Adding and subtracting fractions <a href="https://www.mathsisfun.com/numbers/fractions-mixed-addition.html">https://www.mathsisfun.com/numbers/fractions-mixed-addition.html</a> Multiplying and dividing fractions: <a href="https://www.mathsisfun.com/fractions_multiplication.html">https://www.mathsisfun.com/fractions_multiplication.html</a></p> <p><b>Topic 2:</b> Probability Scale: <a href="https://www.bbc.co.uk/bitesize/guides/zk9dmp3/revision/1">https://www.bbc.co.uk/bitesize/guides/zk9dmp3/revision/1</a> Calculating probability: <a href="https://www.mathsisfun.com/data/probability-events-independent.html">https://www.mathsisfun.com/data/probability-events-independent.html</a></p> <p><b>Topic 3:</b> Pie charts: <a href="https://www.bbc.co.uk/bitesize/guides/zxwxfcw/revision/4">https://www.bbc.co.uk/bitesize/guides/zxwxfcw/revision/4</a> Collecting data: <a href="https://www.bbc.co.uk/bitesize/guides/zc7sb82/revision/1">https://www.bbc.co.uk/bitesize/guides/zc7sb82/revision/1</a> Averages: <a href="https://www.bbc.co.uk/bitesize/guides/znhsqk7/revision/1">https://www.bbc.co.uk/bitesize/guides/znhsqk7/revision/1</a></p>	<p><b>Topic 1:</b> <a href="https://corbettmaths.com/wp-content/uploads/2021/09/Fractions-Addition-2.pdf">https://corbettmaths.com/wp-content/uploads/2021/09/Fractions-Addition-2.pdf</a> <a href="https://corbettmaths.com/wp-content/uploads/2018/09/Subtraction-pdf.pdf">https://corbettmaths.com/wp-content/uploads/2018/09/Subtraction-pdf.pdf</a> <a href="https://corbettmaths.com/wp-content/uploads/2018/12/Improper-Fractions-and-Mixed-Numbers.pdf">https://corbettmaths.com/wp-content/uploads/2018/12/Improper-Fractions-and-Mixed-Numbers.pdf</a></p> <p><b>Topic 2:</b> <a href="https://corbettmaths.com/wp-content/uploads/2018/11/Probability-Scale.pdf">https://corbettmaths.com/wp-content/uploads/2018/11/Probability-Scale.pdf</a></p> <p><b>Topic 3:</b> <a href="https://corbettmaths.com/wp-content/uploads/2022/11/Averages-and-Range-1.pdf">https://corbettmaths.com/wp-content/uploads/2022/11/Averages-and-Range-1.pdf</a></p>



Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

Topic 1: Electromagnets- Voltage Current and Resistance

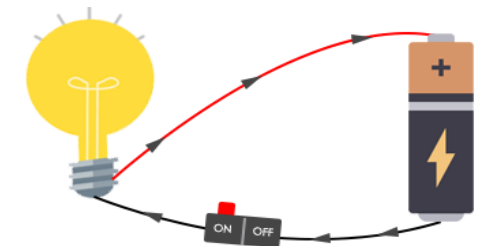
Electricity is the presence or flow of **charged particles**, an electric current is the **flow of electrons** around a circuit. We use electric currents to control and operate devices, including phones, computers and light bulbs. All materials contain **negatively-charged** particles called electrons. In metals the **electrons** are **free to move**, which means they are **good conductors** of electricity.



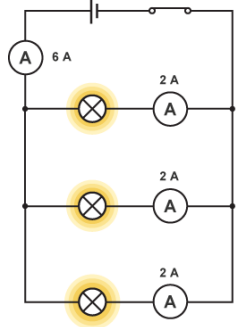
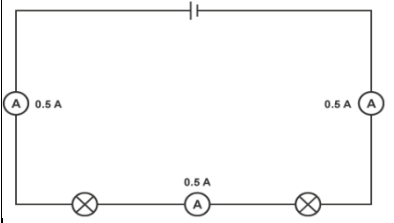
**TWO THINGS WHICH ALLOWS ELECTRONS TO FLOW AS A CURRENT:**

1. Something to transfer energy to the electrons (battery)
2. A complete path for electric to flow through (circuit)

To do something useful with the electric current, you need to put an **electrical component** into the circuit (such as a lamp), that can use the current in a useful way.



**SERIES CIRCUIT:** If a lamp breaks or a component is disconnected, the circuit is broken and all the components stop working. The **current** is the same everywhere. If you add more cells, the current increases. However, if you add more components- the current lowers amongst these evenly (e.g. dimmer bulbs).

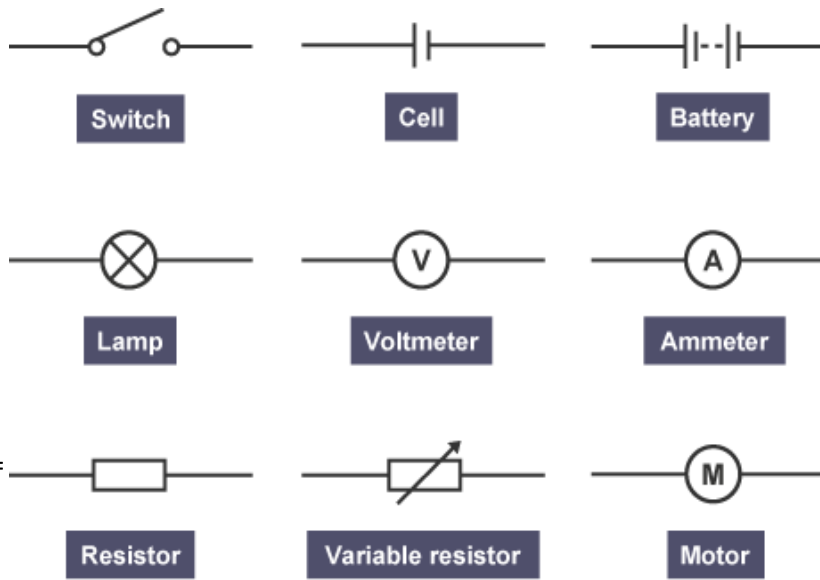


**PARALLEL CIRCUIT:** If a lamp breaks, or a component is disconnected from one parallel wire, the components on different **branches** keep working. Parallel circuits are used for within our homes. Within parallel circuits, the current is shared between the components.

The **wires** and other components in a circuit **reduces** the flow of electrons around them=**RESISTANCE** (measured in **ohms**)

	Current	Potential difference
Unit	ampere, A	volt, V
Measuring device	Ammeter in series	Voltmeter in parallel
Circuit symbol of measuring device		

We use circuit symbols to draw diagrams of electrical circuits, with straight lines to show the wires.



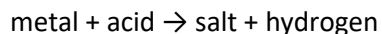


Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

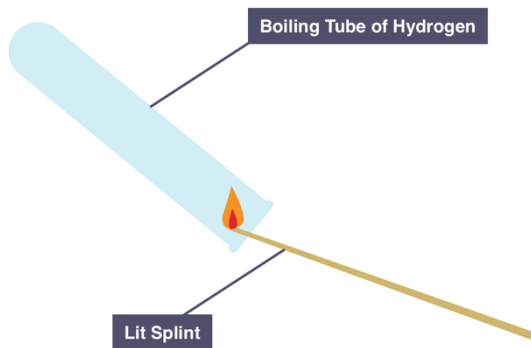
**Topic 2: Reactions- Metals and Non-metals**

Some metals are **unreactive**, this means they do not easily take part in chemical reactions. Some metals are very **reactive**, they easily take part in chemical reactions to make new substances. The image to the right shows **The Reactivity Series**:

**Reactions of acids with metals:**



How quickly the reaction goes depends on the metal used and how high up in the reactivity series it is. You can test for **Hydrogen**= a burning wooden splint goes pop if it is put into a test tube of hydrogen.

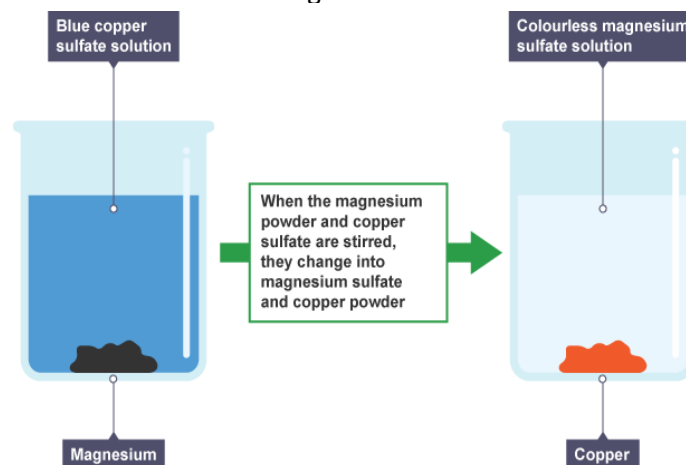


**Displacement Reactions:**

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

For example, magnesium is **more** reactive than copper. When a piece of magnesium is dipped into blue copper sulfate solution:

- The blue colour fades as colourless magnesium sulfate solution is formed.
- Brown copper coats surface of magnesium.



	Metals	Non-metals
<b>Appearance</b>	Shiny	Dull
<b>State at room temperature</b>	Solid (except mercury, which is a liquid)	About half are solids, about half are gases, and one (bromine) is a liquid
<b>Density</b>	High (they feel heavy for their size)	Low (they feel light for their size)
<b>Strength</b>	Strong	Weak
<b>Malleable or brittle</b>	Malleable (they bend without breaking)	Brittle (they break or shatter when hammered)
<b>Conduction of heat</b>	Good	Poor (they are insulators)
<b>Conduction of electricity</b>	Good	Poor (they are insulators, apart from graphite)
<b>Magnetic material</b>	Only iron, cobalt and nickel	None
<b>Sound when hit</b>	They make a ringing sound (they are sonorous)	They make a dull sound
<b>Type of oxide</b>	Basic or alkaline	Acidic



Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

Topic 3: Required Practical- Investigating the relationship between voltage and current

METHODOLOGY:

1. Set up the circuit as shown in the diagram.
2. Set the rheostat to a fixed position and leave it at that position.
3. 3 Increase the voltage in equal steps using the variable power supply.
4. Record the voltage across the fixed resistor and the current value, using the voltmeter and ammeter, for each increase in the power supply.
5. If there is time, alter the position of the rheostat and repeat investigation to see what the effects are.

As the voltage increases, the current increases proportionally; when the resistance in the circuit is fixed. This is because the charges in the connecting wires are given a bigger push with higher voltages and increase proportionally in their flow. The resistance in this circuit does not alter with higher voltage.

Doubling the amount of energy into the resistor results in a current twice as fast running through the resistor. This relationship is called Ohm's Law and is true because the resistance of the resistor is fixed and does not change.

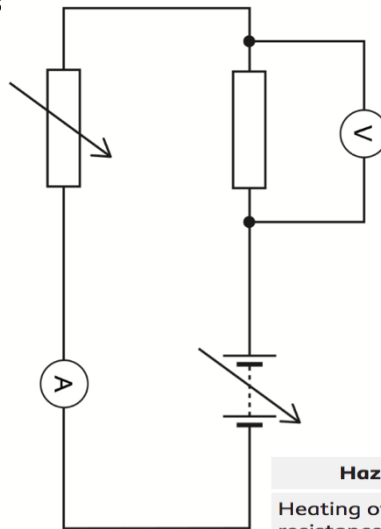
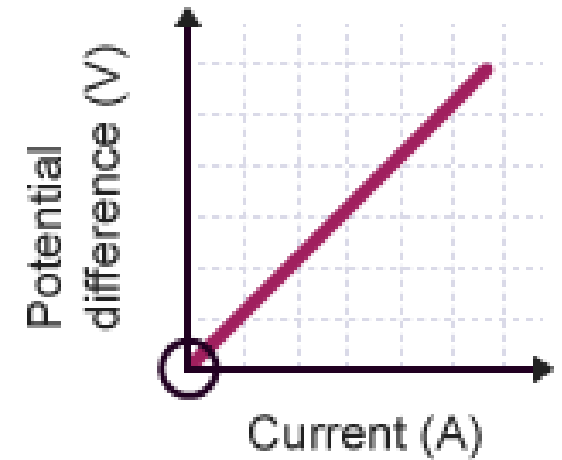
To find the resistance of a component, you need to measure:

- the potential difference across it
- the current flowing through it

The resistance is the ratio of potential difference to current.

**resistance = potential difference ÷ current**

If you plot a graph of current against potential difference for a wire, you get a straight line.



Consistent, repeat readings confirm if the results are reliable.

For a 10 Ohm fixed resistor the results may look like this:

Potential difference (V)	Current (A)
0.5	0.05
1.0	0.10
1.5	0.15
2.0	0.20
...	...

Hazards	Consequence	Control measures
Heating of the resistance wire	Burns to the skin	Do not touch the resistance wire whilst the circuits are connected and allow it time to cool



Vocabulary	Wider Research	Apply
1) Flow 2) Cell 3) Charge 4) Battery 5) Electrons 6) Current 7) Voltage 8) Potential Difference 9) Resistance 10) Amps 11) Volts 12) Ohms 13) Series 14) Parallel 15) Circuit 16) Reaction 17) Metals 18) Non-metals 19) Hydrogen 20) Reactivity 21) Conductor 22) Malleable 23) Magnetic 24) Density 25) Electricity 26) Unreactive 27) Resistor 28) Ammeter 29) Voltmeter 30) Hazard	<b>Electricity-</b> <a href="https://www.bbc.co.uk/bitesize/topics/zgy39j6/articles/z8mxgdm">https://www.bbc.co.uk/bitesize/topics/zgy39j6/articles/z8mxgdm</a>  <b>Static Electricity-</b> <a href="https://www.bbc.co.uk/bitesize/guides/zthyvcw/revision/1">https://www.bbc.co.uk/bitesize/guides/zthyvcw/revision/1</a>  <b>Electric Current &amp; Potential Difference-</b> <a href="https://www.bbc.co.uk/bitesize/guides/zsfgr82/revision/1">https://www.bbc.co.uk/bitesize/guides/zsfgr82/revision/1</a>  <b>Metals-</b> <a href="https://www.bbc.co.uk/bitesize/guides/zqwmxn timer/revision/1">https://www.bbc.co.uk/bitesize/guides/zqwmxn timer/revision/1</a>	1) State the two things electrons need to flow as a current (2 marks) 2) Explain why metals are good conductors of electricity (2 marks) 3) Justify the use of parallel circuits in our homes (3 marks) 4) List the units for resistance, current and potential difference (3 marks) 5) Compare how ammeters and voltmeters are connected within a circuit (2 marks) 6) What are the most and least reactive metals in the reactivity series? (2 marks) 7) Describe the test for hydrogen (2 marks) 8) State the generic word equation for reaction of metals with acids (1 mark) 9) What are “poor conductors” known as? (1 mark) 10) Describe the relationship between potential difference and current (2 marks)



**Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.**

**Topic 1: Renewable and Non-renewable energy**

The world uses energy to power everything we do on a daily basis. There is a move by world governments to become sustainable and less damaging to the environment in how we do this. **Non-renewable** energy involves taking resources that the world has created over millions of years from the ground and burning it for energy usage. When we burn coal, gas and oil, harmful gases known as greenhouse gases are released into the atmosphere which causes the greenhouse effect. The greenhouse effect stops heat and light energy from the sun reflecting back out of the planet.

This leads to global warming, causing the planet to heat up. The impact of global warming is destructive on the planet. As temperatures rise, the ice sheets melt causing sea levels to rise. We also find large amounts of water shortages in the poorest parts of the world. In order to protect the long term sustainable future for the planet, we need to move to use **renewable** energy.

- Examples of non-renewable energy (Energy that cannot be re used)

- Oil
- Gas
- Coal

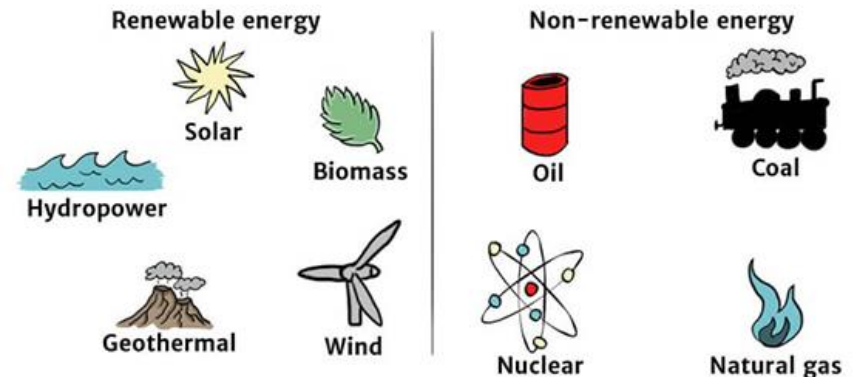
Electricity can be generated from wind, water, geothermal and solar energy. These energy resources are renewable. All of these resources have advantages and disadvantages but they are much better for our planet than non-renewable energy sources

- Examples of renewable energy (Energy that can be re-used with no carbon emissions)

- Solar Power (Sun)
- Wind Farms (wind)
- Hydroelectricity (water)

The impact of global warming is destructive on the planet. As temperatures rise, the ice sheets melt, causing sea levels to rise. We also find large amounts of water shortages in the poorest parts of the world. In order to protect the long term sustainable future for the planet, we need to move to use renewable energy. A lot of government schemes in the UK are geared towards this idea – for example, encouraging families to install renewable energy sources like heating in their home and no road tax for electric vehicles.

## Renewable and Non-Renewable Energy Sources







Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.

**Topic 2: Use of the tropical rainforest**

Tropical rainforest biomes are found in equatorial countries in hot and humid climates. Human intervention has positive and negative consequences for people and this environment. Rainforests contain the most diverse range and highest number of plant and animal life found anywhere on earth. In general, tropical rainforests have hot and humid climates where it rains virtually every day. The level of rainfall depends on the time of year whereas temperatures only change a little throughout the year.

Tropical rainforests are vital to life on our planet. The rainforest keeps our planet healthy by absorbing carbon dioxide and releasing oxygen. However, humans use the tropical rainforest to make money through tourism and the removal of natural resources. One way in which we change the rainforests in this way is known as clearance or deforestation.

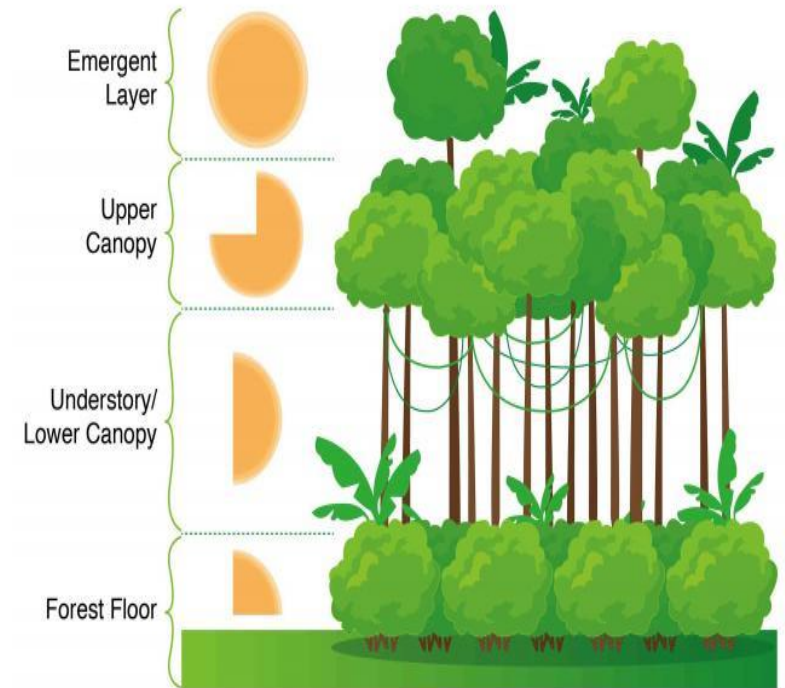
**Clearing the rainforest has advantages and disadvantages:**

Clearing the rainforest creates land for agriculture, houses and roads. This then creates jobs for local workers in road building, logging, agriculture, mining and construction. Resources from rainforests are also used for scientific investigation which may provide new food sources and medicines. Clearing rainforest threatens the survival of many plant and animal species and can lead to serious environmental damage. Widespread deforestation damages the whole biosphere (the balance of living and non-living things) with serious long-term consequences.

In order to make sure that rainforests have a long term future, they must be managed **sustainably**.

We do this by making sure that land clearance is small scale with trees planted immediately and only allowing eco-friendly tourism. Educating people is also extremely important; not only the people that live and work in the rainforests but us as well - many products that we use every day take resources away from the rainforest such as palm oil and wood.

Rainforest Layers of Vegetation





**Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.**

### Topic 3: The water cycle

Understanding how the water cycle operates is key to understanding how rivers work. The water cycle is also known as the hydrological cycle. It is called a cycle because water continuously moves around the system. Rivers are part of the cycle too.

<https://www.bbc.co.uk/bitesize/topics/zkgg87h/articles/z3wpp39>

#### How does the water cycle work?

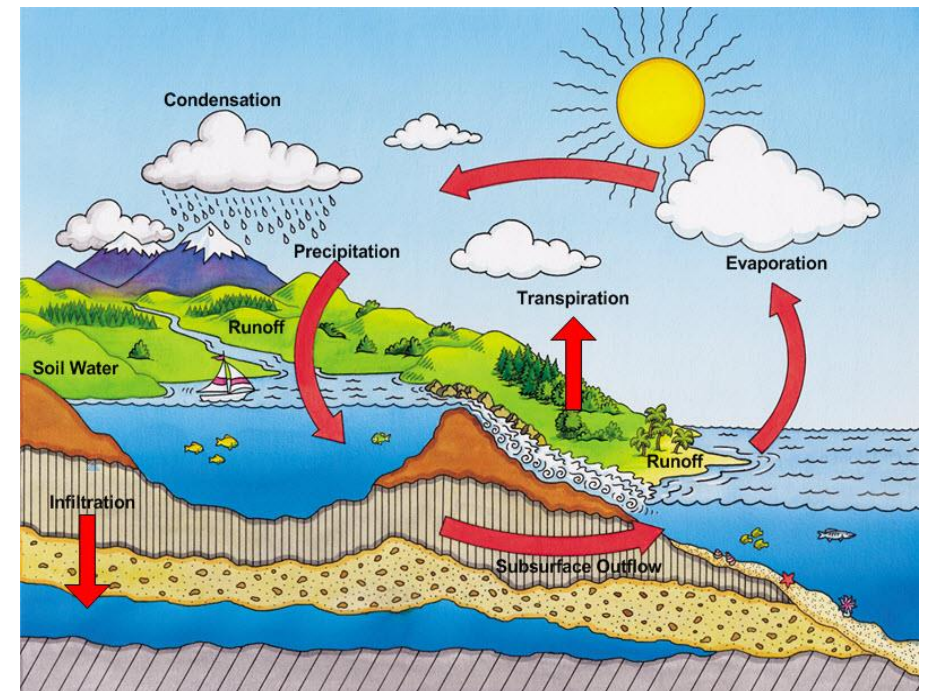
- Energy from the Sun heats the surface of the Earth.
- Water is **evaporated** from oceans, rivers, and lakes.
- The warm, moist air rises because it is less dense.
- **Condensation** occurs when water vapour is turned back into water droplets as it cools down. This creates clouds.
- As water droplets get bigger and heavier they begin to fall as rain, snow and sleet, etc. This process is called **precipitation**.

#### When the precipitation reaches the surface, some falls directly into the sea but other water falls on land:

- Some water is intercepted by vegetation (plants and trees). Some water may then slowly reach the ground. Some will evaporate from the surface of leaves or be taken up by the plant roots, and some of this water will eventually return to the air as vapour through the process of **transpiration**. This slows down or prevents some water flowing back to the river.
- Some water flows across the surface of the ground - **surface run-off**. This happens when the surface doesn't allow water to penetrate. Surface run-off is more likely to occur if the ground is saturated with water or when the rock is impermeable. This water moves quickly to the river.
- Some water infiltrates into the soil. This **through-flow** move more slowly back to the river than surface run-off.
- Some water seeps deeper into the ground and is slowly transferred back to the river or sea.

#### Water cycle facts:

- Water covers about 70% of our planet's surface.
- It is believed that water arrived on the Earth's surface as the result of volcanic eruptions billions of years ago.
- You might be drinking water that dinosaurs drank! Because water is recycled and doesn't leave the Earth, all the water currently on our planet is the same water that has been there for millions of years.





Vocabulary	Wider Research	Apply
<p>1) Renewable 2) Non-renewable 3) Sustainable 4) Greenhouse 5) Carbon 6) Emission 7) Pollution 8) Atmosphere 9) Energy 10) Hydroelectricity 11) Rainforest 12) Amazon 13) Emergent 14) Canopy 15) Soil 16) Nutrient 17) Cycle 18) Vegetation 19) Fauna 20) Species 21) Hydrological 22) Percolation 23) Transpiration 24) Condensation 25) Evaporation</p>	<p><b>Types of energy video</b> <a href="https://www.youtube.com/watch?v=osBVRfvkmAU">https://www.youtube.com/watch?v=osBVRfvkmAU</a></p> <p><b>Non-renewable and renewable energy</b> <a href="https://ww2.kqed.org/quest/2014/02/13/nonrenewable-and-renewable-energy-resources-2/">https://ww2.kqed.org/quest/2014/02/13/nonrenewable-and-renewable-energy-resources-2/</a></p> <p><b>Thanet offshore wind farm</b> <a href="https://powerplants.vattenfall.com/en/thanet">https://powerplants.vattenfall.com/en/thanet</a></p> <p><b>What is happening at the moment to The Amazon?</b> <a href="https://www.bbc.co.uk/news/world-latin-america-49815731">https://www.bbc.co.uk/news/world-latin-america-49815731</a></p> <p><b>How can we help the Amazon?</b> <a href="https://www.wwf.org.uk/updates/5-ways-help-amazon-rainforest">https://www.wwf.org.uk/updates/5-ways-help-amazon-rainforest</a></p> <p><b>The water cycle song (very annoying!)</b> <a href="https://www.youtube.com/watch?v=TWb4KIM2vts">https://www.youtube.com/watch?v=TWb4KIM2vts</a></p>	<ul style="list-style-type: none"><li>• Create a leaflet about the benefits of using renewable energy. You could use the Wind Farm offshore from The Isle of Thanet as an example of what it allows the country to do in a sustainable way (see video link in wider research column).</li><li>• Create a poster about the different layers of the tropical rainforest. What would you find in each layer? Why are certain animals only found in specific layers? How much sun and rain does each layer get?</li></ul> <ol style="list-style-type: none"><li>1. What is the impact of humans using non-renewable resources for energy?</li><li>2. Why should humans move towards using sustainable renewable energies?</li><li>3. What do you think is the most effective form of renewable energy?</li><li>4. How much of the energy used in the UK is created by renewable energy? Has this number increased or decreased over time?</li><li>5. What is the impact of clearing the tropical rainforest?</li><li>6. What do you think the impact would be if we added more water to the water cycle?</li><li>7. What would the impact of rising temperatures be on the water cycle?</li></ol>



*Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.*

### Topic 1: The Medieval Period

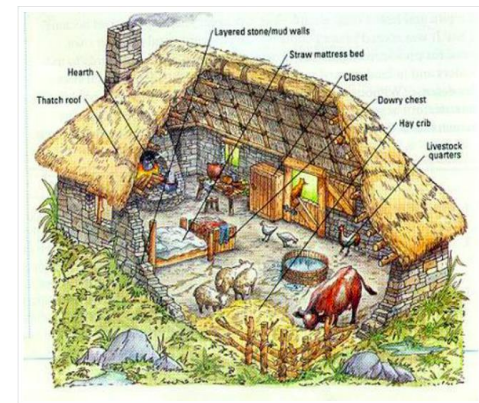
**Medieval living conditions were terrible during the Black Death. This caused the plague to spread rapidly.**

#### For example in villages:

- Peasants lived in little cottages which had 1-3 rooms storing livestock (animals).
- The peasant's hut was made of wattle, daub with a thatch roof.
- No windows or doors.
- As animals lived inside the house, rodents and fleas were attracted inside.

#### Medieval Towns

- Streets were narrow.
- Towns were filthy with rubbish and human waste thrown into the streets.
- There were open sewers running down the middle of the street.
- There were animals and animal faeces all over the street.
- Butchers would hang their meat out in the open air.
- Buildings were made out of wood, mud and dung.
- Rats, lice and fleas flourished on the clay floors of people's houses.



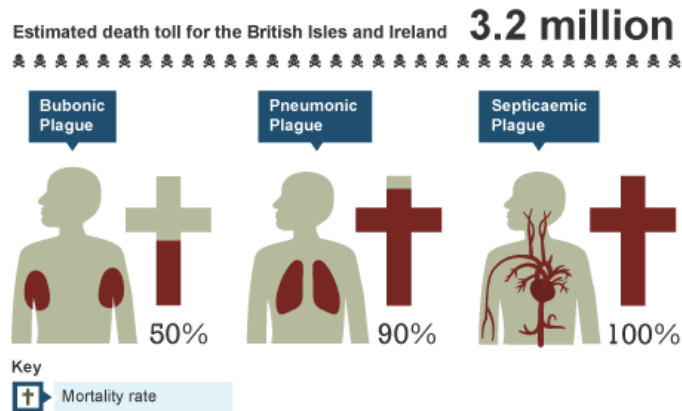


**Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.**

### Topic 2: Causes and Symptoms of the Black Death

The plague arrived at Melcombe Regis in Dorset in June 1348 and it spread throughout the south of England.

There were 3 different types of the plague.



1. The plague seems to have started in China in the 1330s.
2. In 1347, armies attacking the town of Caffa in the Crimea, catapulted dead bodies into the town. Italian merchants took the plague with them to Sicily in October 1347.
3. In June 1348 Black Death arrived at Melcombe Regis (in Dorset). By the end of the year it had spread throughout the south of England.
4. During 1349, the plague spread into Wales, Ireland and the north of England.
5. The Scots – thinking that God was punishing the English – invaded the north of England, where their army caught the plague. In 1350, therefore, the plague spread through Scotland.
6. The first plague died out in 1350.

7. The plague returned between 1361 and 1364, and five more times before 1405. These plagues mainly killed children, who had no resistance to the disease.

### What people thought caused the Plague:

1. The movements of the planets.
2. A punishment from God.
3. Bad smells and corrupt air.
4. Enemies who had poisoned the wells.
5. Staring at a victim.
6. Wearing pointed shoes.
7. Strangers in villages were blamed.

### What actually caused the Black Death:

1. Poor medical knowledge and understanding of what causes diseases
2. Poor public health e.g. towns had no system of drains, sewers or rubbish collections.
3. Bad harvest – people were not as strong and healthy.
4. Global trade routes
5. Rats – flees on rats



**Your teacher will tell you which topic you should revise. Read and learn all the information in the topic, ready for a Quiz in lesson.**

### Topic 3: Treating the Plague


In the 1347 - 1350 outbreak, doctors were completely unable to prevent or cure the plague. For those who believed in the Greek humours there were a range of cures available. 'Blood-letting' – deliberately bleeding a vein – was a way of reducing 'hot' blood, whilst blowing your nose or clearing your throat was a way of getting rid of too much 'cold' phlegm. Mustard, mint sauce, apple sauce and horseradish were used to balance wet, dry, hot and cold in your diet!

Some of the cures they tried included:

- Rubbing onions, herbs or a chopped up snake (if available) on the boils or cutting up a pigeon and rubbing it over an infected body.
- Drinking vinegar, eating crushed minerals, arsenic, mercury or even ten-year-old treacle!
- Sitting close to a fire or in a sewer to drive out the fever, or fumigating the house with herbs to purify the air.
- People who believed God was punishing you for your sin, 'flagellants', went on processions whipping themselves.
- In the 1361 - 1364 outbreak, doctors learned how to help the patient recover by bursting the buboes.
- Doctors often tested urine for colour and health. Some even tasted it to test.





Vocabulary	Wider Research	Apply						
1) Epidemic 2) Plague 3) Black Death 4) Catastrophe 5) Bubonic 6) Medieval 7) Superstition 8) Religious 9) Consequence 10) Buboes 11) Pneumonic 12) Morality 13) Septicaemic 14) Flagellants 15) Social 16) Psychological 17) Economic 18) Significance 19) Dark Ages 20) Middle Ages 21) Punishment 22) Causes 23) Symptoms 24) Treatment 25) Outbreak 26) Trading	<p><b>Black Death</b></p> <p><a href="https://www.historytoday.com/archive/black-death-greatest-catastrophe-ever">https://www.historytoday.com/archive/black-death-greatest-catastrophe-ever</a></p> <p><b>The Spread of the Black Death</b></p> <p><a href="http://www.bbc.co.uk/history/british/middle_ages/black_01.shtml">http://www.bbc.co.uk/history/british/middle_ages/black_01.shtml</a></p> <p><b>Causes/Symptoms of the plague</b></p> <p><a href="https://www.youtube.com/watch?v=y7OWLohZ fs">https://www.youtube.com/watch?v=y7OWLohZ fs</a></p> <p><b>Consequences of the Black Death</b></p> <p><a href="https://www.bbc.co.uk/bitesize/guides/z7r7hyc/revision/5">https://www.bbc.co.uk/bitesize/guides/z7r7hyc/revision/5</a></p> <p><b>The Great Plague of London</b></p> <p><a href="https://schoolhistory.co.uk/notes/the-great-plague-of-london/">https://schoolhistory.co.uk/notes/the-great-plague-of-london/</a></p>	<p><b>1. Create a history 'dictionary' using the key vocabulary. Find all the definitions and form a sentence</b></p> <table border="1" data-bbox="1294 379 2121 563"> <thead> <tr> <th>Key Word</th> <th>Definition</th> <th>Form a sentence</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p><b>2. Write a PEEL paragraph explaining why the Black Death spread further and killed more people. (4 marks)</b></p> <p><i>The Black Death spread further and killed more people because....</i>  <i>For example ...</i>  <i>Another example ...</i>  <i>This spread the plague further ...</i></p> <p><b>3. Create a timeline mapping out how the plague spread around the world. (Example image)</b></p>  <p><b>4. Create a leaflet that outlines symptoms, causes and treatments of the Black Death.</b></p>	Key Word	Definition	Form a sentence			
Key Word	Definition	Form a sentence						



Revise your French vocabulary and make a poster or a mind map. Get ready for an assessment each term.

Topic 1. Describe the classroom in the photo.

Voici ma salle de classe - Here is my classroom.

- Qu'est-ce qu'il y a sur la photo? *What is on the photo?*
- Sur la photo, il y a ... - *On the photo, there is/are ...*

- un tableau (noir/blanc)      *a (black/white) board*
- un poster                      *a poster*
- un/une prof (professeur)    *a teacher*
- un écran                      *a screen*
- un ordinateur                *a computer*
- une porte                      *a door*
- une fenêtre                  *a window*
- une tablette                  *a tablet*
- des tables                    *some tables*
- des chaises                  *some chairs*
- des élèves                    *some pupils*

- au fond.                    *at the back.*
- au centre.                  *in the middle.*
- à gauche.                  *on the left.*
- à droite.                    *on the right.*



C'est...  
It is ...

- assez      *quite*
- très        *very*
- trop        *too*
- un peu    *a bit*



- sympa.      *nice.*
- génial.      *great.*
- moderne.    *modern.*
- triste.        *sad.*
- nul.            *rubbish.*
- démodé.     *old-fashioned.*





Revise your French vocabulary and make a poster or a mind map. Get ready for an assessment each term.

Topic 2. La rentrée (the first day back to school).

Qu'est-ce que tu fais? What do you do?

- **Ma vie, c'est ...** *My life is ...*
- **Pour moi, la rentrée, c'est ...** *For me, going back to school is ...*
  - **chanter.** *to sing/singing.*
  - **danser.** *to dance/dàncing.*
  - **retrouver mes amis.** *to meet up/meeting with my friends.*
  - **bloguer.** *to blog/blogging.*
  - **surfer.** *to surf/surfing.*
  - **tchatter.** *to chat/chating (online).*
  - **rigoler.** *to have/having a laugh.*
  - **étudier.** *to study/studying.*
  - **nager.** *to swim/swimming.*
  - **jouer.** *to play/playing.*
  - **gagner.** *to win/winning.*



- **C'est sympa.** *It is nice.*
- **C'est amusant.** *It is fun.*
- **C'est génial.** *It is great.*
- **C'est super.** *It is super.*
- **C'est cool.** *It is cool.*
- **C'est ennuyeux.** *It is boring.*
- **C'est nul.** *It is rubbish.*
- **C'est triste.** *It is sad.*
- **J'adore mes amis.** *I love my friends.*





Revise your French vocabulary and make a poster or a mind map. Get ready for an assessment each term.

Topic 3. Les couleurs (colours).

### Les couleurs (The colours)

- **blanc/ blanche:** *white*
- **bleu/ bleue:** *blue*
- **gris/ grise:** *grey*
- **jaune:** *yellow*
- **marron:** *brown*
- **noir/ noire:** *black*
- **orange:** *orange*
- **rose:** *pink*
- **rouge:** *red*
- **vert/ verte:** *green*
- **violet/ violette:** *purple*



### C'est de quelle couleur? What colour is it?

- **Le poster est bleu.** *The poster is blue.*
- **La table est bleue.** *The table is blue.*
  
- **Le vélo est vert.** *The bike is green.*
- **La chaise est verte.** *The chair is green.*
  
- **Le poisson est marron.** *The fish is brown.*
- **La porte est marron.** *The door is brown.*

