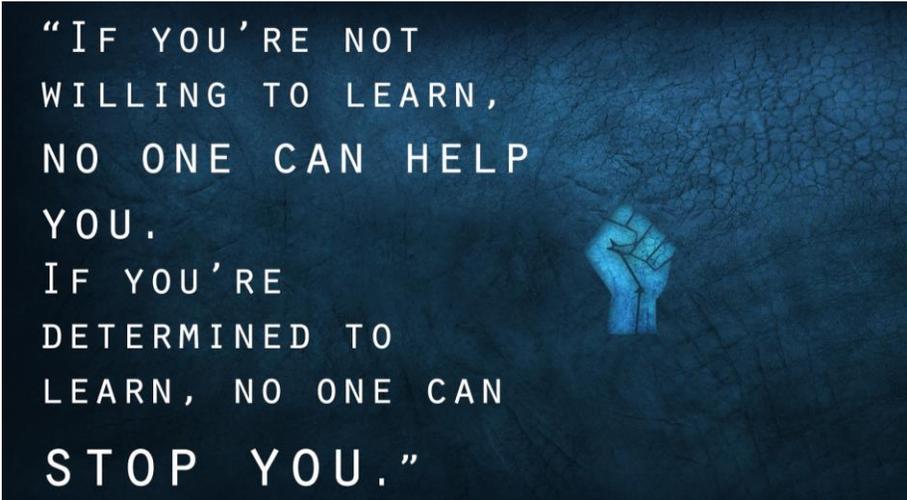


Knowledge Organiser Booklet

Year 8 Spring Half Term 2



“IF YOU’RE NOT
WILLING TO LEARN,
NO ONE CAN HELP
YOU.
IF YOU’RE
DETERMINED TO
LEARN, NO ONE CAN
STOP YOU.”

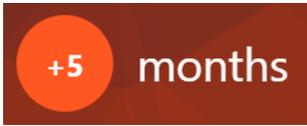
Name: _____ Tutor group: _____

Contents

- Home learning timetable
- Instructions on how to use a knowledge organiser
- English
- Maths
- Science
- Humanities
- Land and Environment
- Art
- Music
- MFL
- ICT



Education
Endowment
Foundation



+5 months

Research carried out by the Education Endowment Foundation proved that: Homework has a positive impact on average of + 5 months, particularly with pupils in secondary schools.

Home learning timetable

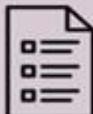
The table below details which days each subject will set home learning on each week. Students will have one week to complete home learning tasks for each subject.

Group	Monday	Tuesday	Wednesday	Thursday	Friday
8N	Art Humanities	Maths MFL	Science English	L&E Science	Music Reading
8E	Art Humanities	Maths English	L&E Science	Science MFL	Music Reading
8W	Humanities English	Art Maths	MFL Science	Science L&E	Music Reading

Please note you have two science teachers; science home learning will be set by both teachers

These knowledge organisers have been created by your teachers to support your learning both in class and for home learning. They are also a valuable revision tool for you to use independently when preparing for assessments. It is important that you make good use of your knowledge organisers by learning how to use them in different ways.

How to use a knowledge organiser – step by step guide

	Look, Cover, Write, Check	Definitions of Key Words	Flash Cards	Self Quizzing	Mind Maps	Paired Retrieval
Step 1	<p>Look at and study a specific area of your KO.</p> 	<p>Write down the key words and definitions.</p> 	<p>Use your KO to condense and write down key facts or information onto flash cards.</p> 	<p>Use your KO to create a mini quiz. Write down your questions using your KO.</p> 	<p>Create a mind map with all the information you can remember from your KO.</p> 	<p>Ask a friend or family member to have the KO or flash cards in their hands.</p> 
Step 2	<p>Cover or flip the KO over and write down everything you can remember.</p> 	<p>Try not to use your KO to help you.</p> 	<p>Add pictures to help support. Then self-quiz using the flash cards. You could write questions on one side, and answers on the other!</p> 	<p>Answer the questions and remember to use full sentences.</p> 	<p>Check your KO to see if there are any mistakes on your mind map.</p> 	<p>They can test you by asking you questions on different sections of your KO.</p> 
Step 3	<p>Check what you have written down. Correct any mistakes in green pen and add anything you have missed. Repeat.</p> 	<p>Use your green pen to check your work.</p> 	<p>Ask a friend or family member to quiz you on the knowledge.</p> 	<p>Ask a friend or family member to quiz you using the questions.</p> 	<p>Try to make connections, linking the information together.</p> 	<p>Write down your answers,</p> 



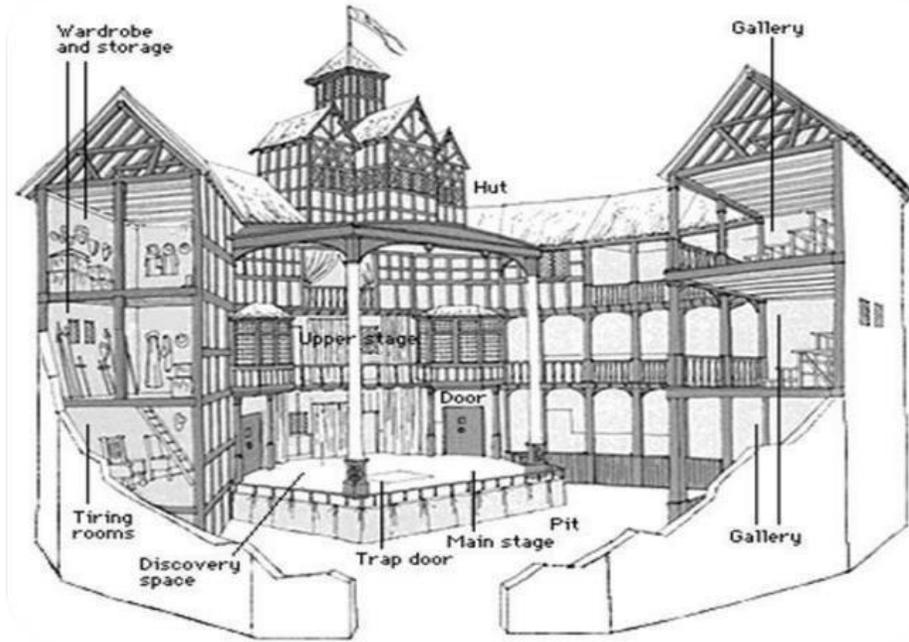
Shakespeare's Style

Verse: Speech written in poetic form

Blank Verse: a formal poetic form where each foot of a line is stressed on the second syllable (de-DUM) and each has five feet creating IAMBIC PENTAMETER.

Prose: A form of written speech that reflects the style of ordinary speech without a rhythmic structure.

The **Globe Theatre** was a theatre in London associated with William Shakespeare. It was built in 1599 by Shakespeare's playing company, the Lord Chamberlain's Men, and was destroyed by fire on 29 June 1613. A second Globe Theatre was built on the same site by June 1614 and closed down in 1642. A modern reconstruction of the Globe, named "Shakespeare's Globe", opened in 1997 approximately 750 feet (230 m) from the site of the original theatre.



Context

William Shakespeare (baptized: 26th April 1564 – died 23rd April 1616) was an English playwright, poet, and actor, widely regarded as the greatest writer in the English language and the world's greatest dramatist. He is often called England's national poet and the "Bard of Avon" (or simply "the Bard").

His works consist of some 39 plays, 154 sonnet poems, two long narrative poems, and a few other verses, some of uncertain authorship.

His plays have been translated into every major living language and are performed more often than those of any other playwright.

Shakespeare was born and raised in Stratford-upon-Avon, Warwickshire. Shakespeare produced most of his known works between 1589 and 1613. His early plays were primarily comedies and histories and are regarded as some of the best work produced in these genres.

He then wrote mainly tragedies until 1608, among them Hamlet, Romeo and Juliet, Othello, King Lear and Macbeth, all considered to be among the finest works in the English language.

In the last phase of his life, he wrote tragi-comedies containing elements of both comedy and tragedy.





Form (Play)- Key Terminology 1

Scene - a brief moment in a play consisting of dialogue and action. **Act**- several scenes following on from each other. Each act forms the different parts of the plot.

Stage Direction - an instruction in the script of a play, directing the movements of the actors, the arrangement of scenery, etc.

Audience - the people watching the play.

Playwright - the writer of the play

Soliloquy - an act of speaking one's thoughts aloud when by oneself or regardless of any hearers, especially by a character in a play.

Structure - Key Terminology 2

5 Act play - a drama is often divided into five parts, or acts, which some refer to as a dramatic arc

Exposition - the opening section where the setting is fixed in a particular place and time, the mood is set, and characters are introduced.

Rising Action - an exciting force or inciting event

Climax - the climax is the turning point, which changes the protagonist's fate.

Falling Action - the tension decreases and it wraps up the narrative, resolves its loose ends, and leads toward the closure.

Denouement - the ending with some sort of resolution and the tying up of loose ends.



Language - Key Terminology 3 Literary Devices:

Repetition - Repeated words or ideas

Imagery - Creating a mental picture for the reader through appealing to the senses (smell, touch, taste, see, hear)

Simile - Comparing one thing to another using 'like' or 'as' (e.g. 'as tall as a building')

Metaphor - Describes an object or action in a way that isn't literally true, but helps explain an idea or make a comparison (e.g. 'he was a rampaging bull')

Connotation - What a word makes the reader feel, think or imagine.

Symbolism - the way an object is given greater meaning within the novel so it has added importance.

Motif - a recurring symbol within the novel

Personification - giving human characteristics to an inanimate object

DRAMATIC DEVICES

Foreshadowing: a device in which the writer gives a warning or indication of the future

Dramatic Irony: occurs when the audience are aware of a detail that characters on stage are not aware of.

Dramatic Tension: a sense of excitement or anticipation that the audience feels.

Pauses and cliffhangers: these techniques are used to give suspense to the play

Proportion: a comparison between two numbers

Direct proportion: as one variable is multiplied by a scale factor the other variable is multiplied by the same scale factor.

Direct Proportion

As one variable changes the other changes at the same rate

R



4 cans of pop = £2.40

This is a multiplicative change

4 cans of pop = £2.40
 12 cans of pop = £7.20

4 cans of pop = £2.40
 2 cans of pop = £1.20

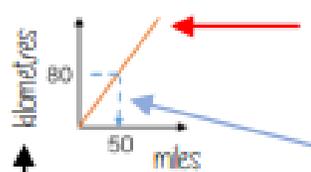
This multiplier is the same in the same way that this would be for ratio

Sometimes this is easiest if you work out how much one unit is worth first
 eg 1 can of pop = £0.60

Conversion Graphs

Compare two variables

R



This is always a straight line because as one variable increases so does the other at the same rate

Labelling of both axes is vital

To make conversions between units you need to find the point to compare – then find the associated point by using your graph

Using a ruler helps for accuracy

Showing your conversion lines help as a "check" for solutions

Best Buys

Have a directly proportional relationship

To calculate best buys you need to be able to compare the cost of one unit or units of equal amounts



Shop A

4 cans for £1.20

↓ £1.20 ÷ 4

Cost per item

1 can is £0.30
 Or 30p

Shop B

3 cans for 93p

↓ £0.93 ÷ 3

1 can is £0.31
 Or 31p

Shop A is the best value as it is 1p cheaper per can of pop



Shop A

4 cans for £1.20

↓ 4 × £1.20

Cost per pound

£1 buys 3.333 cans of pop

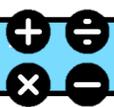
3 cans for 93p

↓ 3 × £0.93

£1 buys 3.23 cans of pop

Shop A is still shown as being the best value but pay attention to the unit you are calculating, per item or per pound

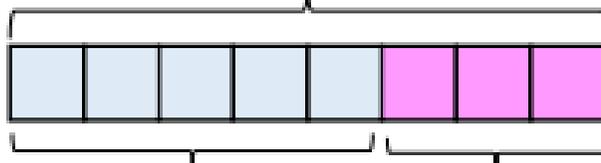
Best value is the most product for the lowest price per unit



Representing a ratio

'For every 5 boys there are 3 girls'

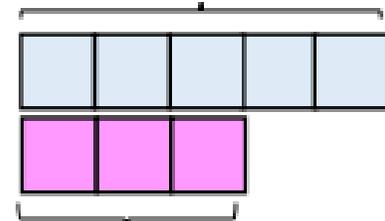
This is the "whole" – boys and girls together



5:3

This represents the 5 boys

Double Number Line



This is the "whole" – boys and girls together

This represents the 3 girls



Order is Important

'For every dog there are 2 cats'



1:2

The ratio has to be written in the same order as the information is given

eg 2: 1 would represent 2 dogs for every 1 cat X

Simplifying a ratio

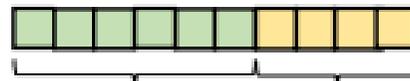
Cancel down the ratio to its lowest form

'For every 6 days of rain there are 4 days of sun'

6:4

+ by 2 ↓

3:2



Find the biggest common factor that goes into all parts of the ratio

For 6 and 4 the biggest factor (number that multiples into them) is 2

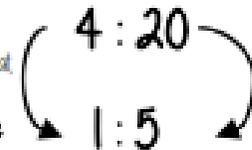
'For every 3 days of rain there are 2 days of sun' – when this happens twice the ratio becomes 6:4

Ratio In (or n:1)

This is asking you to cancel down until the part indicated represents 1

Show the ratio 4:20 in the ratio of In

The question states that this part has to be 1 unit. Therefore Divide by 4



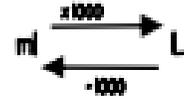
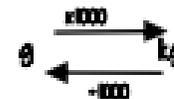
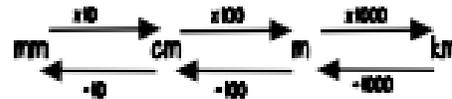
This side has to be divided by 4 too – to keep in proportion

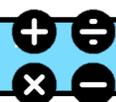
**the n part does not have to be an integer for this type of question

Units are important:

When using a ratio – all parts should be in the same units

Useful Conversions





Ratio: a statement of how two numbers compare

Equal Parts: all parts in the same proportion, or a whole shared equally

Proportion: a statement that links two ratios

Order: to place a number in a determined sequence

Part: a section of a whole

Equivalent: of equal value

Factors: integers that multiply together to get the original value

Scale: the comparison of something drawn to its actual size.

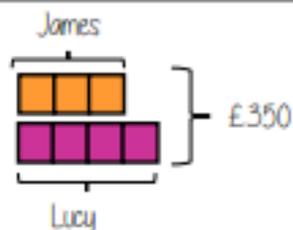
Sharing a whole into a given ratio

James and Lucy share £350 in the ratio 3:4
Work out how much each person earns

Model the Question

James: Lucy

3 : 4



$$£350 \div 7 = £50$$

□ - one part
= £50

Find the value of one part

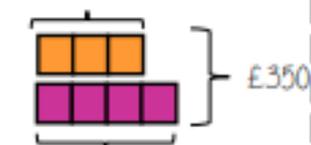
Whole: £350
7 parts to share between
(3 James, 4 Lucy)

Put back into the question

James: Lucy

$(\times 50)$ 3 : 4 $(\times 50)$
→ £150 : £200 ←

$$\text{James} = 3 \times £50 = £150$$



$$\text{Lucy} = 4 \times £50 = £200$$

Finding a value given 1n (or n:1)

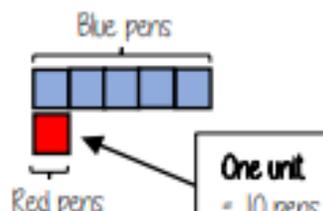
Inside a box are blue and red pens in the ratio 5:1
If there are 10 red pens how many blue pens are there?

Model the Question

Blue : Red

5 : 1

□ - one part
= 10 pens

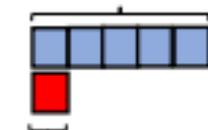


Put back into the question

Blue : Red

$(\times 10)$ 5 : 1 $(\times 10)$
→ 50 : 10 ←

$$\text{Blue pens} = 5 \times 10 = 50 \text{ pens}$$



$$\text{Red pens} = 1 \times 10 = 10 \text{ pens}$$

There are 50 Blue Pens

Ratio as a fraction



Trees: Flowers

3 : 7



Ratio

There are 3 parts for trees

Fraction of trees

$$\frac{\text{Number of parts of in group}}{\text{Total number of parts}} = \frac{3}{10}$$

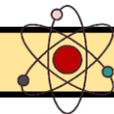
Tree parts 3 + Flower parts 7 = 10

π



Circumference

The ratio of a circles circumference to its diameter



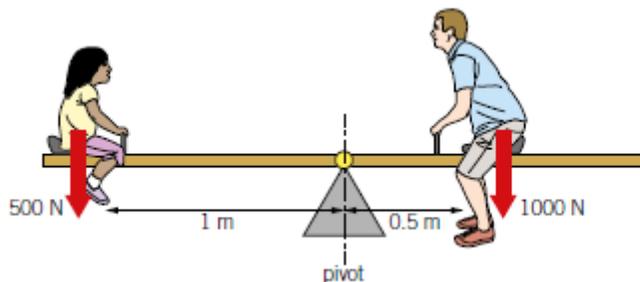
Speed is how far something moves in a certain time.
 Speed (m/s) = Distance travelled (m) ÷ Time taken (s)
 Speed can be measured in miles per hour (mph), metres per second (m/s) or kilometres per hour (km/h)

A **distance – time** graph shows when an object is stationary (horizontal line) or moving (angled line).

Moments are the turning effect of a force.
 Moment (Nm) = Force (N) x Perpendicular distance from the pivot (m)

The law of moments

When an object is in **equilibrium** all the **clockwise moments** added together **equal** all the **anti-clockwise moments** added together.



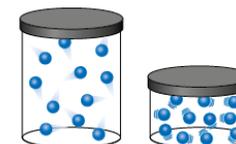
Pressure is how much force in a certain area.
 Pressure (N/m²) = Force (N) ÷ Area (m²)
 Pressure is measured in newtons per metre squared (N/m²), or newtons per centimetre squared (N/cm²).
 1 N/m² is also called 1 pascal (Pa)

Solids and **Liquids** are **incompressible**. This is because all the particles are touching.
 Pressure can be transmitted **through a liquid**. This is used in hydraulics.
 Pressure **increases with depth** in a **liquid**.

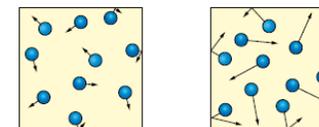
Gases can be compressed. This is because there are gaps between the particles.

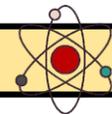
Atmospheric Pressure decreases with height above sea level.

Collisions between gas molecules and their container produce **gas pressure**.
 If you compress a gas there will be more frequent collisions and so a higher pressure.



If you heat a gas the particles move faster, there will be more frequent collisions and so a higher pressure.





Static electricity: by rubbing insulators together **electrons** are **transferred**, which gives the objects electrostatic charges.

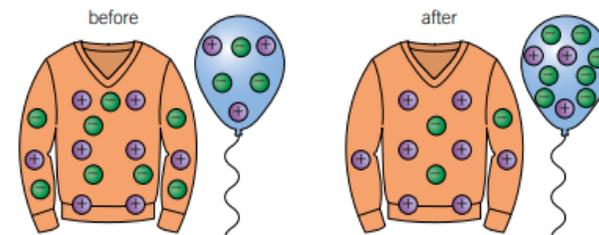
Like charges (+ and +) or (- and -) **repel**.

Opposite charges (+ and -) **attract**.

Charged objects have **electric fields** around them.

Electric field lines are used to show how a positive charge will act.

Only **electrons** are **transferred**.



Current is the amount of **charge flowing per second**.

- It is measured with an **ammeter** (connected in series).
- The **unit** for current is the **amp (A)**.

Potential difference is the amount of **energy transferred** by the **charges** in the circuit.

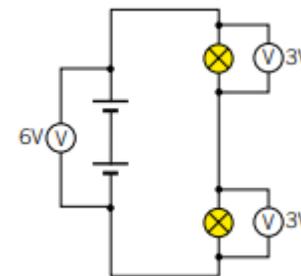
- It is measured with a **voltmeter** (connected in parallel).
- The **unit** for potential difference is the **volt (V)**.

Resistance is a measure of how easy it is to pass through a component.

- Resistance is calculated by measuring the potential difference and the current.
- The **unit** for resistance is the **ohm (Ω)**.

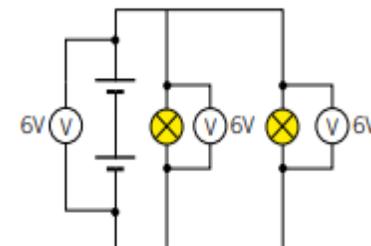
Series circuits

- contain only one loop
- the current is the same everywhere
- the potential difference across each component adds up to the potential difference across the battery,
- if one component or wire breaks, current stops flowing everywhere.



Parallel circuits

- contain multiple branches
- currents in all the branches add up to make the total current
- the potential difference across each component is the same as the potential difference across the battery





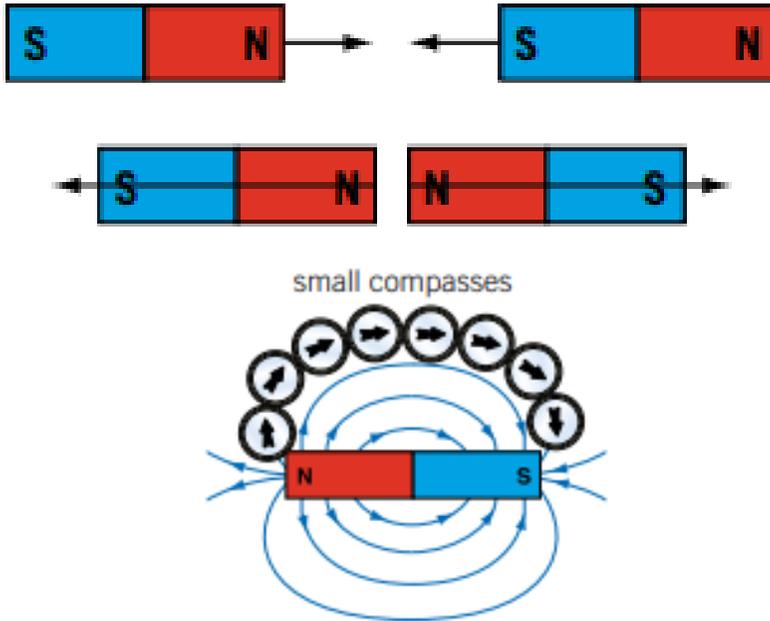
Magnets have north and south poles.

Like poles (N and N) or (S and S) **repel**.

Opposite poles (N and S) **attract**.

Magnets have **magnetic fields** around them.

Magnetic field lines are used to show how a North pole will act.



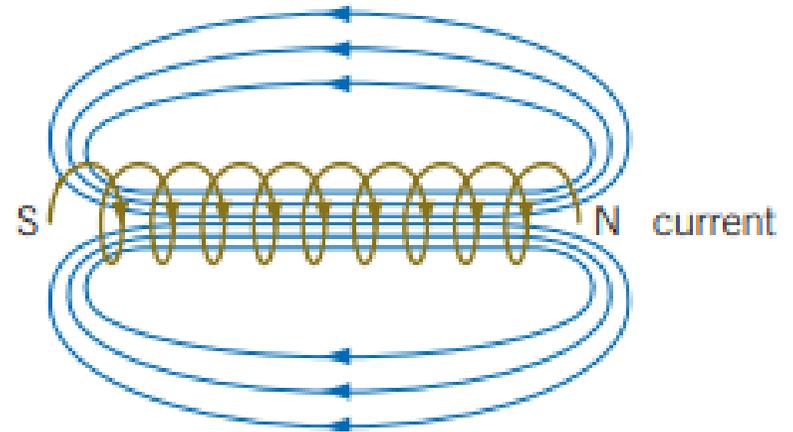
Where the field lines are closer together the magnetic field is stronger.

Electromagnets are only magnetic when they have a flow of current, so they can be turned off.

- They are made by running a current through a coil of wire.

You can make an electromagnet stronger by:

- adding more turns of wire on the coil.
- using more current.
- adding an iron core in the middle of the coil.



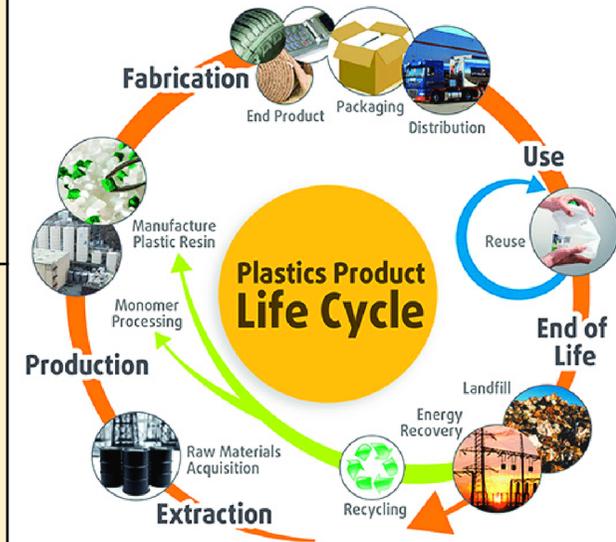


4.1 KEY TERMS - Plastics

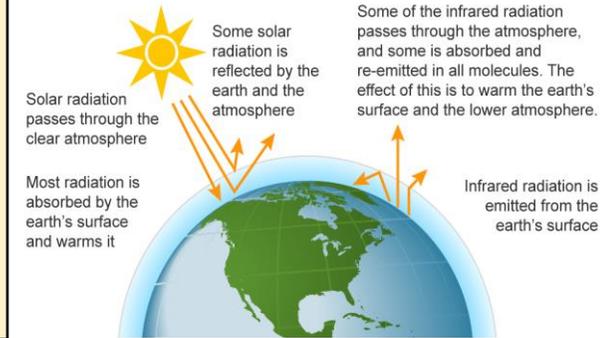
4.1.1. Crude Oil	Crude oil is a liquid fossil fuel that is a mixture of hydrocarbons. It is formed from the remains of organisms that lived millions of years ago. Crude oil is the primary source of energy production and is often referred to as petroleum. It is the key ingredient used to make plastics.
4.1.2. Plastic Life Cycle	The plastic life cycle is the process of extracting raw materials, making plastic products, using them, and then disposing of them. It includes many stages, each of which can have a negative impact on the environment.
4.1.3. Landfill Sites	A landfill site is a place where waste is disposed of, either by dumping it on the ground or filling a hole. Landfills are the most common way to get rid of waste, but they can pose environmental risks.
4.1.4. Microplastics	Microplastics are small pieces of plastic that are less than 5 millimeters in length. They are a growing problem in the environment, and can be found in the ocean, soil, food, and drinking water.
4.1.5. Toxic	Poisonous or harmful to wildlife or the environment.
4.1.6. Great Pacific Garbage Patch	The Great Pacific Garbage Patch is a collection of marine debris in the Pacific Ocean between Hawaii and California. It's the largest accumulation of ocean plastics on Earth.
4.1.7. Recycle	To convert waste in to reusable material.
4.1.8. Reuse	To use something (especially waste) for a similar or different purpose.
4.1.9. Incinerate	To destroy (something, especially waste material) by burning.

4.2 Key Terms – Climate Change

4.2.1. Climate Change	Climate change is the significant variation of average weather conditions becoming, for example, warmer, wetter, or drier—over several decades or longer.
4.2.2. Global Warming	Global warming is the long-term heating of Earth's surface observed since the pre-industrial period (between 1850 and 1900) due to human activities, primarily fossil fuel burning.
4.2.3. Greenhouse use Effect	This is a process that occurs when gases in Earth's atmosphere trap the Sun's heat. This process makes Earth much warmer than it would be without an atmosphere. The greenhouse effect is one of the things that makes Earth a comfortable place to live.

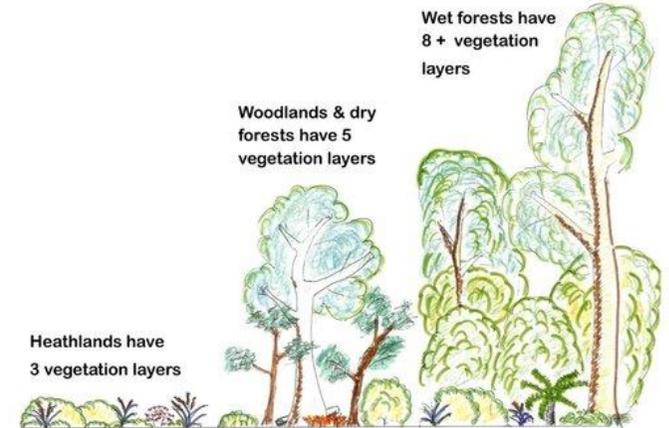


The greenhouse effect





What is a heathland?	An area of uncultivated land with sandy soil and scrubby vegetation such as heather and gorse.
Where do you find heathlands	From sea level to 1000m, on sandy well draining soil with low nutrients. Lowland heaths - below 300m - sand and gravel Upland heath - above 300m - shallow peat and minerals
Why are heaths important?	<ul style="list-style-type: none"> ● High biodiversity ● Important habitat for reptiles ● Important for endangered nesting birds - Nightjar



Heath flora



Heather



Gorse



Bracken



Silver birch

Heath fauna



Sand lizard



Hare



Nightjar



Silver-studded blue



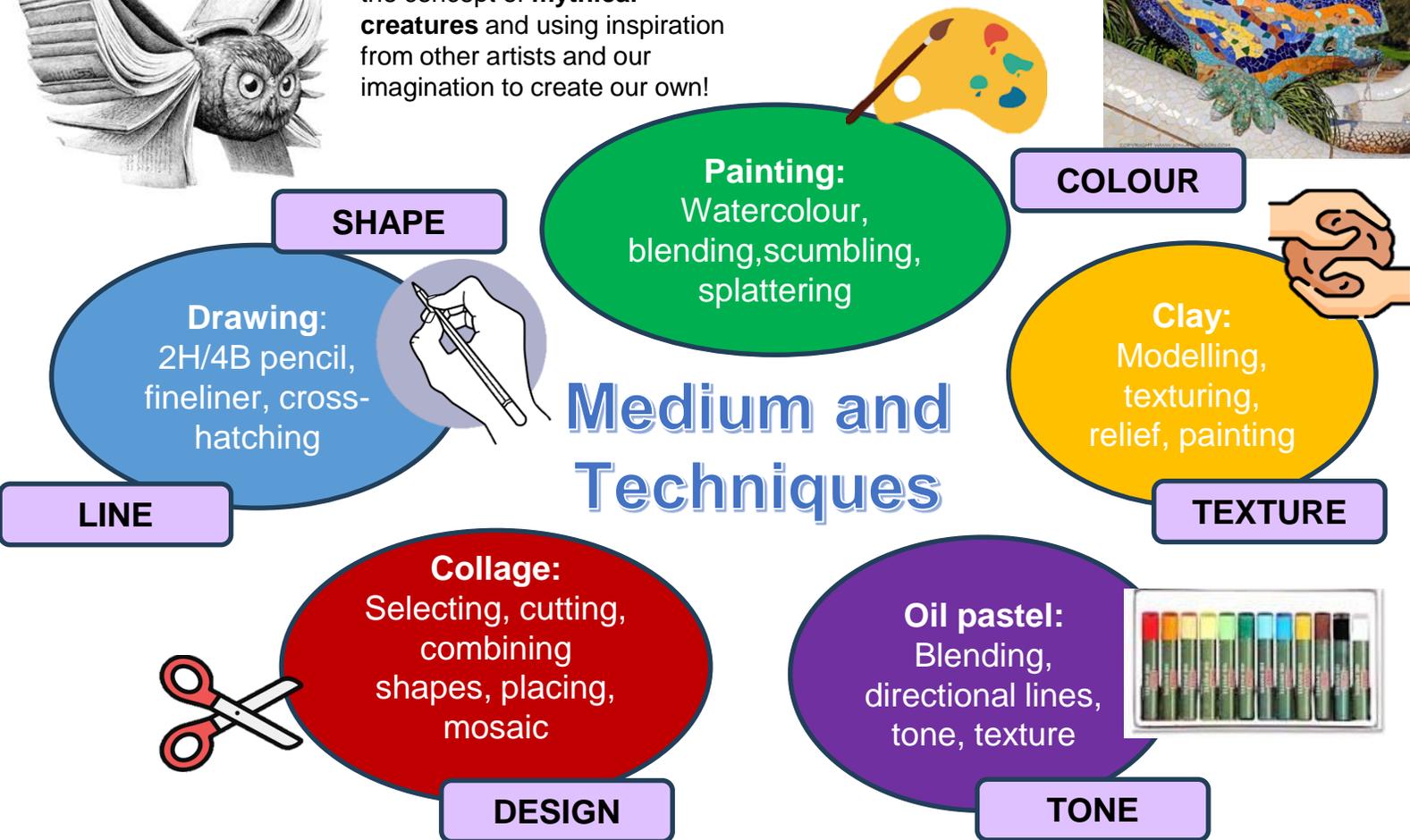
Ladybird spider



Dartford warbler



In this project we will be exploring the concept of **mythical creatures** and using inspiration from other artists and our imagination to create our own!



Key vocabulary
Mark-making
Cross-hatching
Blending
Contrast
Texture
Hybrid
Gargoyle
Mosaic
Surrealist
Texture
Proportion
Expression
Monochrome
Scumbling

Artists we will study: Salvador Dali, Henri Magritte, Antoni Gaudi, Redmer Hoekstra



1. The Musical Elements are the basic building blocks of all music

Melody		Melody is The tune; high and low pitch notes
Articulation		Articulation Is The way a note is played; staccato (short) or legato (smooth)
Dynamics		Dynamics are how loud or quiet the music is
Texture		Texture is how thick or thin the music is (how many instruments are playing)
Structure		Structure is the building blocks of music (How it is put together)
Harmony		Harmony is the effect of two or more notes sounding simultaneously; chords, bass line
Instrument/ timbre		Timbre is the specific sound an instrument makes
Rhythm		Rhythm is the pattern of long and short notes. Duration is how long or short the note is
Tempo		Tempo is how fast or slow the music is played

2. Keywords

Conductor	Person who stands at the front of the orchestra and directs it. They indicate the main beats in the music using a baton (a 'stick' that they hold and beat time with).
Orchestra	A large ensemble (group of musicians) divided into four sections - Strings, Woodwind, Brass and Percussion

3. String section

Violin
Viola
Cello
Double Bass
Harp

4. Woodwind section

Piccolo
Flute
Clarinet
Oboe
Bassoon

5. Brass section

Trumpet
French Horn
Trombone
Tuba

6. Percussion section

4.1 Tuned Percussion (Can play different pitches)					
	Timpani	Piano	Xylophone	Glockenspiel	
4.2 Untuned Percussion (Can only play one pitch)					
	Cymbals	Bass Drum	Snare Drum	Guiro	Woodblock
	Tambourine	Triangle	Maracas		



Not all Spaniards are native speakers of (Castilian) "Spanish." **There are 4 official languages in Spain** (Castilian, Catalan, Basque and Galician), **three unofficial regional languages** (Asturian, Aragonese, and Aranese), and several more dialects.

The Spaniards have a completely different life rhythm from other Europeans. They typically have lunch between **1 and 3 pm**, and dinner around **10 pm**.



Spanish culture greatly influenced modern art from the late 1800s, with artists like **Antoni Gaudí** (Art Nouveau), **Pablo Picasso** (expressionism, cubism, surrealism), **Joan Miró** (surrealism), and **Salvador Dalí** (surrealism).



Find out more:



Flamenco is not actually a dance; it's a musical style, which sometimes has dancing in it.

58 million tourists go to Spain every year, making it the fourth *most visited country in the world*.

Spain is renowned for its lively festivals, including **San Fermín** ("running of the bulls") in Pamplona and **Tomatina** ("tomato battle") in Buñol.



More than 150,000 tomatoes are usually thrown at La Tomatina.

¡Buenos días!	Good morning
¡Hola!	Hello
Mucho gusto	Nice to meet you
¡Adiós!	Goodbye
¡Buenas noches!	Goodnight
¡Buenas tardes!	Good afternoon / evening
¿Cómo te llamas?	What is your name?
¿Qué tal?	How are you?
Me llamo	My name is
Soy de Inglaterra	I am from England
Tengo doce años	I am 12 years old
¡Hasta luego!	See you later
¿Cuántos años tienes?	How old are you?
¿De dónde eres?	Where are you from?

SPANISH PHRASES FOR GREETINGS AND STARTING CONVERSATIONS

Hola – Hello

¿Qué tal? – How are you?

Bien – good

Regular – OK

Fatal – bad

¿Y tú? – and you?

Most Famous Spanish People



Pablo Picasso



Salvador Dali



Carlos Ruiz Zafon



Penelope Cruz



Rafael Nadal



Rosalía



Breaks, free time, and siestas are a huge part of everyday Spanish culture.

Spain was the **world's third most popular tourist destination in 2013** (after France and the US).

Don Quixote, the famous book written by Spanish author **Miguel de Cervantes** in 1605, was voted the "most meaningful book of all time" in 2002 by a panel of 100 top authors.



Traditionally, you have two surnames in Spain - **the first surname from your father, and the second from your mother**.

Tengo <u>I have</u>	el pelo <u>hair</u>	castaño <u>brown</u> rubio <u>blond</u> rojo <u>red</u> negro <u>black</u> azul <u>blue</u> corto <u>short</u> largo <u>long</u> rizado <u>curly</u> liso <u>straight</u>	y tengo <u>and I have</u> y tiene <u>she/he has</u>	barba <u>a beard</u>
Tiene <u>She/he has</u>	los ojos <u>eyes</u>	marrones <u>brown</u> azules <u>blue</u> grises <u>grey</u> verdes <u>green</u>	y llevo <u>and I wear</u> y lleva <u>she/he wears</u>	gafas <u>glasses</u>



Computing Knowledge Organiser

Topic: Scratch Programming



Rationale: Programming is a form of digital literacy and develops problem-solving skills. Scratch is a programming environment that allows you to create games, animations and other simulations.

Sequence

Sequence the instructions by arranging the blocks of code.

Selection

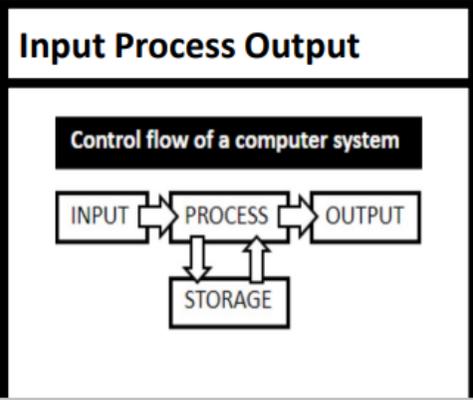
Alternative paths in the code. (If Statements)

Iteration

Count Controlled and Condition controlled instructions. (Looping)

Key Words

Sequence	One of the three basic programming constructs. Instructions that are carried one after the other in order.
Selection	Instructions that can evaluate a Boolean expression and branch off to one or more alternative paths.
Iteration (looping)	A selection of code that can be repeated either a set number of times (count-controlled) or a variable number of times based on the evaluation of a Boolean expression (condition-controlled).
Variable	A value that can change depending on conditions or information passed to the program.



Variable

A value that can change i.e temperature

Subroutines

A set of instructions that are grouped together