THE MILTON KEYNES ACADEMY
Creative Education Trust

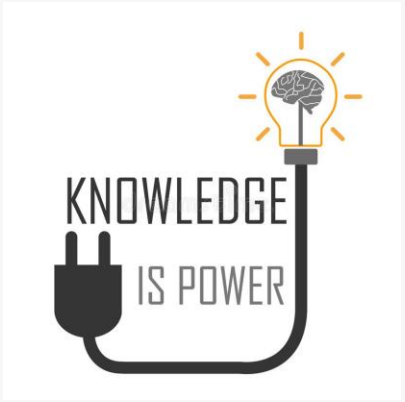
"Knowledge is of no value unless you put it into practice"

Anton Chekov

YEAR 7 KNOWLEDGE ORGANISER

EDITION 1
2022 - 2023

Name:



Kofi Annan

Nobel Peace Prize laureate, Former Secretary-General of the United Nations (1997-2006)

Knowledge is power.
Information is liberating.
Education is the premise of progress, in every society, in every family.

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Contents	
Subject	**Page number**

How to use your Knowledge Organiser

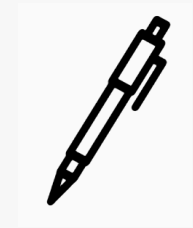
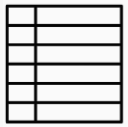
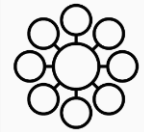
What is a Knowledge Organiser and how will it help me ?
It is an organised collection of knowledge that you need to know and learn for every topic you study in every subject. It will help you to be successful in your tests and exams.
Your teacher will use the knowledge organiser in your lessons. They will ask you to refer to various sections - they might talk this through and/or ask you to make key notes in your books or to highlight certain sections on your knowledge organiser.
Your teacher will set homework, where you will be asked to learn key knowledge from your knowledge organiser - you will then be tested in lessons regularly via short quizzes.

Do I have to bring my Knowledge Organiser every day ?
Yes, you do. It is one of our key expectations that you bring your knowledge organiser to every lesson, every day in your special Knowledge Organiser bag. Your Form Tutor will check this every morning.

Is there anything I could use to support me when using my knowledge organiser ?
Some people find post it's handy to stick onto their knowledge organiser pages - these are useful for extra notes.
Small white revision/flash cards are helpful so you can write key facts down. These can then be placed up around the house to help your revision.

How should I use my Knowledge Organiser to help me learn ?
There are lots of ways to use your knowledge organiser - the key to success is to find what works for you. The table below shows you some different ways to use them.

How to use a knowledge organiser – A step by step guide

	Look, Cover, Write, Check	Definitions to key words	Flash Cards	Self Quizzing	Mind Maps	Paired Retrieval
Step 1	Look at and study a specific area of your knowledge organiser. 	Write down the key words and definitions. 	Use your knowledge organiser to condense and write down key facts and information on your flash cards 	Use your knowledge organiser to create a new quiz. Write down questions using your knowledge organiser. 	Create a mind map with all the information you can remember from your knowledge organiser. 	Ask a partner or family member to have the knowledge organiser or flash cards in their hands 
Step 2	Cover or flip the knowledge organiser over and write down everything you remember. 	Try not to use your knowledge organiser to help you. 	Add pictures to help support. Then self quiz yourself using the flash cards. You can write questions on one side and answers on the other. 	Answer the questions and remember to use full sentences. 	Check your knowledge organiser to see if there were any mistakes with the information you have made. 	They can then test you by asking you questions on different sections of your knowledge organiser 
Step 3	Check what you have written down. Correct any mistakes in green pen and add anything you missed. Repeat. 	Use your green pen to check your work. 	Use a parent/carer or friend to help quiz you on the knowledge. 	You can also use family to help quiz you. Keep self-quizzing until you get all questions correct. 	Try to make connections that links information together. 	Write down your answers. 

LONG TERM CURRICULUM LINKS: Basic number skills

Year 7 Maths - Working with number

Time

Analog: 12 hour clock

Digital: 24 hour clock

45 mins
$\frac{3}{4}$ of an hour

15 mins
$\frac{1}{4}$ of an hour

30 mins
$\frac{1}{2}$ of an hour

Money

=

£1.00 is equal to 100 pence

Example:
Calculate £5 – 67p

500p – 67p = 433p which is £4.33

Order of Operations

B (brackets)

I indices ^{2}

D ÷ division

M multiplication x

A + addition

S subtraction –

Factors and multiples

Factors of 12: 1, 2, 3, **4**, 6, 12

Factors of 16: 1, 2, **4**, 8, 16

4 is the highest common factor of 12 and 16

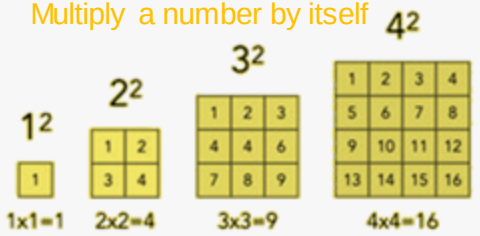
Multiples of 4: 4, 8, 12, 16, **20**, 24, 28

Multiples of 5: 5, 10, 15, **20**, 25, 30

20 is the lowest common multiple of 4 and 5

Square numbers

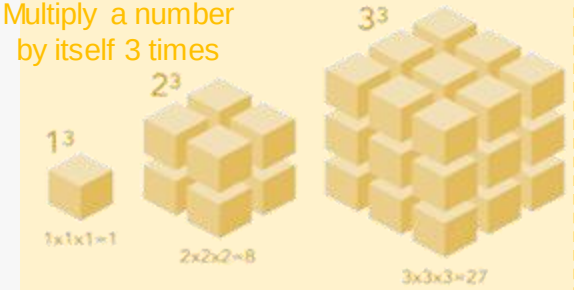
Multiply a number by itself



1x1=1 2x2=4 3x3=9 4x4=16

Cube numbers

Multiply a number by itself 3 times



1x1x1=1 2x2x2=8 3x3x3=27

Product means to multiply | **Sum** means to add | **Factors** are numbers that divide exactly into other numbers | **Multiples** are numbers that appear in a number's times table

Year 7 Maths - Expressions & Equations

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Expressions are used to represent a range of numbers, symbols or operations and are grouped together.
Equations provide a very precise way to describe various features of the world and how to work something out.

Expressions

An **expression** is a group of numbers, letters and operation symbols.

a + 14	Add 14 to *a*
b - 20	Subtract 20 from *b*
4c	Multiply *c* by 4
d + 12	12 more than *d*
3e - 5	Multiply *e* by 3 and subtract 5
2(f + 12)	Add 12 to *f and* then multiply by 2

Equations

An equation is a number statement with an equal sign (=). Expressions on either side of the equal sign are of equal value.

a + 14 = 20	a add 14 equals 20
b – 20 = 15	b subtract 20 equals 15
4c = 28	c multiplied by 4 equals 28
d + 12 = 30	d add twelve equals 30
3e – 5 = 10	e multiplied by 3 then subtract 5 equals 10
2(f + 12) = 44	f add 12 first, then multiply by 2 equals 44

Solving 2-step Equations

Example:

$2x + 4 = 10$
$-4 \quad -4$
$2x = 6$
$\div 2 \quad \div 2$
$x = 3$

- Subtract 4 from both sides
- Divide both sides by 2

BIDMAS

An acronym for the order in which you calculate. BIDMAS stands for 'Brackets, Indices, Division, Multiplication, Addition and Subtraction'. Indices are also known as 'powers' or 'orders'.

Simplifying expressions (+ & -)

- Can only simplify like terms
- Make sure to include the sign before the term

Example 1: $3a + 2b - a + 5b = 3a - a + 2b + 5b$
$= \mathbf{2a + 7b}$

Example 2: $4a + b - 2a - 3b = 4a - 2a + b - 3b$
$= \mathbf{2a - 2b}$

Simplifying expressions (x & ÷)

- Combine all numbers and letters
- Remember the Rules of Indices

1. $2\,p \times 4\,p = \mathbf{8p^2}$
2. $3\,p \times 2\,q \times p = \mathbf{6p^2q}$
3. $4p^2 \div p = \mathbf{4p}$

Solving 1-step Equations

Example 1: x + 5 = 12
- 5 - 5
x = 7

Take 5 from both sides (balancing method)

Example 2: 4x = 20
÷ 4 ÷ 4
x = 5

Divide both sides by 5 (balancing method)

Algebraic notation

$a + a + a = 3a$
$4 \times d = 4d$
$y \times y \times y = y^3$
$7 \times e \times f = 7ef$

Substitution

Substitute the following numbers into the equations & calculate the answer: $a = 2 \quad b = 3 \quad c = -$

Double negative = add

Examples:

1. $7b = 7 \times 3 = \mathbf{21}$
2. $5b - 4c = (5 \times 3) - (4 \times -5) = 15 - -20 = \mathbf{35}$
3. $4b^2 - 21 = 4 \times 3^2 - 21 = 4 \times 9 - 21 = 36 - 21 = \mathbf{15}$
4. $6c^3 = 6 \times (-5)^3 = 6 \times -125 = \mathbf{-750}$
5. $\frac{8ac}{4b} = \frac{8 \times 2 \times -5}{4 \times 3} = \frac{-80}{12} = \frac{-20}{3} = -6\frac{2}{3} = -6.\dot{6}$

KEY VOCABULARY

Word	Definition
Expressions	Numbers, symbols and operators (such as + and ×) grouped together that show the value of something
Equations	A statement that the values of two mathematical expressions are equal (indicated by the sign =)

Year 7 Maths - 2D and 3D Shapes

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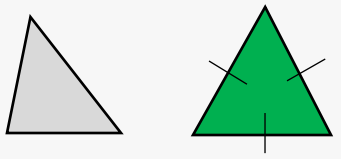
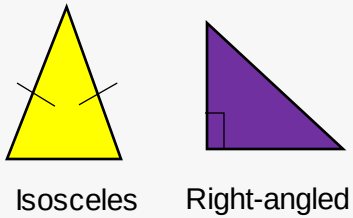
Triangles

a plane figure with three straight sides and three angles



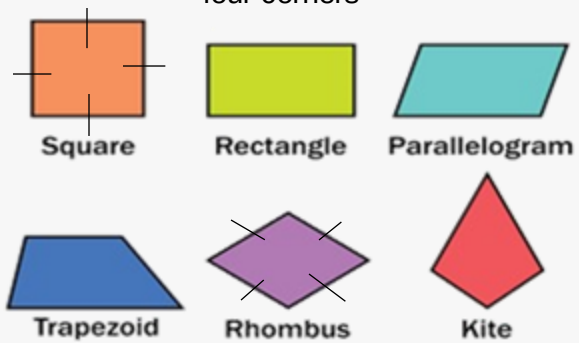
Three angles always add up to **180°**



Area
$\frac{b \times h}{2}$

Quadrilaterals

a four-sided polygon, having four edges and four corners



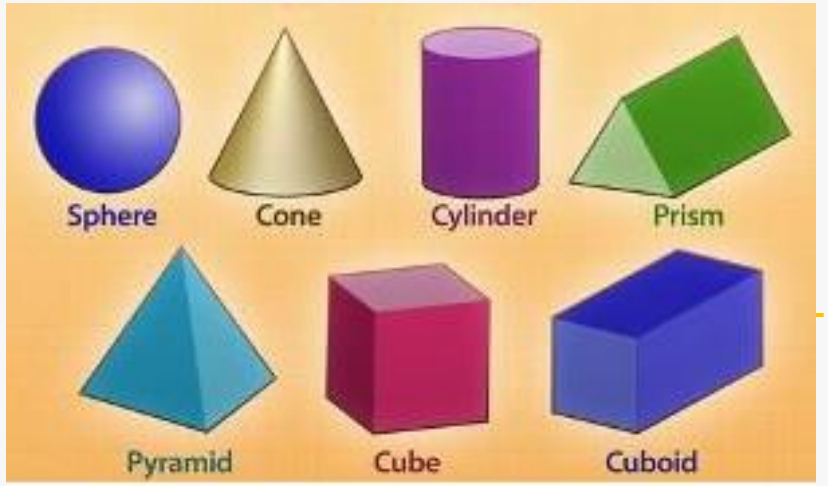
Four angles always add up to **360°**

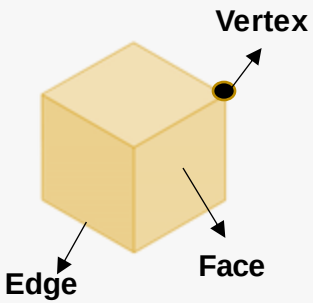
Area of a Rectangle = ***Base*** $\times$ $Height$

Area of a trapezium = $\frac{(a+b)h}{2}$

3D Shapes

3D (three-dimensional) **shapes** are solid **shapes** that have three dimensions including length, depth and width





Isometric Drawing

Nets

Cube

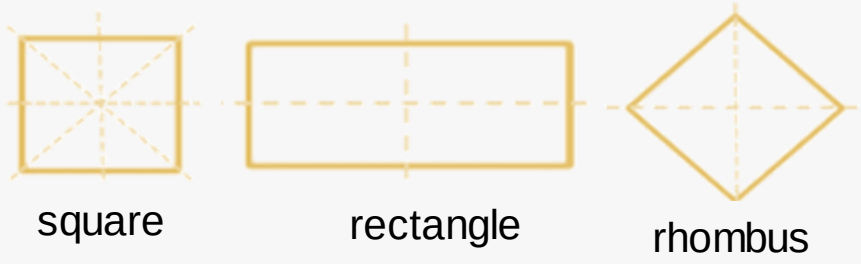
Cuboid

Square-based Pyramid

Triangular Prism

Lines of Symmetry

We say there is symmetry when the exact reflection or mirror image of a line, shape or object gets created



KEY VOCABULARY

Word	Definition
Parallel	Lines that never meet
Perpendicular	Lines that intercept at a right angle 90°
Line of Symmetry	Line dividing the shape into two halves that match exactly the same
Rotational Symmetry	When a shape can be rotated and still looks exactly the same
Perimeter	Distance around the outside of the shape
Area	Space inside the flat surface
Vertices	Corners of a 3D shape
Edges	Lines joining two vertices of a 3D shape
Faces	Flat surfaces of a 3D shapes
Net	Is what a 3D shape looks like when it is opened out flat

LONG TERM CURRICULUM LINKS: Place Value, Division and Multiplication

Year 7 Maths - Metric Conversions

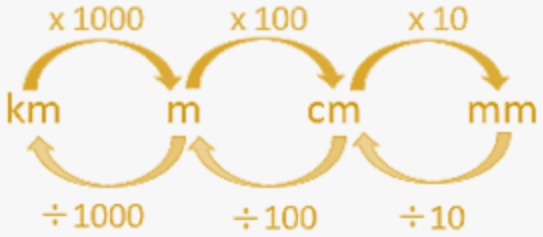
Metric system of measurement

The metric system is used to measure the length, weight or volume of an object.

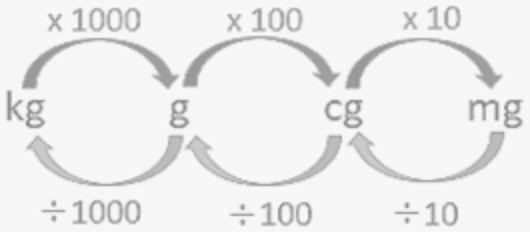
- **Length** is measured in **millimetres** (mm), **centimetres** (cm), **metres** (m) or **kilometres** (km).
- **Weight** is measured in **grams** (g) and **kilograms** (kg).
- **Volume** is measured in **millilitres** (ml) and **litres** (l).

Conversion between common metric units

1 cm = 10 mm
1 m = 100 cm
1 km = 1000 m



1 kg = 1000 g



Conversion between metric and imperial units

Conversion between common metric units

Example 1 : Convert 3 km to m.
3 km = 3 × **1,000** = 3,000 m

Example 2 : Convert 20 mm to cm.
20 mm = 20 ÷ **10** = 2 cm

Conversion between imperial and metric units

Example 1 : Convert 5 inches to cm.
5 inches = 5 × **2.5** = 12.5 cm

Example 2 : Convert 4 pounds to kg.
4 lb = 4 ÷ **2.2** = 1.82 kg

Conversion between different currencies

One currency = another currency X exchange rate

Example 1 : Convert £200 to euros.
One pound is **€1.20**
Amount of euros = 200 ×1.20 = €240

KEY VOCABULARY

Word	Definition
metric	relating to or based on the metre as a unit of length.
imperial	relating to or denoting the system of non-metric weights and measures.
conversion	To change a value or expression from one form to another. For example, in measurement, change from one unit to another.

Year 7 Maths - Angles

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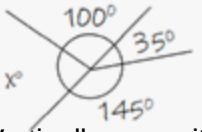
Angle Facts

Angles at a point on a straight line add up to 180°

x = 180 – 130 = 50°

Angles around a point sum to 360°

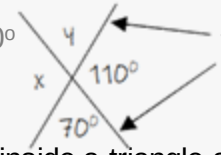


x = 360 – 100 – 35 – 145 = 80°

Vertically opposite angles are equal

x = 110°

y = 70°

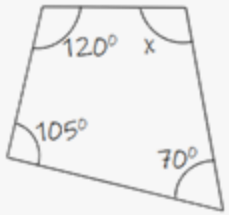


These lines must be straight to make vertically opposite angles

Angles inside a triangle sum to 180°

x = 180 – 60 – 65 = 55°

Angles inside any quadrilateral sum to 360°



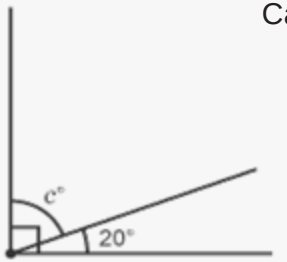
x = 360 – 120 – 105 – 70 = 65°

There are 360° in a full turn, 180° in a half turn and 90° in a quarter turn. A quarter turn is called a **right angle**.

A right angle is shown by a small square. This fact can be used to calculate unknown angles.

Example

Calculate angle c.

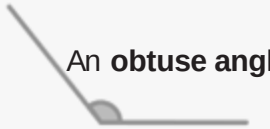


A right angle is shown.

$$c = 90° - 20° = 70°$$

There are three different types of angle.

An **acute angle** is an angle less than 90°.

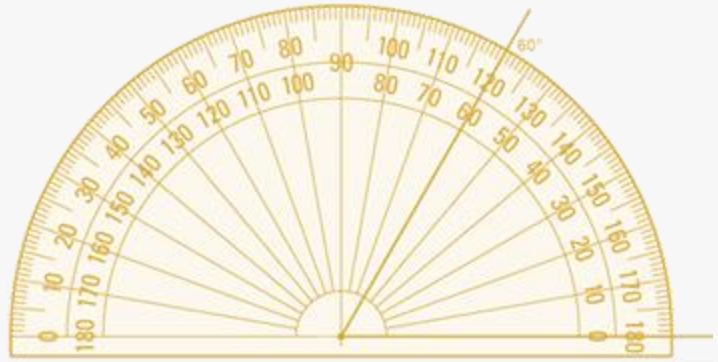


An **obtuse angle** is an angle between 90° and 180°.

A **reflex angle** is an angle between 180° and 360°.

Measuring Angles

Example: Use the protractor to measure this angle



Step 1: Line up the vertex (corner) of the angle with the cross section of the protractor.

Step 2: Make sure that one of the angle lines goes right through the zero.

These steps are really important - if the protractor isn't lined up properly with the angle, you won't get a correct reading.

Step 3: See which number the other line of the angle reaches on the protractor.

Step 4: Take your measurement.

The line goes through both 120° and 60°. Always read from the **zero**. Since the zero is on the inside line, you continue to read the inside numbers - the angle must be 60°.

You can also tell that the angle is an acute angle so it has to be less than 90°.

KEY VOCABULARY

Word	Definition
Quadrilateral	a closed shape and a type of polygon that has four sides, four vertices and four angles.
Polygon	A closed 2D shape with straight sides.
Protractor	used to construct and measure plane angles

Year 7 Maths - Constructing Triangles

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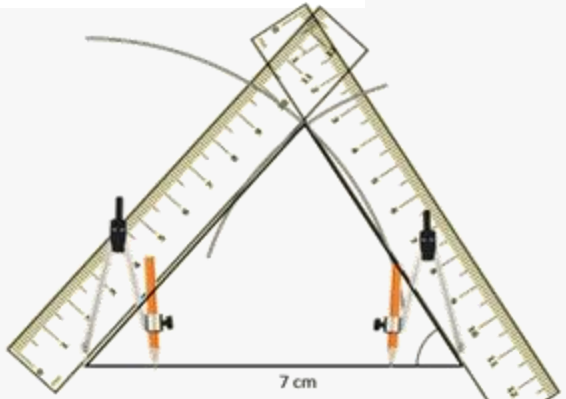
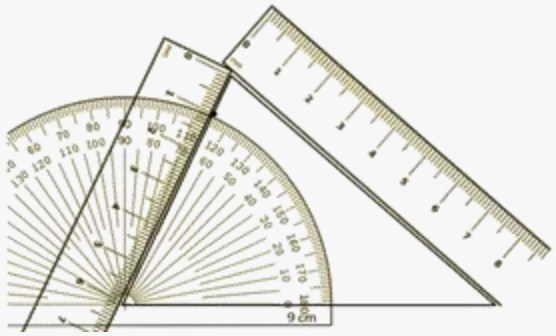
Constructing Triangles

Side Side Side (SSS)



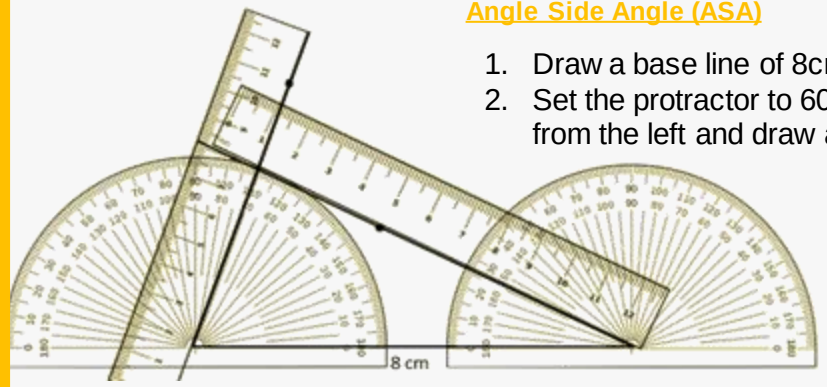
1. Draw a base line of 7cm
2. Set the compass to 8cm and draw an arc from the left
3. Set the compass to 8cm and draw an arc from the right
4. Where the arcs cross, use to complete the triangle

Side Angle Side (SAS)

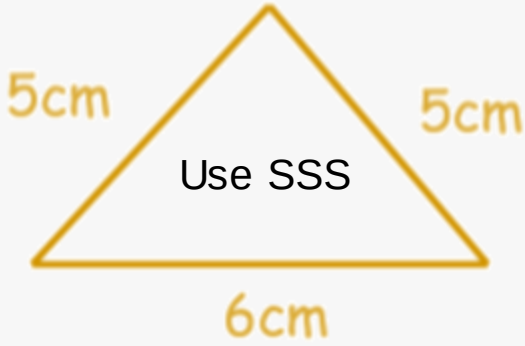


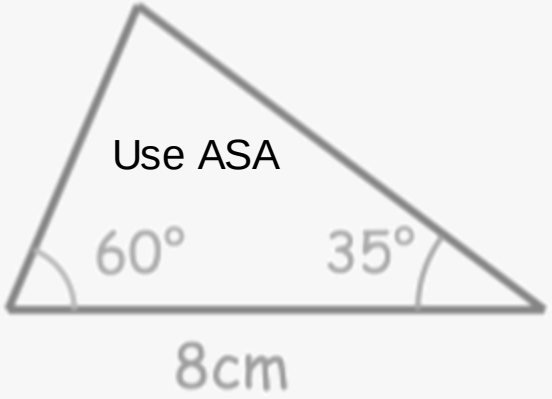
1. Draw a base line of 9cm
2. Set the protractor to 60 degrees and draw an angle from the left and draw a line of 5 cm
3. To complete the triangle, draw in the third side

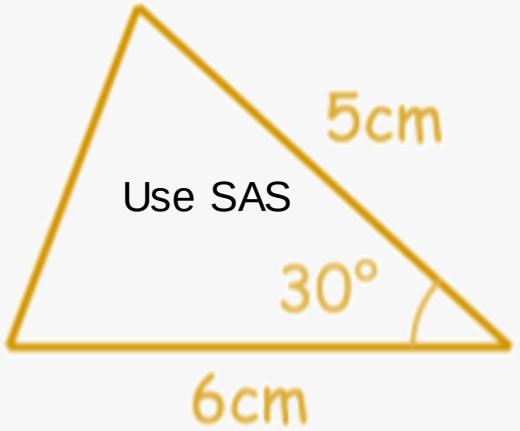
Angle Side Angle (ASA)



1. Draw a base line of 8cm
2. Set the protractor to 60 degrees and draw an angle from the left and draw a line of x cm
3. Repeat the above step on the right side with the given angle
4. Where the lines cross is the triangle completed.







KEY VOCABULARY

Word	Definition
Constructing	To draw or build a shape / object
Protractor	Used to measure angles
Arcs	A length of a full circle used to measure correct lengths

Year 7 English autumn 1 Extract reading and creative writing

A metaphor is made up of three parts:

1. Tenor The thing you want to try and describe to your audience.

2. Vehicle The imaginative idea you compare it with to help your audience understand it. This is the 'made up' bit.

3. Ground/s The things the tenor and the vehicle have in common.

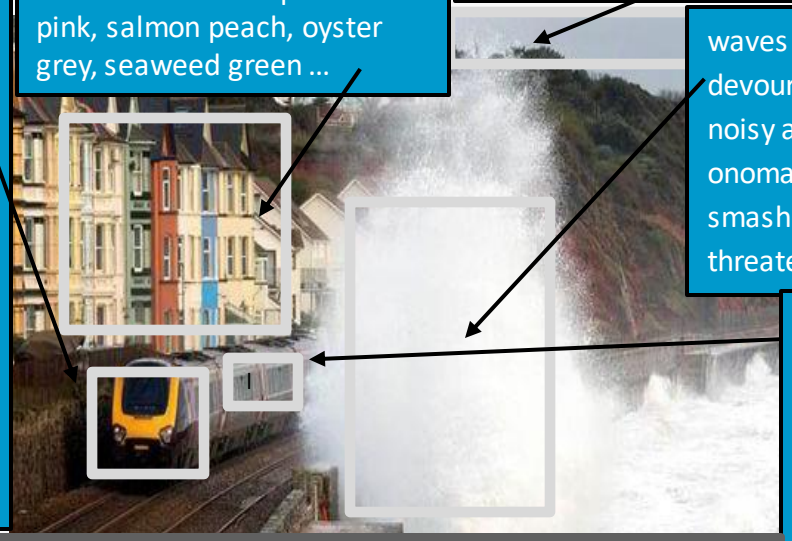
Technique	Examples
Simile - a descriptive technique that compares one thing with another, usually using 'as' or 'like'.	The trees stood **as tall as** towers.
Metaphor - a descriptive technique that names a person, thing or action as something else.	The **circus was a magnet** for the children.
Hyperbole - a use of obvious exaggeration for rhetorical effect.	The sun **scorched** through the day.
Personification - a metaphor attributing human feelings to an object.	The **sun smiled** at the hills, ready to begin a new day.
Pathetic fallacy - a type of personification where emotions are given to a setting, an object or the weather.	The **clouds** crowded together suspiciously overhead as the **sky darkened**.
Onomatopoeia - words that sound a little like they mean.	The autumn leaves and twigs **cracked and crunched** underfoot.
Oxymoron - a phrase combining two or more contradictory terms.	There was a **deafening silence**
Emotive language - language intended to create an emotional response.	A **heart-breaking** aroma of death filled the air as he surveyed the **devastation and destruction** that had befallen them all.

Key Vocabulary	
Emotive	The word **emotive** describes something that makes people feel strong emotions.
Barren	Lifeless
Inspirational	Makes you feel strongly interested and enthusiastic
Aghast	Filled with horror or shock
Sombre	Dark or Dull in colour
Penetrated	To go through something with force
Terror	Extreme fear
Translucent	Allowing light to pass through
Unique	To be one of a kind unlike anything else

Personify train - a victim moving along railway line, past houses, towards destination - metaphor: caterpillar train sways and pitches precariously along the track to its daily destination. Snatching bites, the sea salt nips at its metal skin as passes, gnawing at it, killing it. Rattles. Will it survive?

houses , like soldiers standing to attention - defending their inhabitants. Diff pastel colours of a seaside town: prawn pink, salmon peach, oyster grey, seaweed green …

canopy of sky above threatening Adjectives for mood: grey sky, stuffed clouds full of cold, sharp rain, Verb: beating down, attacking!



waves engulfing and devouring the sea side town - noisy and disruptive, onomatopoeia: Crash! whip, smash personify so violent/ threatening movement.

zoom in - one carriage window. Windows hit by spray that's 'like a tame cat turned savage'. Passenger pitched side-to-side; bubbling sickness, rising bile from stomach!

Plan describing pictures by boxing/framing parts of the image to help you to focus <u>description</u> on specific areas, zooming in on minute detail, and out again to another area. Each boxed area = a paragraph.

How to plan good descriptive writing

The Grid Plan is good for making sure you include lots of different methods, or to compare two/more things side-by-side. Each row/column = a paragraph.

Paragraph content/ topic	Language method/vocab	Sent structures	Punc
1: waves engulfing and devouring the sea side town - noisy and disruptive, movement	onomatopoeia crash, whip, smash personify so violent/threatening	'ing' start verbs (pres part)	! ;
2: train victim moving across railway line past houses towards destination	personify - victim, alliteration, metaphor: A caterpillar, the train sways and pitches precariously along the track to its daily destination. Snatching bites, the sea salt nips at its metal skin as it passes, eating away at it, killing it. Rattles. Will it survive?	Chain/ tricolon Question	? - -
3: zoom in on one carriage window, motion sick	Windows hit by spray that 'like a tamed ca' has 'turned savage' today. Passenger pitched side-to-side; bubbling sickness rising bile from stomach!	Anadiplosis (yoked)	' ' ; !
4: houses	Like soldiers standing to attention they are defending their inhabitants. Diff pastel colours of a seaside town: prawn pink, salmon peach, oyster grey, seaweed green, cracking paintwork	Fronted spatial adverbials	( ) :
5: canopy of sky above threatening	Adjectives for mood: grey sky, stuffed clouds full of cold, sharp rain, Verb: beating down, attacking,	Two then three word sentences	… ;

Year 7 English autumn 2 Ravens gate

Ravens gate main characters

Matt- Protagonist

Characteristics
Heroic
Vulnerable
Impulsive

Jayne Deverill
Antagonist

Characteristics
Evil
Sinister

Main themes

Peer Pressure
Influenced by your peer group

Supernatural
A force beyond scientific investigation

Key Features of the Gothic Genre	
1. Fear of the Unknown	The Gothic genre is a world of doubt, particularly doubt about the supernatural and the spiritual. It seeks to create in our minds the possibility that there may be things beyond human power, reason and knowledge.
2. Isolated settings	Strange castles, old ruins, monasteries and anywhere that had a strong sense of antiquity.
3. The sublime	Something that is truly extra-ordinary and awe-inspiring.
4. The uncanny	The feeling that something is strangely familiar (Freud).
5. The supernatural	A manifestation or event attributed to some force beyond scientific understanding or the laws of nature.
6. A foolhardy protagonist	A main character who is recklessly bold or rash.
8. Extreme psychological states	Being in the grip of fear, terror, phobia, physical paralysis, unable to function, living nightmares.
9. Terror rather than horror	The pioneering Gothic novelist Ann Radcliffe was particularly interested in the difference between the two. Terror, she thought, does not show horrific things explicitly but only suggests them. Horror, by contrast, Radcliffe argues, 'freezes and nearly annihilates' the senses of its readers because it shows atrocious things too explicitly.

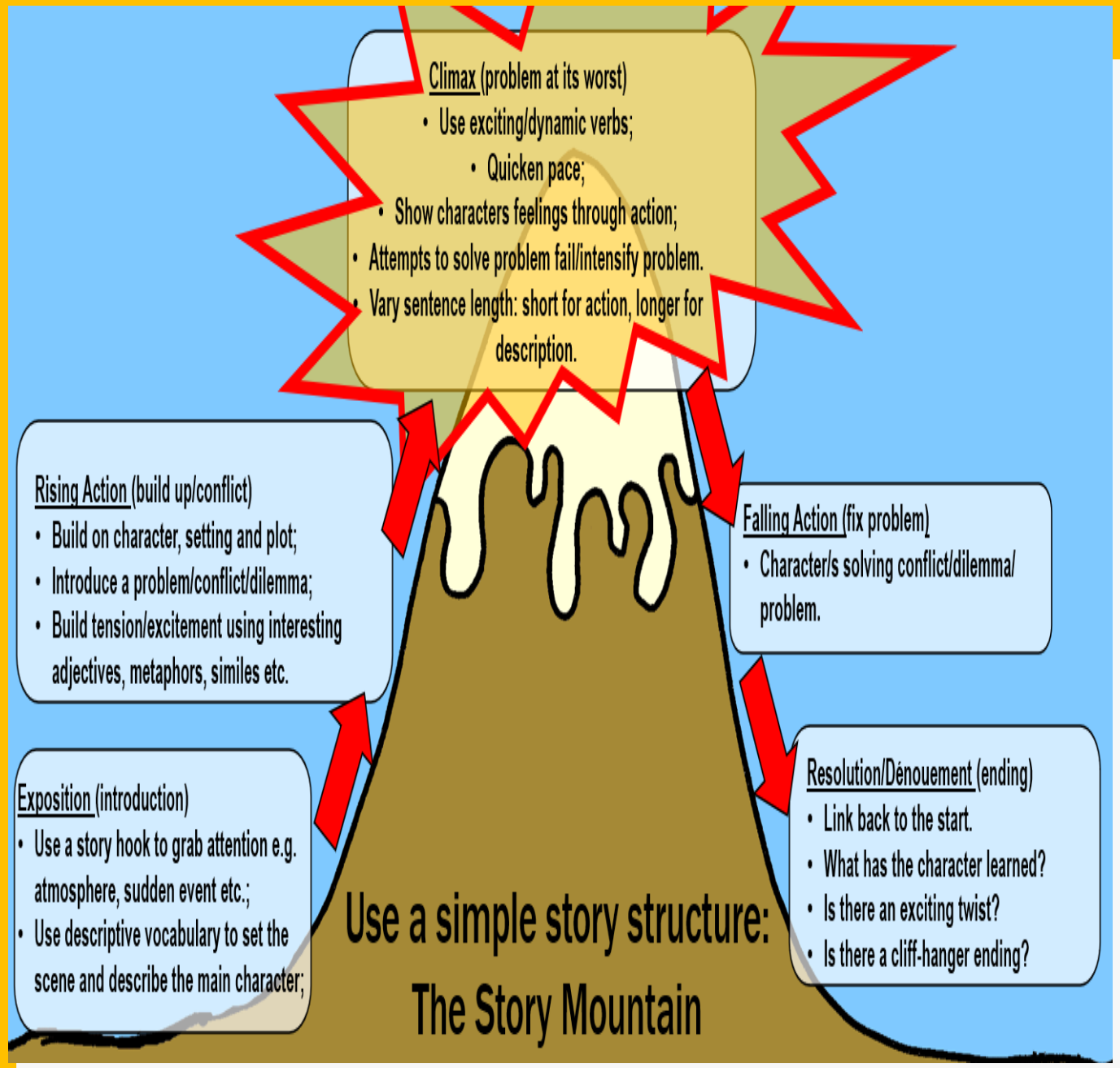
Key Quotations

"You have to take responsibility for who you are"

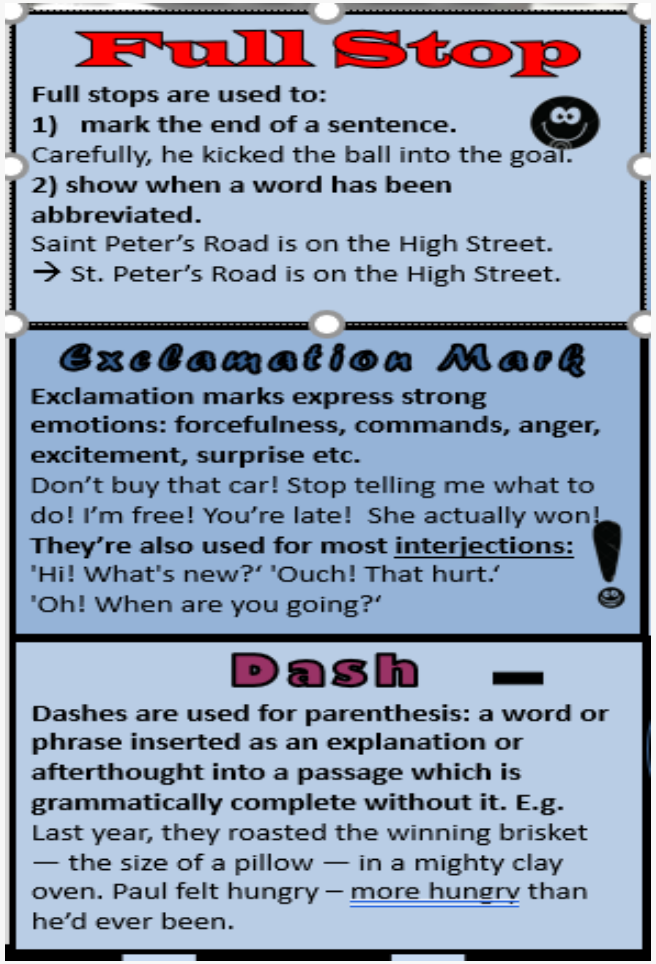
'She was sipping her tea but her eyes never left him. They were devouring him.'

"We live in an age when there is no room for the impossible.

Key Vocabulary	
Narrative	a spoken or written account of connected events; a story
Thriller	a novel, play, or film with an exciting plot, typically involving crime or espionage
Horror	an intense feeling of fear, shock, or disgust.
Genre	A style of category of art, music or literature
Interpretations	the action of explaining the meaning of something.
atmosphere	the pervading tone or mood of a place, situation, or creative work
Empathy	the ability to understand and share the feelings of another



Punctuation pit stop



Year 7 English Spring 1 Poetry

Adrian Mitchell
Adrian Mitchell wrote a lot of Literature for children. He was committed to writing a form of poetry that welcomes as many people as possible. He uses modern language and recognisable topics in order to engage children in poetry.

Benjamin Zephaniah
Benjamin Zephaniah grew up in Handsworth, Birmingham. He left school aged 13, but writes lots of poetry influenced by Jamaican music and 'street politics'. He has performed his poetry on every continent on the planet.

John Agard
John Agard's poetry is energetic, fun but also critical of the society around him. John Agard is known for disrupting accepted opinions in society and making people think about their own knowledge. He was born in Guyana, South America.

Maya Angelou
Maya Angelou is a widely celebrated author. Her writing often deals with overcoming difficult times and experiences. She also worked under Dr Martin Luther King Jr and Malcolm X as a civil rights activist.

Ciaran Carson
Ciaran Carson is a Northern Irish poet who wrote a lot of his poetry about The Troubles and violence in Northern Ireland. Because of this, his poetry is described as both personal and political.

Moniza Alvi
Moniza Alvi was born in Lahore, Pakistan. She was named one of the New Generation Poets in 1994. Her poetry frequently expresses ideas of identity, particularly when identity is mixed.

Lawrence Ferlinghetti
Lawrence Ferlinghetti was born in New York to Italian-born parents. He believes that poetry and Literature should be available to all, not just the highly educated classes.

Sujata Bhatt
Sujata Bhatt was born in Pune, India but emigrated to America in 1968. She focuses on different languages and how these create our identity. She worked with the South Asian Dance Youth Company to choreograph and perform a spoken and physical routine of her most known poem.

Edward Kamau Brathwaite
Edward was born in Barbados but has lived in many different places throughout his life. His poetry uses 'nation language' and dialect to project identity.

Key Poets

Curious about… Poetry?

1. The Book: The Puffin Book of Utterly Brilliant Poetry
2. The Clip: **A poem about Diversity and Identity** https://www.youtube.com/watch?v=37Hj4dnf3TQ
3. The Podcast: (available on Overcast app) - "When the Teacher Isn't Looking"
4. The Radio Show: "Thinking Allowed" - Radio 4 (https://www.bbc.co.uk/programmes/m0001r8v)
5. On Social: @MichaelRosenYes (Children's Poet).

The Poet Laureate

The Poet Laureate is an honoured poet, chosen by the government or monarchy to compose poems to commemorate special occasions. How many of our key poets have been Poet Laureate?

Year 7 English Spring 1 Poetry

Language Techniques	Structure Techniques
Skills	Vocab to use

1. Imagery	Visually descriptive or figurative language, especially in a literary work.
2. Alliteration	The occurrence of the same letter or sound in words that are close together.
3. Personification	The attribution of a personal nature or human characteristics to something non-human.
4. Hyperbole	Exaggerated statements or claims not meant to be taken literally.
5. Poetic Techniques	A language or structure technique that a poet may use.
6. Metaphor	A figure of speech which directly compares one thing to another, or where a phrase is not literal.
7. Simile	A figure of speech which indirectly compares one thing to another using 'like' or 'as'.
8. Dialect	A form of a language which is specific to a certain location.
9. Similarities	Ideas that multiple things have in common.
10. Differences	Ideas that sets multiple things apart.
11. Adversity	A difficult or unpleasant situation.
12. Oppression	Prolonged cruel or unjust treatment or being controlled by someone.
13. Sibilance	The occurrence of multiple hissing sounds e.g. constant s sounds.
14. Assonance	Repetition of vowels without repetition of consonants e.g. stony and holy.
15. Critical Voice	To form and express a judgement of a text.
16. Punctuation	The marks used in writing to separate sentences and their elements and to clarify meaning.
17. Enjambment	The continuation of a sentence without a pause beyond the end of a line, couplet, or stanza.
18. Context	The circumstances that form the setting for something, and that allow us to understand it.
19. Effect	A consequence of an action (noun).
20. Affect	To make a difference to something (verb).

21. Annotation	Adding notes and interpretations to a text
22. Extended Metaphor	A metaphor that is created throughout the text.
23. Culture	The ideas, customs, and social behaviour of a particular people or society.
24. Identity	The characteristics that make something or someone what it is.
25. Tradition	Passing experiences down throughout generations
26. Form	The **form** of a **poem** is the overarching pattern of the **poem** - how it looks on the page.
27. Language	How a writer uses words and phrases to have an impact on the reader.
28. Structure	The order or arrangement of a text.
29. Tone	The general attitude of a piece of writing.
30. Analyse	To consider the effect of the writer's methods by examining the impact they have on the reader.
31. Canon	A collection of sacred texts.
32. Evaluation	Making a judgement about how well something works.
33. Opinion	A view or judgement formed about something, not necessarily based on fact or knowledge.
34. Summarise	To give a brief statement of the main points of a text.
35. Literary merit	The quality or value given to literary texts.
36. Empathy	The ability to understand and share how someone feels.
37. Tolerance	The ability or willingness to accept the existence of opinions or behaviour (especially if you dislike/disagree with it).
38. Convey	To communicate a certain idea.
39. Writer's intentions	Specific choices that the writer makes when they create a text.

COMMAS

Commas are used to separate:

1) items in a list .

Bert, Ernie and Elmo are my three pet rats.

2) dependent clauses and phrases.

While I was in the bath, the cat scratched at the door. That meant, because I was on my own in the house, I had to get out to let him in. Thankfully, I had a towel handy!

Semi-colon

Semi-colons are used to separate two sentences that are closely related:

It was winter; the snow was falling heavily.

They can also be used to separate items in a list made of longer phrases. I have been to Newcastle, Carlisle, and York in the North; Bristol, Exeter, and Portsmouth in the South; and Cromer, Norwich, and Lincoln in the East.

Brackets

Brackets are used in pairs for parenthesis: a word or phrase inserted as an explanation or afterthought into a passage which is grammatically complete without it. E.g.

Andrew Jacklin (last year's losing finalist) is expected to win this heat.

Tigers are carnivores (meat eaters)!

Punctuation pitstop

Planning non fiction Writing

Plan 1	Plan 2
Introduction outlining your point of view/argument Point 1 (your 1st reason for or against) Point 2 (your 2nd reason for or against) Point 3 (your 3rd reason for or against) Conclusion – briefly concluding your argument with a strong statement.	Introduction outlining your point of view/argument. Point 1 (how the issue affects you locally) Point 2 (how the issue affects the country) Point 3 (how the issue affects the world) Conclusion – briefly concluding your argument with a strong statement.

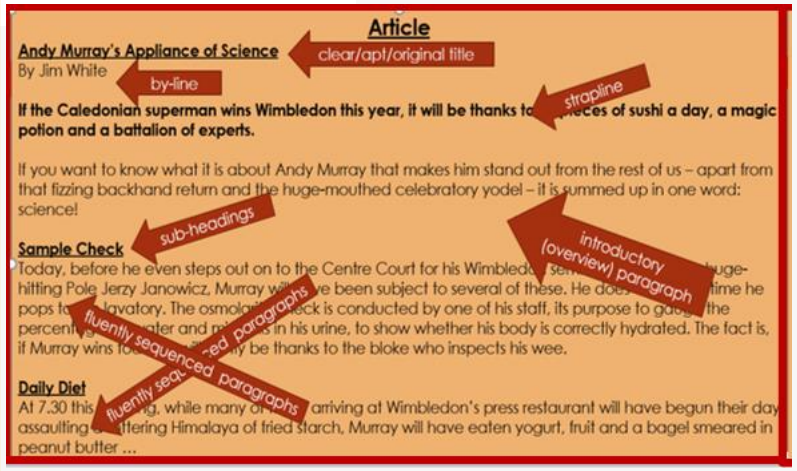
2. NON-FICTION WRITING

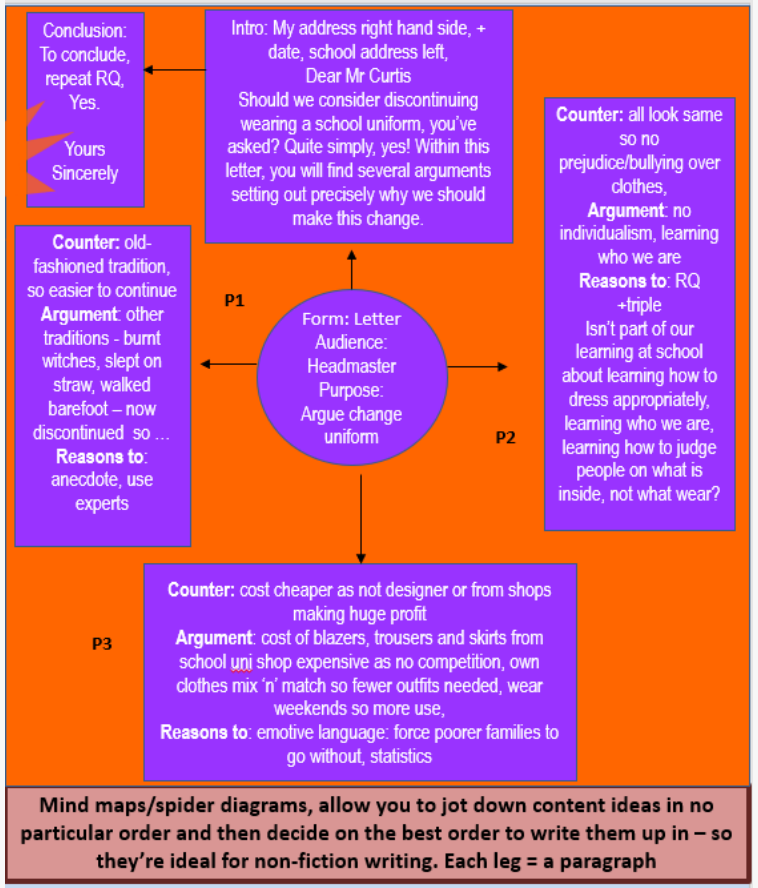
2a. Key Terminology

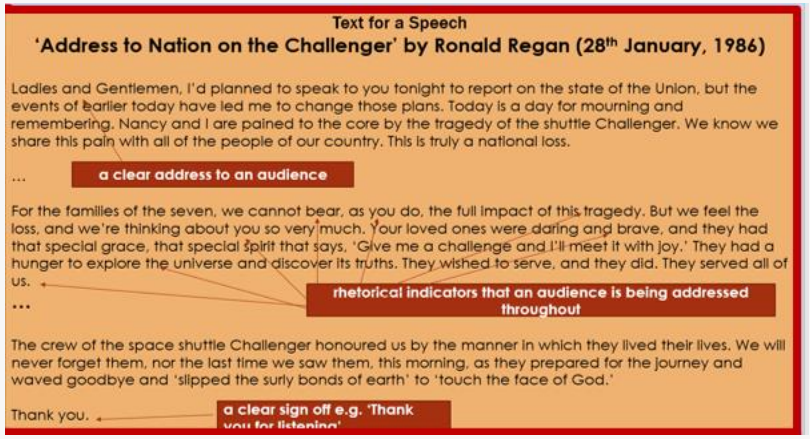
bias	An inclination or prejudice for or against one person or group.
humour	The quality of being amusing or comic.
tone	The choice of writing style the writer employs to convey specific feelings, emotions or attitudes.
empathy	The ability to understand and share the feelings of another.
anecdote	A short amusing or interesting story about a real incident or person.
irony	A state of affairs or an event that seems deliberately contrary to what one expects and is often amusing as a result.
rhetoric	The art of effective persuasive writing often using a range of persuasive techniques such as alliteration, facts, rhetorical questions and tripartite sentences.
persuasion	To convince someone through rational argument that your opinion is correct.
imperatives	Phrases used to give orders, commands, warning or instructions
pathos	A quality that evokes pity or sadness.
logos	To appeal to logic and reason
ethos	To appeal to people's sense of right and wrong.

Forms of non fiction writing

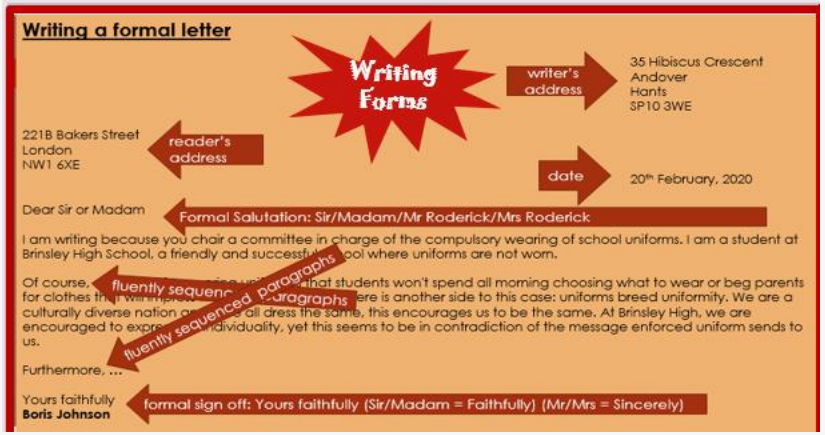
Article	Letter	Essay	Speech	Leaflet
Clear/apt original title Strapline/ subheading Subheadings Introductory paragraph	Dear Sir/Madam or name Addresses Date Paragraphs Yours sincerely/ faithfully	An effective introduction and conclusion.	Clear address to audience Rhetorical indicators that an audience is being addressed throughout A clear sign off	Clear/apt/original title Organisational devices such as inventive subheadings or boxes Bullet points







Non fiction writing forms



Key Tales we will be learning

The Cheater's Whisker from Eritrea and Ethiopia

Hansel and Gretal from German

Two dinners from the Caribbean

Summary of Hansel and Gretel

Hansel and Gretel are a brother and sister abandoned in a forest, where they fall into the hands of a witch who lives in a house made of gingerbread, cake, and candy. The cannibalistic witch intends to fatten Hansel before eventually eating him, but Gretel pushes the witch in her own oven and kills her

Key Vocabulary	
Myths	A traditional story retelling an event
Quest	**A quest is a journey, often a difficult journey, toward a specific mission or a goal**
Moral	A **moral** is the positive message or advice that a **story** gives to its readers to teach them a lesson
Ingenious	To be cleaver and original
Loveable rogue	**A character who sometimes makes wrong decisions but readers like them.**

Summary of the Cheaters Whisker

Abeba's happy nature vanishes overnight when her mother dies. Her father marries again, but Abeba resents her new step-family and asks to stay with her grandmother. The old woman asks her to find a cheetah's whisker for a potion to help Abeba fit in. This task takes patience and understanding: the exact qualities that Abeba needs to accept her new family

Summary of two dinners

In this story, the very greedy Anansi is invited to two parties at opposite ends of the island at exactly the same time and decides on an elaborate plot to send his sons, Kuma and Kwek so that he can eat his fill at both of them. He is attached to both sons by a rope and waits at the centre of the island expecting them to pull as each meal is served - all does not go as planned and he goes home hungry.

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When you are writing your own quest story try the following techniques

Punctuation practise

Quotation Marks

Quotation marks show exact words that are spoken or written by someone.

'Don't be late!' shouted Mrs Smith.

'I will be,' Molly said, and added, 'so don't expect me before 11.'

Colon

Colons are used to:
1) **begin a list.**
I have three pet rats: Bert, Ernie and Elmo.
2) **indicate that what follows it is an explanation or elaboration of what precedes it.**
Unfortunately, the weather forecast was wrong: it rained all day!

Ellipsis

Ellipsis is used to:
1) **show a pause or hesitation in someone's speech or thought.**
I don't know ... I'm not sure.
2) **build tension or show that something is unfinished.**
Looking up, Paul couldn't believe what he saw ...

Use fronted adverbials:

Rather slowly, (manner)
During the night, (time/temporal)
Every minute or two, (frequency)
At the end of the corridor, (spatial)

Just beyond the stairwell on his left, he opened the door.

Use a two and then three word sentence:

It hurt. I was dying!

Snow fell. Flakes floated precariously.

Use anaphora:

Now is the time for action. **Now is the time** to take up arms. **Now is the time** to fight for your country.

Use a range of sentence structures:

The spotted green frog jumped into the pond.
(simple)

The spotted green frog jumped into the pond **and** he splashed water on me.
(compound – coordinating conjunction: for, and, nor, but, or, yet, so)

The spotted green frog jumped into the pond **when** the hawk flew overhead.
(complex – subordinating conjunction: if, although, as, before, because, when, after, since, until, so that, while etc.)

When the hawk flew overhead, the spotted green frog jumped into the pond.
(subordinate/dependent clause start)

The frog, **which had been lurking underwater,** jumped on the lily pad.
(embedded clause)

Use a tricolon (tripartite list):

'I stand here today **humbled** by the task before us, **grateful** for the trust you have bestowed, **mindful** of the sacrifices borne by our ancestors.'

Snap! Crackle! Pop! **(Rice Krispies slogan)**

Use a conditional sentence:

When people smoke cigarettes, their health suffers.

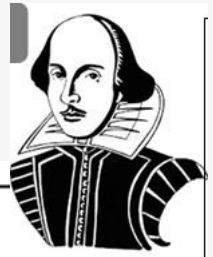
If I had cleaned the house, I could have gone to the cinema.

Use paired adjectives to describe a noun:

Take a look at this bright red spider.

Luckily, it isn't a wild, dangerous one.

Introduction to Shakespeare



Context

William Shakespeare (bapt. 26 April 1564 – 23 April 1616)[a] 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 sonnets, 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.[2]

In the last phase of his life, he wrote tragicomedies (also known as romances).

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/monologue- 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.
Denoument- the ending with some sort of resolution and the tying up of loose ends.
Catastrophe- the final action that completes the unravelling of the plot in a play, especially in a tragedy. The hero meets his end.

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
Metaphor- Describes an object or action in a way that isn't literally true, but helps explain an idea or make a comparison
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 Tension: a sense of excitement or anticipation that the audience feels

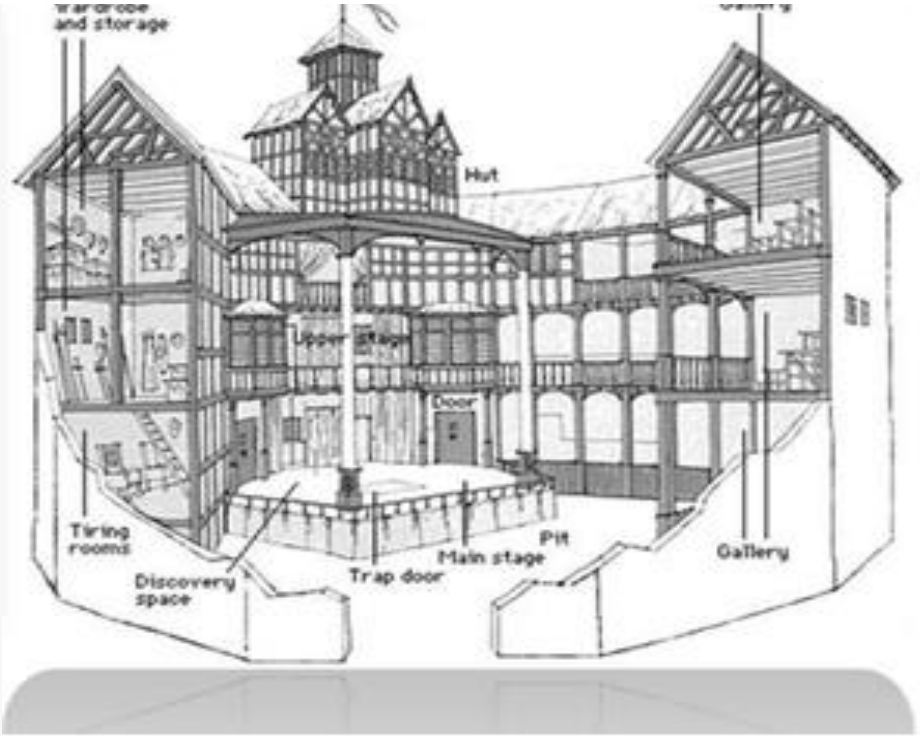
Dramatic Irony: occurs when the audience are aware of a detail that characters on stage are not aware of.

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

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.



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 PENTAMETRE.

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

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"Science encompasses everything that we are and allows us to make sense of the world around us"

Science Safety Rules

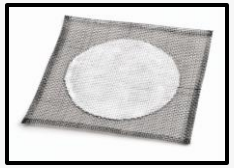
1. Only enter a laboratory when told to do so by a member of staff.
2. Follow instructions exactly. Only touch or use equipment or materials when told to by your teacher.
3. Wear goggles when doing practical work until you are told to take them off. This includes clearing away.
4. When using a Bunsen burner make sure that loose hair and clothing is tied back or tucked in to keep them well away from flames.
5. When working with liquids always stand, never sit. Then you can move quickly if there is a spill.
6. When in a laboratory never taste or put anything into your mouth. This includes sweet, pens, pencils and fingers. They could have picked up some poisonous chemicals from the bench. Eating and drinking is not allowed.
7. If any chemicals get onto your hands or any other part of your body or clothes, wash them off. Always wash your hands after practical work.
8. Never put any waste down the sink. Put it in the bin unless your teacher tells you where to put it.
9. Report any accidents to the teacher. This includes cuts, burns, breakages or chemicals splashed anywhere on your body or clothes.
10. Keep your bench clean and tidy. Keep your bags out of the way. Wipe up small chemical splashes with a bench cloth. Close all drawers and cupboards when you have finished.

Signed:

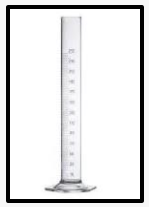
_____

2. Equipment

Gauze



Measuring Cylinder



Safety Mat

Conical Flask

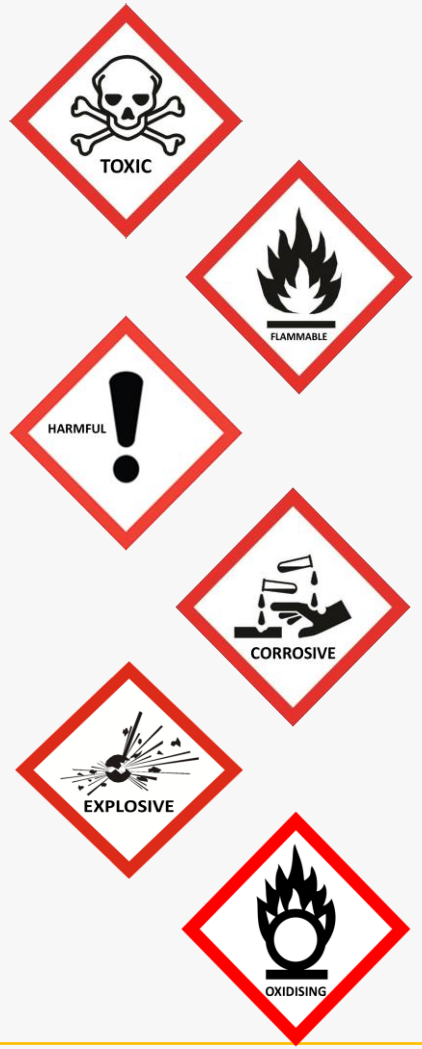
Test Tube and Grips

Beaker

Bunsen Burner

Tripod

3. Hazard



Scientists

Mae C. Jemison is the first African American female astronaut. In 1992, she flew aboard the Endeavour, becoming the first African American woman in space.

Katherine Johnson was a NASA human 'computer,' performing the complex calculations that enabled humans to successfully achieve space flight.

Percy Julian was a African American chemist who pioneered the chemical synthesis of medicinal drugs such as cortisone, steroids and birth control pills.

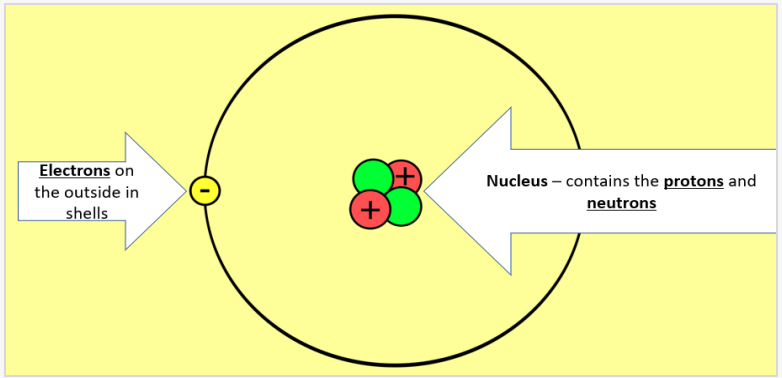
Charles K. Kao is an electrical engineer and physicist. His research into the transmission of laser light through glass fibres in optical cables, led to the widespread use of fibre optics in modern telecommunications.

Year 7 Science - Foundations of Chemistry

- All substances are made from atoms
- Atoms are made of protons, neutrons and electrons
- There are about 100 different types of atoms called elements

Elements → atoms → Compounds → Chemical formulae → Alloys → Mixtures → Density

1 - Atoms



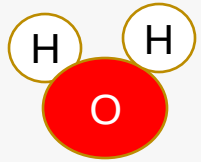
An atom is the smallest part of an element that can exist.

2 – Elements

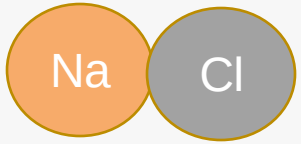
An element is a substance that cannot be broken down into any other substance. There are about **100 elements**, each with its own type of atom. Everything in the universe contains the atoms of at least one or more elements.

3 - Compounds

Atoms of more than one element chemically joined together.



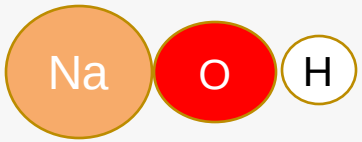
2 hydrogen
1 oxygen



1 sodium
1 chlorine

4 - Formulae

Hydroxide OH sodium hydroxide – Na^+OH^-

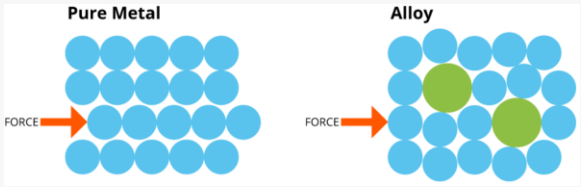


Nitrate NO_3^- Potassium nitrate – $K^+NO_3^-$

Carbonate $C0_3^{2-}$ Calcium carbonate – $Ca^{2+}CO_3^{2-}$

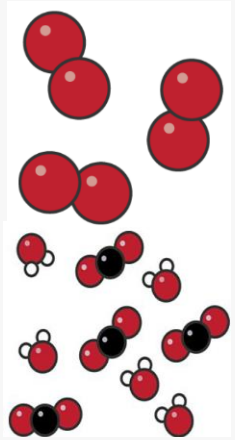
Sulfate SO_4^{2-} Copper sulfate - $Cu^{2+}SO_4^{2-}$

5 – Alloys



In metals the ions can slip and slide over each other because they are all the same size. In alloys, the different sized ions mean they cannot; making the alloy stronger.

6 – Mixtures



A pure substance consists only of one element or one compound.

A mixture consists of two or more different substances, not chemically joined together.

7 – Density

The density of an object or substance is its mass divided by its volume.

Year 7 Science - Foundations of Chemistry

- Matter is a substance that has mass and takes up space (volume)
- All matter is made up of tiny parts called particles.
- There are **3** main **states** of matter: **SOLID**, **LIQUID** and **GAS**.

States → Observations → Conservations → Diffusion

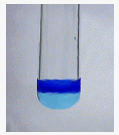
8. Properties (characteristics or features) of the 3 main States of Matter

	Solid	Liquid	Gas
Particle model diagram			
Particle arrangement	Regular structure No space between particles	Irregular structure Very little space between particles	Irregular structure Large space between particles
Volume and shape	Fixed volume Fixed shape	Fixed volume Shape changes to fill container	Volume increases to fill capacity Shape changes to fill capacity
Able to flow	No Forces between particles are very strong and hold them in fixed positions	Yes Forces between particles are weak and particles slide over each other	Yes Forces between particles are very weak and particles move randomly and rapidly
Density	High Cannot be compressed (particles are already tightly packed)	High Cannot be compressed (particles are already tightly packed)	Low Can be compressed (particles are forced closer together)
Particle energy levels	Low (particles vibrate around a fixed point only)	Moderate (particles can move and flow, but slowly)	High (particles moving rapidly and freely)

9 – Observing chemical reactions

Five signs a reaction occurred:

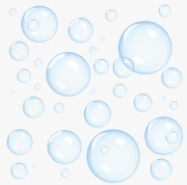

Colour change


Solid formed / precipitate.


Light


Smell


Temperature change


Gas / bubbles

10 Conservation of mass

During a Chemical Reaction, **no atoms are lost or made. What goes in <u>MUST</u> come out!**

MASS OF REACTANTS = MASS OF PRODUCTS

10 Diffusion

The passive movement of substances from an area of **high concentration** to **low concentration.**

Year 7 Science - Introduction to Physics

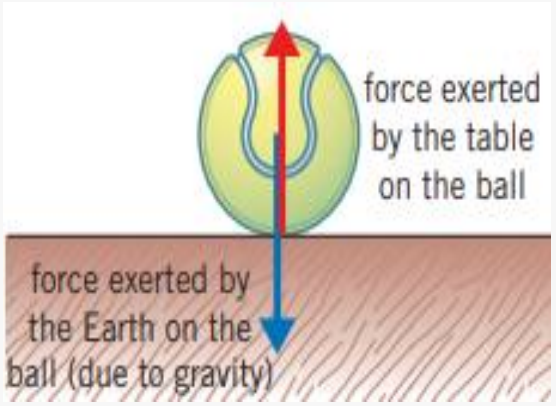
- A force is a push or a pull, measured in Newtons (N)
- Forces can be contact (e.g. friction) or non-contact (e.g. magnetic)
- Weight (N) = mass (kg) × gravitational field strength (N/kg)
- Energy can be stored, transferred or dissipated - but cannot be created or destroyed.

Force → Types of Forces → Gravity → Balanced and unbalanced forces → Work done → Energy transfer

1. Force

- Forces explain why objects will move, change direction and speed.
- Forces always act in pairs, referred as interaction pairs.

e.g. the tennis ball exerts a downward force of weight onto the table, the table exerts an equal and opposite reaction force onto the ball



2. Types of forces

- Contact forces act when two objects are physically touching.
- Non-contact forces act when two objects are physically separated (not touching).

Contact forces: interactions between objects that touch

applied force

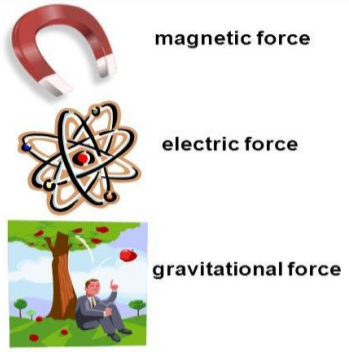
spring force

drag force

frictional force

normal force

Non-contact forces: attract or repel, even from a distance



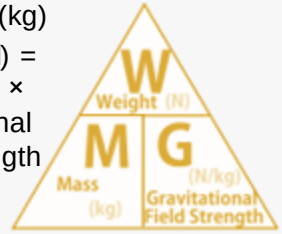
magnetic force

electric force

gravitational force

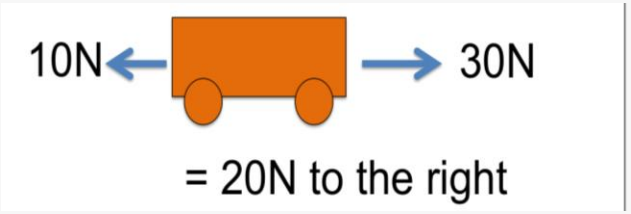
3. Gravity

- It is a non-contact force that acts between two objects.
- Gravitational force pulls you back to Earth when you jump.
- The size of the gravitational force depends on the mass of the two objects and how far apart they are.
- Weight → downward force caused by gravity acting upon the mass of an object, it is measured in Newtons (N).
- Mass → amount of matter within an object, measured in kilograms(kg)
- Weight (N) = mass (kg) × gravitational field strength (N/kg)



4. Balanced and unbalanced forces

- **Resultant force:** a single force that can replace all acting forces, and still have the same effect.
- If the resultant force is zero, there is no change in the speed as the forces are **balanced.**
- If the forces are **unbalanced** the object begins to accelerate in the direction of the resultant force

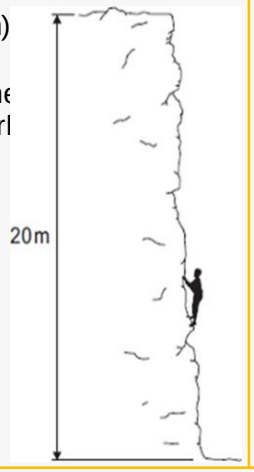


5. Work done

- Work is done and energy transferred when a force moves an object.
- Work done (J) = Force (N) x distance (m)

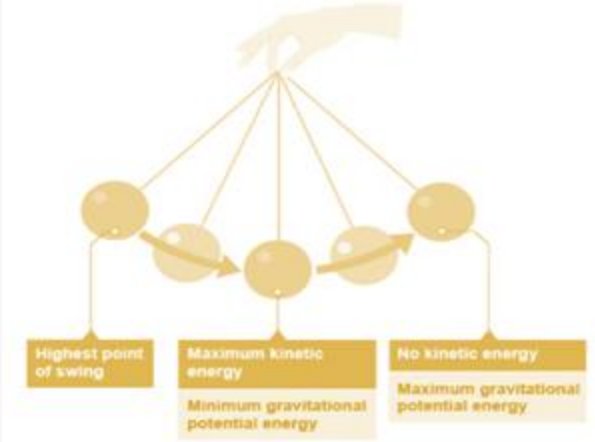
Example: The climber climbs to the top of the **20m** cliff. She weighs **660N**. How much work was done?

D – Force = 660 N and Distance = 20m
E – Work done = force * distance
S - Work done = **660** x **20**
C - Work done = 13200
U – Work done = 13200 Joules (J)
S - Significant figures, if needed.



6. Energy Transfers

- **Energy** is needed to make things happen, it is measured in **joules** or **kilojoules**. It can change from one form to another.

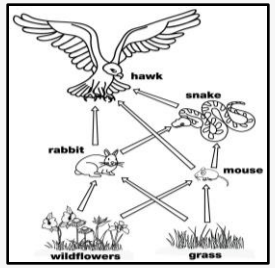


Year 7 Science - Ecosystems

- Food chains and webs show transfer of energy
- Flowers are the reproductive structure of plants
- Organisms compete for resources
- Populations can be sampled using quadrats and transects

Food chains → Ecosystems → Plant reproduction

Food Chains and Webs



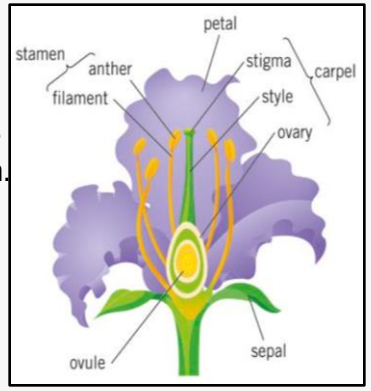
A food chain is a diagram that shows what an organism eats. It shows the transfer of energy between organisms. Arrows show the transfer of energy from one organism to the next.

Grass → Mouse → Snake → Hawk

Food Chains and Webs have to include:

- The first organism is a producer (usually a plant)
- The second organism is an herbivore (only eats plants)
- The third organism is a carnivore (only eats meat)
- Animals that eat are known as consumers.

Flowers and Pollination



Flowers are the reproductive organs of plants. Plants reproduce sexually to produce seeds, this is called Pollination.

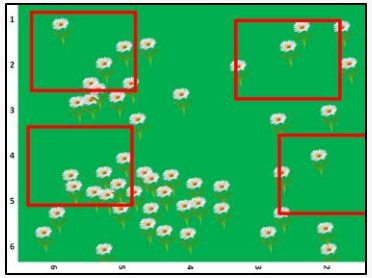
Pollination is caused by wind, insects and other animals.

This can occur between two different plants or the same plant.

Seeds form after pollen grains and ovules join. Pollen from the anther needs to transfer to the stigma.

Quadrats

- A quadrat is a square frame used to count a sample of organisms in an area.
- Randomly place the quadrat in the habitat (use a random number generator to locate it).
- Count the numbers of organisms in the quadrat
- Repeat as many times as possible in other areas.
- Work out the mean number of organisms.
- Multiply this number by the total area of the habitat.
- This gives your population estimate for the habitat.

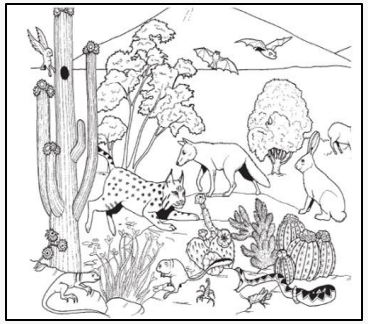


Ecosystems and Competition

An ecosystem is all the living organisms and the area they are in. All the organisms are the community. The area is the habitat. The non-living conditions are the environment. Organisms are interdependent

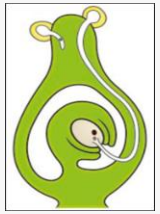
Organisms compete for resources:

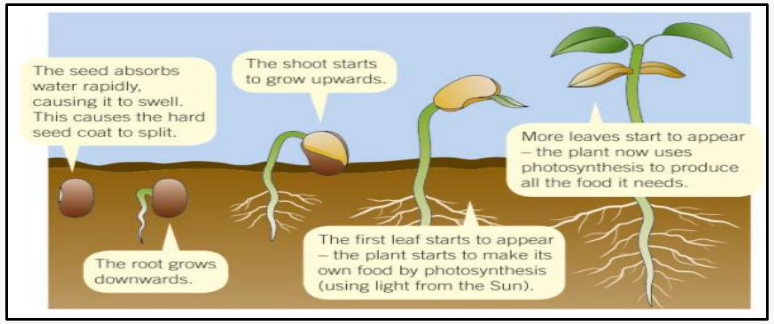
- Plants compete for light, space, water & minerals.
- Animals compete for food, territory & mates.



Fertilisation and Germination

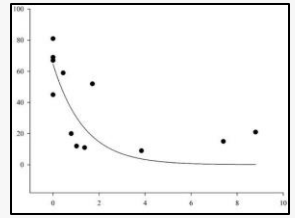
Fertilisation is when nucleus of the pollen joins with the nucleus of the ovule. The ovary develops into the fruit and the ovules become seeds.

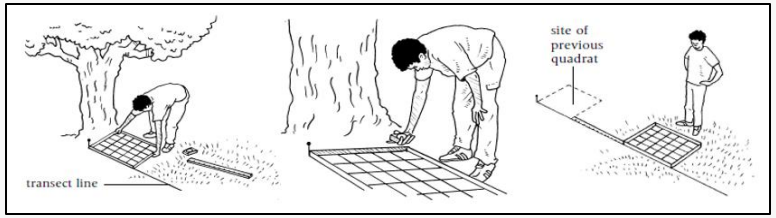




Transects

- Lay tape measure along the habitat.
- Place a quadrat at 0m on the tape.
- Count the number of organisms.
- Record the results.
- Repeat along the transect line.



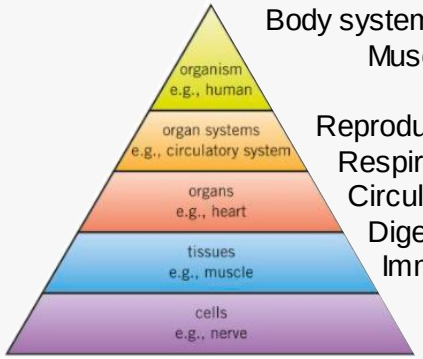


Year 7 Science - Cells

Organisation → Systems → Microscopes → Cells

- Organisation: cell → tissue → organ → system.
- All living things are made up of different cells.
- Most cells are so small that you can only see them with a microscope.
- Specialised cells each performs their own functions.

1. Levels of **Organisation**:
Cells: single building blocks of life
Tissues: the same cells working together
Organs: different cells working together
Systems: different organs working together

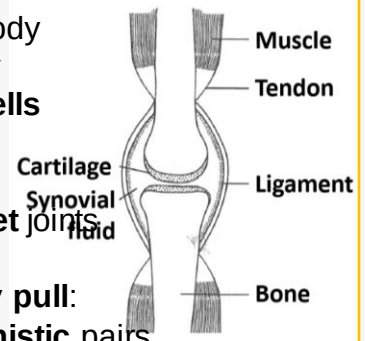


Body systems:
Muscular skeletal system
Reproductive system
Respiratory system
Circulatory system
Digestive system
Immune system

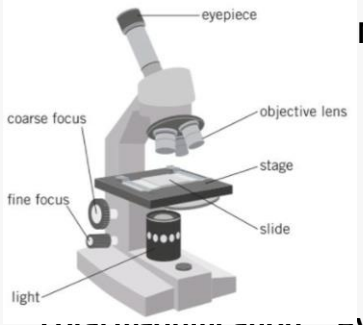
2. The skeleton: **bones**:
- **Protect** organs
- **Support** the body
- **Move** the body
- Make **blood cells**

3. **Joints**:
- **Hinge** joints
- **Ball** and **socket** joints
- **Fixed** joints

4. **Muscles**: only **pull**:
Work in **antagonistic** pairs
One **contracts** the other **relaxes**.



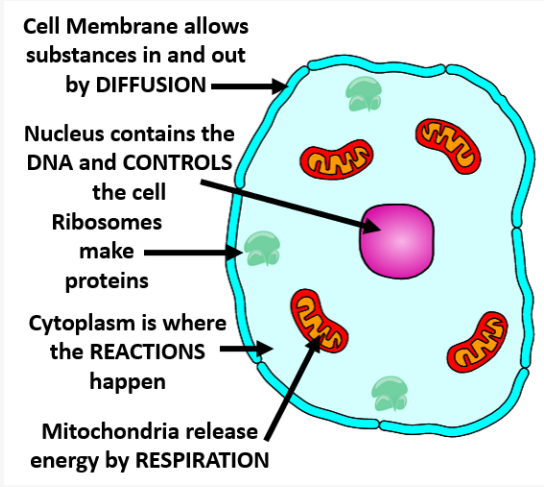
5. **Microscopes**: magnify objects.



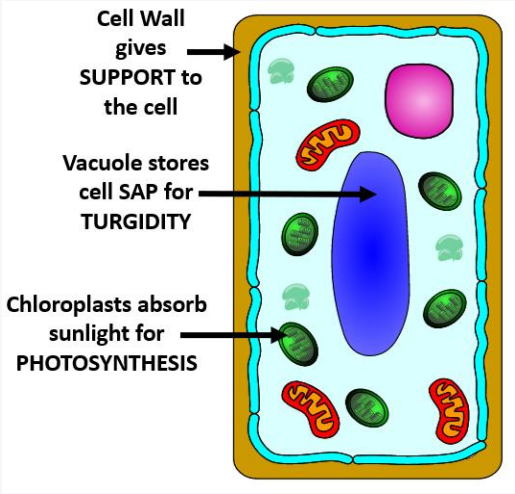
Magnify: make the image bigger.
Focus: make the image clearer.
Lens: magnifies the object.

Total magnification = eyepiece lens magnification x objective lens magnification

6] Animal cells:

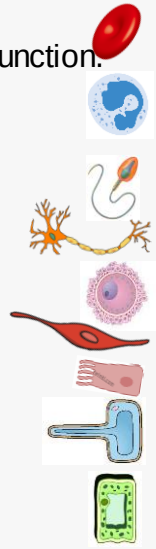


7. Plant cells:



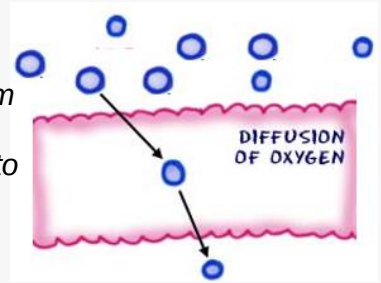
8. **Specialised** cells: adapted to carry out a specific function.

Red blood cell: carry oxygen
White blood cell: kill bacteria
Sperm cell: fertilise egg cells
Nerve cell: carry impulses
Egg cell: fertilise sperm cells
Muscle cell: move bones
Ciliated cell: remove mucus
Root hair cell: absorb water
Palisade cell: absorb light

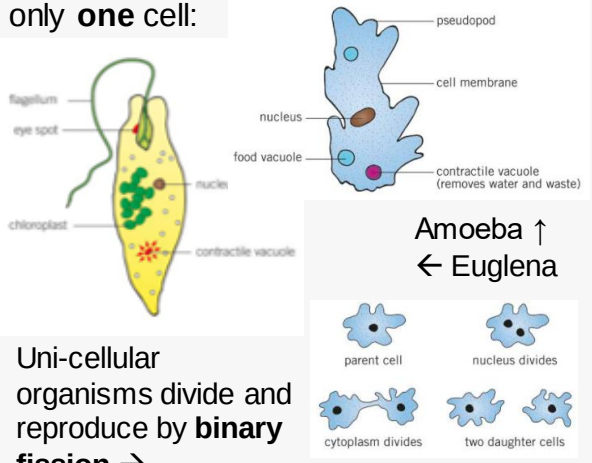


9. Movement of substances:
Molecules move in and out of cells by **diffusion** through the **semi-permeable** cell **membrane**.
Substances include oxygen, water and mineral ions.

Diffusion is movement from a high concentration to a low concentration.



10. Single celled organisms:
Uni-cellular organisms are made of only **one** cell:



Uni-cellular organisms divide and reproduce by **binary fission** →