YEAR 8 KNOWLEDGE ORGANISERS

SELFLESS SELF-ASSURED SUCCESSFUL

Knowledge Organisers – what are they?

- Knowledge Organisers are a summary of key facts and essential knowledge that students need to be aware of, such as important vocabulary, terms, dates, etc.
- The format and content will vary from subject to subject, topic to topic, but will give students and parents/carers a really good starting point for what needs to be known and understood for that particular topic/unit
- Knowledge organisers may be used in lessons but are primarily for recall and revision purposes, giving students the opportunity to remember key knowledge and have ideas about how to revise that content
- Slide 3 gives you some ideas about how you can use Knowledge Organisers with your child or how they might use them alone or in groups to study/revise

What You Will Find Here

- You will find Knowledge Organisers from the start of term, starting with Autumn 1 – some may span beyond this and all will be added to throughout the year so that, by the end of the year, you will have knowledge organisers for the whole year. The Knowledge Organisers are listed chronologically, in the order the units will be taught to students.
- There are ideas on the next slide as to how students might use Knowledge Organisers to revise or for general recall/reinforcement of learning – these are not extensive but will hopefully provide you with some ideas about how you can work with your child or encourage them to study alone or with peers.
- There is a contents page by subject for each year group – please note two key things;

- **Some subjects have purchased knowledge organisers as part of their curriculum investment and therefore cannot publish them on our website –they will be available to students via their books or in lessons**

- **Some subjects may publish Knowledge Organisers for a particular half term or topic but these may span a greater period of time or be revisited later in the academic year**

How to use a Knowledge Organiser – Ideas for personal study and retrieval

	Key Words – spelling and definitions	Mind Maps	Flash Cards	Quiz Questions	Look, Cover, Write, Check	True or False?	Crossword Puzzles	Fill in the Blanks
Step 1	Write down key words and their definitions	Create a mind map using the key information from the topic – don't look at your knowledge organiser to do this	Create flashcards for each key term, word, idea or piece of information – condense the information down	Create questions to quiz yourself on using the information in the knowledge organiser	Study a specific part of your knowledge organiser	Write a set of True/False statements from the information on your knowledge organiser	Pick key words from your knowledge organiser and put them into a crossword puzzle	Write fill-in-the-blank sentences using information from your knowledge organiser
Step 2	Practise spelling the key words correctly – write them out three times then check and use red pen to correct any mistakes	Check your knowledge organiser to see if you have missed anything and add it to your mind map	Write answers or supportive information on the other side of the flashcard	Write down the answers to your questions or get someone to quiz you on them	Turn the knowledge organiser over and write down everything you can remember	Get someone to test you on the statements	Create clues for each word and write them beneath a blank copy of your puzzle	Test yourself or a friend
Step 3	Get someone to test you on the spellings and definitions of the key words	Highlight the most important bits of information or the ones you are not so confident with	Get someone to test you on the knowledge	Flip it – choose an answer and write a question to go with it!	Check back and see if you got anything wrong or missed anything – use your red pen to add/correct	Correct any mistakes in red pen	Test a friend!	Correct mistakes in red pen – include spelling errors

And some other ideas…

1. Summary writing – write a summary paragraph using the key points from your knowledge organiser, e.g. 'Summarise the causes and effects of Coastal Erosion'
2. Timelines – create timelines with pictures and key dates, e.g. 'create a timeline of major events in the Korean War'
3. Comparison Tables – create a table to compare and contrast different items from your knowledge organiser, e.g. 'compare how Passover and Easter are celebrated'
4. Essay prompts – create essay titles using the key knowledge from your knowledge organiser (and then bullet point the key information to answer the question, e.g. 'Discuss the best method of recruitment'
5. Discussion questions – develop questions to spark discussion based on the key points in your knowledge organiser, e.g. 'Why is it important to have a balanced diet?'
6. Research – choose topics from your knowledge organiser and conduct further research to expand on them, e.g. 'Research more about safe data management and GDPR'

Contents Page

Year 8 English: Gothic Fiction

In this unit you will develop an understanding of Gothic Fiction. You will read a variety of short stories written by some of the world's most famous gothic writers.

Gothic Fiction is a genre of writing often associated with fear, the supernatural and the past intruding on the present.

Key Vocabulary

Context
Dark Romanticism
Conventions
Gothic
Analysis
Structure
Pathetic Fallacy
Tone
Mood and atmosphere
Tension
Suspense

Remember to use the vocabulary and add it to your progress tree when you have defined it!

Context

Context refers to the **life and influences of a time period**. Understanding what **effect this has on the text** and its audience is crucial to understanding.

Consider: **Conventions of Gothic Literature, the life of Edgar Allan Poe, Dark Romanticism.**

TEAC

Students will be pushed to move out of the word explosion model and in to formal analytical writing. At Priory, we teach students to form TEAC paragraphs, where they explore Technique, Evidence, Analysis and Context.

Word explosions will help you to learn how to structure and develop your analysis of texts. You learned how to do this in Y7 – build on the work you did in the Animal Farm unit to make further progress with your analytical writing.

Technique:
Make a point which shows your understanding and support with reference to a technique used by the writer.

This is what a word explosion outline will look like

Evidence – Your quote goes here to support your point.

Analysis: initially this means…
Outline what the quotation suggests.

Analysis: focus on key words using subject terminology
'the word _____suggests'

Stretch and challenge: context
Add in contextual factors which impact on the interpretation of the text. Explore how they can influence both the writer and the audience.

Analysis: Explore the effect of the language. Explain the impact and how the writer's choices affect the audience and their understanding.

Year 8: Animal Farm

Key Vocabulary	
Benevolent - kind Communism - a system of social organisation in which all property is owned by the community and each person contributes and receives according to their ability and needs. Comrade - friend Conquer – take control of Cynical – distrustful or doubtful Deception - trickery Dictator – a ruler with total power over a country, typically one who has obtained control by force Dictatorship – leadership by a dictator Overthrow - remove forcibly from power. Overwhelm - give too much of something to; inundate; defeat completely	Propaganda - information, especially of a biased or misleading nature, used to promote a political cause or point of view. Prosperity – the state of being prosperous (rich / successful) Rebellion - an act of armed resistance to an established government or leader. Seize – take hold of suddenly and forcibly; to grab. Tyrant - a cruel and oppressive (harsh and aggressive) ruler. Unity -the state of being united or joined as a whole. Victorious - having won a victory; triumphant

Characters	
Old Major: Wise, old pig. Starts the rebellion with his powerful speech about men.	**Mr Whymper**: Sly solicitor who helps Napoleon.
Mollie: Shallow and childish mare; deserts the farm to continue to lead the life of a horse.	**Mr Jones:** drunken owner of Animal Farm. Symbolises the control and greed of men.
Snowball: Hero of the Battle of the Cowshed, expelled by Napoleon and used as a scapegoat.	**Napoleon**: Controlling dictator. Leads by fear and propaganda.
Clover: Caring and loyal, has very little control but realises what is happening as the pigs take control.	**Pilkington and Frederick:** Owners of the neighbouring farms and equally manipulative.
Boxer: Innocent but hard working, very strong and selfless.	**Squealer:** Napoleon's mouthpiece, he uses propaganda to control the animals.

Themes

- **Leadership, Control, Lies and Propaganda, Violence, Pride and Belonging, Dreams and Hopes**

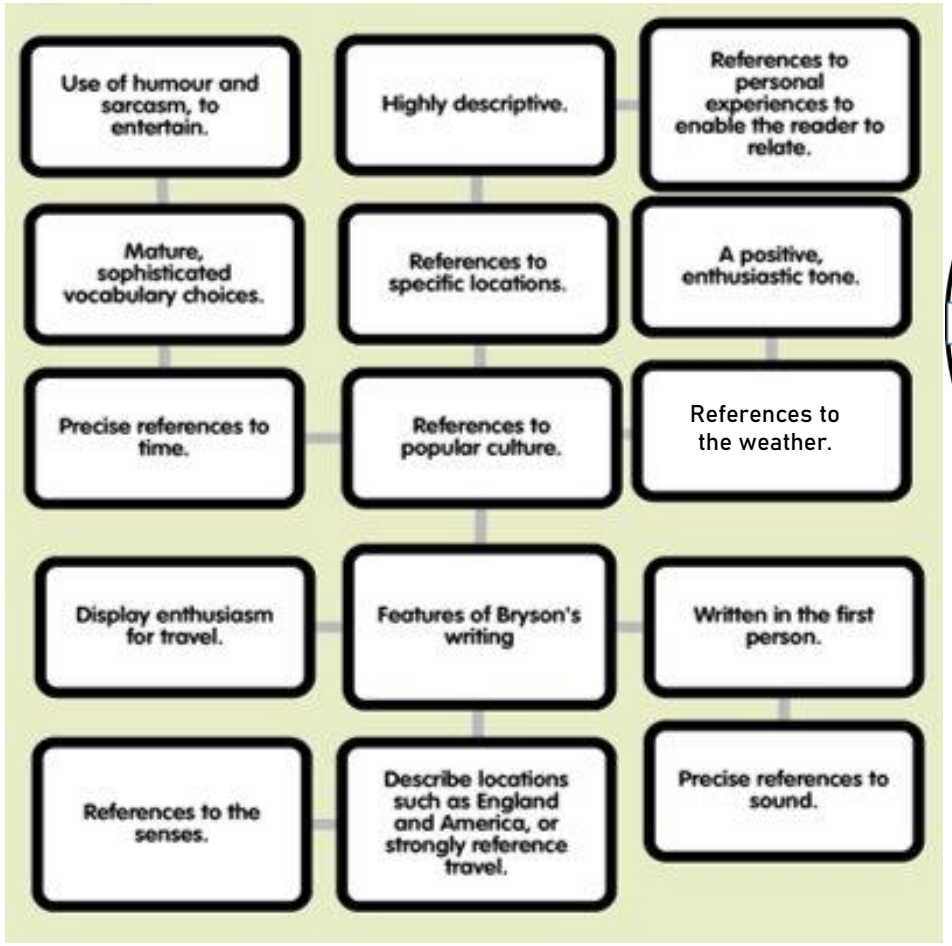
Key vocabulary								
Allegory – a text that can be interpreted to reveal a hidden meaning, typically a moral or political one.	**Moral** - concerned with the principles of right and wrong behaviour.	**Dramatic irony –** when the audience knows something that characters don't	**Symbolism –** the use of objects or items to represent other ideas or concepts	**Characterisation –** the building or crafting of a fictional person	**Cyclical narrative** – a narrative where the beginning and ending are connected	**Foreshadowing –** hinting at events that are yet to happen (usually negative events)	**Theme –** an idea that recurs in or runs through a work of art or literature	**Tension** – Mental or emotional strain

Year 8 English: Travel Writing

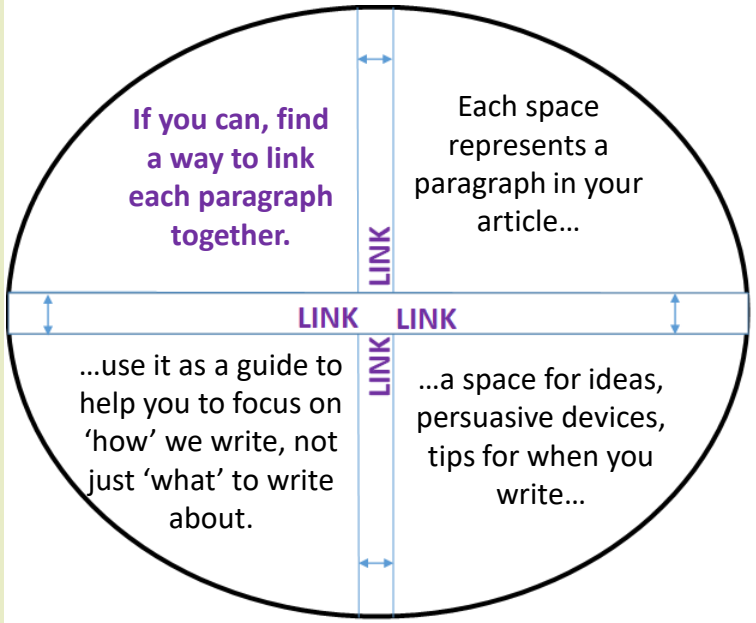
Travel Writing is an assessed unit. You will produce three pieces of writing, linked by the theme of travel. By completing these three pieces, I will be able to say whether you are working 'on', 'above' or 'working towards' your expected progress.

Piece 1: 'On Safari' Travel Writing

Conventions of Travel Writing



Piece 2: 'Residential Visits' – structuring your work and using persuasive devices.



Piece 3: 'Holiday From Hell' Persuasive Writing

The final piece sees **combining** the conventions of travel writing, planning and structuring your work and the use of persuasive devices!

Make sure that, throughout the unit, you are showing off your ability to use core skills:

Hyperbole

Hyperbole is a figure of speech in which statements are exaggerated. It is not meant to be taken literally.

Rhetorical Question

a figure of speech in the form of a question. We ask a rhetorical question without expecting an answer. Rule of Three

The rule of three is where we repeat an idea three times to make it funnier, more exciting or more memorable.

Repetition

Repeating a word or phrase once for effect. Not to be confused with 'Rule of Three', repetition is only used once.

Emotive Language

Language which appeals to our emotions to make us act in a certain way – to laugh, cry, convince, persuade or even offend.

Flattery

Where you use positive, kind language to make the reader feel good about themselves and therefore more likely to buy your product or idea!

A range of sentences

Control over paragraphs

A range of punctuation

. , - ( ) ; : ! ?

Vocabulary purposely chosen for effect and audience.

Varied discourse markers

Developing your own 'voice' as a writer.

Year 8 English: The Romantics

'The Chimney Sweeper' (Innocence) by William Blake
Key words:
Slavery
Symbolism
Innocence
Social Commentary

'Daffodils' by William Wordsworth
Key words:
Jocund
Pensive
Personification
Imagery

'On Westminster Bridge' by William Wordsworth
Key words:
Contrasts
Harmonious
Sonnet
Rhyme Scheme

'The Chimney Sweeper' (Experience) by William Blake
Key words:
Experience
Stanza
Perspective
Voice

'Ozymandias' by Percy Shelley
Key words:
Visage
Pedestal
Metaphor
Legacy

Disciplinary knowledge

Here you can find the key skills you will be working on in this unit –

- *Word explosions (pictured below)*
- *Moving around to the close analysis box – learning to use Box 3 as a mind-map, a way of exploring the text and making connections.*
- *Making connections between the text and context is important for this unit.*

Episode 1: Essential Context
What does 'Romantic' mean?
Who were the Romantic poets?
What did they believe in?
How did Romantic poets feel about the natural world?
How did the Romantic Poets feel about the industrial world?

Check – how many of these questions can you answer confidently?

Episode 2: 'The Chimney Sweeper (Songs of Innocence')
Key Skills:
- Making links between the context of the Romantics and the content of the poem.
- Advancing your thinking skills related to social commentary and the meaning of the poem.
- Using all four boxes of a Word Explosion to interpret the poem.

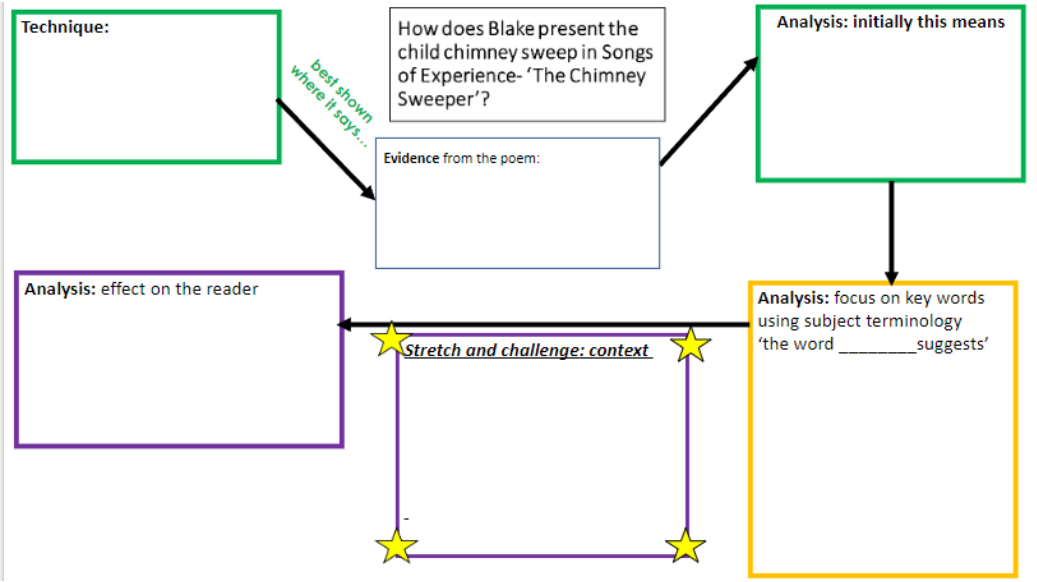
Episode 3: 'Daffodils' by William Wordsworth
Key Skills:
- Recognising how the life of Wordsworth makes him a Romantic Poet.
- Interpreting a poem – being as bold and original as you can.
- Creating your own poem that uses the style of the Romantics.

Episode 4: 'Ozymandias' by Percy Shelley
Key Skills:
- Recognise what made Shelley a Romantic
- Analysis of a challenging text
- Discuss the Romantic view of power and control.
- Independent annotation skills.

Episode 6: On Westminster Bridge by William Wordsworth
Key Skills:
Recognise the features of a sonnet.
Comment on the features of a rhyme scheme.
Be able to make a personal comment on what makes this poem a Romantic one.

Consolidation and Reflection:

Are you able to use all four boxes of a Word Explosion?
Are you able to recognise the features of Romantic Poetry in a range of texts?



UNIT 17—MULTIPLICATIVE CHANGE

Year 8/ Unit 17

Knowledge Organiser

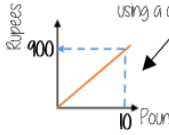
Conversion between currencies

£1 = 90 Rupees ← Currency is directly proportional

For every £1 I have 90 Rupees

£1 = 90 Rupees (×10) £10 = 900 Rupees

Currency can be converted using a conversion graph



Convert 630 Rupees into Pounds

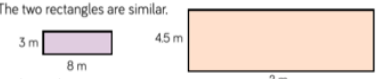
£1 = 90 Rupees (×7) £7 = 630 Rupees

630 ÷ 90 = 7

Ratio between similar shapes

Angles in similar shapes do not change.
e.g if a triangle gets bigger the angles can not go above 180°

The two rectangles are similar.



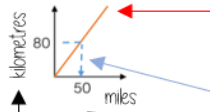
Corresponding sides

3m : 4.5m (÷3) 1m : 1.5m (×8) 8m : 12m

Note: Simplify to the same ratio

Conversion Graphs

Compare two variables



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

Direct Proportion

As one variable changes the other changes at the same rate.

This is a multiplicative change

4 cans of pop = £2.40

4 cans of pop = £2.40 (×3) 12 cans of pop = £7.20

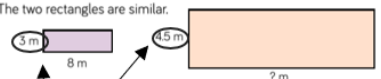
4 cans of pop = £2.40 (×0.5) 2 cans of pop = £1.20

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
e.g. 1 can of pop = £0.60

Understand Scale Factor

The two rectangles are similar.



3 x 1.5 = 4.5

This is a multiplicative change

Missing length 8 x 1.5 = 12m

Use corresponding sides to calculate a scale factor

Scale factor can also be calculated by: Bigger corresponding side ÷ Smaller corresponding side

Small corresponding side (×SF) Big corresponding side (÷SF)

Draw and interpret scale diagrams

A picture of a car is drawn with a scale of 1:30

For every 1cm on my image is 30cm in real life

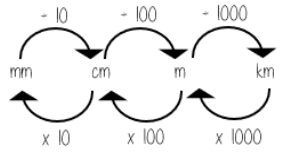
The car image is 10cm

Image : Real life
1cm : 30cm (×10) 10cm : 300cm

The car in real life is 210cm

Image : Real life
1cm : 30cm (×7) 7cm : 210 cm

Interpret maps with scale factors



1 cm : 250 m

Ratios need to be in the same units

1 cm : 250m

1 cm : 25000cm (250 x 100 = 25000)

For every 1cm on my map is 25000cm in real life.

UNIT18 - MULTIPLY AND DIVIDE FRACTIONS

Year / Unit

Knowledge Organiser

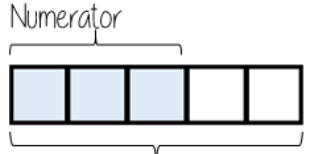
Representing a fraction

Numerator
Denominator

$\frac{3}{5}$

Number of parts represented
Numerator

Number of parts to make up the whole
Denominator



ALL PARTS of a fraction are of equal size

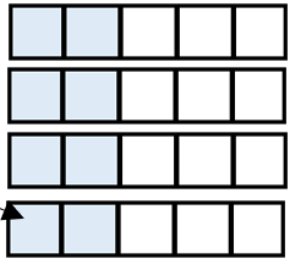
Repeated addition = multiplication by an integer

$4 \times \frac{2}{5} \rightarrow \frac{2}{5} + \frac{2}{5} + \frac{2}{5} + \frac{2}{5}$

Integer
(Whole number)

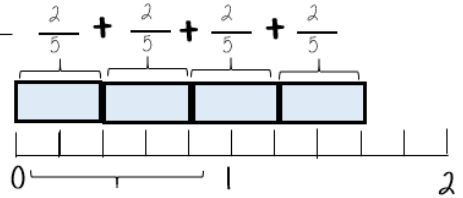
Each part represents $\frac{1}{5}$

How many parts are shaded?
What each part represents



$= \frac{8}{5}$

$= 1\frac{3}{5}$



Each whole is split into the same number of parts as the denominator

Revisit
When adding fractions with the same denominator = add the numerators

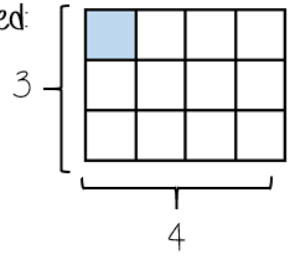
Multiplying unit fractions

$\frac{1}{4} \times \frac{1}{3} = \frac{1}{12}$

Parts shaded

Total number of parts in the diagram

Modelled:



Multiplying non-unit fractions

Shade in 3 parts

Repeat it on this many rows

$\frac{3}{4} \times \frac{2}{3}$

This many columns

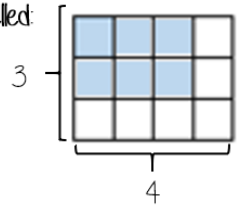
This many rows

$\frac{3}{4} \times \frac{2}{3} = \frac{6}{12}$

Parts shaded

Total number of parts in the diagram

Modelled:



UNIT18 - MULTIPLY AND DIVIDE FRACTIONS

Year / Unit

Knowledge Organiser

The reciprocal *When you multiply a number by its reciprocal the answer is always 1*

$3 \times \frac{1}{3} = 1$

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

The reciprocal of 3 is $\frac{1}{3}$ and vice versa

Reciprocals for division

e.g

$5 \div \frac{1}{4} = 20$

$5 \times 4 = 20$

Multiplying by a reciprocal gives the same outcome

Quick Multiplying and Cancelling down

$\frac{1\cancel{3}}{5} \times \frac{4}{\cancel{9}\ 3}$

The 3 and the 9 have a common factor and can be simplified

Quick Solving

Multiply the numerators

Multiply the denominators

$\frac{1 \times 4}{5 \times 3} = \frac{4}{15}$

Dividing an integer by an unit fraction

$1 \div \frac{1}{4} = 4$

How many quarters are in 1?

"There are 4 quarters in 1 whole. Therefore, there are 20 quarters in 5 wholes"

$5 \div \frac{1}{4} = 20$

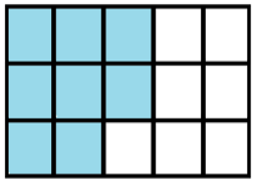
Dividing any fractions *Remember to use reciprocals*

$\frac{2}{5} \div \frac{3}{4}$

$\frac{2}{5} \times \frac{4}{3}$

Multiplying by a reciprocal gives the same outcome

Represented

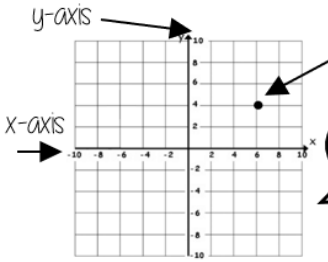


$= \frac{8}{15}$

UNIT19 - WORKING IN THE CARTESIAN PLANE

Knowledge Organiser

Coordinates in four quadrants



Coordinate (x, y) (6, 4)

From the origin this coordinate is 6 places along the positive x axis and 4 places up the positive y axis.

(x, y)

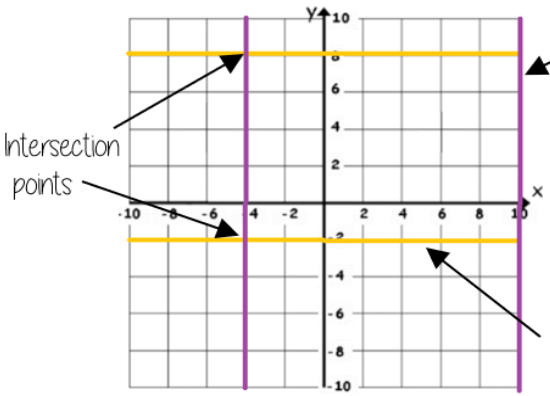
Always the position on the x axis first

Always the position on the y axis second

(0, a) Will be always be a point on the y axis (a can be any number)

(a, 0) Will be always be a point on the x axis (a can be any number)

Lines parallel to the axes



All the points on this line have a x coordinate of 10

'a' can be ANY positive or negative value including 0

Lines parallel to the **y axis** take the form **x = a** and are **vertical**

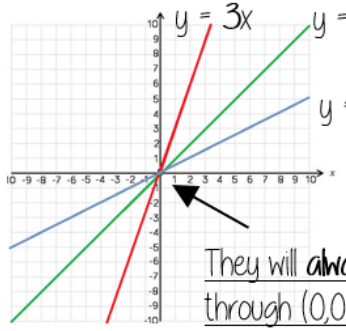
Lines parallel to the **x axis** take the form **y = a** and are **horizontal**

All the points on this line have a y coordinate of -2

e.g. (3, -2) (7, -2) (-2, -2) all lay on this line because the y coordinate is -2

Recognise and use the lines y=kx

The value of **k** changes the steepness of the line



Note: y =x is the same as y= 1x

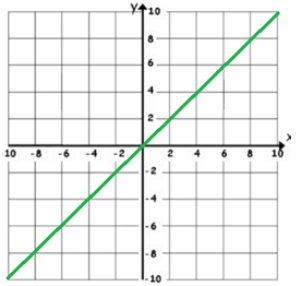
They will **always** go through (0,0)

The bigger the value of k the **steeper** the line will be.

The closer to 0 the value of k the closer the line will be to the x axis.

Recognise and use the line y=x

This means the x and the y coordinate have the same value



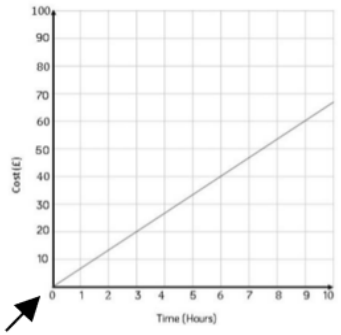
Examples of coordinates on this line: (0, 0) (-3, -3) (8, 8)

The axes **scale is important** – if the scale is the same y = x will be a straight line at 45°

UNIT19 - WORKING IN THE CARTESIAN PLANE

Knowledge Organiser

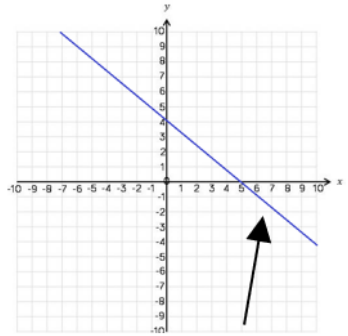
Direct Proportion using y=kx



The line must be straight to be directly proportional – variables increase at the same rate **k**

Direct proportion graphs always start at (0,0) as they are describing relationships between two variables

Lines with negative gradients



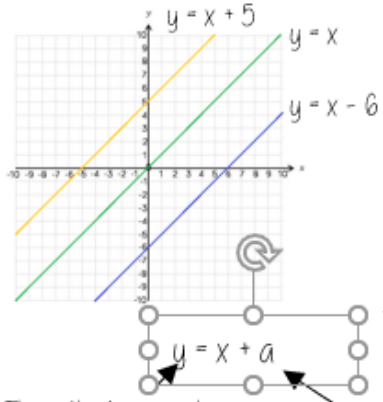
Any straight-line graph with a negative x value has a negative gradient

Eg $y = -2x$

$y = -x$ $y + x = 12$

Direction of all negative gradients

Lines in the form y = x + a



All the lines are **parallel** because the gradients are the same

This is the line y=x when the y and x coordinate are the same

This shows the translation of that line

eg y = x + 5

Is the line y=x moved 5 places up the graph

5 has been added to each of the x coordinates

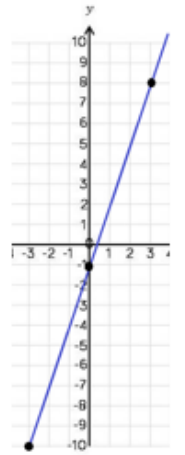
Plotting y = mx + c graphs

$y = 3x - 1$ → 3 x the x coordinate then – 1

x	-3	0	3
y	-10	-1	8

Draw a table to display this information

This represents a coordinate pair (-3, -10)



You only need two points to form a straight line

Plotting more points helps you decide if your calculations are correct (if they do make a straight line)

Remember to join the points to make a line

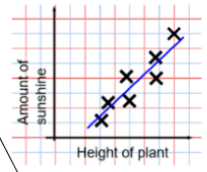
UNIT 20 - REPRESENTING DATA

Year 8 / Unit20

Knowledge Organiser

The line of best fit

The Line of best fit is used to make estimates about the information in your scatter graph



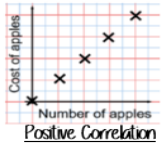
It is only an estimate because the line is designed to be an average representation of the data

It is always a straight line.

Things to know:

- The line of best fit DOES NOT need to go through the origin (The point the axes cross)
- There should be approximately the same number of points above and below the line (It may not go through any points)
- The line extends across the whole graph

Linear Correlation

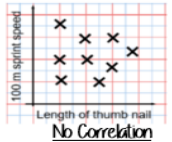


Positive Correlation

As one variable increases so does the other variable

Negative Correlation

As one variable increases the other variable decreases



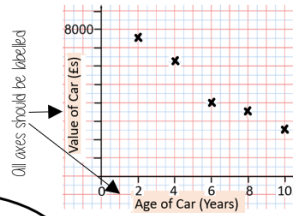
No Correlation

There is no relationship between the two variables

Draw and interpret a scatter graph

Age of Car (Years)	2	4	6	8	10
Value of Car (£s)	7500	6250	4000	3500	2500

- This data may not be given in size order
- The data forms information pairs for the scatter graph
- Not all data has a relationship



The axis should fit all the values on and be equally spread out

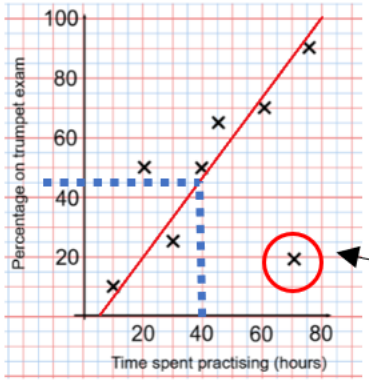
"This scatter graph show as the age of a car increases the value decreases"

The link between the data can be explained verbally

Using a line of best fit

Interpolation is using the line of best fit to estimate values inside our data point.

e.g. 40 hours revising predicts a percentage of 45.

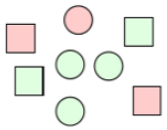


Extrapolation is where we use our line of best fit to predict information outside of our data.
This is not always useful – in this example you cannot score more that 100%. So revising for longer can not be estimated

This point is an "**outlier**"
It is an outlier because it doesn't fit this model and stands apart from the data

Representing data in two-way tables

Two-way tables represent discrete information in a visual way that allows you to make conclusions, find probability or find totals of sub groups



There are 2 green squares

There are 5 green shapes

	Squares	Circles	Total
Green	2	3	5
Red	2	1	3
Total	4	4	8

There are 8 items in total

Using your two-way table

To find a fraction
e.g. What fraction of the items are red? 3 red items
but 8 items in total = $\frac{3}{8}$

Interleaving Use your fraction, decimal percentage equivalence knowledge

Ungrouped Data

The number of times an event happened

The table shows the number of siblings students have. The answers were
3, 1, 2, 2, 0, 3, 4, 1, 1, 2, 0, 2

2 people had 0 siblings. This means there are 0 siblings to be counted here

Number of siblings	Frequency	
0	2	0
1	3	3
2	4	2 + 2 + 2 + 2 OR 2 x 4 = 8
3	2	3 + 3 OR 3 x 2 = 6
4	1	4

Best represented by discrete data (Not always a number)

2 people have 3 siblings so there are 6 siblings in total

OVERALL there are
0 + 3 + 8 + 6 + 4
Siblings = 21 siblings

Grouped Data

If we have a large spread of data it is better to group it. This is so it is easier to look for a trend. Form groups of equal size to make comparison more valid and spread the groups out from the smallest to the largest value.

Discrete Data
The groups do not overlap

Cost of TV (£)	Tally	Frequency
101 - 150	𝍸 ||	7
151 - 200	𝍸 𝍸 |	11
201 - 250	𝍸	5
251 - 300	|||	3

We do not know the exact value of each item in a group – so an estimate would be based to calculate the overall total (Midpoint)

Continuous Data
To make sure all values are included inequalities represent the subgroups

x Weight(g)	Frequency
$40 < x \leq 50$	1
$50 < x \leq 60$	3
$60 < x \leq 70$	5

e.g this group includes every weight bigger that 60Kg up to and including 70Kg

UNIT 21 - Tables and Probability

Knowledge Organiser

Construct sample space diagrams

Sample space diagrams provide a systematic way to display outcomes from events

The possible outcomes from rolling a dice

The possible outcomes from tossing a coin

	1	2	3	4	5	6
H	1,H	2,H	3,H	4,H	5,H	6,H
T	1,T	2,T	3,T	4,T	5,T	6,T

This is the set notation to list the outcomes S =

In between the { } are a; the possible outcomes

S = { 1H, 2H, 3H, 4H, 5H, 6H, 1T, 2T, 3T, 4T, 5T, 6T}

Probability from sample space

The possible outcomes from rolling a dice

The possible outcomes from tossing a coin

	1	2	3	4	5	6
H	1,H	2,H	3,H	4,H	5,H	6,H
T	1,T	(2,T)	3,T	(4,T)	5,T	(6,T)

What is the probability that an outcome has an even number and a tails?

This is the set notation that represents the question P

P (Even number and Tails) = $\frac{3}{12}$

There are three even numbers with tails

There are twelve possible outcomes

Numerator: the event

Denominator: the total number of outcomes

In between the ( ) is the event asked for

UNIT 21 - Tables and Probability

Knowledge Organiser

Probability from two-way tables

	Car	Bus	Walk	Total
Boys	15	24	14	53
Girls	6	20	21	47
Total	21	44	35	100

The total number of items

P (Girl walk to school) = $\frac{21}{100}$

The event

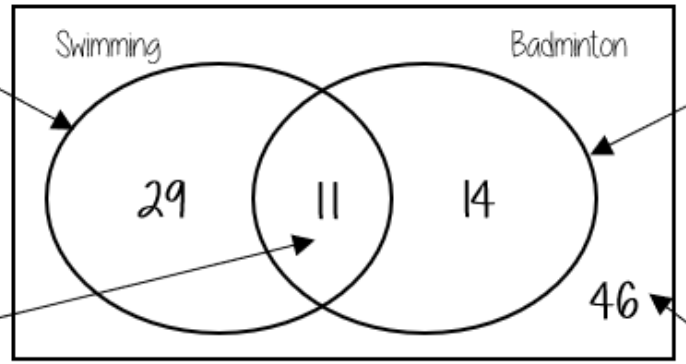
The total in the set

Product Rule

The number of items in event a **X** The number of items in event b

Probability from Venn diagrams

100 students were questioned if they played badminton or went to swimming club.
40 went swimming, 25 went to badminton and 11 went to both.



This whole curve includes everyone that went swimming. Because 11 did both we calculate **just** swimming by 40- 11

The intersection represents both Swimming **AND** badminton

This whole curve includes everyone that went to badminton. Because 11 did both we calculate **just** badminton by 25 - 11

The number outside represents those that did **neither** badminton or swimming 100 – 29 – 11 – 14

P (Just swimming) = $\frac{29}{100}$

UNIT 22 - Brackets Equations and Inequalities

Knowledge Organiser

Form expressions

For unknown variables, a letter is normally used in its place

More than – ADD

Less than/ difference – SUBTRACT

e.g. 4 more than t ⟶ t + 4

8 less than k ⟶ k - 8

Only similar terms can be grouped together

e.g. Find the perimeter of this shape

(Perimeter = length around outside of shape)

t + 2t + 1 + t + 2t + 1 ⟶ 6t + 2

Directed numbers

+ + ⟶ +

– – ⟶ +

+ – ⟶ –

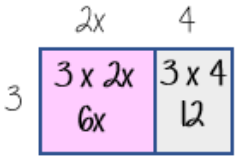
– + ⟶ –

e.g. a = -5 and b = 2

$a^2 = a \times a = -5 \times -5 = 25$

b + a = 2 + - 5 = -3

Multiply single brackets 3 (2x + 4)

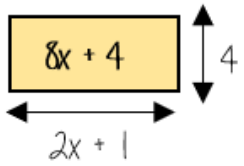


6x + 12

6x + 12

Different representations of 3(2x+4) = 6x + 12

Factorise into a single bracket 8x + 4



Try and make this the **highest common factor**

The two values **multiply** together (also the area) of the rectangle

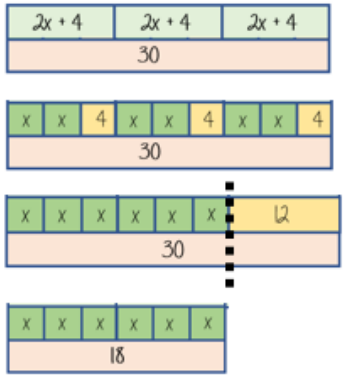
8x + 4 ≡ 4 (2x + 1)

Note:

8x + 4 ≡ 2(4x + 2)

This is factorised but the HCF has not been used

Solve equations with brackets 3 (2x + 4) = 30



3 (2x + 4) = 30

Expand the brackets

6x + 12 = 30

-12 -12

6x = 18

÷ 6 ÷ 6

x = 3

Substitute to check your answer. This could be negative or a fraction or decimal

UNIT 22 - Brackets Equations and Inequalities

Knowledge Organiser

Simple Inequalities

< less than

≤ Less than or equal to

> More than

≥ More than or equal to

$x < 10$

Say this out loud

"x is a value less than 10"

$10 > x$

Say this out loud

"10 is more than the value"

Note:

$x < 10$ and $10 > x$ represent the same values

$x + 2 \leq 20$

"my value + 2 is less than or equal to 20"

$x \leq 18$

The biggest the value can be is 18

Form and solve inequalities

Two more than treble my number is greater than 11

Find the possible range of values

Form

$x \rightarrow \times 3 \rightarrow +2 \rightarrow 11$

$3x + 2 > 11$

Solve

$x \leftarrow \div 3 \leftarrow -2 \leftarrow 11$

$x > 3$

Check

This would suggest any value bigger than 3 satisfies the statement

$3 \times 3 + 2 = 11$ ✓ $10 \times 3 + 2 = 32$ ✓

Algebraic constructs

Expression

A sentence with a minimum of two numbers and one maths operation

Equation

A statement that two things are equal

Term

A single number or variable

Identity

An equation where both sides have variables that cause the same answer includes ≡

Formula

A rule written with all mathematical symbols

e.g area of a rectangle $A = b \times h$

UNIT 23 – Sequences

Knowledge Organiser

Linear and Non Linear Sequences

Linear Sequences – increase by addition or subtraction and the same amount each time

Non-linear Sequences – do not increase by a constant amount – quadratic, geometric and Fibonacci

- Do not plot as straight lines when modelled graphically
- The differences between terms can be found by addition, subtraction, multiplication or division

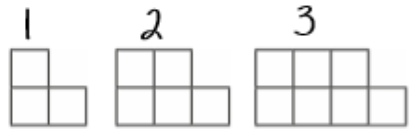
Fibonacci Sequence – look out for this type of sequence

0 1 1 2 3 5 8 ...

Each term is the sum of the previous two terms.

Sequence in a table and graphically

Position: the place in the sequence



3 5 7

"The **term** in **position** 3 has 7 squares"

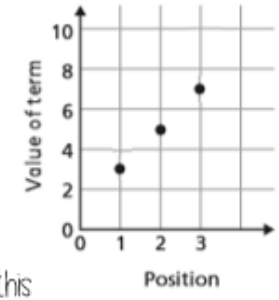
Term: the number or variable
(the number of squares in each image)

In a table

Position	1	2	3
Term	3	5	7

+2 +2

Graphically



Because the terms increase by the same addition each time this is **linear** – as seen in the graph

UNIT 23 – Sequences

Knowledge Organiser

Sequences from algebraic rules

This is substitution!

$3n + 7$ — This will be linear - note the single power of n. The values increase at a constant rate

$3n^2 + 7$ — This is not linear as there is a power for n

$2n - 5$ → Substitute the number of the term you are looking for in place of 'n'

eg
1st term = $2(1) - 5 = -3$
2nd term = $2(2) - 5 = -1$
100th term = $2(100) - 5 = 195$

Checking for a term in a sequence

Form an equation

Is 201 in the sequence $3n - 4$?

$3n - 4 = 201$ ← Term to check

Algebraic rule

Solving this will find the position of the term in the sequence. ONLY an integer solution can be in the sequence.

Complex algebraic rules

Misconceptions and comparisons

$2n^2$ — 2 times whatever n squared is

eg
1st term = $2 \times 1^2 = 2$
2nd term = $2 \times 2^2 = 8$
100th term = $2 \times 100^2 = 2000$

$(2n)^2$ — 2 times n then square the answer

eg
1st term = $(2 \times 1)^2 = 4$
2nd term = $(2 \times 2)^2 = 16$
100th term = $(2 \times 100)^2 = 40000$

$n(n + 5)$ ←

eg
1st term = $1(1 + 5) = 6$
2nd term = $2(2 + 5) = 14$
100th term = $100(100 + 5) = 10500$

You don't need to expand the expression

Finding the algebraic rule

This is the 4 times table → 4, 8, 12, 16, 20....

$4n$

7, 11, 15, 19, 22 ← This has the same constant difference – but is 3 more than the original sequence

$4n + 3$

$4n + 3$

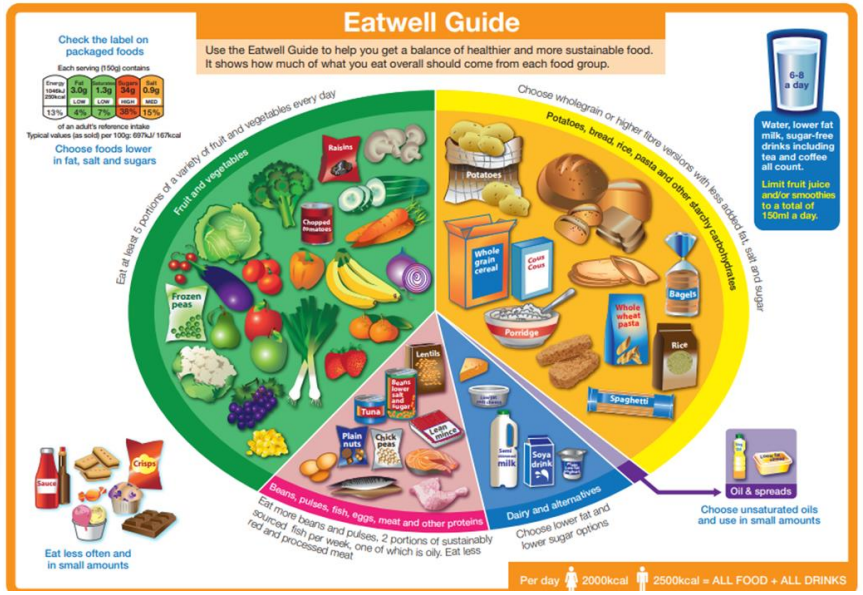
This is the constant difference between the terms in the sequence

This is the comparison (difference) between the original and new sequence

Nutrition and respiration

Nutrient groups

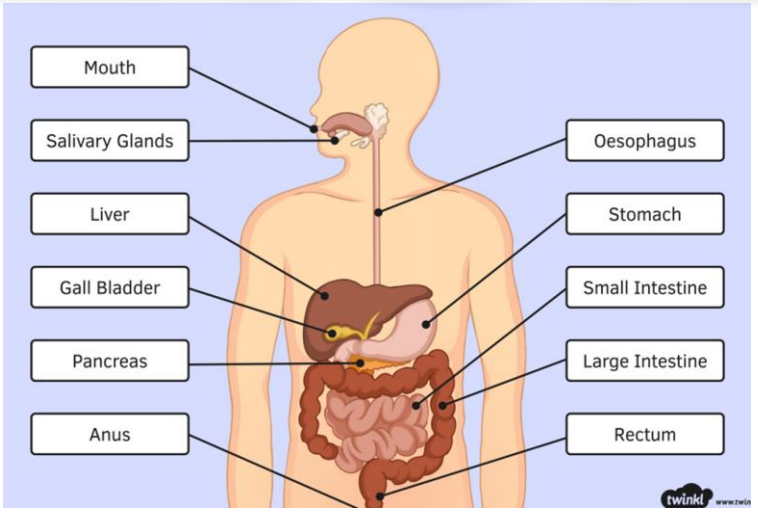
Food group	Use in the body	Sources
Carbohydrates	Energy	Bread, cereals, pasta
Proteins	To build cell components and tissues	Dairy, meat, fish
Fats	For insulation and a store of energy	Meat, some fruit and veg
Vitamins and minerals	To keep the body healthy	Fruits and vegetables, dairy



Food tests

Testing for:	Reagent	Results
Carbohydrates (starch)		Negative: red brown Positive: blue-black
Carbohydrates (sugar)		Negative: blue Positive: green, yellow, red
Protein		Negative: blue Positive: lilac

The digestive system



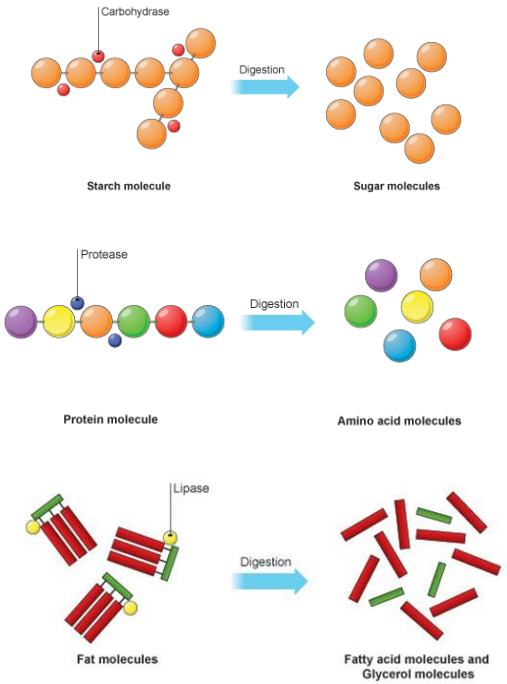
Organ functions

Organ	Function
Mouth and salivary glands	Produce saliva which contains the enzyme amylase to break down starch. Mechanical digestion by teeth.
Stomach	Contains hydrochloric acid (to kill bacteria in food) and protease enzymes to break down protein.
Liver	Produces bile which neutralises the stomach acid and emulsifies fats.
Pancreas	Produces carbohydrase enzymes (to break down carbohydrates), protease enzymes (to break down protein), lipase enzymes (to break down fats) and releases them into the small intestine.
Small intestine	Nutrients are absorbed into the blood stream.
Large intestine	Water is absorbed into the blood stream, leaving faeces to be removed from the body.

Nutrition and respiration

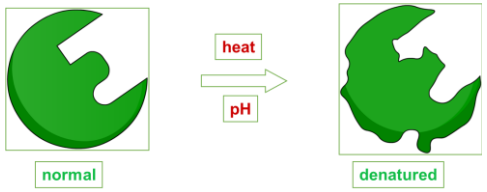
Enzymes

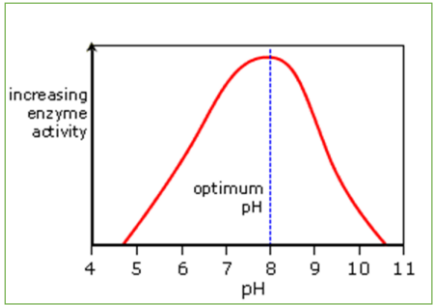
Enzymes are chemicals in your body that are made by your cells. They speed up chemical reactions. In the digestive system, they break down the large food molecules that you eat into small soluble molecules.

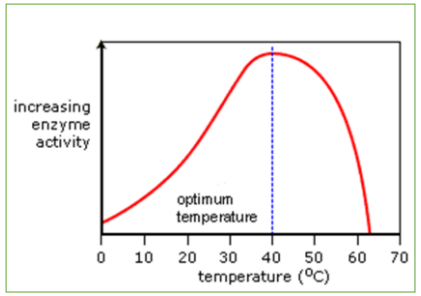


Enzymes conditions

If enzymes are placed in temperatures that are too warm, or a pH that is away from their optimum, they will denature. This means that their structure breaks down and they can no longer attach to the substrate.







The skeleton

The skeleton has 4 main **functions**:

- Support
- Movement
- Protection
- Making blood cells

Joints

Joints occur when 2 bones come together

- A hinge joint allows backwards and forwards movements. Knees and elbows are hinge joints.
- A ball and socket joint allows movement in all directions. Shoulders and hips are ball and socket joints.

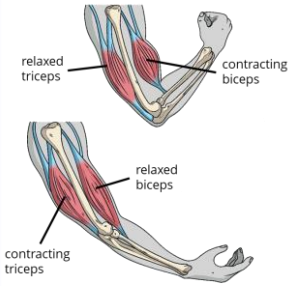
Muscles

3 types of muscle

- Skeletal muscle
  - contract to make parts of the body move
- Cardiac muscle
  - Found in the heart
  - Contracts to make the heart beat and pump blood around the body
- Smooth muscle
  - Found in organs like the small intestine
  - Moves things through the organ

Antagonistic muscles pairs

Muscles can't push; they can only pull.



Nutrition and respiration

Double circulatory system

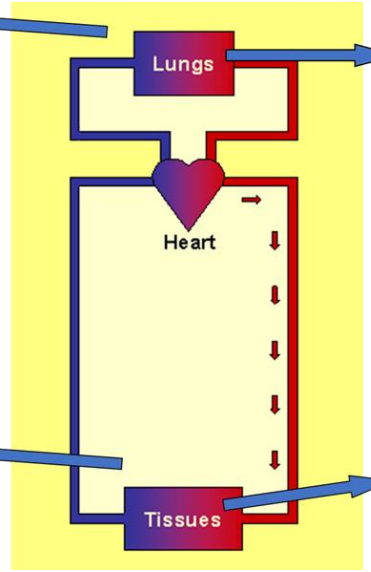
The carbon dioxide (CO_2) is removed from the blood in the lungs

Oxygen O_2 is picked up by red blood cells. This is called oxygenated blood

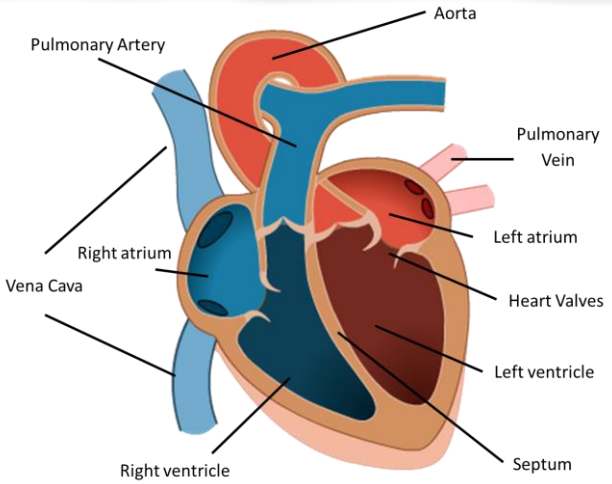
The cells of the tissue produce waste carbon dioxide (CO_2)

The cells of the tissues use the O_2. blood is now said to be deoxygenated

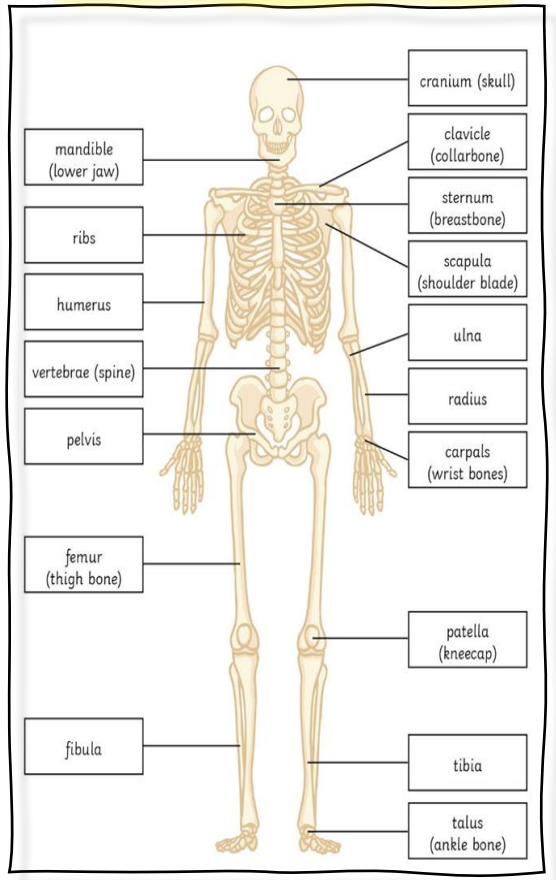
Oxygenated blood is pumped around the body to the cells in our tissues



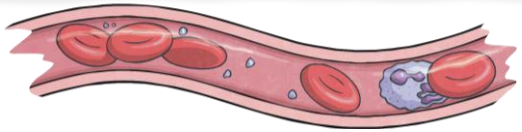
The heart



The human skeleton

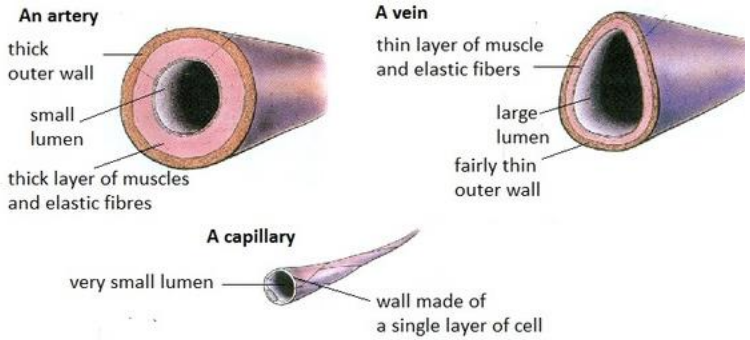


Components of blood



- **Plasma:** liquid part of the blood, carries, minerals, blood components, hormones..
- **Red blood cells:** carry oxygen
- **White blood cells:** get rid of pathogens
- **Platelets:** form scabs

Blood vessels



Sections through the three types of blood vessels

Nutrition and respiration

Aerobic respiration

Respiration is the process that the body uses to release energy from digested food (glucose).

glucose + oxygen → carbon dioxide + water (+ energy)

- glucose: from the digestive system
- oxygen: from the respiratory system
- carbon dioxide: waste product (exhaled)
- water: waste product (exhaled)

Anaerobic respiration

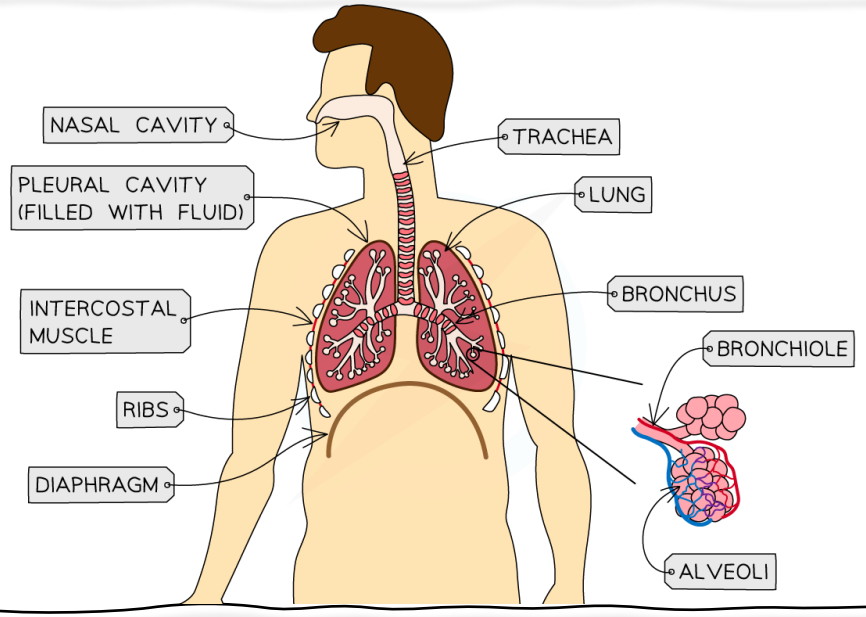
Intense exercise requires a large oxygen supply to the muscles.
This will release the energy that the muscles need to work hard.

Heart rate, breathing rate and breathing depth will all increase to try to mee the demand for oxygen.

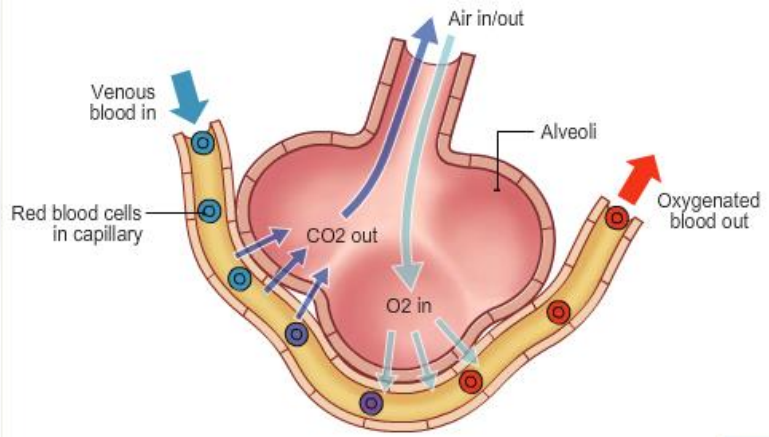
If the body cannot provide oxygen quickly enough glucose has to be broken down and turned into energy in another way.

Anaerobic respiration:
glucose → lactic acid

The respiratory system



Gas exchange



Fermentation

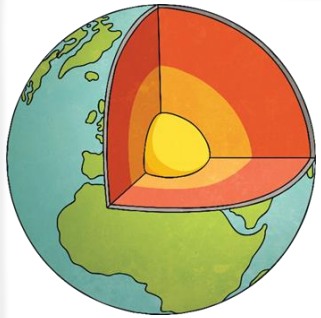
Fermentation: the process of anaerobic respiration in yeast.

Glucose → carbon dioxide + ethanol

Used in industry to make bread and alcoholic drinks

Materials and Earth resources

Structure of the Earth



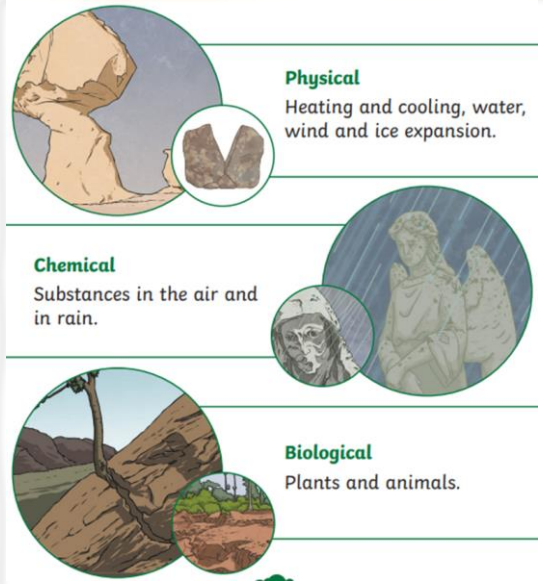
Inner core
Solid mass at centre of Earth containing iron and nickel.

Outer core
Super heated liquid made of iron and nickel.

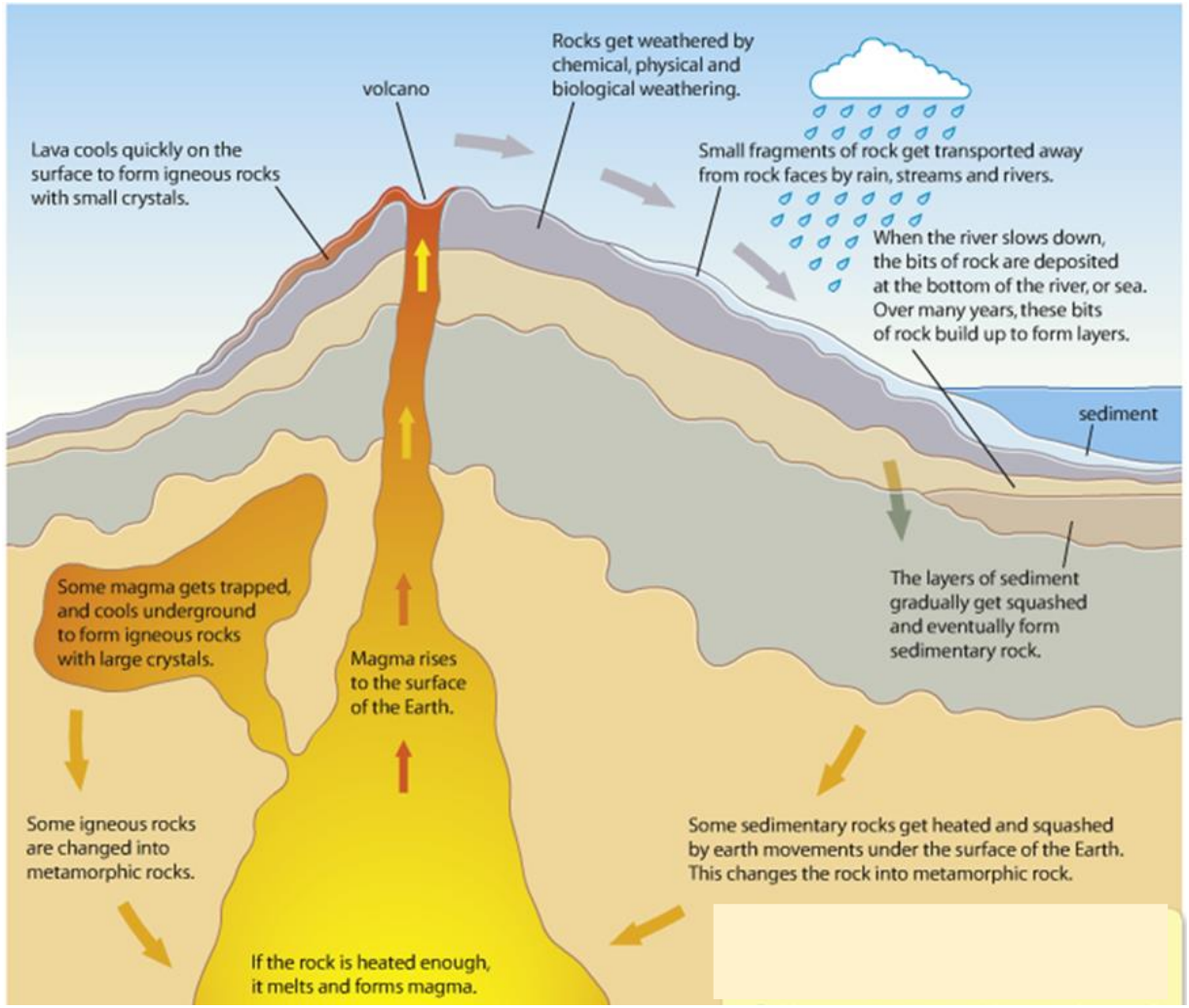
Mantle
Hot liquid like molten rock that has convection currents.

Crust
The rocky outer layer of the planet - the part that we live on.

Weathering

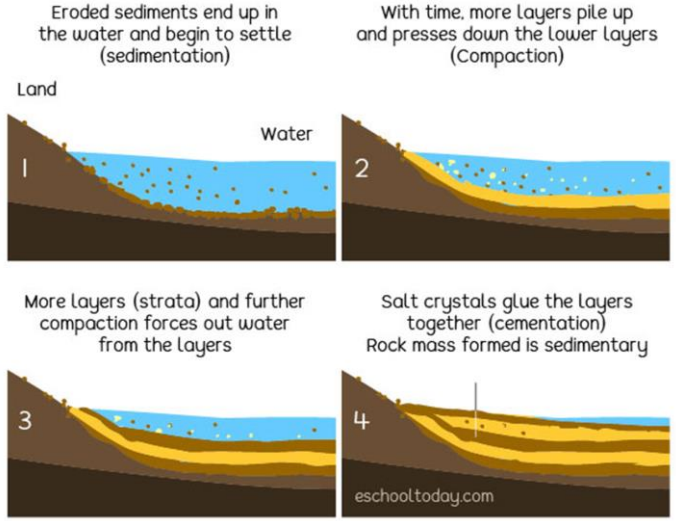


The rock cycle

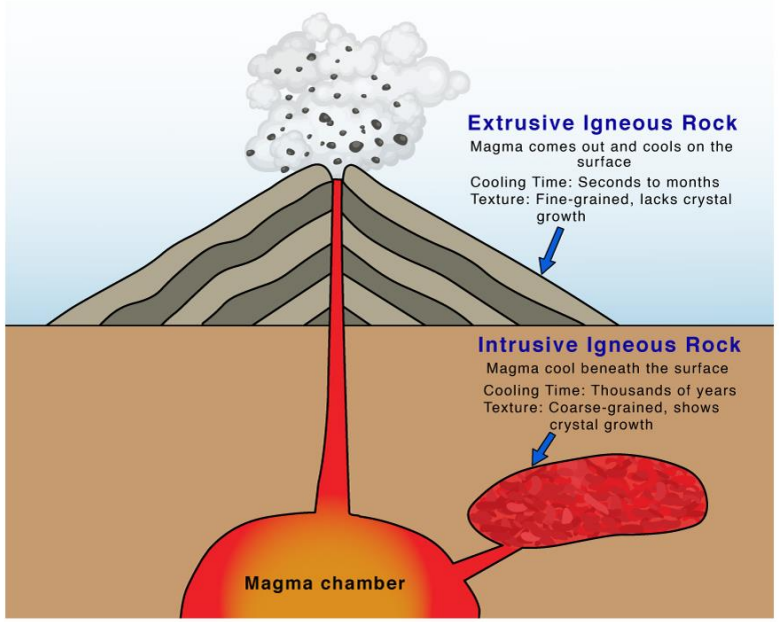


Materials and Earth resources

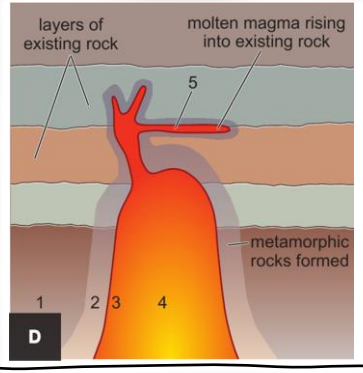
Sedimentary rocks



Igneous rocks



Metamorphic rocks



Limestone → Marble

Metamorphic rocks are usually harder and denser than the sedimentary rocks they have formed from under heat and pressure. They often have layer structures and crystals.

Materials and Earth resources

Metal ores

An ore is a mineral that can be mined to obtain separate components (metals) at a profit.

Ores are mined from the ground. The mining has advantages and disadvantages.

Ceramics, composites and polymers

Ceramic materials are compounds. To make ceramic products, the starting materials are moulded into a shape and then baked in an oven or kiln. This causes the atoms to join together to form one large structure with strong forces between them.

They are hard and strong but brittle.

They are commonly used in pottery and as building materials e.g. bricks.

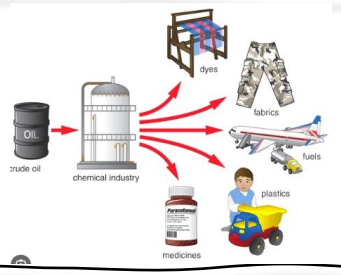
Polymers are made by chemical reactions that join many small molecules together to make long molecules.
Polymers are unreactive; this makes them suitable for lots of purposes but hard to get rid of.
Polymers can be natural or man made.

Composite materials are made from a combination of two or more different types of material. Each material in the composite has different properties. When they are combined the resulting composite has the properties from each.

Examples include: reinforced concrete, waterproof clothing, MDF

Crude oil

Crude oil is a naturally-occurring oil that comes from the ground. It is useless in its natural form, but can be refined to make useful products.

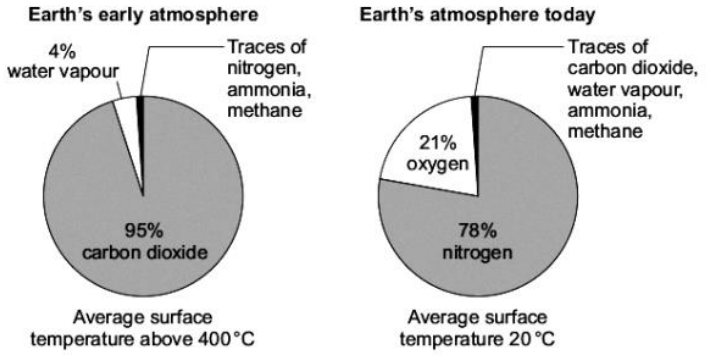


LCA's

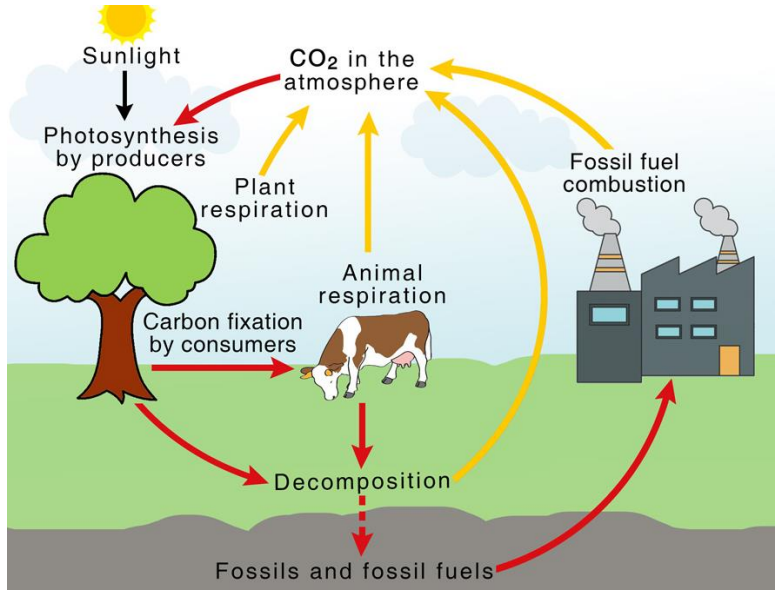
A lifecycle assessment is a method used by companies to estimate the impact of a product on the environment.

Materials and Earth resources

Evolution of the atmosphere

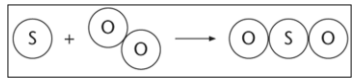


The carbon cycle

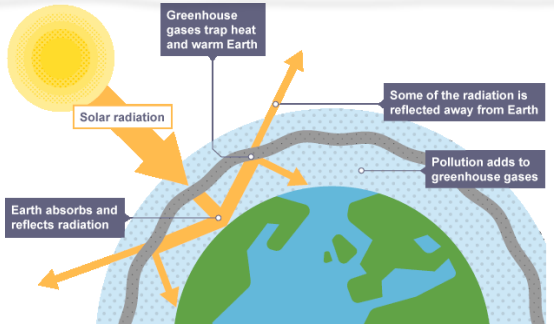


Acid rain

Combustion of fossil fuels releases sulphur dioxide which dissolve in water vapour in clouds and falls as acid rain.



Greenhouse effect and global warming

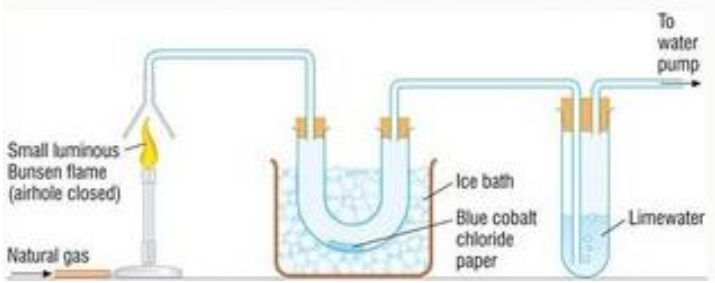


Ice caps melt, extreme weather changes, flooding, drought,...

Combustion

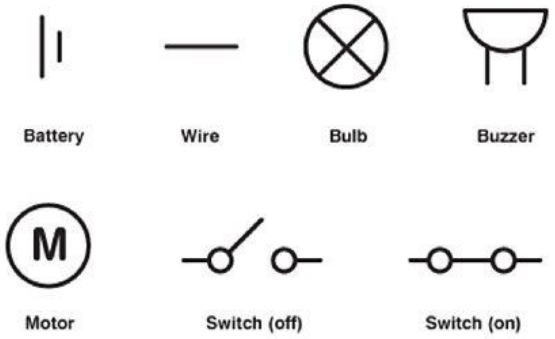
Complete combustion:
Methane + Oxygen-> Carbon dioxide + water vapour

Incomplete combustion
Releases soot and carbon monoxide



Electricity and magnetism

Circuit symbols

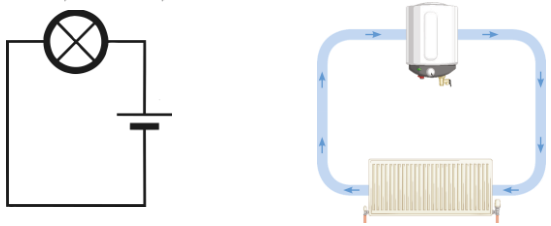


Modelling electricity

What is a model?

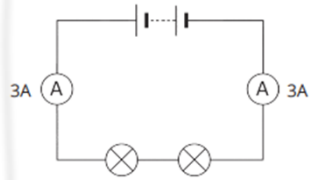
Scientists often use models to help them to explain difficult concepts.

They usually have some drawbacks where they do not represent parts as clearly as they could.



Series circuits

In a series circuit, the components are connected end to end in a continuous loop. If one component breaks, none of the components will work as the circuit is no longer complete.



The current is the same everywhere in a series circuit. It doesn't matter where you put the ammeter, it will always show the same reading. The more cells or batteries you add, the bigger the current. Current is not used up.

Current and voltage

Current: the flow of electrons in a circuit.
Unit: amp
Measured with: ammeter

Voltage: the amount of energy transferred by each unit of charge between two points of a circuit.
Unit: Volts
Measured with: voltmeter

Resistance

Resistance is a measure of how difficult it is for the current to flow around a circuit.
The higher the resistance, the less current will flow around a circuit.
Resistance is measured in ohms (Ω)
Factors that affect resistance are:

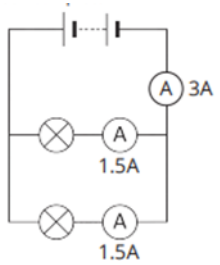
- Temperature
- Width of wire
- Length of wire
- Material

Resistance can be calculated using the formula:

Resistance (Ω) = potential difference (V) ÷ current (A)

Parallel circuits

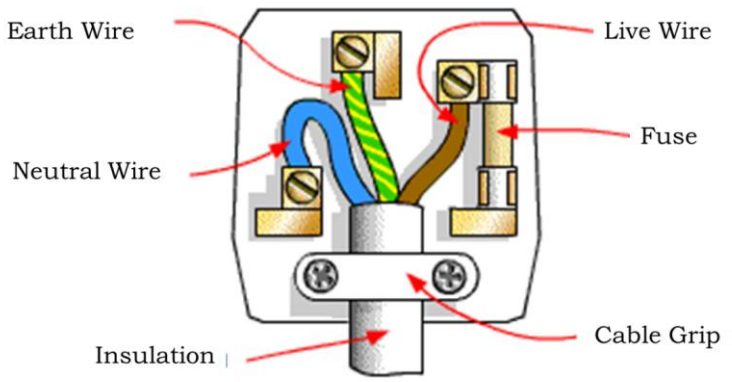
In a parallel circuit, the components are connected on separate branches. This gives the current several paths to flow down. If one component stops working, the others will still work as their circuit is still complete.



The current is split between branches in a parallel circuit.

Electricity and magnetism

The plug



Magnetism

Magnetism is a non-contact force. Magnetic materials can be magnetised or will be attracted to a magnet. There are three magnetic metals; iron, nickel and cobalt.

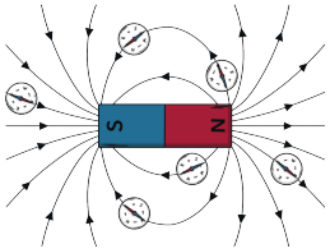
A bar magnet is a permanent magnet. It has a north pole and a south pole.

Like poles repel. This means that the two poles push each other away.

Opposite poles attract. This means that the invisible magnetic force between the magnets pulls the poles towards each other.

Magnetic fields

The magnetic field lines around a magnet can be shown as a series of lines around a magnet. The magnetic field lines can be plotted using a plotting compass. The plotting compass will always point towards the south pole, wherever it is placed around a compass.



Using electricity

Electricity is sold in kilowatt hours.

A kilowatt hour is how much electricity a 1kW (or 1000 W) device would transfer if it was turned on for 1 hour.

kilowatt hours = kilowatts x hours

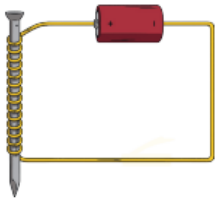
Total cost (pence) = Number of units (kWh) x cost per unit (p)

Electromagnets

When an electrical charge flows through a wire, a magnetic field is created around the wire.

The strength of the electromagnet is affected by:

- Altering the current
- The material at the core
- The number of coils of wire around the core.



Static electricity

Static electricity occurs when a material either loses or gains electrons. Electrons are negatively charged, so objects that lose electrons become positively charged overall, whereas objects that gain electrons become negatively charged overall.

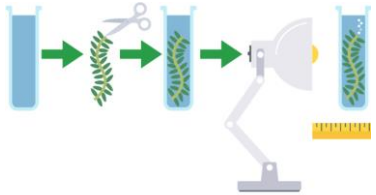
Plants and plant reproduction

Photosynthesis reaction

Carbon dioxide + Water $\xrightarrow{\text{Light}}$ Glucose + Oxygen

$6CO_2 + 6H_2O \xrightarrow{\text{Chlorophyll}} C_6H_{12}O_6 + 6O_2$

Effect of light on rate of photosynthesis

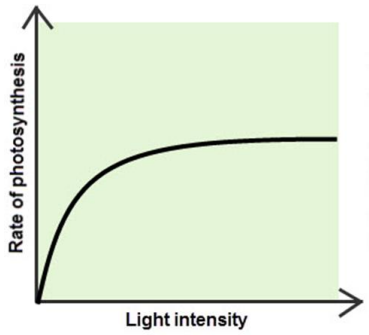


Independent variable: light intensity

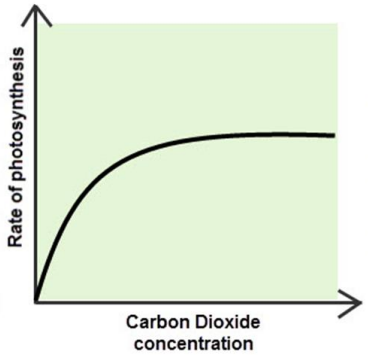
Dependent variable: Rate of photosynthesis (calculated by number of bubbles or volume of oxygen

Control variables: temperature of water, availability of carbon dioxide, wavelength of light

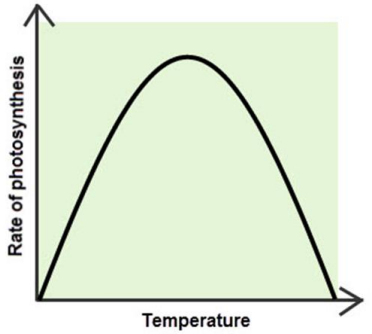
Limiting factors



As light intensity increases, so does the rate of photosynthesis, up until a certain point when another limiting factor has an impact.



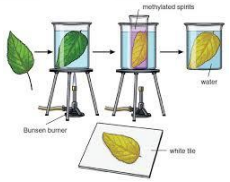
As carbon dioxide concentration increases, so does the rate of photosynthesis, up until a certain point when another limiting factor has an impact.



As temperature increases, so does the rate of photosynthesis, up to an optimum and then the rate decreases due to enzymes denaturing.

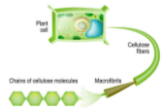
Uses of glucose

Used in respiration

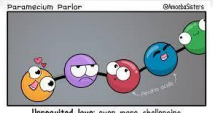


Converted into insoluble starch for storage

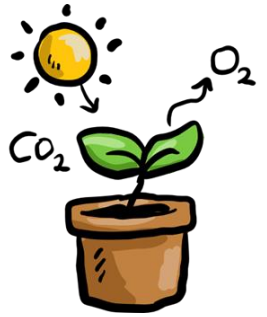
Used to produce fats or oils for storage



Used to produce cellulose, which strengthens the cell wall

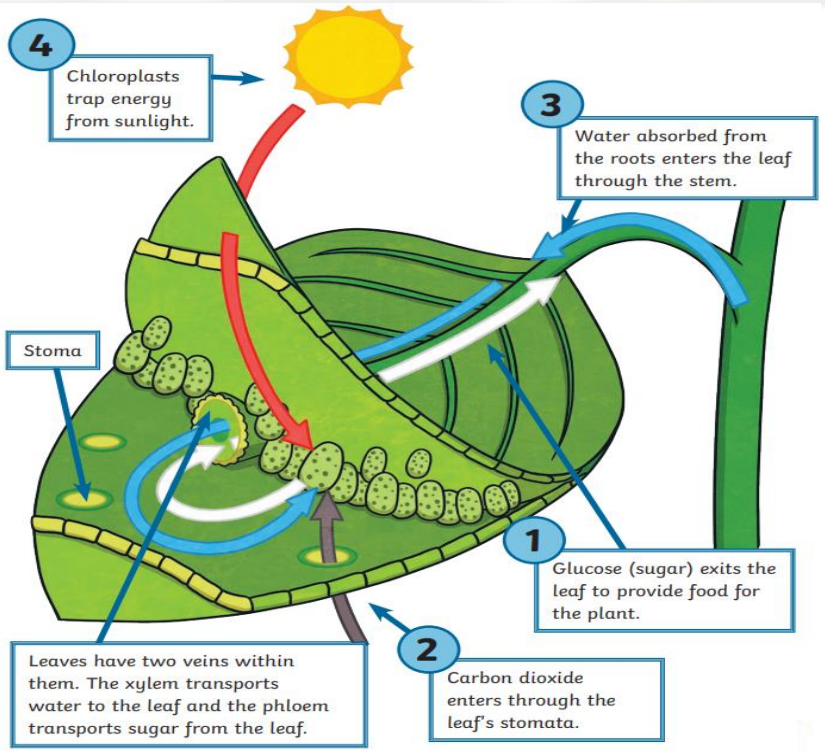


Used to produce amino acids for protein synthesis - nitrate ions are absorbed from the soil for this.

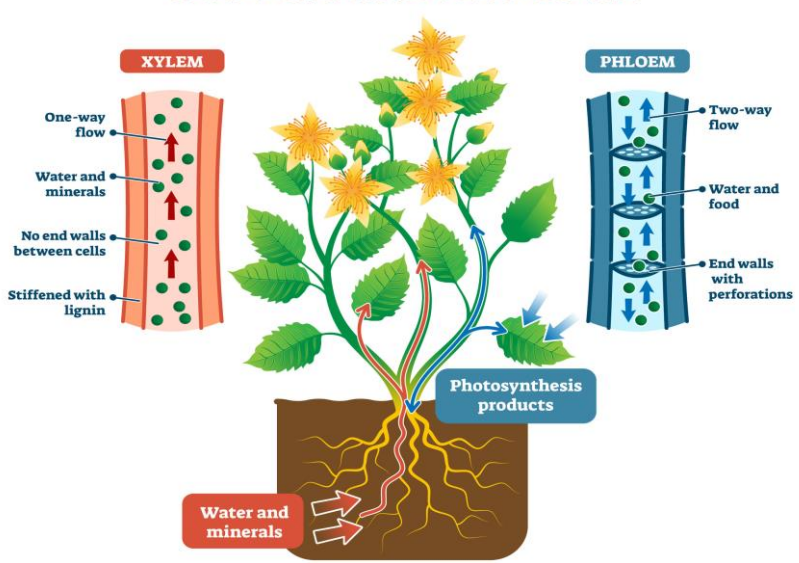


Plants and plant reproduction

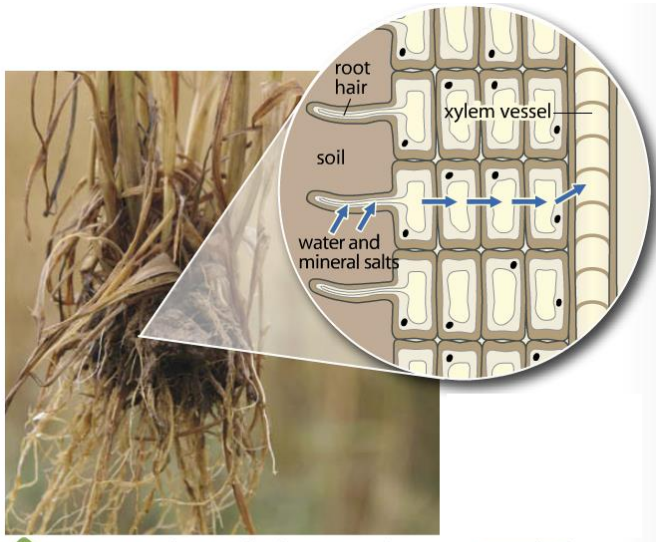
Leaf structure



Stem structure



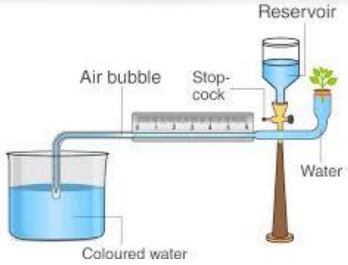
Root structure



A *Many root hair cells form root hair **tissue**, which covers roots.*

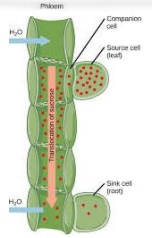
Transpiration and translocation

Transpiration is the evaporation and diffusion of water vapour from the leaf.
This process drives the transpiration stream, which is the movement of water from the roots, through the stem to the leaves.



The rate of transpiration can be measured using a potometer.
The rate of transpiration increases with:

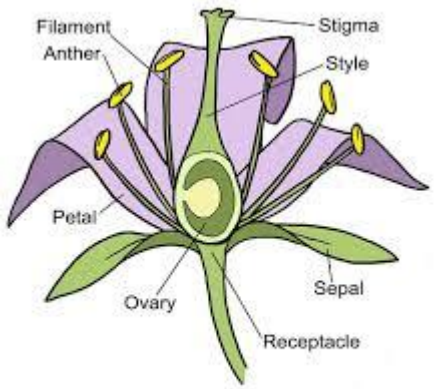
- Higher temperature
- Increased light levels
- Increased wind
- Decreased humidity in the air



Translocation is the movement of sugars from where they are made in cells that do photosynthesis, known as source cells, to all of the other cells in the plant.

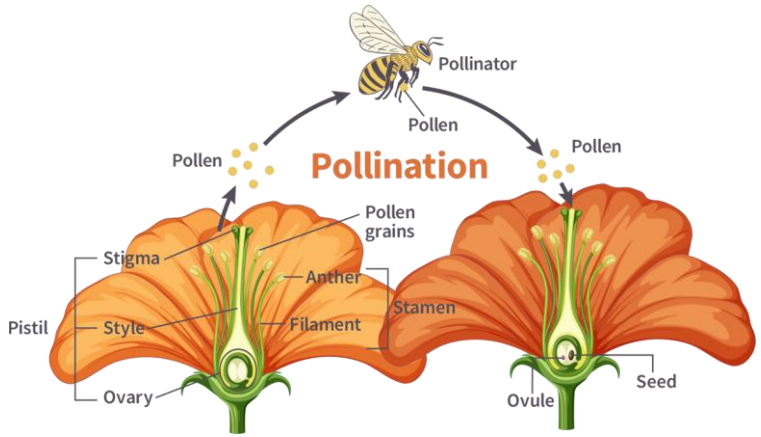
Plants and plant reproduction

Flower structure



Filament + Anther = Stamen
Stigma + Style + Ovary = Carpel

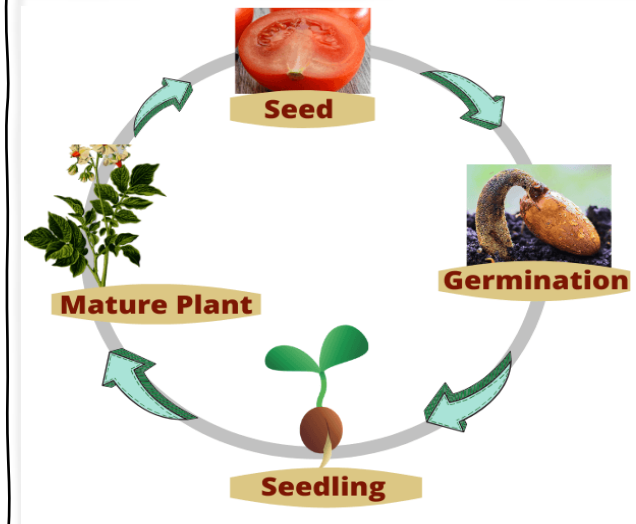
Pollination



Seed formation

Once pollination has taken place, the pollen joins with the ovule to become a seed.
The ovary, where the ovule was contained, becomes a fruit.
The plant seeds are in the fruit.

Lifecycle of a plant



Increasing yield

24 hour light

Heating

Watering

Application of:

- Pesticides
- Herbicides
- Insecticides
- fertilisers

Negative effects of farming

- Chemical run off to water courses
- Disruption of food webs
- Carbon footprint of heating and lighting greenhouses
- Carbon footprint of transporting food large distances
- Loss of biodiversity

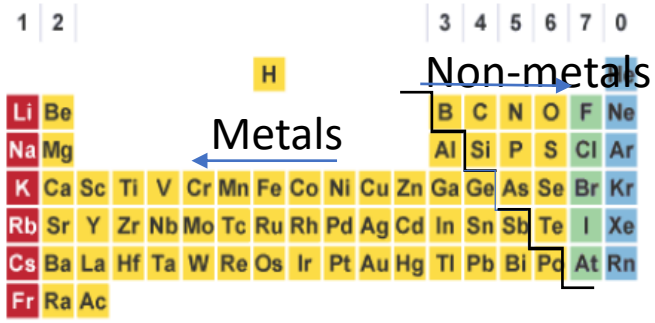
Atoms and the periodic table

Development of the Periodic table

Mendeleev organised the modern periodic table in order of element atomic mass. He left gaps for undiscovered elements and predicted their properties.

Groups in the periodic table

Elements in the same group have similar properties to each other.



Group 1 – Alkali metals
A group of very reactive metals

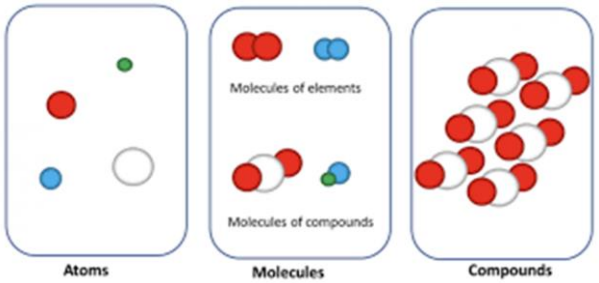
Group 7 – Halogens
A group of very reactive non-metals

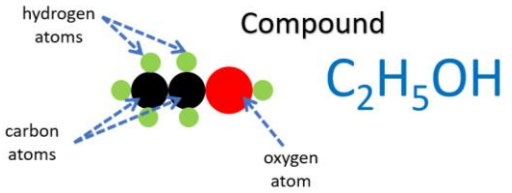
Group 0 – Noble gases
A group of very unreactive non-metals

Metals and non-metals

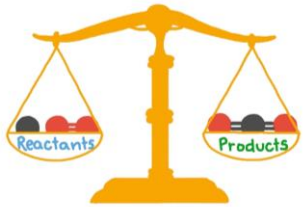
Metal	Non-metal
Shiny	Dull
Good conductor of electricity	Poor conductor of electricity
Good conductor of heat	Poor conductor of heat
Sonorous	Not sonorous
High density	Low density
Malleable	Brittle
Ductile	

Atoms, elements and compounds





Conservation of mass



In a chemical reaction mass cannot be created or destroyed but transformed from one form into another.

Word and symbol equations

We can represent chemical reactions using word equations and symbol equations:

Word equation example:

Sodium + water → sodium hydroxide + hydrogen

Symbol equation example:

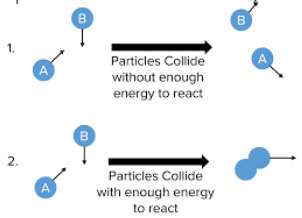
$2Na + 2H_2O \rightarrow 2NaOH + H_2$

Na	1	Na	1
H	2	H	3
O	1	O	1

Atoms and the periodic table

Collision theory

A chemical reaction occurs when particles successfully collide.



Rate of reaction can be affected by:

- Presence of a catalyst
- Surface area
- Concentration
- Temperature

Reactions of metals

With oxygen:
Metal + oxygen → metal oxide

Metal oxides are alkaline
Non-metal oxides are acidic

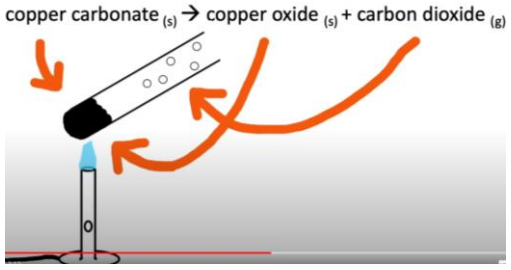
With water:
Metal + water → metal hydroxide + hydrogen

With acid:
Metal + acid → salt + hydrogen

Hydrochloric acid gives metal chlorides
Sulphuric acid gives metal sulphates
Nitric acid gives metal nitrates

Thermal decomposition

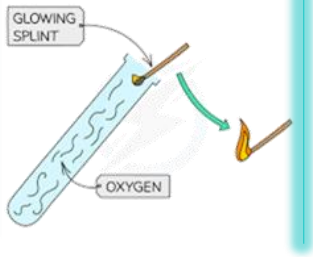
Thermal = heat
Decomposition = To break down



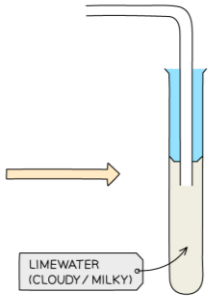
Testing for gases

Hydrogen
Squeaky pop

Oxygen
Relights a glowing splint



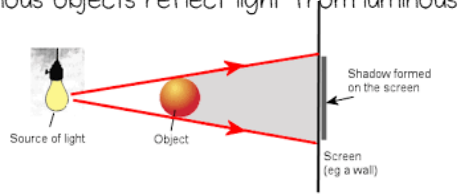
Carbon dioxide
Turns limewater cloudy



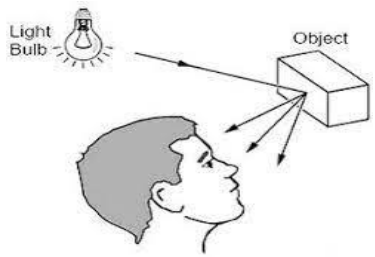
Waves

How we see

Luminous objects give off light
Light is a way of transferring energy.
Non-luminous objects reflect light from luminous objects.



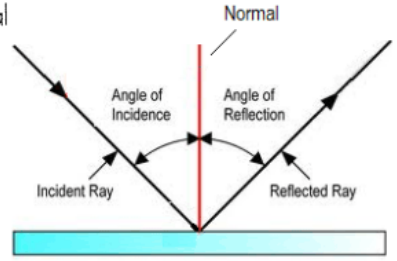
We see when light from a luminous object reflects from non-luminous objects and enters our eyes.



Reflection

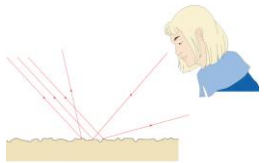
Images in a plane mirror are:

- As far behind the mirror as the object is in front of it.
- The right way up
- The same size as the object
- Laterally inverted
- virtual

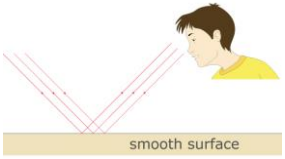


The law of reflection

angle of reflection = angle of incidence

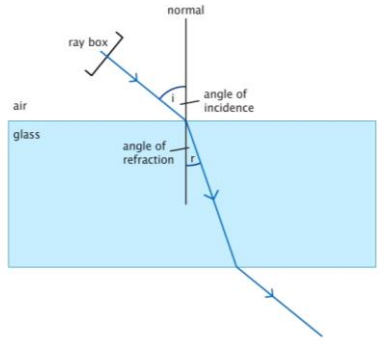


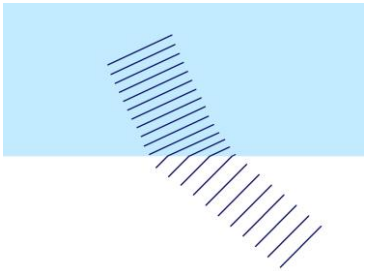
Diffuse reflection



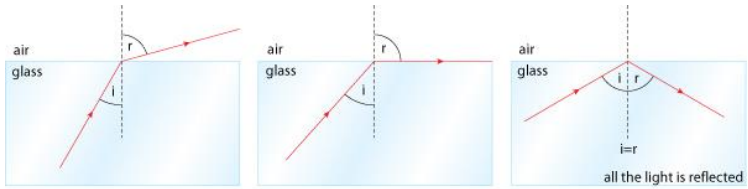
Regular reflection

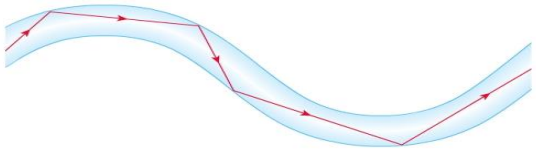
Refraction



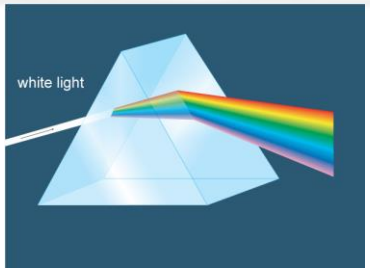


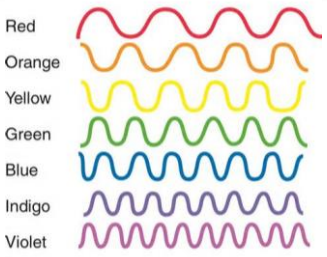
Total internal reflection





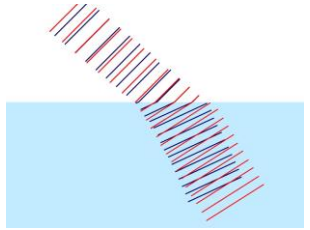
Dispersion





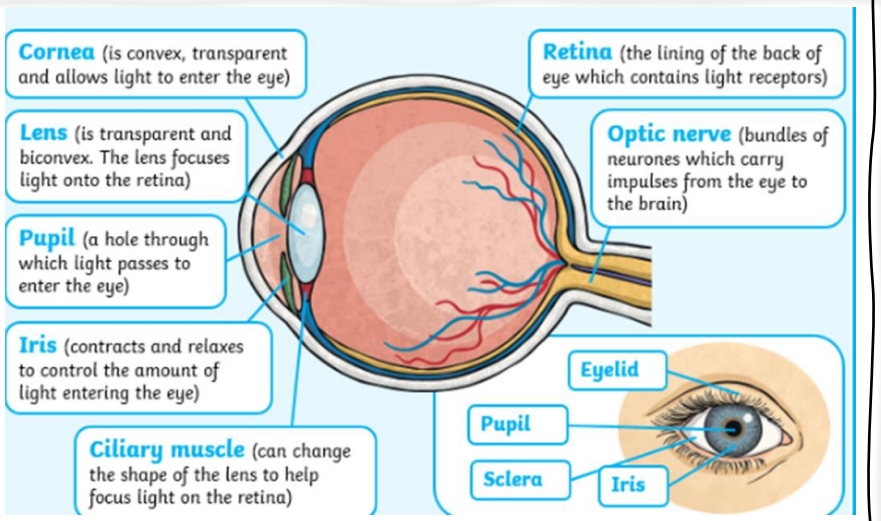
When light enters a glass prism it slows down.

But the shorter wavelengths slow down most and so bend more sharply.

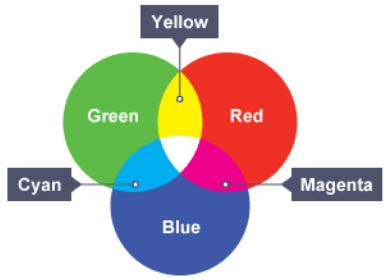


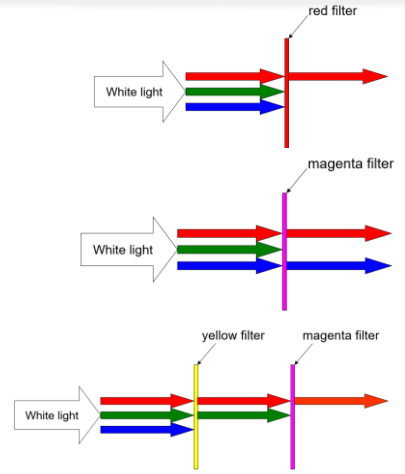
Waves

Parts of the eye

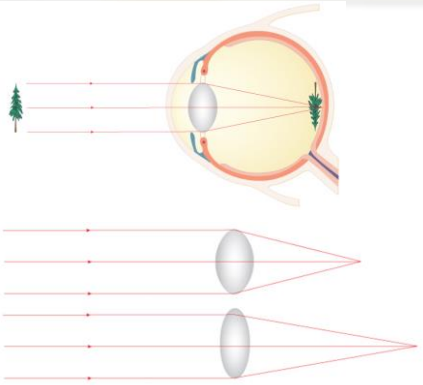


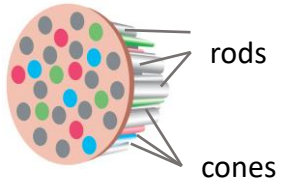
Colour



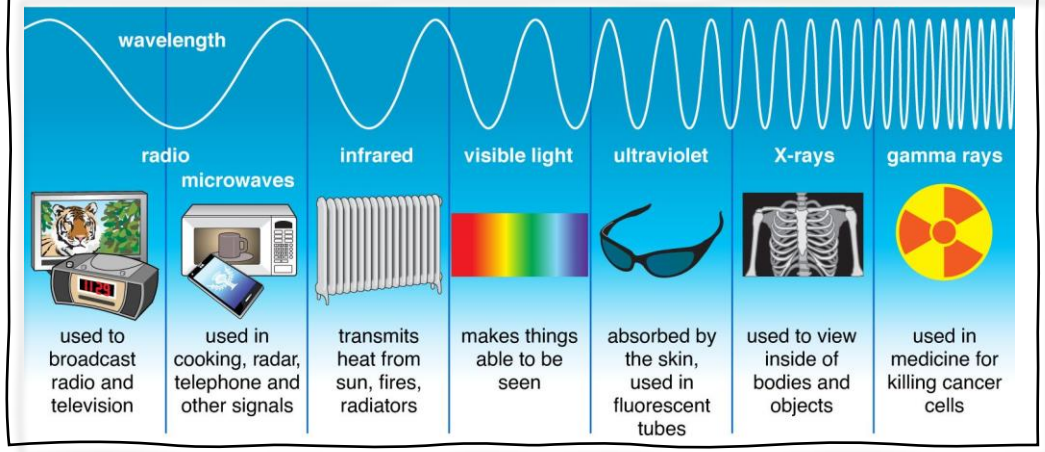


Focussing and seeing colour





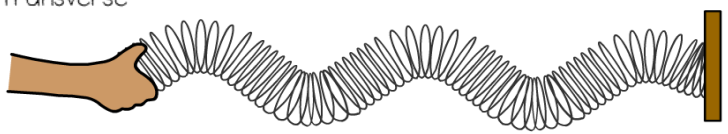
Electromagnetic spectrum



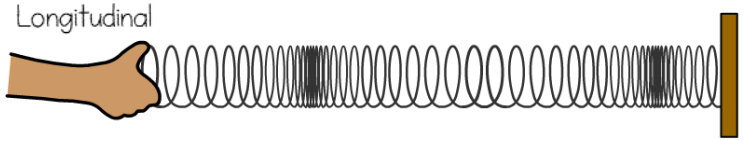
Waves

Wave types

Transverse

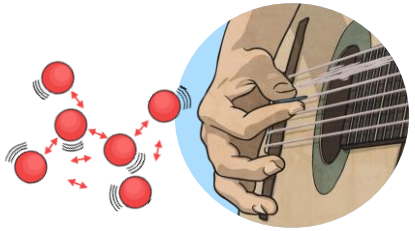


Longitudinal



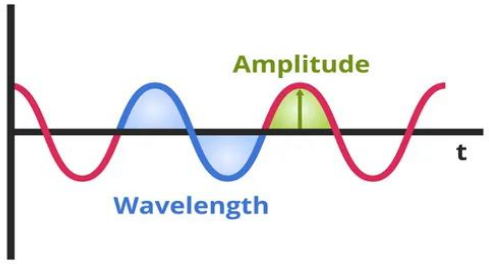
Making sound

- Like light, sound travels through the air in waves.
- Sound is made by air molecules **vibrating**.
- When you clap your hands, the air around your hands shakes. This is the air molecules vibrating.

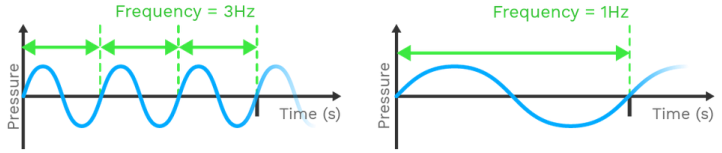


Sound waves

Sound travels fastest in solids, and slowest in gases. Sound cannot travel through a vacuum. The speed of sound in air is 330m/s.



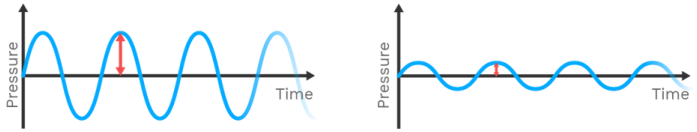
PITCH



Higher frequency
Higher pitch sound

Lower frequency
Lower pitch sound

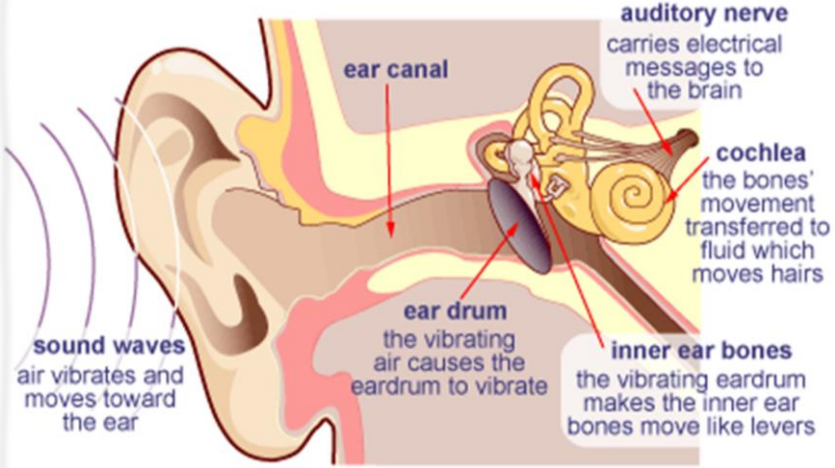
LOUDNESS



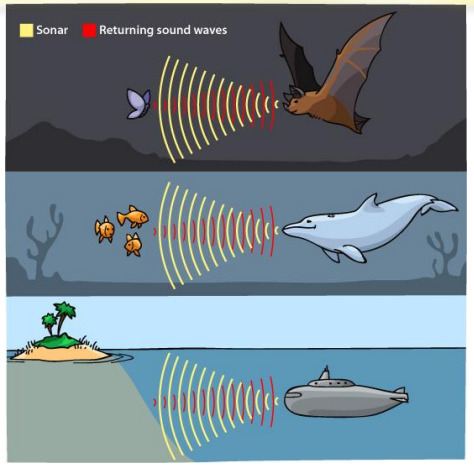
Higher amplitude
Louder sound

Lower amplitude
Quieter sound

Structure of the ear



Ultrasound



Year / Unit **Year 8 football**

You will <u>master</u> the year 7 core skills, and learn advanced skills in isolation and authentic competitive situations.

Year 7 core skills to master

- Dribbling and ball control with dominant foot.
- Passing and controlling the ball with both feet, over short distances.
- Moving into space off the ball.
- Intercepting the ball, by good positioning and anticipating.
- Marking and defensive positioning.
- Dominant foot shooting.

Non-dominant foot passing

- Use either instep or laces, dependant of short or mid-distance.

Non-dominant foot shooting

- Use either instep or laces, dependant of short or mid-distance.
- Decide on placement and power dependant on in game context/ defenders/ ball movement.
- Strike the ball, making good contact.

Beating defenders

- Movement into space.
- Move body/ feint/ step over/move into space using outside or inside of feet.
- Accelerate into space.

Block tackle

- Close down space.
- Plant non-tackling foot and use instep to make tackle firmly.

PE reads

Available in the school library

Key words

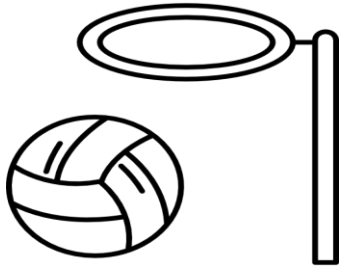
Black tackle: Using instep of foot, to dis-possess an attacking player.
Dominant foot: Foot which is your strongest and most comfortable, when kicking a ball.
Feint: Move body in a direction to outwit a defender, and then moving in the opposite direction. Used to beat a defender when in possession of the ball.

Year / Unit **Year 8 Netball**

You will <u>master</u> the year 7 core skills, and learn advanced skills in isolation and authentic competitive situations.

Year 7 core skills to master

- Shoulder pass, bounce pass, chest pass and decision making.
- 1-2 footwork and pivot, when receiving the ball.
- Positions of the court for all positions, and staying onside.
- Dodging to find space to receive the ball.
- Shooting technique.
- Marking and intercepting the ball.



Footwork

- Catching on the run, at pace, and ensuring 1-2 footwork in accurate, and passing swiftly.
- Turning in the air to plan pass in advance.

Shadowing and intercepting

- Timing of interception.
- Shadowing off the ball player, to be prepared to intercept.

Ball handing

- Shoulder pass, bounce pass, and chest pass, and when to use each type and over mid and long distances.

Centre pass

- Starting positions on the centre pass.
- Strategies to keep possession and start an attack from the centre pass.

PE reads

Available in the school library

Key words

Footwork: Stepping, landing, pivoting when with the ball.
Shadowing: Marking a player, on toes and ready to intercept the ball, or prevent to ball being passed to them.
Marking: Staying close to attacking player, to stop them receiving the ball/ intercepting.
Offside (netball): Specific positions are only allowed in certain areas of the court.
Contact and obstruction (netball): 1 metre back (from feet), when defending, before using arms to try and block/ intercept.

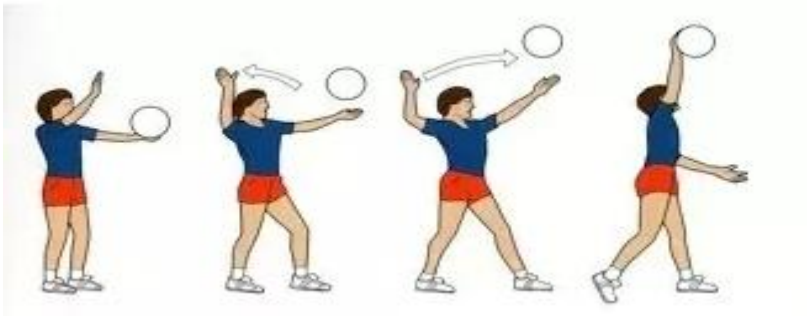
Year / Unit **Year 8 Volleyball**

You will <u>master</u> the year 7 core skills, and learn advanced skills in isolation and authentic competitive situations.

Year 7 core skills to master

- Dig shot-use lower-arms to lift the ball in the air, to the front of the court, or over the net.
- Set shot- a two-handed above-head push into the air, to set a player up.
- Under arm serve.
- Returning the serve by making correct decisions on when to set or dig. Max. 3 touches per team.

Over arm serve



Setting through the angle

- Moving feet to face where you want to set the ball, prior to receiving the ball.

Shot selection

- Decision making of when to set or dig the ball, and when to hit over the net, or volley to team members at the front of the court.

Over arm serve

- Hold ball in non-dominant hand.
- Open palm dominant hand.
- Toss the ball into the air, and strike to ball with dominant hand, aiming for the oppositions' side of the court.

Attacking play (3 touch)

Using dig's, sets and setting through the angle, to get the ball to the front of the court, and set a player to volley it over the net.

PE reads

Available in the school library

Key words

Three touch: Using dig's, sets and setting through the angle, to get the ball to the front of the court, and set a player to volley it over the net.

Set through the angle: Moving feet to face where you want to set the ball, prior to receiving the ball.

Serve: Restarting a game, after winning a point, from the back of the court. Can be underarm or over-arm.

Volleyball rotation: The rotation of players, on change of your team's serve (after winning a point on an oppositions' serve.

Volley: A two-handed set shot, with doesn't set a player up, but places it over the net.

Year / Unit **Year 8 Fitness**

You will learn the knowledge, and develop motor competence, in a range of fitness testing and types of training.

Continuous training

- Minimum 20 minutes of aerobic exercise (running or cycling in school).
- Same pace, working at a sustainable intensity (60%-80%) of maximum heart rate.
- Improves **stamina.**

Fartlek training

- 'Speed play'.
- A type of continuous training, but speed is varied (walk, jog, sprint).
- Good for games' players as it mimics what happens in a game environment.
- Improves **Stamina.**

Interval training

- High intensity sprints, followed by long periods of rest to recover.
- Improves **speed.**

Circuit training

- Utilise dig and set shots, as a team, to return the ball over the net.
- Improves **muscular endurance.**

Cooper run test

- 12 minutes of continuous running. Measure distance in metres.
- Measures **stamina.**

Press-up and sit up test

- Maximum number of press ups or sit ups in 30 seconds.
- Measures **muscular endurance.**

30m flying sprint test

- Rolling start (a run up).Time taken to run 30m.
- Measures **speed.**

PE reads

Available in the school library

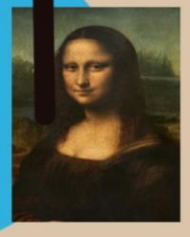
Key words

Administer: Organising, running, and recording a fitness test.
Stamina: The ability of the heart and lungs to transport and utilise oxygen, during exercise.
Speed: Time taken to move the body from A to B.
Muscular endurance: The ability for muscles, or group of muscles, to repeatedly contract.
Aerobic exercise: Low-mid intensity exercise for a long duration.
Maximum heart rate: 220 beats per minute, minus age (e.g. 220-12=MRH of 208.

What will you be learning in Year 8 Art?

Graphic novel collaborative project

Summer term



Portraits

Spring term

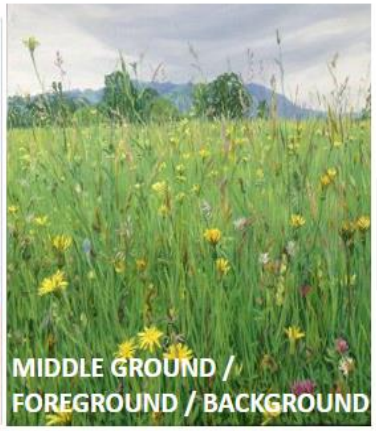
David Hockney art and Photoshop

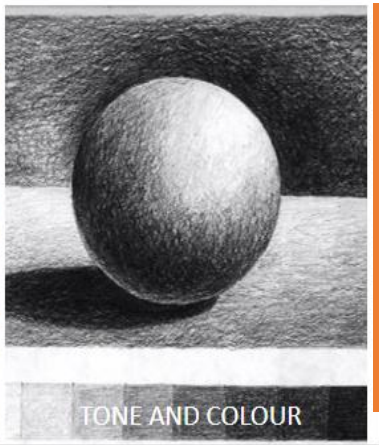
Memphis Art and Design

Autum term

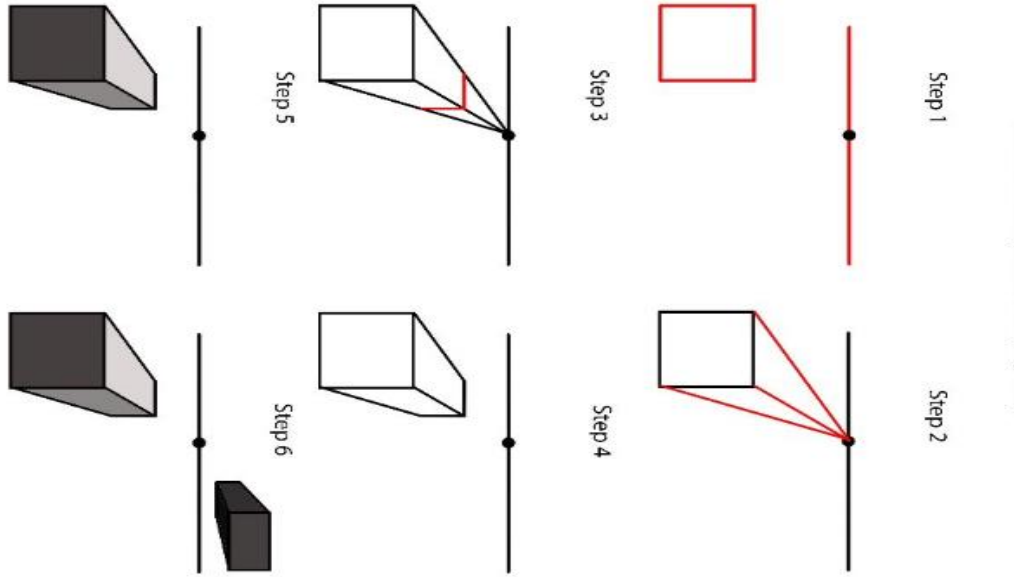
Space and depth in art, linear and atmosospheric perspective

AERIAL PERSPECTIVE

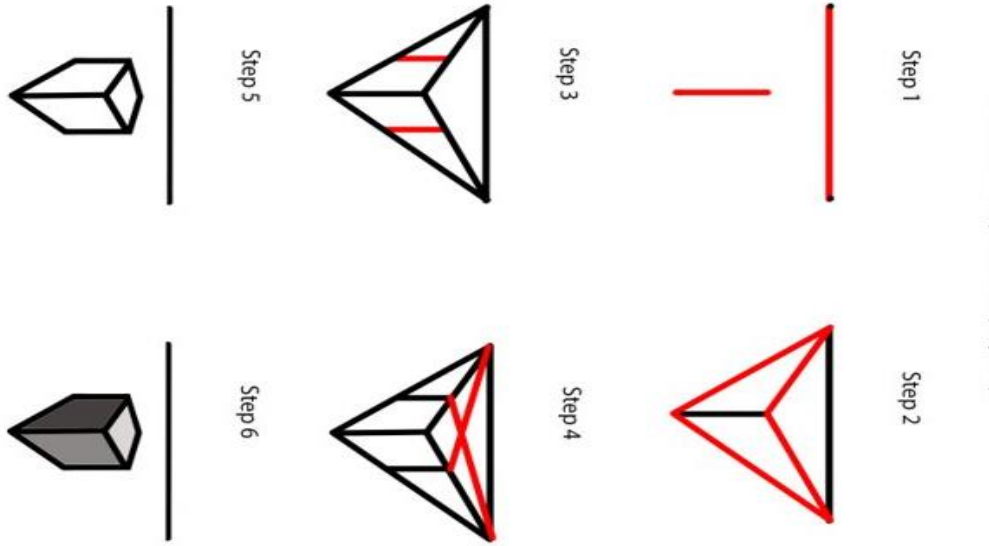




YR 8 Space & Depth in Art Autumn 1

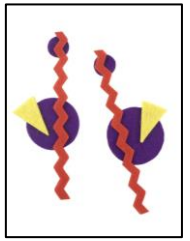


LINEAR PERSPECTIVE



MEMPHIS STYLE

YEAR 8 – AUTUMN TERM 2


INSPIRED BY SHAPES AND PATTERNS OF **ART-DECO STYLE** FROM THE **1930S**

ALSO, INSPIRED BY THE COLOURS FROM POP ART FROM THE 1960S

.... inspired Memphis Art styles in everything from interiors, fashion, textile & product design

Originated in Italy (architects and designers from Europe & USA) **1981-1988** Ettore Sottsass

UNEXPECTED / PLAYFUL / RULE-BREAKING / HAPPY

LOUD BOLD COLOURS

DESIGNED TO PROVOKE AN EMOTIONAL RESPONSE

BLACK AND WHITE GRAPHICS

ROUNDED EDGES AND CURVES

CLASHING PATTERNS

SQUIGGLES / GRID-LINES / SPOTS / DIAGONALS / STRIPES

SIMPLE GEOMETRIC SHAPES

Year 8: Topic One

Why are some brands so powerful?

Key words: Good, service, business, entrepreneur, innovative, characteristics, branding, product portfolio, Boston Matrix, market share, market growth, star, cash cow, question mark, dog, product life cycle, development, introduction, growth, maturity, decline, extension strategies

BUSINESS

A **business** is set up to provide goods and services to customers in return for money. Demand is required for the good or service for the business to gain sales.

Reasons for starting a business

- ☐ To produce goods
- ☐ To supply services
- ☐ To fulfil a business opportunity
- ☐ To provide a good or service that will benefit others

Entrepreneur characteristics

ENTREPRENEUR

Someone who **takes the risks** involved in starting a business.

GOOD v SERVICE

A **good** (product) is a physical item (that you can touch), such as a car whereas a **service** is an intangible item (that is something that you cannot touch), such as a haircut or a yoga lesson.

OWN BRANDS

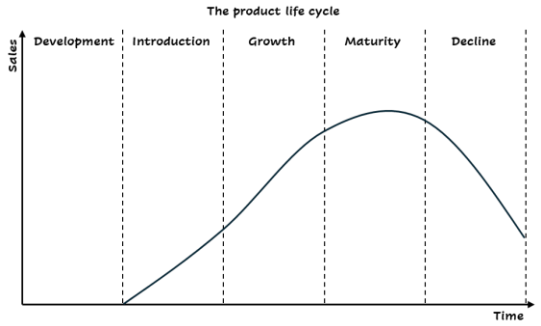
Own brands are **products** which have the **label** of the shop which sells them, especially a **supermarket** chain

BRANDING

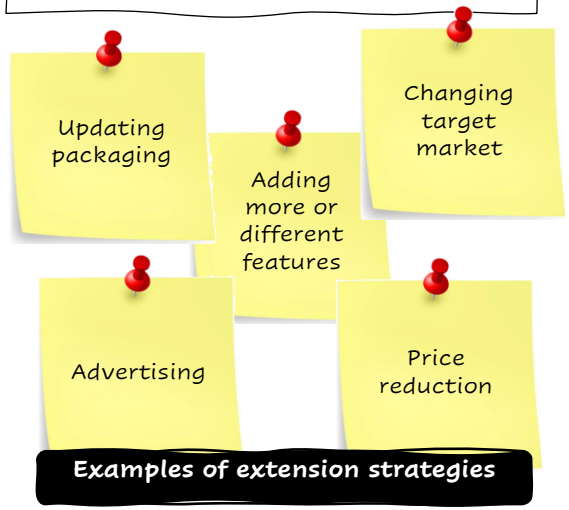
Creating an **identity** for your product that makes it **different** from the **competition**

PRODUCT LIFE CYCLE

This shows the **stages** that a product goes through from the time a business starts to develop it to when it is taken off the market



In order to stop a product from going into decline, a business can try different things to try to increase sales – these are called **extension strategies**



Examples of extension strategies

1. **Development:** the product is being developed and tested – there are no sales at this stage
2. **Introduction:** the product is launched; sales are low and costs may be high – the business needs to build product awareness
3. **Growth:** sales increase, profits are growing and there are more competitors – the business should show how they are different from the competition
4. **Maturity:** sales are at their peak and the market is saturated – the business should focus on brand loyalty and introduce product variations
5. **Decline:** sales are decreasing and the product is at risk of becoming obsolete; the business should consider discontinuing the product

Stars need lots of money to maintain or improve but can generate a huge revenue – as the market matures, they can become cash cows

Cash cows generate lots of money providing money for other areas of the business – this money can be invested in stars or question marks

It is uncertain whether **Question marks** will become stars – investment is needed to increase their market share

Dogs do not generate much money and are often in the decline phase of the product life cycle – they are often discontinued

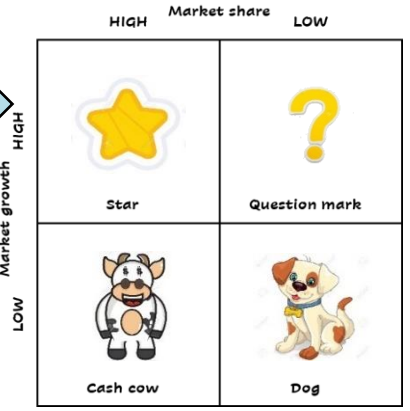
PRODUCT PORTFOLIO

The products that a business sells – can also be called **product range**

Boston Matrix

By placing their **product portfolio** into one of the four categories of the Boston Matrix, a business can analyse their current range of products and make decisions about the future of each product

Ideally, the product portfolio should be balanced across the four categories



Market share is how many sales a business has in a particular market (e.g. confectionery) whereas **market growth** is how fast sales are growing in that market

Year 8: Topic Two
How's it made?

Key words: Production, job production, flow production, manufacturing, robots, labour intensive, mass production, production line, capital intensive, specialisation, just-in-time, lean production, kaizen

Production involves turning raw materials into products through manufacturing. Products can be made using **job** or **flow** production

Job production

A method of production where one product is made at a time and is designed and made to fit the requirements of the customer

Flow production

A method of production where products are made continuously on a production line – this is also known as mass or continuous production

Advantages
Products can be **customised** to meet customer needs
Usually **high quality** due to the time and attention that is given by skilled employees
Higher prices can be charged due to the high quality of the product
Employees are likely to be **motivated** due to the job satisfaction gained by having a varied job
Disadvantages
Can be **expensive** to produce as materials are not bought in bulk
It can **take time** to produce due to the customisation – this can affect customer satisfaction
It can be **inefficient** due to the customisation of each product being different – this can lead to reduced productivity and increased costs

Advantages
Producing lots in one go leads to the unit cost of each item being reduced as materials can be bought in bulk
Quality is consistent – products are identical, and quality can be monitored closely
Products can be produced **quickly** by machinery/robots
Employees become **specialised** and therefore efficient in their job
Disadvantages
Buying the machinery would be **expensive** – not very accessible for a smaller business
Would be **difficult to add variations** to the production line
If the **production line breaks down,** it can disrupt the whole process
Employees may get bored with the repetitive nature of their job

Job examples

- Wedding dress
- House key
- Tailored suit

Flow examples

- Cars
- Soft drinks
- Packaged food

Job is best when...

- Products need customising
- Smaller quantities are required
- Customers are happy to wait
- You have little to no production budget
- You have access to a skilled workforce

Flow is best when...

- No customisation is required
- Demand is high
- Customers want products fast
- You have a large production budget
- You have access to staff willing to learn a repetitive job

Lean production...

focuses on reducing waste

Just in time (JIT)...

focuses on ordering the right quantity of goods at the right time to reduce the amount of stock held by the business at any one time

Advantages	Disadvantages
Costs are reduced as not as much storage is needed – this means that the existing storage can either be used for something else or it can be sold	If any **materials arrive damaged or late**, this could **affect the supply for customers** thus affecting customer satisfaction
Not as much money is tied up in stock which means that money can be used on other things such as expansion or marketing	If **demand changes unexpectedly**, the business may not be able to deliver
Less likely that the business will have **damaged or out of date stock**	As materials will be delivered in smaller quantities more often, this could have a **negative impact on transportation costs and the environment**

Kaizen

This is a Japanese term that means **'continuous improvement' -** It refers to the practice of making small changes to improve overall performance

改善

Kai = Change Zen = Good

Year 8: Topic Three

How are people motivated to work?

Key words: Motivation, intrinsic, extrinsic, entrepreneurs, employees, productivity, retention, sales, recruitment, enrichment, authority, piece work, national living wage, fringe benefits, Maslow, self-actualisation, self-esteem, physiological

Motivation is the factors that influence individuals to behave in the way that they do. These factors can be internal or external.

Intrinsic motivation comes from an internal desire to do well and achieve a goal

Extrinsic motivation comes from external rewards and praise

FINANCIAL METHODS OF MOTIVATION		Advantage	Disadvantage
Salary	Main method of payment that an employee– it is expressed as an annual amount, usually paid monthly and there are no set hours	the business can budget for monthly costs	employees may not be motivated to work harder since they get the paid the same no matter how many hours they do
Wage	Main method of payment that an employee gets– it is expressed as an hourly rate, usually paid weekly or monthly and hours are usually fixed each week	if the business offers overtime, employees may be motivated to work harder knowing that they will receive more money	paying overtime during times of increased demand increases the costs of the business
Commission	Employees are paid a % of the value of products/services that they have sold – it is usually paid as well as a salary or wage	productivity should rise because employees work harder to earn more money	employees may be so focused on earning more money that they forget about customer needs which could lead to lower customer satisfaction
Profit sharing	Employees are paid some of the profit – it is usually paid as well as a salary or wage	helps to retain staff particularly if the business is quite profitable	some employees may not find it fair if they have worked harder than others
Piece work	Employees are paid based on how many products they make or tasks they complete – it is usually paid as well as a salary or wage	productivity should rise because employees work harder to earn more money	quality may suffer if employees are rushing to produce more to earn more money

NON-FINANCIAL METHODS OF MOTIVATION		Advantage	Disadvantage
Greater responsibility (job enrichment)	Work is made more challenging – some staff are given more authority to make decisions	staff have greater job satisfaction which can reduce boredom and increase focus	if job changes are not planned correctly staff may not have the necessary skills to perform new tasks and they may not want the change if it has not been communicated well
Training	Teaching employees to develop their skills or enable them to gain new ones	staff will appreciate the business investing time and money into improving their personal skills	can be expensive depending what training employees would like
Fringe benefits	Added 'perk's' given on top of usual salary/wage	can help to attract and retain staff	depending on what is offered, it can be expensive especially if the business is very large

Self-actualisation – people need to be given the opportunity to stretch themselves and work to their full potential e.g. challenging tasks or responsibility

Esteem – people want to feel good about themselves and know that people they work for respect them for their ability to do the job e.g. praise

Love/Belonging – workers want to be part of a group, trusted by the people they work with and enjoy their company and friendships e.g. social events; working in teams

Safety – people want to feel safe and secure in their lives e.g. job security and a safe place to work

Physiological – basic needs e.g. keeping warm, having shelter and enough food to eat. These needs are mainly met by receiving pay to buy food but can also be met at work by having warm office / lunch breaks to eat

Benefits of a motivated workforce

STAFF RETENTION

Staff are less likely to leave – this is **because** employees are happy in their job enjoy the work that they do which would **lead to** them being loyal to the business. This would **therefore** mean they would be less likely to leave their job to move to competitors.

HIGH PRODUCTIVITY

Staff are likely to be productive – this is **because** they enjoy their jobs and so work hard which would **lead to** them working as efficiently as possible. This would **therefore** mean that the business can produce products and services cheaply.

HIGH QUALITY

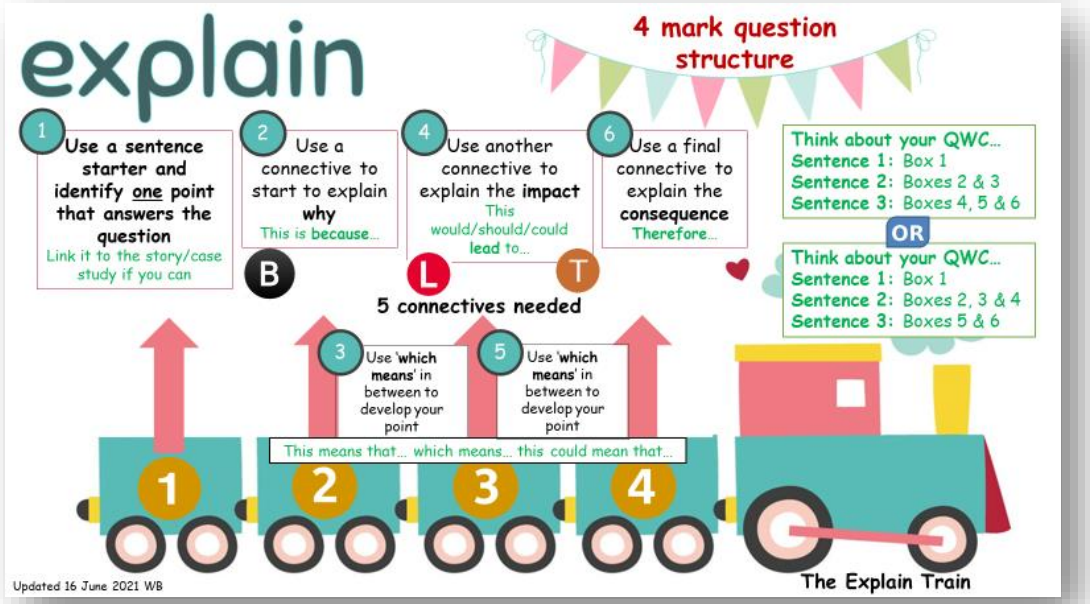
Staff are likely to be produce higher quality work – this is **because** they are dedicated to their job and enthusiastic which would **lead to** them having a greater attention to detail. This would **therefore** mean that customers are likely to repeat purchase and recommend the business to others.

Year 8
Exam Technique

Key words: Describe, define, explain, calculate

Using The Explain Train

When answering a 4 mark question, simply follow the instructions below from **1** to **6**. This will ensure that you have the right level of detail in your answer.



4 mark questions assess you on two 'skills'	
AO1: Ability to <u>demonstrate</u> knowledge	**AO2: Ability to <u>apply</u> knowledge to a business context**
You should aim to show this in parts 1-3 of your answer	You should aim to show this in parts 4-6 of your answer

	How to answer each question
DESCRIBE	• <u>State</u> your point to show your understanding • State another point to show your understanding – it does not have to be linked to your first point – you could even give an example if you think that would help to get your point across • If you are describing a difference, make sure that you are comparing the same thing for both (if relevant) – use 'whereas' or 'whilst' in the middle to show that you are comparing **To get 2 marks, you need to show your understanding of the word/s in the question by giving 2 correct points about that word/s**
DEFINE	• You don't need a sentence starter but you do need to start with the word that is being tested in the question • You then make your first point, concisely, showing that you know what the word means • You do not need to use any connectives but your second point, again, should be concise, showing that you know what the key word means – it should be a different point to the first one that you made **To get 2 marks, you need to show your understanding of the word in the question by giving 2 correct points about that word – it must be concise**
EXPLAIN	**No sentence starter is required** • <u>State</u> your point/reason/advantage/disadvantage • Develop your reason by using 'this is because...' and 'which means...' **To get 2 marks, your first point needs to be clear (and correct) and it must follow with because (this helps you to explain) and another connective**
CALCULATE	• There is a space for workings AND answer • You MUST show both (workings and answer) to get both marks • We cannot give you the formula that you need, you have to figure out which one you need to use (think about what you have learned in your Knowledge Checkers) • Read the questions carefully and check at the start of the calculation section in case there is any data there that you can use

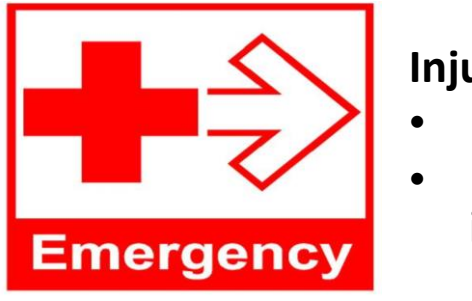
Health and Safety Rules:

Report all breakages to the teacher

- Do not enter the classroom or workshop without your teacher
- Store bags in the classroom to reduce trip hazards
- Tie hair back in the workshop
- Wear an apron in the workshop
- Machinery should only be used after instruction from the teacher
- Wear goggles on all machinery
- Only 1 person only per machine area (see yellow/black hazard lines on floor)
- Report any breakages to your teacher
- Return all equipment and tools after use
- Benches and floor MUST be left clean and tidy
- Brush areas carefully, reduce dust, DO NOT BLOW!
- Close vices BUT NOT TIGHTENED

Pack practical work away into your practical folders and class box

Design folders go in their own class box

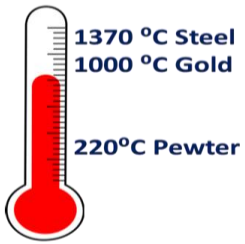


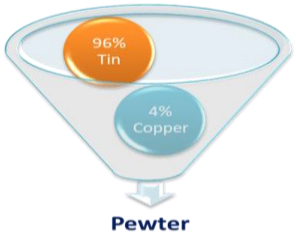
Injuries and accidents

- Minor injuries(cut, etc) need recording in the accident book
- If someone gets hurt, alert staff then stand still and wait for instructions

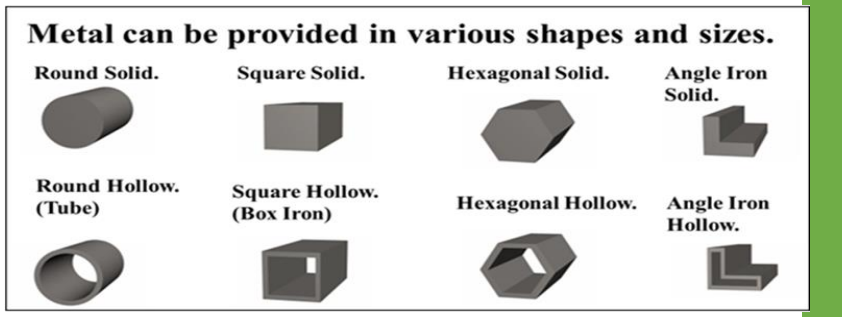
Material focus: Metals (we are working in Pewter)

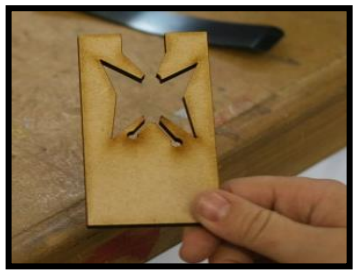
1. Pewter is a malleable, **non-Ferrous** Alloy. It contains 85%-99% tin, as well as other metals such as copper and/or silver.
2. Pewter has a low melting point at 220° degrees centigrade.
3. Pewter is a less expensive metal to use when casting, in comparison to more expensive metals such as Gold and Silver.
4. Pewter was first used in the beginning of the Bronze age. The earliest piece of pewter found is from an Egyptian tomb from 1450 BC.
5. Pewter is soft metal which can be easily polished. Pewter is used in decorative objects such as jewellery, it is also used for tableware for example such as serving plates and tankards.
6. Pewter is used to cast intricate designs as the metal flows easily in and around a mould.





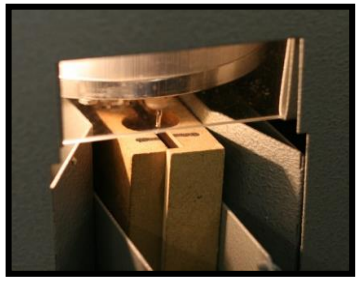
Key categories of Metal: Ferrous & Non-Ferrous





Mould making: MDF
Process: To mark out and accurately cut an MDF mould.

Pewter Casting: FlameFast
Use: To heat pewter into a molten metal and safely pour it into an MDF mould.



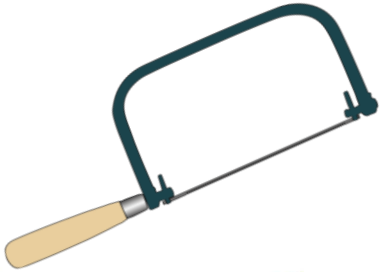
Filing and smoothing

1. Needle files
For removing rough edges and shaping the Pewter.

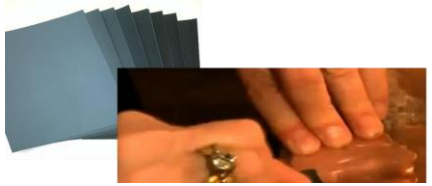
2. Dremel
For surface smoothing and ideal for cleaning up the textured side of the pewter.

3. Wire wool
For surface smoothing, ideal for removing fine scratches and creating a satin smooth finish on metal.

Key tools for mould making
- Coping saw
- Needle files
- Gouge



4. Wet & Dry
For surface smoothing, ideal for removing fine scratches and creating a satin smooth finish on metal. Constructed from premium grade aluminium oxide grains. Use wet or dry to achieve a finer finish.



5. Polishing
For creating a surface shine.

Health & Safety

Face guard Leather gloves Leather apron

DRAMA MISSING

FOOD MISSING

Year 8 French Half term 1: My holiday

Regular verbs **J'ai visité = I visited**	**j'ai mangé= I ate**
places and countries	**Je suis allé (e)= I went**
CHALLENGE **Irregular verbs** **j'ai vu= I saw**	**use negatives to vary sentences** **je n'ai pas visité= I didn't visit**
CHALLENGE **adjectives with intensifiers/ qualifiers (see Red vocabulary book)**	**c'était=** it was
GENIUS **a greater variety of opinion phrases (see Red vocabulary book)**	**a greater variety of connecting phrases (see Red vocabulary Book)**
GENIUS **verbs that need être** (Mrs Van Der Tramp)	**verbs with Different pronouns eg** il a joué, nous avons visité

My holidays:

Describing what you did on your holidays, using the PAST tense

What do 'good' sentences look like?

A Genève, j'ai visité le chateau et, à mon avis, c'était très intéressant.
J'ai mangé du couscous dans un restaurant marocain.
J'ai fait une balade en bateau avec mes amis, c'était spécial.
Enfin, je suis allé au musée et j'ai pris beaucoup de photos.

j'ai visité I visited

le parc	*the park*
le musée	*the museum*
le lac	*the lake*
le château	*the castle*
la cathédrale	*the cathedral*
la mosquée	*the mosque*

c'était *it was*

génial	*great*
intéressant	*interesting*
amusant	*fun*
sympa	*nice*
ennuyeux	*boring*
nul	*rubbish*

je suis allé= *I went*

en Espagne	*to Spain*
en Grèce	*to Greece*
en Angleterre	*to England*
aux États-Unis	*to the USA*
en bateau	*by boat*
en avion	*by plane*

Sequencers

D'abord	*firstly*
Ensuite	*next*
Après	*after*
Finalement/ enfin	*finally*

avoir= to have

j'ai	*I have*
tu as	*you have*
il/ elle a	*he/she has*
nous avons	*we have*
vous avez	*you have*
ils/ elles ont	*they have*

qu'est-ce que tu as fait?
What did you do?

j'ai joué	*I played*
j'ai chanté	*I sang*
j'ai mange	*I ate*
j'ai écouté	*I listened*
j'ai acheté	*I bought*
j'ai regardé	*I watched*
j'ai nagé	*I swam*
j'ai retrouvé	*I met*
j'ai téléchargé	*I downloaded*
je suis allé (e)	*I went*

Other verbs

j'ai fait une balade en bateau *I did a boat trip*
j'ai vu un specatacle *I saw a show*
j'ai bu un coca *I drank a coke*
j'ai pris des photos *I took some photos*
je n'ai pas fait *I didn't do*

être= to be

je suis	*I am*
tu es	*you are*
il/ elle est	*he/she is*
nous sommes	*we are*
vous êtes	*you are*
ils/ elles sont	*they are*

5 **cinq** 10 **dix** 15 **quinze** 20 **vingt** 30 **trente** 40 **quarante** 50 **cinquante**

Connectives
mais but
et and
aussi also
car because

Year 8 French Half term 1: My holiday

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Connectives
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et and
aussi also
car because

Year 8 French: Half term 3
Leisure

	Past	Present	Future
regarder= to watch	j'ai regardé	je regarde	je vais regarder
jouer=to play	j'ai joué	je joue	je vais jouer
aimer= to like	j'ai aimé	j'aime	je vais aimer
écouter= to listen	j'ai écouté	j'écoute	je vais écouter
faire= to do	j'ai fait	je fais	Je vais faire
aller= to go	je suis allé (e)	je vais	Je vais aller

Sequencers

D'abord	*firstly*
Ensuite	*next*
Après	*afterwards*
Finalement/ enfin	*finally*

C'EST= IT IS
C'ÉTAIT= it was

sympa	*nice*
incroyable	*incredible*
génial	*great*
formidable	*amazing*
passionnant	*exciting*
ennuyeux	*boring*

Negatives

Je ne lis pas *I don't read*
Je ne lis jamais *I never read*
Je ne lis rien *I read nothing*

TV shows

un dessin animé	*a cartoon*
un feuilleton	*a soap*
une comédie	*a comedy*
une émission de sport	
une émission de cuisine	
les infos	the news

Online activities

je fais	I do
je tchatte	I chat
je surfe	I surf
je blogue	I blog
je lis	I read

Time expressions

ce matin	*this morning*
cet après-midi	*this afternoon*
ce soir	*this evening*
hier	*yesterday*
demain	*tomorrow*

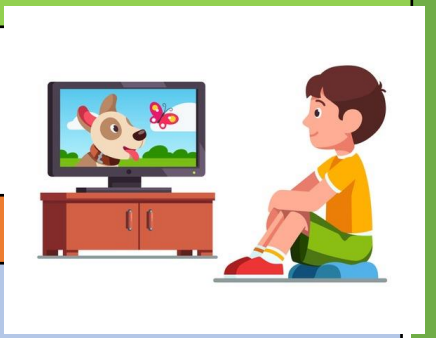
Questions

Avec qui?	*Who with?*	**Où?**	*where?*
Comment?	*how?*	**Qu'est-ce que?**	*what?*
Quand?	*when?*	**Pourquoi?**	*why?*

	• Past tense verbs	• Present tense verbs
	• TV shows	• Future tense verbs
CHALLENGE	Negatives- ne +pas/ jamais/ rien	Use C'EST + adjective for opinions
CHALLENGE	Use sequencers to extend sentences	Use time expressions to extend sentences
	Use a variety of adjectives to describe people (see Red book)	Use the correct adjectival endings eg marrant(m),marrante(f),marrant(e)s (pl)
GENIUS	Asking questions	Use of 3 tenses confidently, linking them with time expressions

YEAR 8 FRENCH: HALF TERM 3:

Using the present, past and future tenses to describe your leisure activities



What do 'good' sentences look like?

J'adore les comédies parce qu'elles sont incroyables!
A mon avis, les émissions de sport sont ennuyeuses!
Le weekend prochain, d'abord, je vais regarder un film et après, je vais manger de la tarte flambée.
Hier, je suis allé au cinéma et j'ai regardé un dessin animé. C'était génial!

Different pronouns

Je danse	I dance	nous dansons	we dance
Tu danses	you dance	vous dansez	you dance
Il/elle danse	he/she dances	Ils/elles dansent	they dance

Year 8 French Half term 5: Daily Life, Where I live

describing where you live	**je dois= I must**
je peux= I can	**telling the time**
CHALLENGE **using other verbs, with Je**	**use negatives to vary sentences**
CHALLENGE **adjectives with intensifiers/ qualifiers(see Red vocabulary book)**	**on peut= one can/ people can**
CHALLENGE **a greater variety of opinion phrases (see Red vocabulary book)**	**a greater variety of connecting phrases (see Red vocabulary Book)**
GENIUS **ask questions- qu'est-ce que on peut faire?** what can one do?	**verbs with different pronouns eg** il doit, nous devons

où habites-tu?
where do you live?

un village *a village*
une ville/ grande ville *a town/ city*
à la campagne *in the country*
À la montagne *in the mountains*
au bord de la mer *at the seaside*
en Suisse *in Switzerland*
au Maroc *in Morocco*

Daily Routine

je me lève *I get up*
je me lave *I have a wash*
je m'habille *I get dressed*
je me brosse les dents *I brush my teeth*
je me couche *I go to bed*
je me douche *I have a shower*
je me coiffe *I do my hair*
à sept heures *at 7 o'clock*
et demie *half past*
et quart *quarter past*
moins le quart *quarter to*

Irregular verb POUVOIR

je peux *I can*
tu peux *you can*
il/elle peut *he/she can*
nous pouvons *we can*
vous pouvez *you can*
ils/elles peuvent *they can*

Irregular verb DEVOIR

je dois *I must*
tu dois *you must*
il/elle doit *he/she must*
nous devons *we must*
vous devez *you must*
ils/elles doivent *they must*

Questions

qu'est-ce que? *what?*
à quelle heure? *what time?*
où? *where?*
comment? *how?*
quand? *when?*

Verbs

je mange *I eat*
je peux *I can*
je vais *I go*
je dois laver *I must wash*
je dois ranger *I must tidy*
je dois garder *I must look after*
je dois nourrir *I must feed*
je ne peux pas *I can't*
je ne dois pas *I must not*
on peut visiter *one can visit*
on peut faire du ski *one can do skiing*

Present tense- regular

je me lave *I wash*
tu te laves *you wash*
il/elle se lave *he/she washes*
nous nous lavons *we wash*
vous vous lavez *you wash*
ils/elles se lavent *they wash*

5
cinq
10
dix
15
quinze
20
vingt
25
vingt-cinq
30
trente

Connectives

mais but
et and
aussi also
car because

Daily Life, Where I live:
Describing where you live and what you can do there
Describing your daily routine

What do 'good' sentences look like?

J'habite au bord de la mer en Tunisie avec mon oncle et ma tante.
D'habitude, je me couche à dix heures et demie.
A Shrewsbury, on peut visiter le parc, s'il fait du soleil.
Qu'est-ce que tu dois faire à la maison?

Key Events

1	1603	Elizabeth I dies, James VI of Scotland becomes James I of England
2	1605	Gunpowder Plot – Catholic plan to blow up Parliament and King James.
3	1625	James I dies - his oldest son Charles becomes King Charles I.
4	1629	The Personal Rule of Charles I starts - he closes down Parliament for 11 years.
5	1640	The Personal Rule comes to an end – Parliament is reopened
6	1642	The English Civil War starts
7	1649	Execution of Charles I
8	1653	Oliver Cromwell is made Lord Protector of England.
9	1660	Restoration of the Monarchy – Charles II becomes King
10	1665	The Great Plague of London

Key People

James I

James was both King of England and Scotland, and joined the two nations together. He was the target of the Gunpowder Plotters. He believed in the Divine Right of Kings, the belief that God gave King's their power, and therefore could not be argued with by anyone.

Charles I

The eldest son on James I, Charles also believed in the Divine Right of Kings. This led to arguments with Parliament, which in the end led to the English Civil War. Charles eventually loses, and is the only King to be put on trial and executed by the country.

Oliver Cromwell

Oliver Cromwell was an MP, who rose to fame due to New Model Army in the English Civil War. After the war, he was one of the MP's who signed Charles I death warrant. He later became Lord Protector of England, leader of England until his death in 1658.

Charles II

Charles II, son of Charles I, was in hiding in France after his father was beheaded. When Oliver Cromwell died he started to plan his return. In 1660, he successfully landed and paraded through London to cheering crowds. Often called "The Merry Monarch"

Key Words

11	**Divine Right of Kings**	Belief that Kings power came from God and therefore nobody could defy them
12	**Treason**	The crime of acting to overthrow the government or harm/kill the monarch
13	**Monarch**	Sovereign head of state – usually a King or Queen
14	**Parliament**	Body of chosen representatives that run Great Britain
15	**Regicide**	The act of killing a monarch
16	**Lord Protector**	Title given to Oliver Cromwell
17	**Restoration**	The return of monarchs to the throne of England
18	**Cavaliers**	Nickname given to supporters of Charles
19	**Roundheads**	Nickname given to supporters of Parliament
20	**Puritan**	Very strict Protestants
21	**Government**	The people that rules the country or place

What do I need to know about the Restoration?

- What the Restoration was and how Charles II ruled England.
- Whether life was better under Charles II or under Cromwell.
- The cause, course and consequences of the Fire of London.

What do I need to know about the Renaissance and Great Plague?

- What the Renaissance was and what new ideas emerged.
- How the Renaissance impacted medicine and treatments.
- The cause, course and consequences of the Great Plague.

What do I need to know about the Great Fire of London?

- The cause, course and consequences of the Fire of London.

KEYWORDS:

Chronology: events put in the order that they happened.
Sources: evidence from the past.
Interpretations: a person's opinion on a historical event.

Key events/people:

The Restoration
The Great Fire of London
The Great Plague
The Renaissance
The British Empire
The British Colonies

1649 — Charles II becomes King and the monarchy in England is restored.

1665-1666 — The Great Plague sweeps through Europe. The Fire of London starts.

1700 — The British Empire begins colonising India and taking it over through the East India Trading Company.

Year 8 / The French Revolution and Napoleon

Overview and Map

What was the The French Revolution?

The French Revolution was a series of events in which people overthrew the monarchy and took control of the government.

It took place over the course of ten years – it is generally agreed to have begun on 14th July 1789, when the prison at Bastille was stormed by revolutionaries, and ended when Napoleon established the Consulate on 9th November 1799.

The Revolution is widely deemed to be one of the most important events in human history, triggering the global decline of absolute monarchies, being replaced with republics and liberal democracies.

Facts and Statistics

-The guillotine became the official method of execution throughout the period of the French Revolution. It is estimated that around 18,000 people were beheaded using this method in all, but this could be anywhere up to 40,000!
-Bastille Day is celebrated in remembrance of the storming of the Bastille prison, and recognised as the start of the French Revolution. However, the prison was nearly empty, with only 7 prisoners!
-When King Louis XVI's attempted escape from France was thwarted at the border, locals were only able to recognise him because his face was imprinted on the coins of the time!

Powers and Factions

Ancien Régime	The Ancien Régime was the social and political system used in France from the Middle Ages until the Revolution. It was based on an absolute monarchy and feudal system of French nobility.	**Jacobins**	The Jacobins, led by Maximilien Robespierre, longed for a strong centralised government. They were ready to push their plans in, no matter what opposition they faced.
The National Convention	The National Convention was the first government of the French Revolution, organised as a republic and abandoning the monarchy altogether. It was not a unified body, as different factions emerged.	**Marais (The Plains)**	The Plains sat in the lower seats of the National Convention, and made up its majority. The Girondins and Montagnards vied for control of these less extreme members.
Girondins	The Girondins were a relatively moderate group of revolutionaries, who dominated the National Convention until the insurrection 1793, which resulted in their purge and execution (the start of the Reign of Terror).	**Committee of Public Safety**	The Committee of Public Safety, created in April 1793, were formed to oversee the government. When Robespierre joined, the committee led a purge of Girondins.
Montagnards	The Montagnards were far more radical and aggressive than Girondins. They completely supported the revolution and the abolition of monarchy. The Jacobins and the Cordeliers were the groups within the Montagnards.	**French Directory**	The French Directory or Directorate was a 5 person committee which succeeded the CPS, governing France between Nov 1775 and Nov 1799, until ousted by Napoleon.

Key People

King Louis XVI - King Louis XVI (1754-1793), born Louis-Auguste, was the last King of France before the fall of the monarchy in the French Revolution. He lived in the extravagant Palace of Versailles, with his wife, Marie Antoinette, at a time when money in the country was scarce. Some of his policies, e.g. derugulation of the grain market, led to increased costs, and exacerbated the anti-establishment tide growing in the country. After the monarchy was abolished, Louis was arrested, found guilty of treason, and executed.

Maximilien Robespierre – Maximilien Robespierre (1758-1794) was a French lawyer, politician and Jacobin leader. Before the Revolution, he was known for defending the poorest in society. Shortly after the execution of the king (which he lobbied for) he was elected to the Committee of Public Safety, formed to oversee the government. In this time, he oversaw the execution of around 17,000 opponents of the Revolution. His increasingly radical actions caused the CPS to turn on him, executing him in 1794.

Marie Antoinette – Marie Antoinette (1755-1793) was the last Queen of France before the French Revolution. When she first became Queen, she was generally adored by the French public, and gave birth to four children. However, over time, her popularity increased due to a number of factors – Chief amongst these were her loyalty to Austria (her place of birth, an enemy of France) and her extravagant spending whilst many in France financially. After her failed escape with Louis in the Flight to Varennes, Marie was executed for treason on 16th October, 1963.

Jean-Paul Marat - Jean-Paul Marat (1743-1793) was a French journalist and politician, who became known for his uncomprimising stance towards the new leaders and intitutions of the revolution. He was one of the most radical voices of the French Revolution, and was a impassioned defender of the sans culottes (the poor in society, who were for the Revolution), making him an unofficial voice of the Jacobin group. Marat was assassinated by Charlotte Corday, a Girondin sympathiser, as he took a bath. In death, Marat became an icon to the Jacobins as a revolutionary martyr.

Charlotte Corday – Charlotte Corday (1768-1793) was a key figure in the French Revolution, due to her assassination of Jean-Paul Marat. A Girondin supporter, Corday had been angered by the radical course that the Revolution had taken due to the journalistic and political input of Marat. She became a hero to those who were against Marat's thinking. After her execution for the assassination in July 1793, she was given the posthumous nickname 'The Angel of assassination.'

Napoleon Bonaparte – Napoleon Bonaparte (1769-1821) was a French statesman and miliary leader. A brilliant general who had won many battles, Napoleon organised a successful coup to remove the faultering Directory from power in 1799, establishing the Consulate, of which he became First Consul. These powers essentially made him dictator of France, and ended the Revolution era. Napoleon later became the first Emperor of France.

Major Events and Key Information

Storming of Bastille		The Bastille was a medieval fortress, armory, and political prison that symbolized the authority of the monarchy, positioned in the centre of Paris. After King Louis refused to grant the lower classes of the country more power, a crowd of around 900 people from the Third Estate violently attacked the Bastille. Its fall is seen as the starting point of the revolution and is celebrated as a public holiday every 14th July in France (Bastille Day).	**14th July, 1789**
Flight to Varennes		The Flight to Varennes was a dramatic moment in which King Louis XVI and the immediate members of the Royal Family, disempowered by the recent reforms, attempted to flee France. They were unsuccessful, however, as they were spotted and arrested in the town of Varennes. Their failed attempt ultimately sealed Louis' fate (and that of his wife, Marie Antoinette) as it confirmed that they were not in favour of the reforms.	**20th-21st June 1793**
Executions of Louis XVI and Marie Antoinette		Louis was made to go on trial as an ordinary citizen (Louis Capet), and he was very quickly found guilty of high treason. Whilst he had no allies in the Convention, the Girondins wanted Louis to at least live. The Jacobins would not allow this however, and Robespierre convinced the people that the king must die in order for the revolution to live. He was therefore executed. Marie Antoinette, his queen, was executed four months later.	**21st January and 16th October 1793**
Reign of Terror		The Committee of Public Safety took de facto control of the government. Led by Maximilien Robespierre, they began arresting and then executing their political opponents – principally the Girondins. Over 200,000 people were arrested and 17,000 killed.	**5th Sep 1793 – 28th July 1794**
Napoleon Overthrows Directory		Napoleon returned to Paris from his various military successes in 1799. The Directory was weakening, and so Napoleon completed a swift coup d'état with his allies. He formed a new government called The Consulate, thus ending the French Revolution.	**9th November 1799**

French Revolution Timeline

- **14th Jul 1789 – Revolution begins: Storming of Bastille.**
- **6th Oct 1791 – Jacobin Club is formed.**
- **20/21st Jun 1791 – 'Flight to Varennes' – Royals fail to flee.**
- **14th Sep 1791 – King signs new constitution.**
- **21st Jan 1793 – King Louis XVI executed by guillotine.**
- **6th April 1793 – Committee of Safety formed.**
- **13th Jul 1793 – Jean-Paul Marat is assassinated.**
- **5th Sep 1793 – 'Reign of Terror' begins as Committee begins arresting opponents.**
- **27/28th Jul 1794 – Robespierre overthrown and executed.**
- **2nd November 1795 – Directory formed and controls government.**
- **9th Nov 1799 – Napoleon overthrows Directory and establishes Consulate.**

THE MALI EMPIRE

Summary

The Mali Empire was an empire in west Africa from c.1235 until 1670.

The empire was founded by Sundiata Keita. He incorporated a series of smaller kingdoms into his own, creating a local empire.

From 1240 onwards, the **empire expanded** to include regions that were **rich in gold**. The empire, and its 'Mansas' (rulers) became **famed for its wealth.**

The empire became **one of the largest in the world at the time,** including areas in what is now Mali, Senegal, Guinea, Mauritania and Gambia.

The **Manding** languages were spoken in the empire. The **Mandinka** oral tradition, including **griots** (story-tellers) spread word of the empire.

A map of the Mali Empire c. 1337 CE

Major People and Events

Sundiata Keita (c.1217-c.1255)

-Sundiata Keita was the first Mansa of the Mali Empire. He was believed to have overcome a childhood disability and his family living in exile for many years.
-He defeated the powerful Sosso King at the Battle of Karina to become the first Mansa.

Rise of the Mali Empire

-Throughout the 1230s and 1240s, Keita united a series of smaller kingdoms, to grow the power and wealth of the Mali Empire. Many of these were important locations for trade and gold.
-Local leaders were allowed to lead small areas, but pledged allegiance to the Mansa.

Mansa Musa (c.1280-1337)

-Mansa Musa was the ninth Mansa of the Mali Empire.
-Ruling during the 'golden age' of the Mali Empire, he has become famed as one of the richest people in history, but it is not possible to quantify his exact wealth.
-He became Mansa after his predecessor did not return from exploring the Atlantic.
-He built many schools, universities and libraries, and strengthened the position of Timbuktu as the capital. He also invaded other areas and doubled his territory.

Mansa Musa's Pilgrimage

-Musa was a devout Muslim, and took his pilgrimage to Mecca between 1324-1325.
-He took vast amounts of gold, which were given to the poor on the journey.
-His journey attracted visitors and scholars to Mali.

The Fall of the Mali Empire

-In the centuries after Mansa Musa died, the Mali Empire began to decline in power. It was challenged by the Songhai Empire to the north. Local leaders began to switch their allegiance from the increasingly-violent Malian Mansas.

Mansas

The leaders of the Mali Empire were called 'Mansas.'

The word '**Mansa**' meant 'ruler' or 'King.' Sundiata Keita was the first Mansa of Mali.

Key Features of the Mali Empire

Culture

-Although the empire was made up of lots of different tribes, these were all considered to be a part of the Mande peoples.
-They spoke similar languages and were separated by different castes. Farmers were considered to be a respected caste.
-Other castes included artisans, fishermen, scribes, soldiers and slaves.

Religion

-The Mali Empire from 1300 onwards was built upon the principles of the religion of Islam. There were great mosques and souks, and many of the Mansas were known to be devoutly Muslim.
-However, they did not force their subjects to convert to Islam. Many people followed local religions. Others practiced a hybrid religion that combined elements of Islam and local beliefs.

Niani and Timbuktu

-Niani and Timbuktu were the two most important cities in the Mali Empire.
-At different times, they both functioned as the capital city of the Empire.
-Both cities benefitted from the arrival of scholars and building designers, who helped the architecture and education in the cities to flourish. Timbuktu was considered included the famous Sankore University.

Key Vocabulary

- Mali
- Empire
- West Africa
- Mansa
- Sundiata Keita
- Mansa Musa
- Gold
- Manding
- Mandinka
- Griots
- Mande
- Pilgrimage

Top 10 Facts!

1. The great wealth of Mali came from both gold and salt mines.
2. Aside from Niani and Timbuktu, other important cities included Gao, Djenne and Walata.
3. The Empire controlled important trade routes across the Sahara Desert and Middle East.
4. The Niger River was an important trade route for the Malians.
5. In the 1400s, Mali traders dominated west Africa.
6. In the late 1400s, the Empire started to lose power at its borders. Other empires arose.
7. Timbuktu was seized by the Tuareg people in 1431.
8. By 1550, the Mali Empire was no longer considered to be of importance or power.
9. The last Mansa, Mahmud IV, died in 1610.
10. Mali is now amongst the poorest nations in the world.

Timeline

1230-1255 – Reign of Sundiata Keita.

c.1240 – Sundiata Keita conquers the Ghana Empire.

1255-1270 – Mansa Uli rules the Mali Empire.

1312-1337 – The reign of Mansa Musa. The Mali Empire is at its peak around this time, growing in size and wealth.

1324-1325 – Mansa Musa goes on his famous pilgrimage. He stops in Egypt to give gold.

c.1352 – The well-known explorer Ibn Battuta visits the Mali Empire.

1374 – Mansa Musa II rules the Mali Empire.

King Sunni Ali of the Songhai Empire conquers much of the Mali Empire.

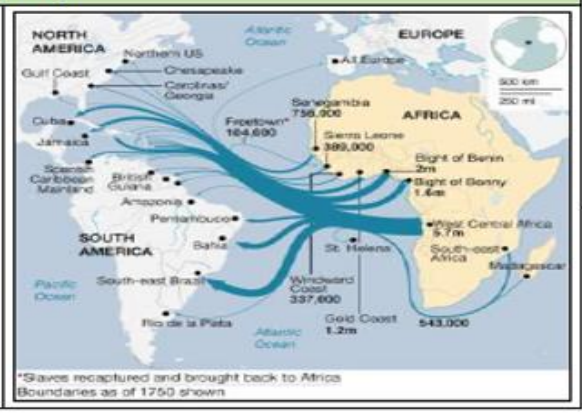
Summary

The Transatlantic Slave Trade involved the enforced enslavement of millions of Africans and their transport to the Americas.

Slaves were often made to work in **inhumane conditions with no wages.** Many were beaten or killed by brutal owners, and had no rights in their new countries. Many didn't survive **the journey.**

The trade had its roots as early as the 1500s, but was **at its height in the 18th Century**, under the operation of the imperial European nations (e.g. Britain, Portugal and Spain).

Countless **African communities were decimated,** whilst many European nations became extremely wealthy from the profits of the slave trade.



*Slaves recaptured and brought back to Africa
Boundaries as of 1750 shown

Major Events

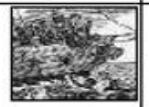
Pre-European Involvement

-Prior to Europeans arriving in Africa, a slave trade within Africa was already established, particularly in west Africa. Kingdoms often enslaved members of neighbouring communities.
-Early explorers from Spain and Portugal kidnapped Africans to be used as slaves in Europe and on their Atlantic islands. Tribe and kingdom leaders in west Africa were often complicit with the trading.

Tacky's Rebellion (1760)

-Tacky's rebellion was an uprising of slaves on the Caribbean island of Jamaica from May to July of 1760. Tacky had previously been a king of an African village. He planned to overthrow the slavers and create his own nation. Whilst the rebellion had considerable success early on, militia were put in place to bring the rebellion down. Tacky was killed and his followers committed suicide.

The Zong Massacre (1781)



-The slave ship Zong was carrying 470 enslaved people – more than it could handle. Many began to get sick.
-The sickness was spreading to the crew. So, to save themselves, the remaining crew threw 132 sick or dying people into the ocean. Another 10 jumped in with them. No one was ever charged with murder.

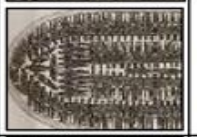
Haitian Revolution (1791-1804)

-The Haitian Revolution was a slave revolt against French colonial rule in Haiti.
-One of the leaders of the uprising was former slave Toussaint L'Ouverture.
in 1804: the only slave uprising that led to the foundation of a state that was free from slavery and ruled by non-whites.

The Fall of the Atlantic Slave Trade

-Throughout the 18th Century, opposition began to gather against the slave trade in Britain, America and parts of Europe.
-The Committee for the Abolition of the Slave trade was led by William Wilberforce, Granville Sharp and Thomas Clarkson. Whilst Britain became a leading force in abolishing slave trade, it cannot be forgotten that Britain had been one of the most active slave-trading nations of all.
-Denmark was the first country to ban the slave trade, in 1792, which took effect in 1803. Britain banned the slave trade in 1807. Slavery to the Spanish colonies continued until much later in the 19th Century.

Features of the Slave Trade

THE TRIANGULAR TRADE		The trade in slaves was called the triangular trade, because it had trade in three stages, marking a rough triangle between Europe, Africa and the Americas: 1. Manufactured goods from Europe, e.g. textiles and weapons, were taken to Africa where they were exchanged for slaves; 2. The transport of slaves from Africa to the Americas was known as the 'Middle Passage.' 3. Materials produced as a result of slave labour in the Americas, e.g. sugar, cotton were brought back to Europe.
SLAVE SHIP CONDITIONS	 	-Enslaved people were captured in many different ways, including in battles, raids and kidnappings. -Others were sold into slavery in order to pay debts. -Once captured, slaves were often shackled together and made to walk to the coast in journeys that could last months, where they would be put aboard slave ships. -Slave ships were deliberately designed to fit as many slaves on board as possible (see bottom image on left). -Conditions were truly inhuman. Men, women and children were crammed on board with very little food or hygiene facilities. The average time to sail the Atlantic took 60-90 days, during which many died of illness, disease, hunger or injury. Of 12.5 million sent by slave ships between 1526 and 1867, only about 10.7 million arrived.
PLANTATIONS		-Upon arrival, most slaves were placed into forts owned by Europeans, where they could be bought by owners. -Many went to work in plantations, where conditions were exceptionally harsh. Slaves worked from dawn until dusk, with very little food, and were whipped for lack of effort. -Slaves who disobeyed even in small ways were severely punished. In some countries slaves could be killed legally. -Runaways could be hanged or maimed, whilst they could receive a set number of lashes for particular 'crimes.'

Key Vocabulary

- Atlantic
- Slave Trade
- Africa
- Europeans
- Americas
- Slavery
- Plantations
- Culture
- Triangular Trade
- Slaver
- Caribbean

Top 10 Facts!

1. The first country to ban the slave trade was Denmark, in 1792.
2. In the 18th Century, Britain was responsible for 2.5 million of the 6 million slaves transported.
3. Of the 3 million slaves that British slave traders bought or sold, around 300,000 did not survive the journey across the Atlantic.
4. The life expectancy for slaves living in Brazil was only around 23 years.
5. The five countries most active in slave trading were Portugal, UK, France, Netherlands & Spain.
6. The destination for most slaves was not actually the USA. Around 48% were sent to the Caribbean and 41% to Brazil.
7. Many slaves were expected to work for 48 hours at a time during harvest.
8. The last known Atlantic slave ship, carrying captives to Cuba, travelled in 1866.
9. A lady called Harriet Tubman is thought to have liberated over 300 slaves.
10. In total, the Atlantic Slave Trade lasted around four and a half centuries.

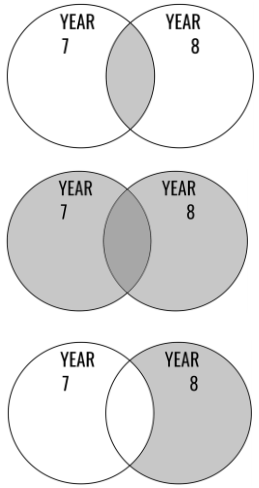
Timeline

- pre-1500CE – When Europeans arrived in Africa, they found an established slave trade.
- 1619 – The first shipload of Africans arrives in Virginia USA.
- 1672 - The Royal African Company is founded to provide slaves to British colonies.
- 1760 – First protest against the slave trade.
- 1772 – James Somerset escapes from his owners and is freed by a court.
- 1787 – First shipment of prisoners to Australia.
- 1787 – Committee for Abolition of Slave Trade formed in UK.
- 1789 – UK bans slave trading.
- 1791-1804: Haiti Slave Revolt led by Toussaint l'Ouverture.
- 1801-1853: Other countries gradually agree to ban slavery.

Year 8 Computational Thinking & Logic

Key terminology: Logical thinking, logic, Boolean operators, AND, OR, NOT, logic gates, AND gate, OR gate, NOT gate, algorithm, sequence, Venn diagram, truth table, circuit, loop, nested loop, instructions, binary tree, abstraction, network, lossy compression, lossless compression, decomposition, pixels, ASCII, nodes, edges, packets, source, destination.

COMPUTATIONAL THINKING

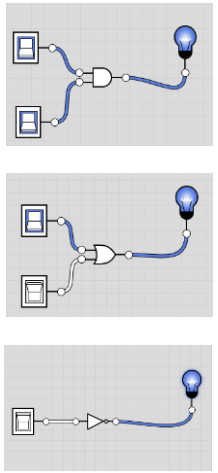


Computational thinking is the process of thinking logically to solve a problem like a computer scientist.

The **Boolean operators** are AND, OR & NOT. **Venn diagrams** are used to visually show Boolean expressions. Examples shown are: Year 7 AND Year 8, Year 7 OR Year 8, Year 8 AND NOT Year 7. Look at the shaded areas to see how each is shown.

Logical deductions have to be made when identifying if a process results in TRUE or FALSE.

LOGIC GATES



AND - Both A AND B inputs need to be TRUE for output P to be TRUE.

OR - Either A OR B inputs needs to be TRUE in order for output P to be TRUE.

NOT - Output P will be the opposite of input A. If input A is FALSE then output P will be TRUE.

Logic circuits – This is when multiple logic gates are combined such as an AND gate and an OR together in one circuit.

TRUTH TABLES

A	B	P
0	0	0
1	0	0
0	1	0
1	1	1

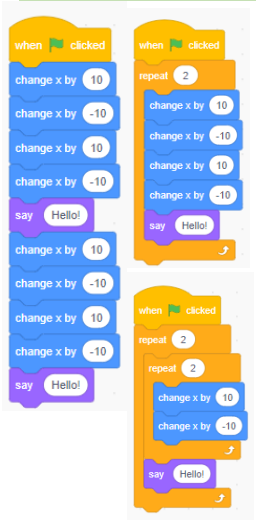
Truth tables show **all of the possible combinations** of inputs and the outputs. The AND & OR logic gates have two inputs whereas the NOT gate has only one input. Logic circuits have more possible combinations shown due to having more than two inputs.

A	B	P
0	0	0
1	0	1
0	1	1
1	1	1

A	P
0	1
1	0

A	B	C	P	Q
0	0	0	0	0
1	0	0	0	1
0	1	1	1	1
1	1	1	1	1

ALGORITHMIC THINKING

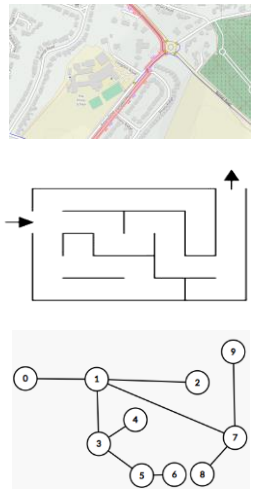


Algorithms are sequences of instructions that a computer will run to solve a problem. Algorithmic thinking is the process of going through these steps.

To make the algorithm as efficient as possible, repeat commands can be used to create **loops**. Further **nested loops** can be used to loop within a loop where repeated patterns can be identified. The examples created in Scratch show the reduction in the number of instructions using the repeat code blocks.

Lossy compression is where data is permanently removed to reduce data.

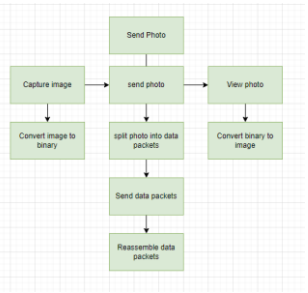
ABSTRACTION



Lossless compression is where data can be restored, not permanently lost.

Abstraction is when you only focus on the important details to be included when solving a problem, leaving out what is not needed. Abstraction uses include mapping software for satnav and route-finding. Abstraction may focus on road names and key places. Routes can be plotted through a maze where abstraction focuses on the key points of the maze. These are the numbered **nodes** that are used to find the solution. **Edges** connect these nodes as shown in the network graph.

DECOMPOSITION



logic.ly

Decomposition is when a problem is broken down in smaller parts to solve a problem. An example would be to look at the inputs, processes & outputs of a solution separately.

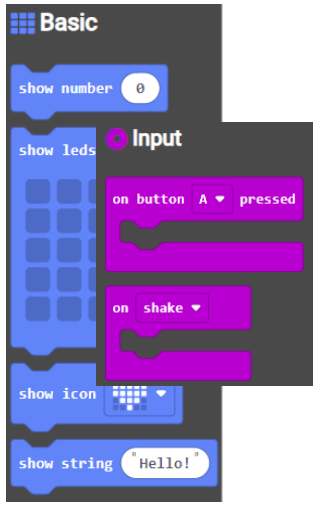
Binary is the number system used by computers for representing data. **ASCII** is a character set used with binary code for representing letters & symbols.

Data packets are what data is divided into when sending across a network.

Year 8 Micro:Bit Programming

Key terminology: micro:bit, programming, blocks editor, algorithm, basic, input, output, decomposition, abstraction, variable, string, loop, repeat, logic, conditional statement, IF ELSE, comparison, boolean, arithmetic operator, selection, binary, pseudocode, Python, high-level language, scripting editor.

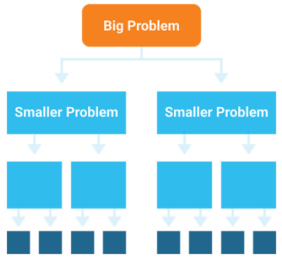
BASIC INPUT & OUTPUT



Basic inputs include **event handler** blocks that make something happen such as On shake, On button X pressed. These are **input** block types.

Basic outputs include show leds, show number and show string. These are found in the **basic** block types.

PLANNING AN ALGORITHM



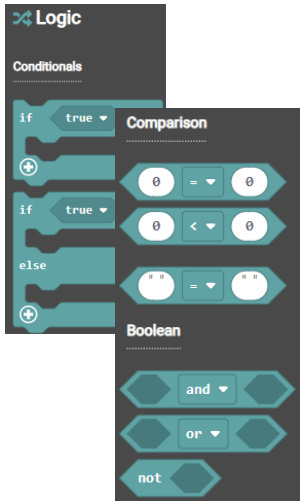

```
If ghost catches man then
    lives equals lives -1
    If lives are equal to 0 then
        display Game Over
```

Abstraction is when you only focus on the important details to be included when solving a problem, leaving out what is not needed.

Decomposition is when a problem is broken down in smaller parts to solve a problem. An example would be to look at the inputs, processes & outputs of a solution separately.

Pseudocode is half-code, half-English and is usually written when planning an algorithm to code. Pseudocode makes use of indentation like proper coding.

LOGIC CODE BLOCKS

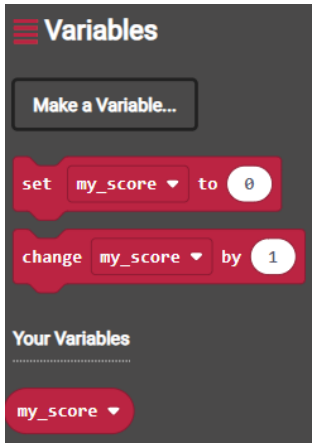


IF ELSE statements are used when a decision or selection needs to be made. **Conditions** are used to determine whether one selection is made if the condition is TRUE.

Comparison blocks allow for different arithmetic operators to be used such as <, >. =.

Boolean operator blocks can be added to for additional conditions to be set with the use of AND, Or & NOT. These code blocks are **logic** block types.

VARIABLES



Variables are used to store data within a program. A variable has to be created first using a suitable identifier before it can be set to a value or changed whilst the program is running.

Variables can be set to a random value with the use of pick random which is a math block type.

PYTHON & THE MICRO:BIT

```
score = 2
score += 5
display.scroll(score)
```

```
while True:
    if button_a.was_pressed():
        display.scroll('A')
```

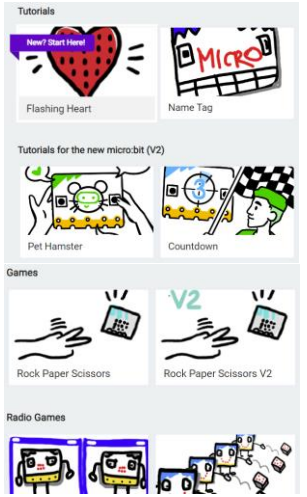
```
score = 1

if score < 2:
    display.show(Image.SAD)
```

```
# Code in a 'while True:' loop repeats forever
while True:
    display.show(Image.HEART)
    sleep(1000)
    display.scroll('Hello')
```

Python is a high-level programming language. The micro:bit is capable of running programs in both Python & Javascript which is also a high-level language. Variables, image and text output, input events, selection statements and loops can all be coded as shown in the examples.

FURTHER MICRO:BIT PROGRAMMING...



Plenty of tutorials can be found for the Micro:Bit on the makecode editor homepage. This includes programs for both versions of the micro:bit.

Scan the QR code below for the link.

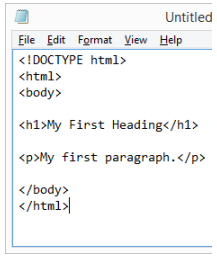
micro:bit makecode

Year 8 HTML & CSS

Key terminology: Hypertext Markup Language(HTML), HTML tags, attribute, property, CSS, inline, internal hyperlink, embedded, external hyperlink, style, element, text editor, web browser, navigation, responsive design, house style, template, web form, form component.

BASIC HTML

HTML – Hypertext Markup Language
Tags – used to define content & structure of the webpage
<html> defines the start of the webpage
<head> the section of html that is not main content
<body> the main section of the webpage
<title> the name of the page shown in the tab
<h1> heading styles ranging from h1 to h6
<p> defines a paragraph
Text editor – programs such as Notepad++ used to edit & save HTML
Web browser – programs such as Edge used to view the HTML files



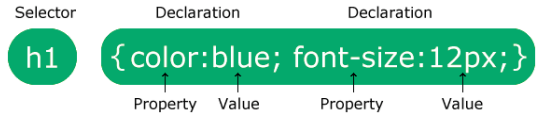
ADDING CSS

CSS – Cascade Style Sheets
<style> HTML tag needed to include CSS
Selector – linking to HTML content such as a heading
Properties – the HTML elements style such as colour or size of font
Value – what each property is set to such as blue or 12px

```
<style>
body {
  background-color: lightblue;
}

h1 {
  color: white;
  text-align: center;
}

p {
  font-family: verdana;
  font-size: 20px;
}
</style>
```



WEB DESIGN & LAYOUT

Responsive design – makes use of % rather than pixels to allow web content to change depending on the device being used.

House style – rules used to determine how your documents are presented such as consistent use of fonts, colour & layout

Template - a reusable layout for an application. Design templates can be used for individual sections or for entire pages.

IMAGE & DIV TAGS

<img src> - used to add an image to your page alt can be used to display text if the images are turned off

```
<img src="img_chania.jpg" alt="Flowers in Chania">
```

** -** used to divide a page up into sections where content can be grouped together and different css styles can be applied to each section

```
<div>
  <h2>London</h2>
  <p>London is the capital city of England.</p>
  <p>London has over 13 million inhabitants.</p>
</div>
```

w3 schools

HYPERLINKS & EMBEDDING CONTENT

Navigation – a collection of user interface components that allows visitors to find content and features on a site.

```
<a href="https://www.w3schools.com/">Visit W3Schools.com!</a>
```

Hyperlink – A link within a website to take the user to a different location either within the website (internal) or outside of it (external)

```
<embed type="video/webm" src="video.mp4" width="400" height="300">
```

Embedded - to integrate external content into another website or page. You embed something when you place an embed code into the HTML editor of your website.

WEB FORMS

```
<form>
.
form elements
.
</form>
```

Web form – allows for data input on the page using the <form> html tag
Component – used for specific method of input such as a text field or a radio button, sometimes referred to as an element.

Type	Description
<input type="text">	Displays a single-line text input field
<input type="radio">	Displays a radio button (for selecting one of many choices)
<input type="checkbox"	Displays a checkbox (for selecting zero or more of many choices)
<input type="submit">	Displays a submit button (for submitting the form)
<input type="button">	Displays a clickable button

Year 8 Computer Crime

Key terminology: Phishing, hacking, white-hat, black-hat, grey-hat, Computer Misuse Act, malware, ransomware, virus, worm, Trojan, logic bomb, Data Protection Act, GDPR, geo-tagging, data harvesting, cybercrime, RSI, Copyright, plagiarism, e-waste.

EMAIL SCAMS

Phishing – sending fake emails or other messages to trick individuals to reveal personal information, such as passwords and credit card numbers.

Malware – software that is specifically designed to disrupt, damage, or gain unauthorized access to a computer system.
Trojan – a type of malware that downloads onto a computer disguised as a legitimate program.
Virus – a piece of code that is capable of copying itself to corrupt the computer system or destroy the data.
Worm - a standalone malware computer program that replicates itself in order to spread to other computers.

COMPUTER MISUSE

Computer Misuse Act 1990 – the main legislation that criminalises unauthorised access to computer systems.
Hacking – unauthorised access to computers and data.
White-hat – an ethical security hacker finding loopholes in a systems security.
Black–hat – a computer hacker who violates laws or ethical standards for cybercrime, cyberwarfare or malice.
Grey–hat - a computer hacker or computer security expert who may sometimes violate laws or typical ethics.
Logic Bombs – a piece of code intentionally inserted into a software system that will set off a malicious function when specified conditions are met.
Ransomware – a type malware that permanently blocks access to a computer system unless a ransom is paid.
Spyware – software that gathers information about a person by violating their privacy.

PROTECTING PERSONAL DATA

Data Protection Act – a law that controls how personal information can be used and your rights to ask for information about yourself.
GDPR –sets guidelines for the collection and processing of personal information from individuals who live in and outside of the EU.
Data Harvesting – the process of gathering data from numerous sources and storing it in a database in order to make assumptions.

Biometrics – the automated recognition of individuals by means of unique physical characteristics, typically for the purposes of security.

Firewall – hardware or software used to protect a network or system from unauthorised access.

COPYRIGHT LAW

Copyright – protects your work and stops others from using it without your permission.
Infringement - the action of breaking the terms of a law or agreement.

Plagiarism - presenting work or ideas from another source as your own, with or without consent of the original author, by incorporating it into your work without full acknowledgement.

Copyrighted works include music, film, books, art and software. Most copyright protection lasts for **50 – 70** years.

HEALTH & SAFETY

RSI – Repetitive Strain Injury from prolonged use of keyboard & mouse when typing
Posture – seating position when using the computer
Risks include: Eye strain, Back strain, Blue Light, ESS & TATT Syndromes
Health & Safety law states that an employer must:

- provide tiltable screens
- provide anti-glare screen filters
- provide adjustable chairs
- provide foot supports
- make sure lighting is suitable
- make sure workstations are not cramped
- plan work at a computer so that there are frequent breaks
- pay for eyesight tests by an optician

E-WASTE

E-waste - discarded electrical or electronic devices. It is also commonly known as waste electrical and electronic equipment (WEEE) or end-of-life (EOL) electronics.

E-waste causes problems due to the hazardous materials found in the e-waste components.

E-waste recycling options include:

- Return to the Manufacturer
- Professional Waste Disposal
- Donate to charity
- Give to family or friends

Year 8 Introduction to Python Coding

Key terminology: Integrated Development Environment, IDLE, interactive mode, script mode, variable, string, syntax, assignment statement, augmented assignment operator, data type, integer, float/real, round, BIDMAS, selection, IF ELSE, sequence, iteration, condition-controlled loop, WHILE, module, function, syntax error, logic error, run-time error, debug, list, binary search, linear search.

STRINGS & VARIABLES

IDE – a software application that provides features and facilities for software development.
IDLE –the IDE used by Python to create programs.
Script mode – where you put a bunch of commands into a file (script) and then tell Python to run the file.
Interactive mode – where you run and interact with the program whilst it is running.

```
x = 5
y = "John"
```

Variable – a location in memory in which you can temporarily store a value. This value may change whilst the program is running.

```
print("Hello")
```

String – these are surrounded by either single quotation marks, or double quotation marks
Syntax - the structure of statements in a computer language.

DATA TYPES & ARITHMETIC

Data casting – setting the format to be used for data that is being input or output within the program.

```
firstname = str(firstname)
```

Integer – data type for whole numbers.

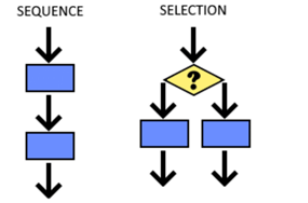
```
hoursperweek = int(hourspernight) * 7
```

Float/real – data type to store decimal numbers.

```
hourspermonth = float(hoursperweek) * 4.35
```

Boolean – data type for TRUE or FALSE.
ROUND – function used to round up or down.
BIDMAS - the correct order to complete an equation when there are different operations. Brackets, Indices, Division, Multiplication, Addition, Subtraction.

SELECTION WITH IF STATEMENTS




```
a = 200
b = 33
if b > a:
  print("b is greater than a")
elif a == b:
  print("a and b are equal")
else:
  print("a is greater than b")
```

Sequence – the correct order of instructions needed to perform the task successfully.
Selection – a decision or question used to select one part of a program or the other.
IF ELSE – an IF ELSE statement is used to carry out selection in Python based on whether a condition is true or false.
Indentation – used to show a block of code usually seen with IF statements and loops.
ELIF – used to include multiple comparisons like shown.

WRITING ALGORITHMS & PSEUDOCODE

Algorithm – set of instructions used to perform a task.
Pseudocode – half code/half English that is used to plan algorithms before coding in the chosen language.
Syntax error – a grammatical error in the syntax that does not follow the rules of the programming language being used. This doesn't allow the code to run…

```
print("Hello World!")
Hello World!
prmt ("Goodbye World!")
Traceback (most recent call last):
  File "<pyshell#3>", line 1, in <module>
    prmt ("Goodbye World!")
NameError: name 'prmt' is not defined. Did you mean: 'print'?
```

Logic error – an error in the logic of the code such as using < instead of > or AND instead of OR. The program will execute the code but will produce unexpected results.
Debug – the process of finding & fixing errors in code.

ITERATION WITH WHILE LOOPS

Iteration – repeating or looping while a specific condition is met.

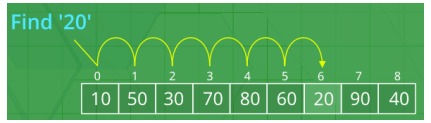
```
i = 1
while i < 6:
  print(i)
  if i == 3:
    break
  i += 1
```

While loops – a condition-controlled loop that will either run a block of code or not depending on whether that condition is true or false.

A while loop can run indefinitely if the condition is being met and remains the same. Where a while loop has to be stopped this is done using break.

SEARCHING DATA IN PYTHON

List – a method of storing multiple data values as one set in Python.
Linear search – a search algorithm that goes through a list from first to last data values in order. A linear search can be used on lists of values that are **not in order**.



Binary search – a complex but more efficient algorithm that searches by dividing the list in half each time and discards the half not needed until it finds the value being searched for. Binary searches need a list to be **in order**.

Year 8 Autumn 1
Topic 1: Rituals

Symbolic actions (links to year 7)

Many gestures have symbolic meanings behind them.
Religious gestures include:
Hands together in prayer – thumbs to heart, fingers upwards so words to from your heart 'up' to God
Kneeling/bowing – this shows that you are lowering yourself and demonstrating that God is more important/powerful than you. You are humbling yourself and showing respect.

Baptism

- Baptism is an initiation rite whereby people become members of the Christian church.

Infant Baptism

- Baby welcomed into church as soon as possible
- Water 'poured' onto babies head – cleanse sin of Adam and Eve (original sin)
- Candle given – lit from Paschal candle (large candle blessed and lit every year at Easter) Represents passing from darkness to light
- Parents and Godparents make promises on behalf of the baby

Believers Baptism (Adult)

- Baby is too young (Baptists and Pentecostalists) – they will only baptise adults
- Old enough to make mature/informed decision
- Full immersion in a pool – symbolising the cleansing from sin and rising up to new life with Christ
- Jesus was baptised as an adult

Holy Communion

- Holy Communion (the Eucharist) is a ritual that uses bread and wine to celebrate the sacrifice Jesus made through Crucifixion and Resurrection.
- It remembers the Last Supper and the instructions Jesus gave to the disciples.
- The bread represents the body of Jesus and the wine represent his blood, at the last supper Jesus shared these items with his disciples and said "Do this in remembrance of me"

Puja

Many Hindu families have a shrine in their homes for daily worship (Puja). It is a way of honouring their gods and goddesses. Worship can be done as a family or alone. The daily Puja uses the following items:

Object	Use in worship
Bell	To awaken the god or goddess and symbolise the beginning of the worship.
Food	To make a gift, fruit or other food is placed in the shrine as an offering to the deity.
Murti	An image of the god or goddess being worshipped.
Incense and flowers	Burning incense sticks fill the room with scent, symbolising the presence of the deity. Flowers are often placed in the shrine to honour the deity.
Puja powder	Making a coloured mark on the worshipper's forehead shows honour to the deity and reminds the worshipper of their devotion throughout the day.

Year 8 Autumn 2
Topic 2: Festivals

Festivals

Religious festivals: Festivals: a day or period of celebration for religious reasons.

Id-ul-Adha = Abraham (Ibrahim)

Id-ul-Fitr = Fasting

Id–ul-Fitr (Islam)

Facts:
- Means the 'festival of breaking of the fast'
- Celebrated for 1, 2 or 3 days

Why is it important?
- Festival marks the end of the month of Ramadan
- Thanking God for the strength and help he has given them to fast for a month.

How is it celebrated?
- Muslims gather together in mosques or large outdoor areas to say special prayers.
- Homes are decorated, special foods are eaten, cards and presents are exchanged.

Id–ul-Adha (Islam)

Facts:
- Means festival of sacrifice
- Lasts for four days

Why is it important?
- Festival remembers and honours the prophet Ibrahim (Abraham), who was willing to sacrifice his son Ishmael on God's command
- Part of Hajj, but it is celebrated by Muslims all over the world

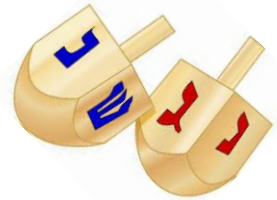
How is it celebrated?
- Prayers in the mosque,
- Cards and presents are given and community celebrations are often organised
- Animals are slaughtered to remember the sacrifice

Chanukah: Festival of Light (Judaism)

Story of Judah Maccabee – key facts:
- Over 2000 years ago the Syrian Emperor invaded Jerusalem.
- Jews were forced to give up religion
- Temple was destroyed/a pig slaughtered on altar.
- Judah Maccabee led a small army
- After 3 years they entered Jerusalem and took back the Temple
- Lit Temple lamp - the oil meant to last 1 day but it lasted for 8 days!

Why is it important?
- Remembers rededication of the Temple
- Freedom for Jews to practice their religion again
- Miracle of the oil

How is it celebrated?
- Lighting the Chanukiah – 8 candles plus one slave candle
- Eating oily foods like latkes and sufganiyot exchanging gifts and playing Dreidel game



Year 8 Spring Term
Topic 2: Festivals

Festivals

Religious festivals: Festivals: a day or period of celebration for religious reasons.

Passover - Judaism

Story of Joseph

- Story begins Canaan - modern day Palestine, Syria and Israel - around 1600 to 1700 BC
- Joseph's brothers were suspicious of the strange and vivid dreams - sold Joseph as slave and faked his death
- House servant in Egypt, put in prison then asked to interpret Pharoah's dreams
- Joseph predicts seven years of plenty followed by seven years of famine
- Joseph put in charge of preparing for famine which arrives and forces his family to Egypt where they are reunited

Story of Moses and 10 plagues

- New born Israelite babies were drowned so Moses' mother placed him in basket and set him adrift on the River Nile
- Moses found by Egyptian princess and brought up as royalty
- Moses found out born an Israelite, killed an Egyptian guard forced to flee
- God asked Moses to lead people out of slavery in Egypt
- Pharaoh refused to let them go so God set 10 plagues. 10th plague death to firstborn - persuaded the Pharaoh to free Israelites

Why is it important?
Commemorates the freedom of the Israelites (Jews)who were led out of Egypt by Moses.

How is it celebrated?
Seder meal with friends and family, reading Exodus to remember the story

Easter (Christianity)

What is Holy week?

- Holy week is the week before Easter. It starts with Palm Sunday and ends on Easter Sunday.

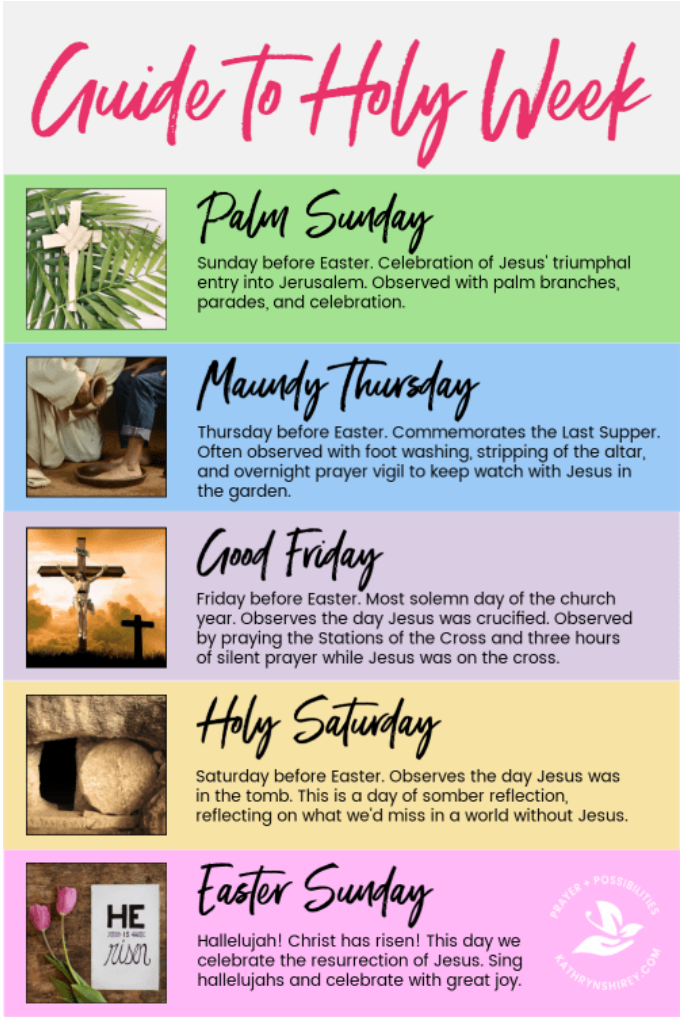
Why is Easter important?

For Christians, Easter is the most important celebration because it remembers the death and resurrection of Jesus.

- For Christians the death and resurrection of Jesus proved that he was the Son of God
- Death and resurrection provides the route to forgiveness for sins. It enables people to be close to God and receive eternal life.
- God accepted Jesus' death and resurrection as atonement for the sins of the world and restored the close relationship between man and God.

How is it celebrated?

- Prayer in church
- Easter eggs – new life
- Hot cross buns (bread- body, cross-cross, raisins- nails, spices- embalming)



Year 8 Summer 1
Topic 3: Buddhism

Buddhism

Buddhism started in India over 2,500 years ago. Buddhists follow the teachings of a man called **Siddhartha Gautama**. He became known as the **Buddha**, which means 'enlightened'.

Life of the Buddha

- Siddhartha was a prince who lived a life of luxury.
- When he was 29, Siddhartha went outside his palace and saw people suffering for the first time.
- He decided to leave his palace and live among holy men in search of truth.
- His search took him six years, but he became enlightened while meditating under a fig tree.
- Following this, Siddhartha became known as the Buddha, which means the 'awakened' or 'enlightened' one. From then on, he dedicated his life to spreading his teachings.

Teachings of the Buddha

The Buddha's teachings centre on helping people to avoid suffering and bad feelings.

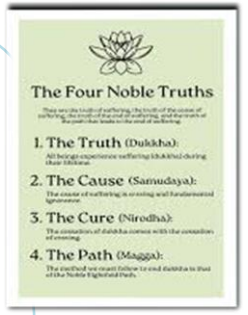
The story of the Elephant and Tiger teaches that you should Always look for the positives in any situation.

The story of the Lute teaches that you need to find balance in your life: the 'middle way'.

The story of the mustard seeds teaches that you need to accept that loss is a part of life

Four Noble Truths

1) Dukkha (suffering), is part of everyday life
2) Suffering is caused by craving
3) Dukkha can be ended
4) The cure of suffering (practise letting go of craving and by following certain moral and spiritual disciplines)



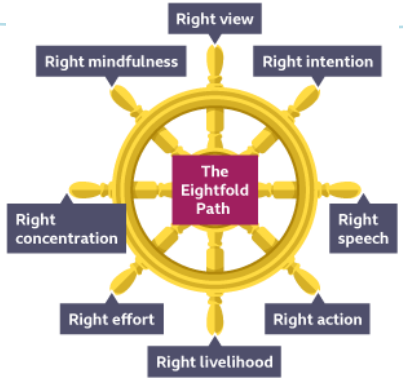
The Three poisons

The basic causes of suffering are known as the *Three Poisons*:

1. **greed** – often represented as a rooster
2. **ignorance** – often represented as a pig
3. **hatred** – often represented as a snake

The Noble Eightfold Path

Buddhists try to live a good life by following the Buddha's teachings, helping them to avoid suffering and bad feelings. They believe nothing in life is perfect and the way to avoid suffering is to follow a set of important guidelines known as the **Noble Eightfold Path**.



Year 8 Summer 2
Topic 1: Sikhism

Sikhism

This topic is an independent research topic. Below are the key beliefs that you will be exploring further.

Origins

Sikhism was founded by Guru Nanak around **500 years ago** in a place called the **Punjab**. This is an area which spans part of India and Pakistan in South Asia today.

Guru Nanak
Guru Nanak is the **founder** of Sikhism. Guru means 'Teacher'.
Sikhism is still based on his teachings and those of the nine Sikh Gurus who followed him.

Holy Book

The Sikh holy book is called the **Guru Granth Sahib**. The tenth Guru, Guru Gobind Singh, said that after him there would be no other living gurus. Instead, Sikhs could look at their holy book for guidance. This is why Sikhs call their holy book a Guru.
The Guru Granth Sahib is a collection of lessons from the ten gurus as well as Sikh, Hindu and Muslim saints. It is written in Punjabi and is greatly respected by all Sikhs as the living word of God. It is kept on a raised platform under a canopy in the Sikh place of worship. All Sikhs take off their shoes when they are near it.

What do Sikhs believe?

Sikhs believe in one God who guides and protect them. They believe everyone is equal before God. Sikhs believe that your actions are important and you should lead a good life. They believe the way to do this is:
•Keep God in your heart and mind at all times
•Live honestly and work hard
•Treat everyone equally
•Be generous to those less fortunate than you
•Serve others

The Three Pillars of Sikhism
The Three Pillars of Sikhism are duties which all Sikhs must carry out. They were formalised by Guru Nanak, and can be summed up in three words: pray, work, give.

Worship

Where do Sikhs worship?
The Sikh place of worship is called a **Gurdwara** which means 'Gateway to the Guru'. A Gurdwara is any building where the Guru Granth Sahib is kept.
In the UK, Sikhs usually go to the Gurdwara on **Sundays**. During the services they listen to teachings based on the Guru Granth Sahib. They also chant and say prayers from the gurus. These are called **Keertan**.
The Langar
The service ends in a **langar** (a shared meal). Everyone is welcome to share the meal.

The 5 k'S

The Five Ks
The Sikh community of men and women is known as the **Khalsa** which means the 'Community of the Pure'.
When Sikhs undergo the amrit ceremony today and join the Khalsa, they must promise to keep all the rules of the Sikh faith, and also to wear the **5 Ks**.

1.Kesh: Uncut Hair. Sikhs do not cut their hair as they want to remain how God created them.
2.Kara: This is a steel bracelet. It is in a circle which reminds Sikhs that God has no beginning and no end.
3.Kanga: Wooden Comb. Sikhs use the comb to keep their hair clean, and it can be used to keep their hair in place.
4.Kachera: also spelt, Kachh, Kaccha (cotton underwear). These are simple plain white shorts worn as underwear. The simple design of the kachera help Sikhs to maintain a feeling of dignity and modesty.
5.Kirpan: (steel sword) This is a short sword with a curved blade. This symbol shows that Sikhs are always ready to defend their faith.

Viva 1: Module 1: Mi Vida Vocabulary

Year 8 / Module 1 (Sept/Oct)

Saludos	Greetings
¡Hola!	*Hello!*
¿Qué tal?	*How are you?*
Bien, gracias	*Fine, thanks.*
fenomenal	*great*
regular	*not bad*
fatal	*awful*
¿Cómo te llamas?	
What are you called?	
Me llamo...	*I am called…*
¿Dónde vives?	
Where do you live?	
Vivo en...	*I live in…*
¡Hasta luego!	
See you later!	
¡Adiós!	*Goodbye!*

¿Tienes hermanos?
Do you have any brothers or sisters?

Tengo...	*I have…*
una hermana	*a sister*
un hermano	*a brother*
una hermanastra	
a half-sister/stepsister	
un hermanastro	
a half-brother/stepbrother	
No tengo hermanos.	
I don't have any brothers or sisters.	
Soy hijo único./Soy hija única.	*I am an only child. (male/female)*

¿Cuántos años tienes?
How old are you?

Tengo… años.
I am… years old.

¿Cuándo es tu cumpleaños?

When is your birthday?
Mi cumpleaños es el… de…
My birthday is the… of…

enero	*January*
febrero	*February*
marzo	*March*
abril	*April*
mayo	*May*
junio	*June*
julio	*July*
agosto	*August*
septiembre	*September*
octubre	*October*
noviembre	*November*
diciembre	*December*

Los colores *Colours*

blanco/a	*white*
amarillo/a	*yellow*
negro/a	*black*
rojo/a	*red*
verde	*green*
gris	*grey*
marrón	*brown*
azul	*blue*
rosa	*pink*
naranja	*orange*

¿Qué tipo de persona eres?
What sort of person are you?

Soy…	*I am...*
divertido/a	*amusing*
estupendo/a	*brilliant*
fenomenal	*fantastic*
generoso/a	*generous*
genial	*great*
guay	*cool*
listo/a	*clever*
serio/a	*serious*
simpático/a	*nice, kind*
sincero/a	*sincere*
tímido/a	*shy*
tonto/a	*silly*
tranquilo/a	*quiet, calm*

Palabras muy frecuentes
High-frequency words

bastante	*quite*
no	*no/not*
mi, mis	*my*
muy	*very*
pero	*but*
porque	*because*
su/sus	*his/her*
también	*also, too*
tu/tus	*your*
un poco	*a bit*
y	*and*

¿Tienes mascotas?
Do you have pets?

Tengo…	*I have…*
un caballo	*a horse*
una cobaya	*a guinea pig*
un conejo	*a rabbit*
un gato	*a cat*
un perro	*a dog*
un pez	*a fish*
un ratón	*a mouse*
una serpiente	*a snake*
No tengo mascotas.	
I don't have any pets.	
¿Cómo es/son?	
What is it/are they like?	

Mi pasión *My passion*

Mi pasión es…	*My passion is…*
Mi héroe es…	*My hero is…*
el deporte	*sport*
el fútbol	*football*
la música	*music*
el tenis	*tennis*

Grammar

Indefinite article – a/ an/ some
Definite article – the
Verbs – regular/ irregular
Adjectives
Negatives

Los números 1–31 *Numbers 1–31*

uno *1*	**dos** *2*	**tres** *3*
cuatro *4*	**cinco** *5*	**seis** *6*
siete *7*	**ocho** *8*	**nueve** *9*
diez *10*	**once** *11*	**doce** *12*
trece *13*	**catorce** *14*	**quince** *15*
dieciséis *16*	**diecisiete** *17*	**dieciocho** *18*
diecinueve *19*	**veinte** *20*	**veintiuno** *21*
veintidós *22*	**veintitrés** *23*	**veinticuatro** *24*
veinticinco *25*	**veintiséis** *26*	**veintisiete** *27*
veintiocho *28*	**veintinueve** *29*	**treinta** *30*
treinta y uno *31*		

CHALLENGE VOCABULARY

se llama…	he/she is called…
tiene…	he/she has
se llaman…	they are called…
tienen…	they have
nunca	never
siempre	always
a veces	sometimes
a menudo	often
de vez en cuando	from time to time
rarament	rarely
casi nunca	almost never
antipático/a	mean
inteligent	smart
largo/a	long
grande	big
pequeño/a	small
rápido/a	fast
lento/a	slow
gracioso/a	funny
aburrido/a	boring
Eres	you are
es	he/she is

What does a 'good' paragraph look like?

¡Hola! Me llamo Mario, vivo en España, en Sevilla. Vivo con mi familia; mi madre, mi padre y mis dos hermanas. Soy divertido, bastante listo, un poco tímido y muy tranquilo. Mi pasión es el deporte, especialmente el fútbol. Mi héroe es Messi, es muy guay y generoso. Mi cumpleaños es el catorce de abril y tengo trece años. También tengo un caballo que es blanco y tímido. También tengo tres perros, un perro blanco, un perro negro y también un perro blanco y negro.

Viva 1: Module 2: Mi Tiempo Libre

Year 8 / Module 2 (Nov/Dec)

¿Qué haces en tu tiempo libre?
What do you do in your spare time?

bailo *I dance*
canto karaoke *I sing karaoke*
hablo con mis amigos *I talk with my friends*
monto en bici *I ride my bike*
saco fotos *I take photos*
toco la guitarr *I play the guitar*
veo *I watch*
salgo *I go out*
voy *I go*
nado *I swim*
como *I eat*
duermo *I sleep*
bebo *I drink*
juego *I play*
leo *I read*

Opiniones — Opinions

Me encanta *I love*
Me gusta mucho *I really like*
Me gusta *I like*
Prefiero *I prefer*
No me gusta *I don't like*
No me gusta nada *I really don't like*
Odio *I hate*

Algunas preguntas
Some questions

¿Qué...? *What/ which...?*
¿Cuándo...? *When...?*
¿Dónde...? *Where...?*
¿Cómo...? *How/ What...?*
¿Cuántos...? *How many?*

¿Qué deportes haces?
What sports do you do?

Hago artes marciales I do martial arts
Hago atletismo *I do athletics*
Hago equitación *I do horseriding*
Hago gimnasia *I do gymnastics*
Hago natación *I do/go swimming*
Juego al baloncesto *I play basketball*
Juego al fútbol *I play football*
Juego al tenis *I play tennis*
Juego al voleibol *I play volleyball*

¿Qué tiempo hace?
What's the weather like?

hace calor *it's hot*
hace frío *it's cold*
hace sol **it's sunny**
hace buen tiempo *it's good weather*
llueve **it's raining**
nieva **it's snowing**
¿Qué haces cuando llueve? *What do you do when it's raining?*

Expresiones de frecuencia
Expressions of frequency

a veces *sometimes*
nunca *never*
siempre *always*
de vez en cuando *from time to time*
todos los días *every day*

¿Qué te gusta hacer?
What do you like to do

chatear *to chat*
escribir correos *to write emails*
escuchar música *to listen to music*
jugar a los videojuegos *to play videogames*
leer *to read*
mandar SMS *to send texts*
navegar por Internet *to surf the Internet*
salir con mis amigos *to go out with friends*
ver la televisión *to watch TV*
bailar *to dance*
cantar *to sing*
pintar *to paint*
dibujar *to draw*
montar en bici *to ride a bike*
sacar fotos *to take photos*
tocar el piano *to play the piano*
hablar *to talk*
hacer *to do*
jugar *to play*
ir al cine *to go to the cinema*
hacer deporte **to do** *sport*
hacer mis deberes *to do my homework*
ir de compras *to go shopping*

CHALLENGE VOCABULARY

le gusta he/she likes
no le gusta he/she doesn't like
Me interesa I am interested in
Me chifla I really like
Me aburre It bores me
a menudo often
raramente rarely
además also
emocionante exciting
fastidioso annoying
¡Qué divertido! How fun!
¡Qué aburrido! How boring!
¡Qué fatal! How awful!
Suelo + infin I usually…
Una pérdida de tiempo a waste of time

le encanta he/she loves
Odia he/she hates
Me flipa I'm crazy about
Me fastidia I'm annoyed by

casi nunca almost never
demasiado too (much)
por lo tanto therefore
fascinante fascinating

¡Qué guay! How cool!
¡Qué lástima! What a shame!

Me parece It seems…to me

Palabras muy frecuentes
High-frequency words

bastante *quite*
no *no/not*
mi, mis *my*
su, sus *his/her/their*
muy *very*
pero *but*
también *also, too*
tu/tus *your*
un poco *a bit*
y *and*
o *or*
porque *because*
sin embargo *however*
generalmente *generally*
mucho *a lot*
mientras *whilst*

Grammar

Opinions (me gusta)
Opinions with the infinitive
Present tense – regular
Key irregular verbs
Hacer and Jugar
Cuando + weather
Frequency phrases
Third person opinions
Exclamations
Adjectives (revision)

Las estaciones
The seasons

la primavera *spring*
el verano *summer*
el otoño *autumn*
el invierno *winter*

What does a 'good' paragraph look like?

¡Hola! En mi tiempo libre me encanta hacer mucho. Los lunes me gusta jugar al baloncesto con mi hermano porque es muy divertido. Los miércoles hago natación porque es bastante importante y también los viernes bailo con mi hermana. Creo que es importante hacer deporte y es emocionante hacer mucho. Cuando llueve, odio ver la televisión porque es aburrido y fastidioso. Prefiero estar al aire libre, cuando hace buen tiempo. Además a mis hermanos le gustan jugar al fútbol porque es fascinante.