ARENA ACADEMY

Knowledge Organiser Booklet

Year 8

2024-25

Summer Term

Collaboration Opportunity Respect Excellence

DELIVERING A CORE EDUCATION

Subjects

Key Stage 3 (Y7-9):

English
Maths
Science
Geography
History
Religious Education
French
Spanish
Physical Education
Computer Science
Art
Performing Arts
Design Technology
Personal Development

Key Stage 4 (Y10-11):

English
Maths
Art
Business Studies
Religious Education
Food Science
French
Spanish
Geography
Health & Social Care
Combined Science
Triple Science: Biology, Chemistry & Physics
History
Computer Science
Design Technology
Sports Studies
Performing Arts
Psychology
DIT
GCSE PE
Photography
Sociology
Personal Development

What are knowledge organisers?

For students to succeed in a particular area, they must have a foundation of factual knowledge, understand those facts in the context of a conceptual framework and organise knowledge in order to facilitate retrieval and application. We can see knowledge organisers as a way to enable this, in a much more systematic way than traditional revision guides and textbooks.

There are many arguments made for the necessity of the memorisation of important knowledge. Our working memory capacity is limited, so by storing more in our long-term memory, we can free up working memory capacity.

Knowledge organisers are a summary of the key facts and essential knowledge that pupils need about a unit of work or a curriculum subject. Each page contains the essential information broken down into easily digestible chunks. Each single side of A4 is important to focus the minds of the teachers creating them so they only include what's crucial.

Pupils will review, revise and quiz themselves using their knowledge organisers.
Knowledge organisers are a really clear and easy to understand way for parents to be more aware of what their children are learning at school and thus to support them whilst they revise/test themselves at home.

How to use your Knowledge Organiser?

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

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

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

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

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

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

What can be found in knowledge organisers?

Some of the core knowledge you can find in your knowledge organiser includes:

- key vocabulary / terminology (tier 3 vocabulary)
- key knowledge that students will require to have memorised for the subject
- key places and people
- useful diagrams (as required for the topic)
- key dates for a subject like history (e.g. when the two World Wars were) would clearly also be included
- key information they should know before starting the topic
- important quotes (that demonstrate those themes)
- important equations
- key academic language (tier 2 vocabulary)

Learn, Cover, Write, Correct

1. LEARN

Choose a small 'chunk' of the page to learn. Read it over and over again in your head.

2. COVER

Cover up the information you have just learnt.

3. WRITE

When the knowledge is covered up, write down the information you studied.

4. CORRECT

Correct your answer, write any missing or incorrect words in red pen.

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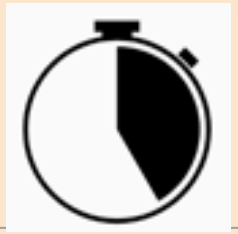
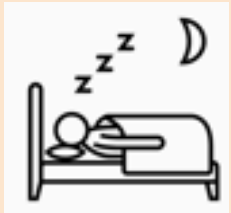
Practice makes Permanent

The Essential Steps for ‘Revising’

Limit distractions 	**Find a nice space to revise in** 	**Create and use a revision timetable. No cramming.** 
Set an alarm and start early 	**Work in intensive blocks of time (25 mins works well)** 	**The more you put in, the more you get out** 
Get plenty of sleep 	**Eat well** 	**Ask your teachers for help** 

Mathematics

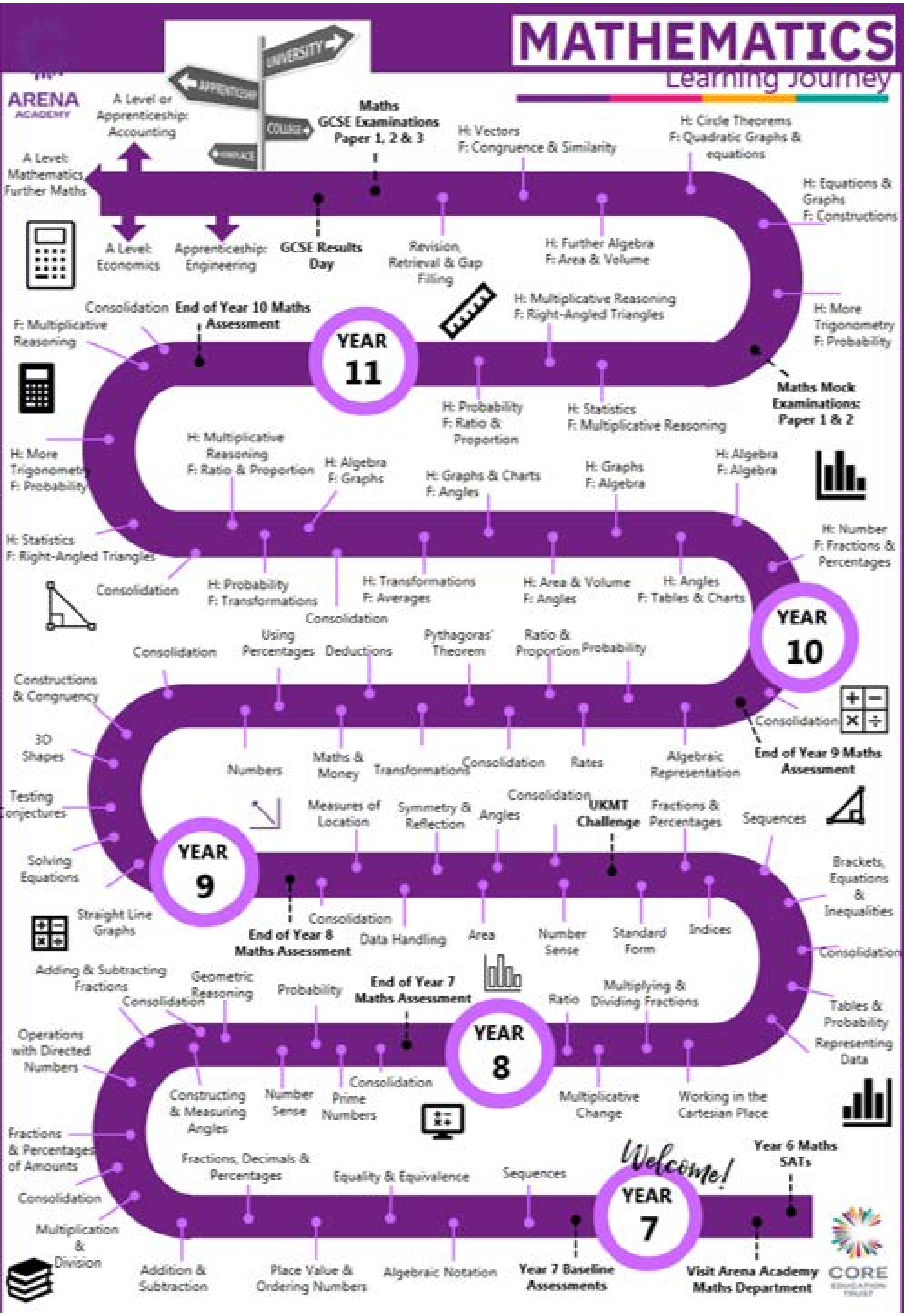
Topics covered from the beginning of the academy year to the end of this half-term.

Summer:

- TOPIC 13 – ANGLES IN PARALLEL LINES AND POLYGONS.
- TOPIC 14 – AREA OF TRAPEZIA AND CIRCLES.
- TOPIC 15 – LINE SYMMETRY AND REFLECTION.
- TOPIC 16 – THE DATA HANDLING CYCLE.
- TOPIC 17 – MEASURES OF LOCATION

MATHEMATICS

Learning Journey



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MATHS TOPIC 13 – ANGLES IN PARALLEL LINES AND POLYGONS.

Basic angle rules and notation

The letter in the middle is the angle
The arc represents the part of the angle

Acute Angles
0° < angle < 90°

Right Angles
90°

Right angle notation

Obtuse
90° < angle < 180°

Reflex
180° < angle < 360°

Straight Line
180°

Vertically opposite angles
Equal

Angles around a point
360°

Angle Notation: three letters **ABC**
This is the angle at B = 113°
Line Notation: two letters **EC**
The line that joins E to C

Parallel lines

Still remember to look for angles on straight lines, around a point and vertically opposite!

Lines OF and BE are **transversals** (lines that bisect the parallel lines)

Corresponding angles often identified by their **"F shape"** in position

Alternate angles often identified by their **"Z shape"** in position

This notation identifies parallel lines

Alternate/ Corresponding angles

Because alternate angles are equal the highlighted angles are the same size

Because corresponding angles are equal the highlighted angles are the same size

Co-interior angles

Because co-interior angles have a sum of 180° the highlighted angle is 110°

As angles on a line add up to 180° co-interior angles can also be calculated from applying alternate/ corresponding rules first

Triangles & Quadrilaterals

Link to steps

Side, Angle, Angle

Side, Angle, Side

Side, Side, Side

Properties of Quadrilaterals

Square
All sides equal size
All angles 90°
Opposite sides are parallel

Rectangle
All angles 90°
Opposite sides are parallel

Rhombus
All sides equal size
Opposite angles are equal

Parallelogram
Opposite sides are parallel
Opposite angles are equal
Co-interior angles

Trapezium
One pair of parallel lines

Kite
No parallel lines
Equal lengths on top sides
Equal lengths on bottom sides
One pair of equal angles

Sum of exterior angles

Exterior angles all add up to 360°

Exterior Angles
Are the angle formed from the straight-line extension at the side of the shape

Using exterior angles

Exterior Angle

Interior Angle

Interior angle + Exterior angle = straight line = 180°
Exterior angle = 180 – 165 = **15°**

Number of sides = 360° ÷ exterior angle
Number of sides = 360 ÷ 15 = 24 sides

Sum of interior angles

(number of sides – 2) x 180

Interior Angles
The angles enclosed by the polygon

This is an **irregular** polygon – the sides and angles are different sizes

Sum of the interior angles = (5 – 2) x 180

This shape can be made from three triangles
Each triangle has 180°

Sum of the interior angles = 3 x 180
= **540°**

Remember this is **all** of the interior angles added together

Missing angles in regular polygons

Exterior angle = 360 ÷ 8 = **45°**

Interior angle = $\frac{(8-2) \times 180}{8} = \frac{6 \times 180}{8} = 135°$

Exterior angles in regular polygons = 360° ÷ number of sides

Interior angles in regular polygons = $\frac{(\text{number of sides} - 2) \times 180}{\text{number of sides}}$

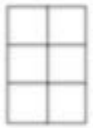
Keywords

Parallel: Straight lines that never meet
Angle: The figure formed by two straight lines meeting (measured in degrees)
Transversal: A line that cuts across two or more other (normally parallel) lines
Isosceles: Two equal size lines and equal size angles (in a triangle or trapezium)
Polygon: A 2D shape made with straight lines
Sum: Addition (total of all the interior angles added together)
Regular polygon: All the sides have equal length, all the interior angles have equal size

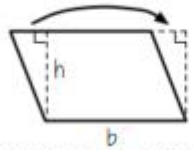
Area – rectangles, triangles, parallelograms

R

Rectangle
Base x Height

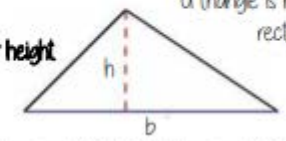


Parallelogram/ Rhombus
Base x Perpendicular height



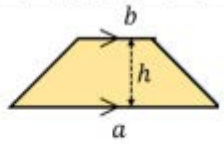
Triangle
½ x Base x Perpendicular height

A triangle is half the size of the rectangle it would fit in

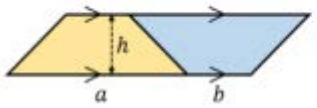


Area of a trapezium

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



Why?

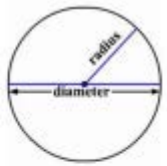


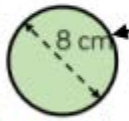
- Two congruent trapeziums make a parallelogram
- New length (a + b) x height
- Divide by 2 to find area of one

Area of a circle (Non-Calculator)

Read the question – leave in terms of **π** or if **π ≈ 3** (provides an estimate for answers)

Area of a circle
π x radius²





Diameter - 8cm
∴ Radius - 4cm

π x radius²
- π x 4²
- π x 16
- 16π cm²

Find the area of one quarter of the circle

Radius - 4cm

Circle Area - 16π cm²
Quarter - 4π cm²

Area of a circle (Calculator)

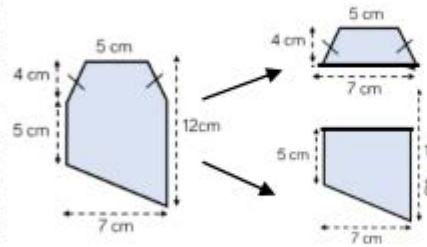
Area of a circle
π x radius²

How to get **π** symbol on the calculator

It is important to round your answer suitably – to significant figures or decimal places. This will give you a decimal solution that will go on forever!

Compound shapes

To find the area compound shapes often need splitting into more manageable shapes first. Identify the shapes and missing sides etc. first.



Shape A - Isosceles trapezium

Shape B- non-standard trapezium

Units

Shape A + Shape B = total area

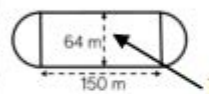
$\frac{(5+7)\times 4}{2} + \frac{(5+8)\times 7}{2}$ - 24 + 45.5 - 69.5cm²

Compound shapes including circles

Circumference
π x diameter

Compound shapes are not always area questions. For Perimeter you will need to use the circumference

Spotting diameters and radii



This dimension is also the diameter of the semi circles

Arc lengths - π x 64
- 64 π

Don't need to halve this because there are 2 ends which make the whole circle

Arc lengths + Straight lengths = total perimeter

- 64 π + 150 + 150
- (300 + 64 π) m
OR - 501.1 m

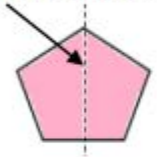
Still remember to split up the compound shape into smaller more manageable individual shapes first

Keywords

Congruent: The same
Area: Space inside a 2D object
Perimeter: Length around the outside of a 2D object
Pi (π): The ratio of a circle's circumference to its diameter
Perpendicular: Ot an angle of 90° to a given surface
Formula: A mathematical relationship/ rule given in symbols E.g. b x h - area of rectangle/ square
Infinity (∞): A number without a given ending (too great to count to the end of the number) – never ends
Sector: A part of the circle enclosed by two radii and an arc

Lines of symmetry

Mirror line (line of reflection)



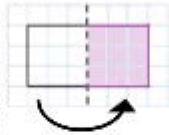
Shapes can have more than one line of symmetry... This regular polygon (a regular pentagon has 5 lines of symmetry)

Rhombus
two lines of symmetry

Parallelogram
No lines of symmetry

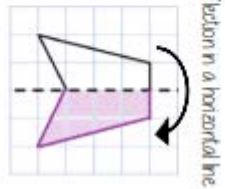
A circle has an infinite amount of lines of symmetry

Reflect horizontally/ vertically (1)



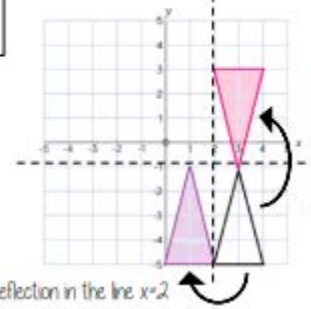
Note: a reflection doubles the area of the original shape

Reflection in a vertical line



Reflection in a horizontal line

Reflection on an axis grid

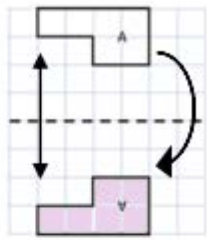


Reflection in the line y=-2

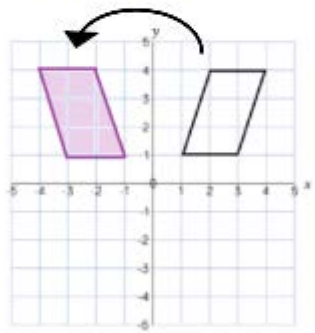
Reflection in the line x=2

Reflect horizontally/ vertically (2)

All points need to be the same distance away from the line of reflection



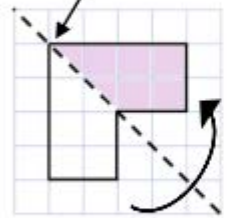
Reflection in the line y axis – this is also a reflection in the line x=0



Lines parallel to the x and y axis
REMEMBER
Lines parallel to the x-axis are y = ____
Lines parallel to the y-axis are x = ____

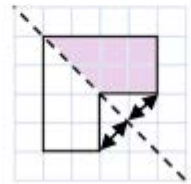
Reflect Diagonally (1)

Points on the mirror line don't change position



Fold along the line of symmetry to check the direction of the reflection

Turn your image
If you turn your image it becomes a vertical/ horizontal reflection (also good to check your answer this way)

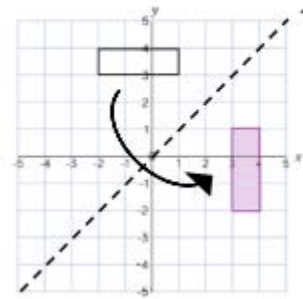


Drawing perpendicular lines

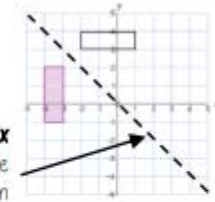
Perpendicular lines to and from the mirror line can help you to plot diagonal reflections

Reflect Diagonally (2)

This is the line **y = x** (every y coordinate is the same as the x coordinate along this line)



This is the line **y = -x**
The x and y coordinate have the same value but opposite sign



Turn your image
If you turn your image it becomes a vertical/ horizontal reflection (also good to check your answer this way)

Keywords

Mirror line: a line that passes through the center of a shape with a mirror image on either side of the line
Line of symmetry same definition as the mirror line
Reflect: mapping of one object from one position to another of equal distance from a given line
Vertex: a point where two or more line segments meet
Perpendicular: lines that cross at 90°
Horizontal a straight line from left to right (parallel to the x axis)
Vertical a straight line from top to bottom (parallel to the y axis)

MATHS TOPIC 16 – THE DATA HANDLING CYCLE.

Set up a statistical enquiry

Write a suitable hypothesis → Design a data collection sheet → Pros/ Cons of sampling → Pros/ Cons primary or secondary data → Discrete or continuous data?

Features of a data collection sheet

Grouped or ungrouped categories →

Data Title	Tally	Frequency
	𝍸 I	

← Total number of that group observed

Design and criticise a questionnaire

The Question - be clear with the question - don't be too leading/ judgemental

e.g How much pocket money do you get a week?

Responses – do you want closed or open responses? – do any options overlap? – Have you an option for all responses?

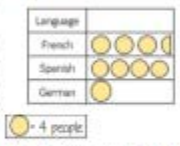
Zero option → ☐ £0 ☐ £0.01 - £2 ☐ £2.01 - £4 ☐ more than £4 ← More option

NOTE: For responses about continuous data include inequalities $< x \leq$

Pictograms, bar and line charts (R)

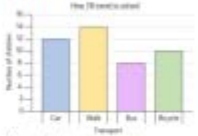
Represents quantitative data

Pictogram



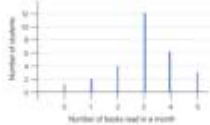
- Need to remember a key
- Visually able to identify mode

Bar Chart



- Gaps between the bars
- Clearly labelled axes
- Scale for the axes
- Title for the bar chart
- Discrete Data

Line Chart

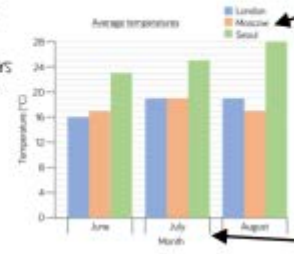


- Gaps between the lines
- Clearly labelled axes
- Scale for the axes
- Discrete Data

Multiple Bar chart

Compares multiple groups of data

- Clearly labelled axes
- Scale for axes
- Comparable data bars drawn next to each other



Key/ Colour code for separate groups of information

Gap between different categories of data

Draw and interpret Pie Charts (R)

Remember a circle has 360°

Type of pet	Dog	Cat	Hamster
Frequency	32	25	3

There were 60 people asked in this survey (Total frequency)

$\frac{32}{60}$ "32 out of 60 people had a dog"

This fraction of the 360 degrees represents dogs

$\frac{32}{60} \times 360 = 192°$

Use a protractor to draw This is 192°

Multiple method

÷5 60 goes into 360 – 6 times

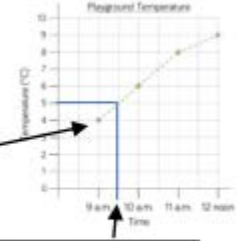
Each frequency can be multiplied by 6 to find the degrees (proportion of 360)

Represents quantitative, discrete data

Draw and interpret line graphs

- Commonly used to show changing over time
- The points are the recorded information and the lines join the points

Line graphs do not need to start from 0

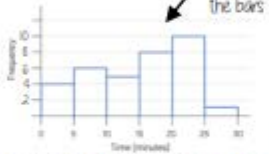


More than one piece of data can be plotted on the same graph to compare data

It is possible to make estimates from the line e.g temperature at 9.30am is 5°C

Grouped quantitative data

Time (minutes)	Frequency
0 ≤ t < 5	6
5 ≤ t < 10	6
10 ≤ t < 15	5
15 ≤ t < 20	8
20 ≤ t < 25	10
25 ≤ t < 30	1



This is a frequency diagram There are no gaps between the bars

"More than or equal to 25 and less than 30 minutes"

The use of inequalities shows that this will be a frequency diagram

Grouping the data is useful if there is a large spread of data to begin with

Find and interpret the range

The range is a measure of **spread**

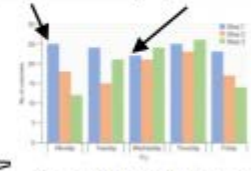
A smaller range means there is less variation in the results – it is more consistent data

A range of 0 means all the data is the same value

Difference between the biggest and smallest values

Shop 1 highest value

Shop 1 lowest value



Shop 1 has the smallest range – this indicates it has a more consistent flow of customers each week

Range of customers = 25 – 22 = 3 (Shop 1)

Keywords

Hypothesis: an idea or question you want to test

Sampling: the group of things you want to use to check your hypothesis

Primary Data: data you collect yourself

Secondary Data: data you source from elsewhere e.g the internet/ newspapers/ local statistics

Discrete Data: numerical data that can only take set values

Continuous Data: numerical data that has an infinite number of values (often seen with height, distance, time)

Spread: the distance/ how spread out/ variation of data

Average: a measure of central tendency – or the typical value of all the data together

Proportion: numerical relationship that compares two things

Mean, Median, Mode

The Mean

A measure of average to find the central tendency… a typical value that represents the data

24, 8, 4, 11, 8

Find the sum of the data (add the values) **55**

Divide the overall total by how many pieces of data you have **55 ÷ 5**

Mean = 11

The Median

The value in the center (in the middle) of the data

24, 8, 4, 11, 8

Put the data in order **4, 8, 8, 11, 24**

Find the value in the middle **4, 8, 8, 11, 24**

Median = 8

NOTE: If there is no single middle value find the mean of the two numbers left

The Mode (The modal value)

This is the number OR the item that occurs the most (it does not have to be numerical)

24, 8, 4, 11, 8

This can still be easier if it the data is ordered first **4, 8, 8, 11, 24**

Mode = 8

Choosing the appropriate average

The average should be a representative of the data set – so it should be compared to the set as a whole - to check if it is an appropriate average

Here are the weekly wages of a small firm

£240	£240	£240	£240	£240
£260	£260	£300	£350	£700

Which average best represents the weekly wage?

The Mean - £307

The Median - £250

The Mode - £240

Put the data back into context

Mean/Median – too high (most of this company earn £240)

Mode is the best average that represents this wage

It is likely that the salaries above £240 are more senior staff members – their salary doesn't represent the average weekly wage of the majority of employers

Identify outliers

Outliers are values that stand well apart from the rest of the data

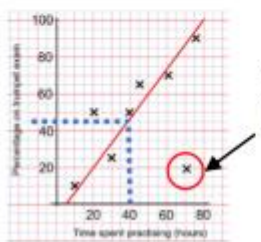
Outliers can have a big impact on range and mean. They have less impact on the median and the mode.

Sometimes it is best to not use an outlier in calculations

Height in cm

152 150 142 158 182 151 153 149 156 160 151 144

Where an outlier is identified try to give it some context. This is likely to be a taller member of the group. Could the be an older student or a teacher?



Outliers can also be identified graphically e.g. on scatter graphs

Comparing distributions

Comparisons should include a statement of average and central tendency as well as a statement about spread and consistency

Here are the number of runs scored last month by Lucy and James in cricket matches

Lucy: 45, 32, 37, 41, 48, 35

James: 60, 90, 41, 23, 14, 23

Lucy

Mean: 39.6 (1dp), **Median:** 38 **Mode:** no mode, **Range:** 16

James

Mean: 41.8 (1dp), **Median:** 32, **Mode:** 23, **Range:** 76

James has two extreme values that have a big impact on the range

"James is less consistent that Lucy because his scores have a greater range. Lucy performed better on average because her scores have a similar mean and a higher median"

Keywords

Spread: the distance/ how spread out/ variation of data

Average: a measure of central tendency – or the typical value of all the data together

Total: all the data added together

Frequency: the number of times the data values occur

Represent: something that show's the value of another

Outlier: a value that stands apart from the data set

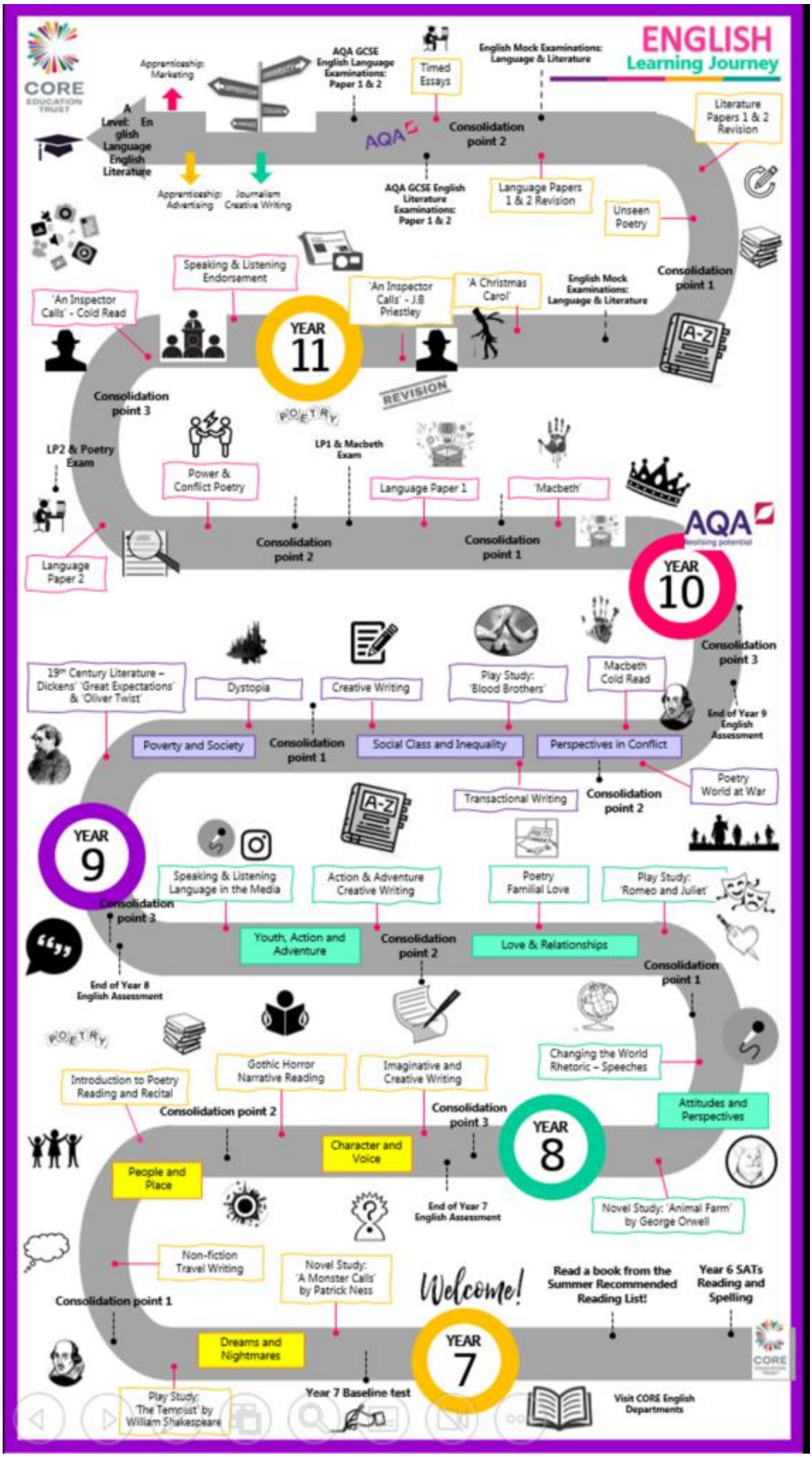
Consistent: a set of data that is similar and doesn't change very much

English

Topics covered from the beginning of the academy year to the end of this half-term.

Summer:

1. Writing your own adventure story
2. Reading extracts from adventure stories and understanding
3. how writer's structure their ideas and use a range of vocabulary and language techniques.
4. Craft sentences using prepositional push offs, adverbial openers, verb sentence openers/



ARENA ACADEMY

Adventure Stories

Does your adventure story include...	
a title that makes the reader want to read your story?	
a beginning to introduce character(s) and a setting?	
a build-up to give hints and clues about what is going to happen?	
a dilemma where something goes wrong?	
a resolution where the characters solve the dilemma?	
an ending to close the story?	
dialogue to advance the action?	
short, snappy sentences used for effect?	
cliffhanger questions?	

Alternative Words for Said

bellowed	boomed	laughed	mumbled
muttered	replied	roared	screamed
shrieked	stuttered	whispered	yelled

Word Bank

abandoned	determined	magical
alarmed	disastrous	mysterious
ancient	discover	perilous
beastly	disturbing	shadowy
bizarre	enchanted	splendid
bold	enemy	sturdy
chilling	escape	swooped
conscious	evil	terrifying
creature	frightened	weird
crumbling	glorious	wicked
dangerous	hero	

Subordinate Conjunctions

after **before** **because** **if** **while**

as **until** **when** **since**

Fronted Adverbials

On just another ordinary day,

During the storm,

When it was all over,

As the day drew to a close,

Suddenly,

After the rain,

The next day,

Without warning,

Strangely,

Terrifyingly,

Rapidly,

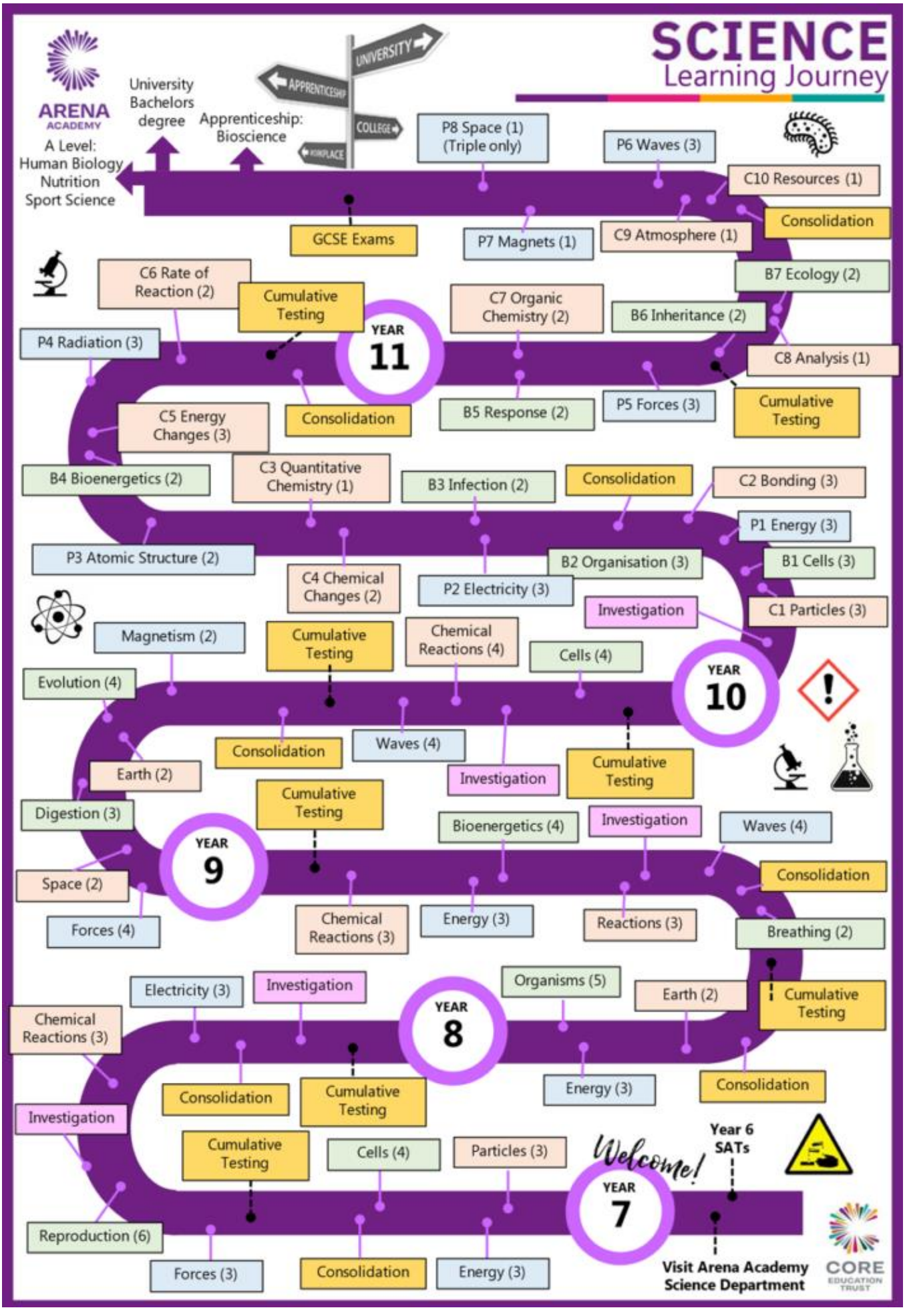
Furiously,

Science

Topics covered from the beginning of the academy year to the end of this half-term.

Summer:

1. Work
2. Heating and cooling
3. Energy in reactions


SCIENCE
Learning Journey
ARENA ACADEMY
University Bachelors degree
Apprenticeship: Bioscience
A Level: Human Biology Nutrition Sport Science
UNIVERSITY
APPRENTICESHIP
COLLEGE
WORKPLACE
GCSE Exams
P8 Space (1) (Triple only)
P7 Magnets (1)
P6 Waves (3)
C9 Atmosphere (1)
C10 Resources (1)
Consolidation
B7 Ecology (2)
B6 Inheritance (2)
C8 Analysis (1)
Cumulative Testing
P5 Forces (3)
B5 Response (2)
C7 Organic Chemistry (2)
C6 Rate of Reaction (2)
Cumulative Testing
Consolidation
C5 Energy Changes (3)
P4 Radiation (3)
YEAR 11
B4 Bioenergetics (2)
C3 Quantitative Chemistry (1)
B3 Infection (2)
Consolidation
C2 Bonding (3)
P1 Energy (3)
B1 Cells (3)
C1 Particles (3)
Investigation
Cells (4)
Chemical Reactions (4)
Cumulative Testing
P2 Electricity (3)
C4 Chemical Changes (2)
P3 Atomic Structure (2)
Magnetism (2)
Evolution (4)
YEAR 10
Consolidation
Waves (4)
Investigation
Cumulative Testing
Earth (2)
Digestion (3)
Cumulative Testing
Bioenergetics (4)
Investigation
Waves (4)
Consolidation
Space (2)
Forces (4)
Chemical Reactions (3)
Energy (3)
Reactions (3)
Breathing (2)
YEAR 9
Electricity (3)
Investigation
Organisms (5)
Earth (2)
Cumulative Testing
Chemical Reactions (3)
Consolidation
Cumulative Testing
Energy (3)
Consolidation
Investigation
Cumulative Testing
Cells (4)
Particles (3)
Welcome!
Year 6 SATs
YEAR 8
Reproduction (6)
Forces (3)
Consolidation
Energy (3)
YEAR 7
Visit Arena Academy Science Department
CORE EDUCATION TRUST

Work Knowledge organiser

Work Done: Elastic Objects

Work is done on elastic objects to **stretch** or compress them.

To calculate the work done (**elastic potential energy** transferred), use this equation:

$E\ (J) = 0.5 \times k \times e^2$

(elastic potential energy = 0.5 × spring constant × extension^2)

You might need to use this equation also: $F = k \times e$

Worked example:

A bungee jumper jumps from a bridge with a weight of 800N. The elastic cord is stretched by 25m. Calculate the work done.

Step 1: find the spring constant using $F = k \times e$

Rearrange to $k = F \div e$

$800 \div 25 = 32N/m$

Step 2: use the value for k to find the elastic potential energy (work done) using $E\ (J) = 0.5 \times k \times e^2$

$0.5 \times 32 \times 25^2$

$E = 10\ 000J$

Moments, Levers and Gears

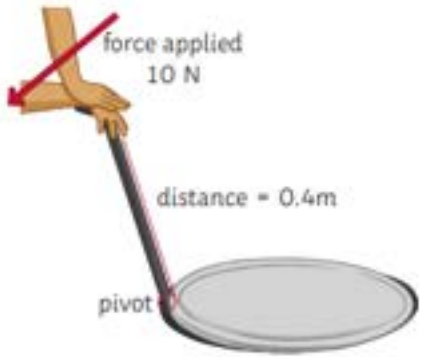
A moment is the turning effect produced by a force. To find the size of a moment, use the equation:

moment (Nm) = force (N) × distance (m)

Remember that the distance is the perpendicular distance from the pivot to the line of action of the force.

Worked example:

A crowbar is being used to lift a manhole cover. Calculate the moment produced.



$M = F \times d$

$M = 10 \times 0.4$

$m = 40Nm$

To increase the turning affect achieved without increasing the amount of force applied, you would need to increase the distance between the force and the pivot.

For example, if the crowbar in the example above was 0.5m, then the moment would be:

$M = F \times d$

$M = 10 \times 0.5$

$M = 50Nm$

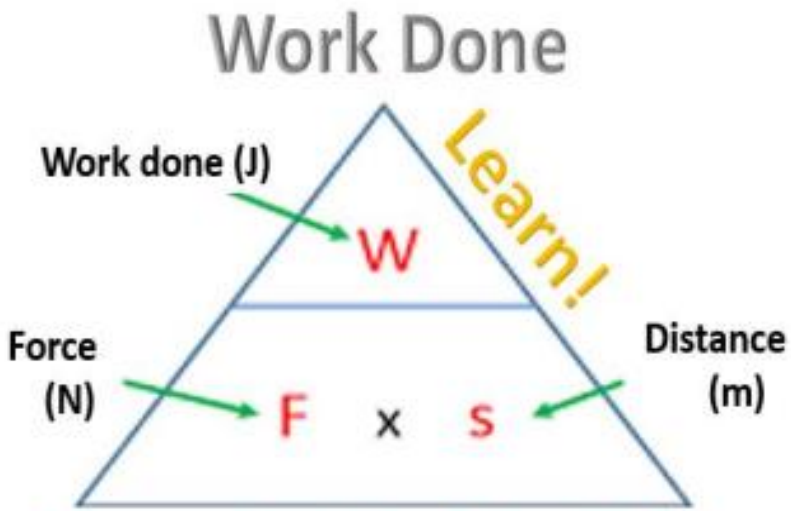
Levers can be used to increase the effect of a force applied, acting as a force multiplier. Some everyday examples include:

spanner

wheelbarrow

pair of scissors

- When a **force** causes a body to move, work is being done on the object by the force.
- Work is the measure of energy transfer when a force (*F*) moves an object through a distance (*d*).
- When work is done, **energy** has been transferred from one energy store to another.
- Therefore Energy transferred = work done



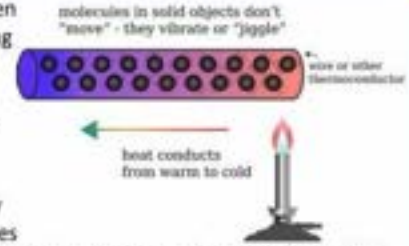
Distance must be in the line of action of the force

Heating and cooling Knowledge organiser

Key words:

Thermal conductor	A material that will let heat flow through it
Thermal insulator	A material that will not let met flow through it.
Conduction	Heat is conducted due to particles vibrating and hitting each other. The movement of heat (or electricity) through a substance.
Convection	The transfer of heat through a liquid or gas (fluid) Convection occurs when particles with a lot of heat energy in a liquid or gas move and take the place of particles with less heat energy
Radiation	Heat can be transferred by infrared radiation, this is an electromagnetic wave and doesn't use particles.
Temperature	temperature is a measure of how hot something is.
Heat	heat is a measure of the thermal energy contained in an object.
Thermal energy	Energy that is due to particles moving and results in an object having a temperature. It is transferred as heat

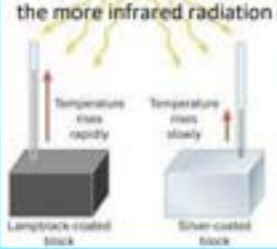
Conduction: Conduction can only happen in **solids** as the particle must be toughing to pass on energy to it's neighbours.



Heat moves from the hotter part of the object to the colder part

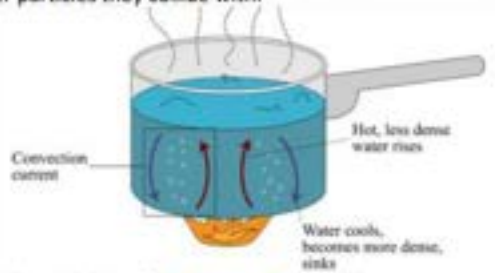
Particles in the metal are packed closely together. As they are heated the particles gain kinetic energy and vibrate more. The particles that are vibrating collide with other particles and start to make them vibrate. This passes the kinetic energy from the heated particles to the cooler particles causing them to heat up too.

Radiation: Radiation doesn't need particles for the energy to Travel though as it is a type of electromagnetic radiation called infrared radiation.
Infrared radiation involves waves instead of particles. As such it can travel through a vacuum e.g. space. The hotter an object is, the more infrared radiation it emits.



You can experience radiation for yourself, on a warm day dull dark objects feel warmer as they **absorb** the thermal energy from the sun whereas shiny or white objects **reflect** the thermal energy and so feel cooler.

Convection: This occurs naturally in fluids (**liquid** or **gas**) as the particles are free to move and pass the thermal energy to other particles they collide with.



Particles with lots of heat energy in a liquid or gas move and take the place of particles with a lot of energy. Heat energy is transferred from hot places to cooler places by convection.

Slower moving particles move closer together taking up less space.

Warmer particles transfer their energy to their surroundings and begin to move more slowly.

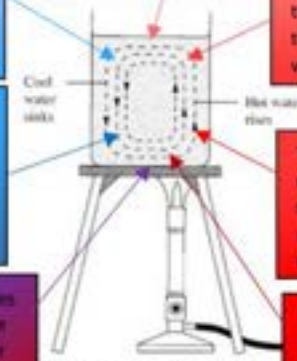
Warmer water is therefore lighter than denser cold water and rises

Cooler water becomes denser and sinks to the bottom of

This makes them move faster and take up more space. They are now less dense

Cooler particles take the space of the warmer ones that have risen.

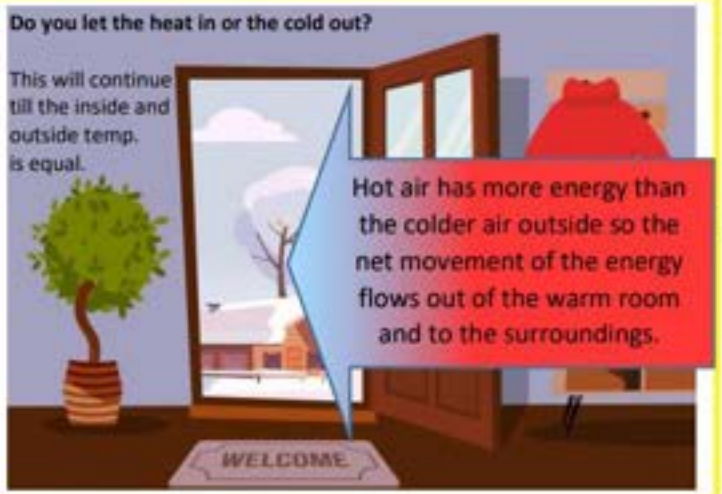
Thermal energy from the heat source is transferred to the liquid particles



Energy saving in the home:

Do you let the heat in or the cold out?

This will continue till the inside and outside temp. is equal.



	Conduction	Convection	Radiation
Particles	Y	Y	N
Solids	Y	N	Y
Liquids	N	Y	Y
Gases	N	Y	Y
Particles move far part	N	Y	n/a
Particles vibrate on the spot	Y	N	n/a
Particles rise and fall to transfer energy	N	Y	n/a
Particles hit each other to transfer energy	Y	N	n/a

Energy in reactions Knowledge organiser

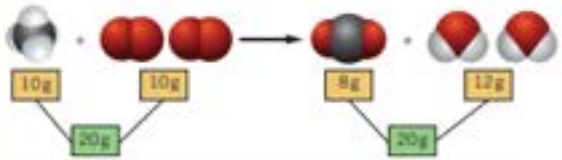
Chemical reactions

- Word equations can represent a **chemical reaction:**

- The **reactants** are on the left side of the arrow and the **products** are on the right side of the arrow
- We use an arrow instead of an equals sign as it represents that the reactants are changing into a new substance
- In a reaction, the amount of each type of atom stays the same, however they are rearranged to form a new product

Conservation of mass

- In a reaction the mass will be **conserved**, this means that the total mass of the reactants will be equal to the total mass of the products
- If it appears that some of the mass has been lost, this means that a gas has been produced and escaped, accounting for the lost mass



Balanced symbol equations show the amounts of all of the individual atoms in a reaction

- The symbols used are from the Periodic Table
- They also show:
  - Formulae of reactants and products
  - How the atoms are rearranged
  - Relative amounts of reactants and products

$$2H_2 + O_2 \rightarrow 2H_2O$$

Combustion

- **Combustion** is the burning of a **fuel** in oxygen
- A fuel is a substance which stores energy in a chemical store
- Examples of fuels include petrol, diesel, coal and hydrogen
- When a carbon based fuel undergoes combustion, it will produce water and carbon dioxide

methane + oxygen → carbon dioxide + water

- Hydrogen can also be used as a fuel, this is much better than traditional fossil fuels as it does not produce carbon dioxide:

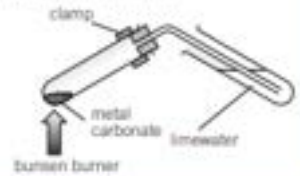
hydrogen + oxygen → water

Thermal decomposition

- A **thermal decomposition** reaction is one where the reactants are broken down (decomposition) using heat (thermal energy)
- An example of this is with metal carbonates:

zinc carbonate → zinc oxide + carbon dioxide

- We can test for this carbon dioxide by bubbling the gas through limewater, if the limewater turns cloudy, the gas is carbon dioxide



Exothermic and endothermic reactions

Exothermic reactions involve a transfer of energy from the reactants to the surroundings

- As energy is transferred to the surroundings this will show an increase in temperature
- Examples of exothermic reactions include combustion, freezing, and condensing

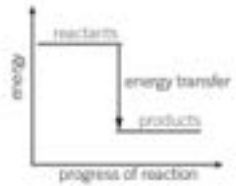
Endothermic reactions involve a transfer of energy from the surroundings to the reactants

- As energy is taken into the reactants a decrease in temperature will be shown
- Examples of endothermic reactions include thermal decomposition, melting, and boiling

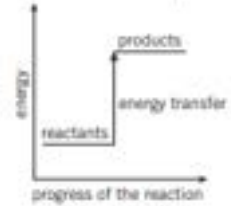
Energy level diagrams

Energy level diagrams show the values of energy between the reactants and the products in a reaction

- If the energy is greater in the reactants than the products then the reaction is exothermic as energy has been given out to the surroundings
- If the energy is lower in the reactants than the products then the reaction is endothermic as energy has been taken in from the surroundings



Exothermic



Endothermic

Bond energies

- Energy must be used to break **chemical bonds**, meaning that this reaction is endothermic
- Energy is given out when chemical bonds are made, meaning that this reaction is exothermic
- To see if a reaction is endothermic or exothermic, you must find the difference in the energy needed to break and to make the bonds in the reaction
- If the energy needed to break the bonds is less than the energy given out when making the bonds, the reaction is exothermic
- If the energy needed to break the bonds is more than the energy released when making the bonds, the reaction is endothermic

Key terms Make sure you can write definitions for these key terms.

balanced symbol equation · chemical bond · chemical reaction · combustion · conserved · conservation of mass · decomposition · fuel · endothermic · energy level diagram · exothermic · products · reactants · thermal decomposition

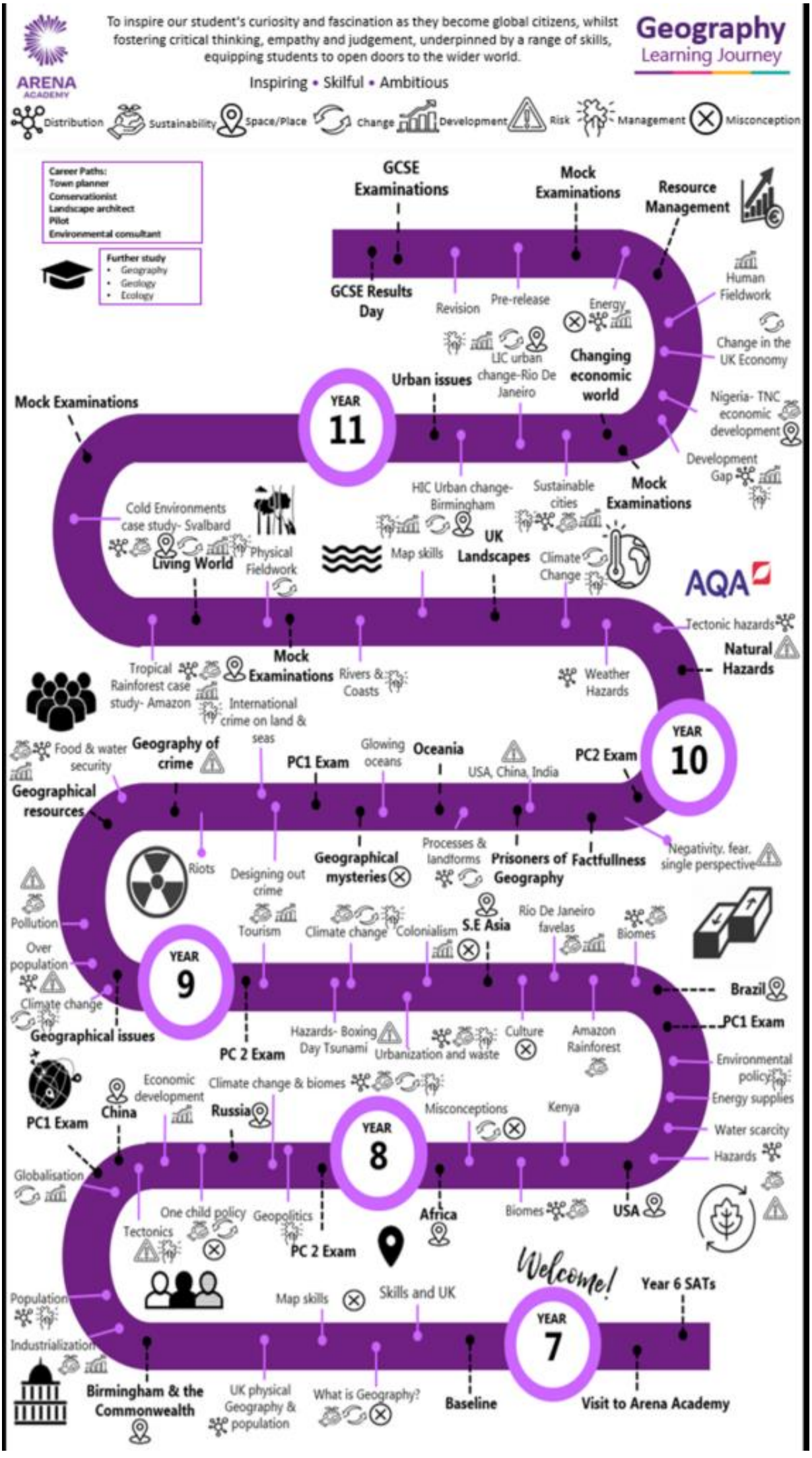
Geography

Topics covered from the beginning of the academy year to the end of this half-term.

Summer:

1. South-East Asia

2. Brazil



ARENA ACADEMY

Year 8

Units covered: SE Asia

Key concepts:

Sustainability	Level of wealth
Physical	Climate
Population	Risk

Key definitions:

- Climate change-Long-term changes in temperature and precipitation
- Sustainability - An integrated approach to an action that considers environmental and economic implications of the present and the future.
- Physical feature- A naturally occurring feature
- Tectonics- The study about how the Earth's surface, made of big puzzle pieces called tectonic plates, moves and interacts, causing things like mountains, earthquakes, and volcanoes
- Level of wealth- How strong a country's economy is; HIC, NEE, LIC
- Tsunami- An abnormally large ocean wave caused by an underwater disturbance
- Tourism-Visiting places of interest for short periods of time

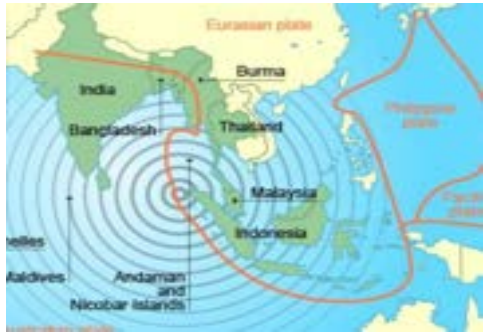
Example exam questions:

1. Define the term tsunami
2. Explain the causes and impacts of tsunamis
3. Describe and explain the impacts of over tourism
4. Tourism only has negative impacts. Do you agree?
5. Suggest why India was selected for colonisation
6. State 2 social impacts of colonisation in India
7. How has SE Asia experienced globalisation?
8. Provide a geographical description of a country in SE Asia.

Half-term targets:

- Can I describe the location of countries in SE Asia?
- Can I explain what colonisation is and where it has occurred?
- Can I explain the advantages and disadvantages of colonialism for both parties involved?
- Can I explain how a tsunami is formed?
- Can I explain the impacts and responses to a tsunami using a case study?
- Can I explain the push and pull factors to life in SE Asia?
- Can I explain the advantages and disadvantages to tourism in SE Asia?

PULL FACTORS	PUSH FACOTRS
Better education	Poor sanitation
Jobs	No access to wifi
Better housing	No water
Better transport	No healthcare



TRANS-NATIONAL CORPORATIONS IN INIDA: COKE:
Coca-cola has employed 25,000 people **directly** and over a million people **indirectly** across India. This has led to an increase in people paying tax which benefits the country as this can be reinvested. It has also led to the **multiplier effect** – more people have more money to spend elsewhere investing it into other businesses. However, coke is using up all of the groundwater supplies leading to farmers having to dig 250ft down rather than 50ft. Many workers are overworked and underpaid and work in poor conditions.

TOPIC: INDIA

TRANS-NATIONAL CORPORATIONS IN INIDA:
A trans-national corporation (TNC) is a company that operates in many different counties. Many have set up factories and offices in India as many people in India speak English, have strong IT skills and will work for lower wages. Companies like Toyota, Volvo and Hyundai make cars in India and companies like Vodafone have call centres in India.

ADVANTAGES OF TNCS	DISADVANTAGES
Create jobs and offer education and training to employees	Taken advantage of environmental laws – lots of pollution
Led to the multiplier effect – a positive change has a knock-on effect on another business	Conditions in factories can be harsh
Some schemes provide new facilities for local communities	Profit can be sent abroad
Improved infrastructure	Jobs are often given to workers who are from the TNCs country
TNCs and workers pay tax to the government	May use up a lot of natural resources

How did the British Raj change the lives of people in Britain?
The East India Company's control of India significantly impacted the British economy. **Britain was able to export vast quantities of goods such as tea and pepper and sell them for a great profit. This profit helped to fund the Industrial Revolution in Britain.** For example, it was used to build textile factories, which employed many people.
Imports such as silk and cotton were brought from India and **turned into expensive clothes and fabrics before being sold at a higher price back in India.** The profits made by the East India Company were invested in Britain. Factory owners in particular earned a lot of money from trade with India.
Although factories in Britain provided work, the conditions were often dangerous due to a lack of concern over health and safety. Textile factories particularly employed women and children, who had to work long hours and faced harsh punishments if they worked too slowly.

Year 8

Units covered: Brazil

Key concepts:

Sustainability	Economy
Fairtrade	Inequality
Population	Biodiversity

Key definitions:

- Sustainability - An integrated approach to an action that considers environmental and economic implications of the present and the future.
- Physical feature- A naturally occurring feature
- Economy- how a country or place is doing in making goods, and how much money it has.
- Favela-An illegal settlement located nearby a city or road network
- Human right- Fundamental rights and freedoms of people e.g., freedom of speech
- Adaptation- Changing something about yourself to better suit the environment
- Biome- A community of living and non-living things

Example exam questions:

1. Define the term favela
2. Suggest pros and cons to life in favelas
3. Describe and explain animal and plant adaptations within Brazil
4. Define the term human right and provide 2 examples
5. Identify 2 ways in which Brazil is a tourist destination
6. Describe the location of Brazil

Half-term targets:

- Can I describe the location of Brazil?
- Can I identify a favela from a picture?
- Can I explain the advantages and disadvantages of life in favelas?
- Can I define fairtrade and provide examples of fairtrade products?
- Can I suggest why different stakeholders have different opinions about fairtrade?
- Can I describe and explain animal and plant adaptations in Brazil?
- Can I explain why human rights are important?
- Can I provide examples of human rights and identify where they have been breached?

1. Good community spirit
2. Streets are too narrow for waste collection
3. Disease spreads quickly
4. There is job opportunities
5. Loved ones
6. Vibrant and busy
7. Fires break out
8. There is lots of crime
9. High levels of pollution
10. Services are in walking distance
11. Have great views of Brazil
12. They can build whatever they want

Key term
Human right
Segregation
Discrimination
Protection

Definition
Keeping one group of people apart from another and treating them differently, especially because of race, sex, or religion:
The condition or state of being kept safe from injury, damage, or loss.
Rights inherent to all human beings, regardless of race, sex, nationality, ethnicity, language, religion, or any other status.
The act of making unjustified, prejudiced distinctions between people based on the groups, classes, or other categories to which they belong or are perceived to belong

History

Topics covered from the beginning of the academy year to the end of this half-term.

Summer:

Britain at the start of the 20th century:

- Liberal Reforms
- Women's Suffrage
- Titanic

Builds on	Understanding of change and continuity established in The Norman Conquest and Control (Y7) and The Age of Revolution (Y8).	Leads to	Understanding of post-Victorian British society underpins The First World War and The Second World War and Holocaust. (Y8)
Success Criteria	• Identify the characteristic features of societies, achievements, and the follies of mankind. • Describe how the lives of the population during the early Twentieth Century. • Describe historical concepts in reference to British society such as continuity and change. • Explain the causes and consequences of events such as the Women's Suffrage movement. • Explain the significance of the impact of events such WWI on women's rights • Combine knowledge of societies to make connections, draw contrasts and analyse trends. • Analyse and provide some evaluation of a range of sources to investigate changes it British society.		
Key Concepts	Power, poverty, democracy, vote, key individuals, communication, people.		
Literacy and Numeracy	• Gain and deploy a historically grounded understanding of abstract terms such as 'empire', 'civilisation', 'parliament' and 'industry'. • Opportunities for guided reading. • Literacy promoted through the analysis of written sources and interpretations.		
Careers	• Industry and employment (including concepts such as social mobility, wages, and employee welfare) linked into lessons on the Twentieth Century.		

ARENA ACADEMY

To inspire our students' curiosity to discover their own story, to equip our students with the skills to open doors to the wider world and challenge our students to think critically, developing their perspective and judgement.

Inspiring • Skilful • Challenging

HISTORY Learning Journey

Power | Religion | War | Key individuals | Communication | People

Career Paths
- Academic researcher/archivist
- Heritage manager
- Historic building conservator
- Museum education officer
- Secondary school teacher

Further study
- History
- English
- Politics
- Economics
- Sociology

YEAR 11

Weimar & Nazi Germany
- Nazi control & dictatorship 1933-39
- The Weimar Republic 1918-29
- 1918-1939
- Life in Nazi Germany 1933-39
- Hitler's rise to power 1919-33
- The end of the Cold War 1970-91
- Cold War crises 1958-70
- 1941-1991
- The origins of the Cold War 1941-58

Superpower Relations & the Cold War

Elizabethan society in the Age of Exploration 1558-88
- Queen, government & religion 1558-69
- 1558-1588
- Challenges to Elizabeth at home and abroad 1569-88

Early Elizabethan England

YEAR 10

Medicine in Britain
- 'Medicine in modern Britain' c. 1900-Present Day
- 1250 to present day
- 'Medicine in 18th & 19th century Britain' c.1750-1900
- 'The Medical Renaissance in England' c.1500-1700
- 'Medicine in medieval England' c.1250-1500

- To what extent could ancient doctors heal the sick? 2nd - 5th c. BC
- Has society learned lessons from the Holocaust? 20th c.
- What were the consequences of the Great War for Europe and the World?
- 20th c.
- Why did the 'lights go out across Europe' in 1914?
- To what extent do the causes of WWII resemble those of WWI?
- What were the consequences of WWII for Europe and the World?

YEAR 9

- To what extent have women achieved equality since 1918? 20th c.
- What does the Titanic tell us about society in the early 20th century?
- 18th – 19th c.
- What role did the Industrial Revolution have on the health of the people?
- To what extent was Britain changed by the Industrial Revolution?? 18th – 19th c.
- To what extent did Britain's imperialism shape the world? 18th – 20th c.
- Why did 'brother fight against brother' in the 17th century? 17th c.
- 16th – 19th c.
- What was the impact of the trans-Atlantic slave trade on those enslaved?
- 16th c.
- To what extent was everyday life different in Tudor England compared to medieval?
- 16th c.
- Why was there religious turmoil in Tudor England?

YEAR 8

- Why was the Norman invasion of 1066 a success? 11th c.
- 11th – 15th c.
- To what extent did life change in the medieval period?
- 5th c.
- Why did the Roman Empire collapse?
- 6th c. BC

Welcome!

YEAR 7

ARENA ACADEMY

Why the Liberals introduced social welfare reforms - Higher History - Video - BBC Bitesize

Who did the reforms help? Children, old, sick, workers

National Insurance Act, 1911

All workers had to join and paid 4d (4p) for insurance stamps which they stuck on a special card.

Employers gave 3d and the Government gave 2d for each worker in the scheme.

If a worker in the scheme fell ill, they got sick pay of 10s per week for 13 weeks, then 5s per week for a further 13 weeks in the year.

Workers in the scheme could have free medical care.

Free School meals, 1906

Local councils were given powers to give free meals to children from poor families.
By 1914, over 150,000 children were having a daily free meal, every day.
In 1914, the Government made school meals compulsory.

School medical inspections, 1907

Doctors and nurses went into schools to provide free medical checks for children
They could recommend any treatment that was necessary
After 1912, health care for these children was free.

Liberal Reforms

Tackling poverty & unemployment

Children's Act, 1908

Children were now protected, by law, against cruelty from their parents.
Instead of adult prisons, criminal children were to be sent to borstals, specially built to cope with young offenders.
Children under 14 not to be allowed into pubs.
Cigarettes or alcohol not to be sold to children under 16.

Labour Exchanges Act, 1909

These Job centres meant that the unemployed could go there to look for a job.
By 1913 there were 430 job centres (exchanges) in Britain.

Pensions Act, 1908

Weekly pensions were provided by the Government for the elderly and became very popular.
5s (20p) per week to single people over 70, 7s (35p) to married couples.

Key Individual in Public Health: David Lloyd George

Key dates: 1863-1945
Who? Inspirational Liberal politician, and PM from 1916 - 1922
Why significant?
- Became a Liberal MP in 1890.
- Chancellor of the Exchequer (MONEY) in the Liberal government (1906-1914) which introduced the Liberal reforms of 1906 - 1912.
- Regarded as the founder of the British welfare state
- Insisted on raising taxes on the well-off to pay for old age pensions and the National Insurance Act of 1911.
- Became Prime Minister in 1916, during WWI
- Major player at the Paris Peace Conference of 1919

Factors in their success:
CONNECTIONS: friend of Seerbohm Rowntree.
COMMUNICATION: A brilliant and persuasive speaker.
GOVERNMENT: key member of government at a crucial time

Key Individual in Public Health: Seebohm Rowntree

Key dates: 1871 - 1954
Who? York businessman, social researcher and social reformer
Why significant?
- Investigated poverty and living conditions in York
- 1901 publication provided detailed evidence that more than a quarter of the people in York were living in poverty even though they were in work, and their poverty was having a serious impact on their health.
- As a result, he increased his own workers' wages and continued his research.
- His 1941 report showed a 50 per cent reduction in poverty since 1901, and that poverty in the 1930s was mostly the result of unemployment rather than low wages (going against the traditionally held view that the poor were responsible for their own plight).

Factors in their success:
PUBLICATIONS: eg 'Poverty: a Study of Town Life' (1901) and 'Progress and Poverty' (1941)
GOVERNMENT/CONNECTIONS: Became a close friend of David Lloyd George, so could influence the liberal reforms.
RELIGION: Rowntree's Quaker views impacted on his approach and commitment

Key Individual in Public Health: Charles Booth

Key dates: 1840-1916
Who? Liverpool businessman and philanthropist
Why significant?
- In 1886 he financed research into poverty in the East End of London and spent weeks living in the area.
- Made a detailed description of living conditions and poverty, with coloured maps identifying the extent of poverty in each street of East London.
- Discovered that 35 per cent of people were living in poverty - far more than the 25 per cent previously claimed

Factors in their success:
COMMUNICATIONS: Wrote 'Life and Labour of the People in London'.
CHANCE: Was a friend of Octavia Hill and others trying to improve living conditions for the poor.

Year 8 Summer Term Knowledge Organiser – The Titanic 1912

Key Vocabulary

Passenger liner: A ship that carries
Passengers course : The route or direction taken by something or someone destination The place to which someone is going to or being sent.
Iceberg: A large floating lump of ice detached from a glacier.
Unsinkable: Unable to be sunk
Atlantic Ocean: The ocean between North American and Europe
Captain: The person in command of a ship
Tragedy: An event causing great suffering, destruction and distress
Crew: A group of people who work together to operate a ship or aircraft
Class: A system of ordering society based on wealth
Voyage: journey collide two moving objects hitting each other

Background Information

- **Titanic was built by the White Star Line and was the world's largest passenger liner**
- **Construction of the Titanic started on 31st March 1909. It took over 3 years to build.**
- **Titanic measured 882 feet (269 metres) long and weighed 52,310 tons.**
- **In 1911 Titanic was declared practically unsinkable and a marvel of British engineering.**
- **It cost £3.25 million pounds to build Titanic.**
- **There were 9 decks on the Titanic and it took crew members up to 14 days to learn their way around.**
- **The maiden voyage began on 10th April 1912**
- **The ship was named R.M.S Titanic – this stood for Royal Mail Ship**
- **A first class ticket cost £875 – a third class ticket cost £5.**
- **It was a legal requirement of British law that third class passengers could not mix with first and second class passengers on Titanic.**

Dates / timeline

14th April:

11. 11.40pm – Titanic hits iceberg

15th April:

12. 12.30am – Lifeboats are lowered

13. 2.10am – Ship's lights go out

14. 2.17am – Titanic breaks in two

15. 2.19am – Bow begins to sink

16. 2.24am – Titanic reaches the bottom of the ocean

Titanic Facts

- The Titanic was built between 1909 and 1911.
- It le Southampton on April 10, 1912 and headed towards New York It was a luxury passenger liner that carried some of the world's richest people as well as others looking for a new life in North America
- The Titanic collided with an iceberg and sank on April 15, 1912.
- Over 1500 people died because of the sinking.
- While the Titanic carried over 2200 people, there were only enough life boats for around 1200 of them.

Who was to blame?

- **Captain E.J Smith – the captain of the ship on its maiden voyage.**
- **Harland and Wolff – Titanic was built at their shipyard in Belfast**
- **Thomas Andrews' – was the naval architect who designed the Titanic.**
- **Stanley Lord – was the captain of a ship called the Californian.**
- **Bruce Ismay – the man in charge of the White Star Line – the owners of Titanic.**

WOMEN'S SUFFRAGE KNOWLEDGE ORGANISER

Summary

Women's Suffrage is about the **right of women to vote** at elections.

At the start of the 19th century, women in Britain did not have the right to vote. They also had **few legal protections** or **rights to education or work**.

By the end of the 1800s, there was increasing support for the right of women to vote. There were two main groups who campaigned for women's rights, the **Suffragists** (NUWSS) and the **Suffragettes** (WSPU).

In 1918, just before World War One ended, the government passed a law giving some women the right to vote for the first time. **Further acts in 1928 and 1969** extended this to more women.

Anney Kenney and Christabel Pankhurst of the Suffragettes in 1908.

Major Events

Women's Suffrage Petition - 1866

In 1866, Barbara Bodichon and other women's rights activists presented the first women's suffrage petition to Parliament. Signed by over 1,500 women, the petition demanded that women be granted the right to vote on the same terms as men. While this initial petition was unsuccessful, it laid the groundwork for future suffrage efforts.

Formation of Suffragists (NUWSS) - 1897

The NUWSS, led by Millicent Fawcett, advocated for women's suffrage through peaceful and constitutional means. Unlike the more militant WSPU, the NUWSS focused on lobbying, public speaking, and organizing petitions to achieve suffrage. The NUWSS played a crucial role in gaining support for women's suffrage and paved the way for future legislative victories.

Formation of the Suffragettes - 1903

Founded by Emmeline Pankhurst and her daughters Christabel and Sylvia, the WSPU was a militant suffragette organization that played a significant role in the women's suffrage movement. The WSPU employed tactics such as demonstrations, hunger strikes, and window-smashing to draw attention to the cause and put pressure on the government.

Cat and Mouse Act - 1913

The Act was designed to deal with suffragettes who engaged in hunger strikes while imprisoned. Under this Act, hunger-striking prisoners could be released from prison if their health deteriorated to a dangerous level due to starvation. Once their health improved, they could be rearrested and returned to prison to complete their sentence.

Representation of the People Acts - 1918 and 1928

- The Representation of the People Act 1918 was a landmark piece of legislation that partially granted women the right to vote in the UK. It extended voting rights to women over the age of 30 who met certain property qualifications, as well as to all men over 21.
- The Representation of the People Act 1928, also known as the Equal Franchise Act, granted equal voting rights to women and men over the age of 21, regardless of property qualifications.
- This legislation finally achieved universal adult suffrage in the UK.

Key People

MILLICENT FAWCETT (1847-1929)		-Dame Millicent Garratt Fawcett was the leader of the Suffragists from 1897 until 1919. - This organization advocated for women's suffrage through peaceful and non-violent means, such as lobbying, public speaking, and organizing petitions. Over time they won some publicity, and their membership grew, but by 1903 some women were increasingly frustrated at the lack of progress they were making and formed the Suffragettes. Fawcett distanced herself from these more militant and direct approaches.
EMMELINE PANKHURST (1858-1928)		-Emmeline Pankhurst had been a former member of the Suffragists but became frustrated with their approach. She then formed the Suffragettes in 1903. -It was a more inclusive group, which welcomed women from a range of different backgrounds and groups. -Her daughters, Christabel and Sylvia, were also active and important to the cause. -From 1905, when the Suffragettes campaign became more extreme (sometimes violent), Pankhurst often found herself in trouble with the police. At the outset of WWI, she encouraged women to join the war effort and was integral to women eventually being given the right to vote.
EMILY DAVISON (1872-1913)		-Emily Davison was a prominent English Suffragette. -She was a militant fighter for her cause - she was arrested on nine occasions, went on hunger strike seven times and was force-fed on forty-nine occasions. -In 1913, she went to the Derby at Epsom, one of the most famous horse races in the world. Carrying a Suffragettes sash, she walked onto the racetrack in front of King George's horse, Amner. She was hit by the horse, which would have been travelling around 35mph. She suffered serious injuries and later died in hospital. It is thought she intended to attach the sash to the horse to raise awareness of the campaign for women's suffrage.

Key Vocabulary

Suffrage

Suffragette

Suffragist

NUWSS

WSPU

Hunger Strike

Cat & Mouse Act

Petition

Act

Emmeline Pankhurst

Millicent Fawcett

Emily Davison

Top Facts

1. When the Suffragettes began adopting more aggressive acts, their motto became 'Deeds Not Words.'

2. Before the Cat and Mouse Act, Suffragettes were often force-fed when they went on hunger strike.

3. Emily Davison's death raised awareness of the cause.

4. World War 1 drastically changed women's role in society. Women were cast into roles previously occupied by men. It is thought that this contributed to changing attitudes across the country.

5. The 1918 Representation of People Act wasn't thought to go far enough. Women still had to be over the age of 30 and own property to be allowed to vote.

6. 'Suffrage' means the right to vote in elections.

7. There remains divided opinion over the extreme strategies adopted by the Suffragettes.

8. The fight for women's rights is not over. Men are still paid more on average for doing the same jobs, and in many countries women do not have basic rights.

Women's Suffrage Timeline

1866: First women's suffrage petition is presented to parliament by Barbara Bodichon.

1867: Formation of London Society for Women's Suffrage.

1897: Establishment of Suffragists (NUWSS).

1903: Formation of Suffragettes under Emmeline Pankhurst.

1907: First 'Mud March' by Suffragettes in London.

1908: Women's Sunday demonstration.

1913: Emily Davison steps out in front of the King's horse at the Epsom Derby.

1918: Representation of People Act is passed, granting voting rights to some women over 30.

1928: Representation of People act passed, granting equal voting rights to women and men.

Religious Education

Topics covered from the beginning of the academy year to the end of this half-term.

<u>Summer:</u>

1. Evil and Suffering

RELIGIOUS STUDIES
Learning Journey

ARENA ACADEMY

A Level
Health & Social Care, Geography, Law, History, Sociology, Philosophy, Psychology or Politics

Apprenticeship
Arts, Media & Publishing, Travel & Tourism, Public services or Education & Training

UNIVERSITY · APPRENTICESHIP · COLLEGE · WORKPLACE

RS GCSE Examinations

GCSE Results Day

Revision

The Death Penalty

Religion, Crime and Punishment

Principle of Utility

Punishment and Aims

Protests

Reconciliation

Forgiveness

Religion, Peace and Conflict

Science Vs Religion

Stewardship Vs Dominion

Religion and Life

AQA

YEAR 11

Religion and Relationships

Contemporary family issues

Sacraments

Festivals

The Purpose of Families

Gender Roles

Christian Practices

Worship

Incarnation of God

Nature of God

Creation

Christian Beliefs

Festivals

Islam Practices

Worship

Risalah

Denominations

Nature of Allah

Islam Beliefs

YEAR 10

War and Peace

Privilege

Violence

Pacifism

Justice

Medical Ethics

Sanctity of Life

Quality of Life

Morality

Community

Equality

Human Rights & Social Justice

YEAR 9

Existence of Evil

Afterlife

Morality

Nature Vs Nurture

Evil and Suffering

Purpose

Humanism

Commitment

Codes of Conduct

Alternative Religions

Alternative vs mainstream

Guru Granth Sahib

Commitment

Guru Nanak

Sikhism

Incarnation of God

The Bible

The Original Sin

Christianity

Prophethood

Worship

Islam

The Qur'an

YEAR 8

Brahman

Hinduism

Karma & Reincarnation

Worship

Founding Fathers

Festival of Passover

Covenant

Judaism

Codes of Conduct

Rites of Passage

Community & Commitment

The Island

Welcome!

YEAR 7

Year 6 SATs

Visit to Arena Academy

CORE EDUCATION TRUST

ARENA ACADEMY

Problem of Evil

1) Different approaches to POE

Most people experience suffering at some time in their life. Religions attempt to explain suffering, help people to cope with it and learn from it. For some religious people, the fact that people suffer can raise difficult questions about why God allows this to happen.
Evil and suffering can also make people question their religious beliefs and sometimes reject the existence of God completely.

3)How does Islam explain Suffering?

For Muslims everything that happens is the will/plan of God. This includes suffering and evil. They are part of Allah's great plan.
Allah is testing people with suffering, to see if they will still believe in Him or if they will follow evil (devil)
Sometimes you have to suffer in order for some good to take place.
Muslims are expected to be patient and trust in Allah

Keywords

Omniscient	All-knowing
Omnipotent	All-powerful
Benevolent	All-Loving
Theodicy	an attempt to explain how God can be omnipotent, omniscient, love us and yet still allow us to suffer
Natural Evil	This kind of suffering is that which is caused by the world we live in
Moral Evil	This kind of suffering is that which is brought out about by the cruel actions of people
Genocide	The deliberate and systematic destruction of a religious, racial, national, or cultural group.
Anti Semitism	Hostility to or prejudice against Jews.
Persecution	hostility and ill-treatment, especially because of race or political or religious beliefs; oppression

2) Christian Response to Problem of evil.

Christians believe Evil is the fault of humans misusing their free will. It is not God's fault and that We cannot possibly understand the mind of God and so cannot explain why he chooses to let evil exist

4) Jewish responses to the POE

Most Jews believe that everything God does is for good. From a human perspective, some actions might seem evil, but they trust that whatever happens on Earth is ultimately according to God's plan, which is good. Jews believe suffering can bring people closer to God. In times of trouble many people turn to religion for comfort and support.
Some Jews believe suffering helps people to **empathise** with others and to assist them when necessary.

Questions raised by the existence of evil and suffering in the world

- What does the presence of evil and suffering say about God's love, power and purpose?
- Is there a purpose to suffering?
- Is suffering the price humans pay for ?
- How do different religions respond to evil and suffering?
- How do individuals respond to evil and suffering?

Computer Science

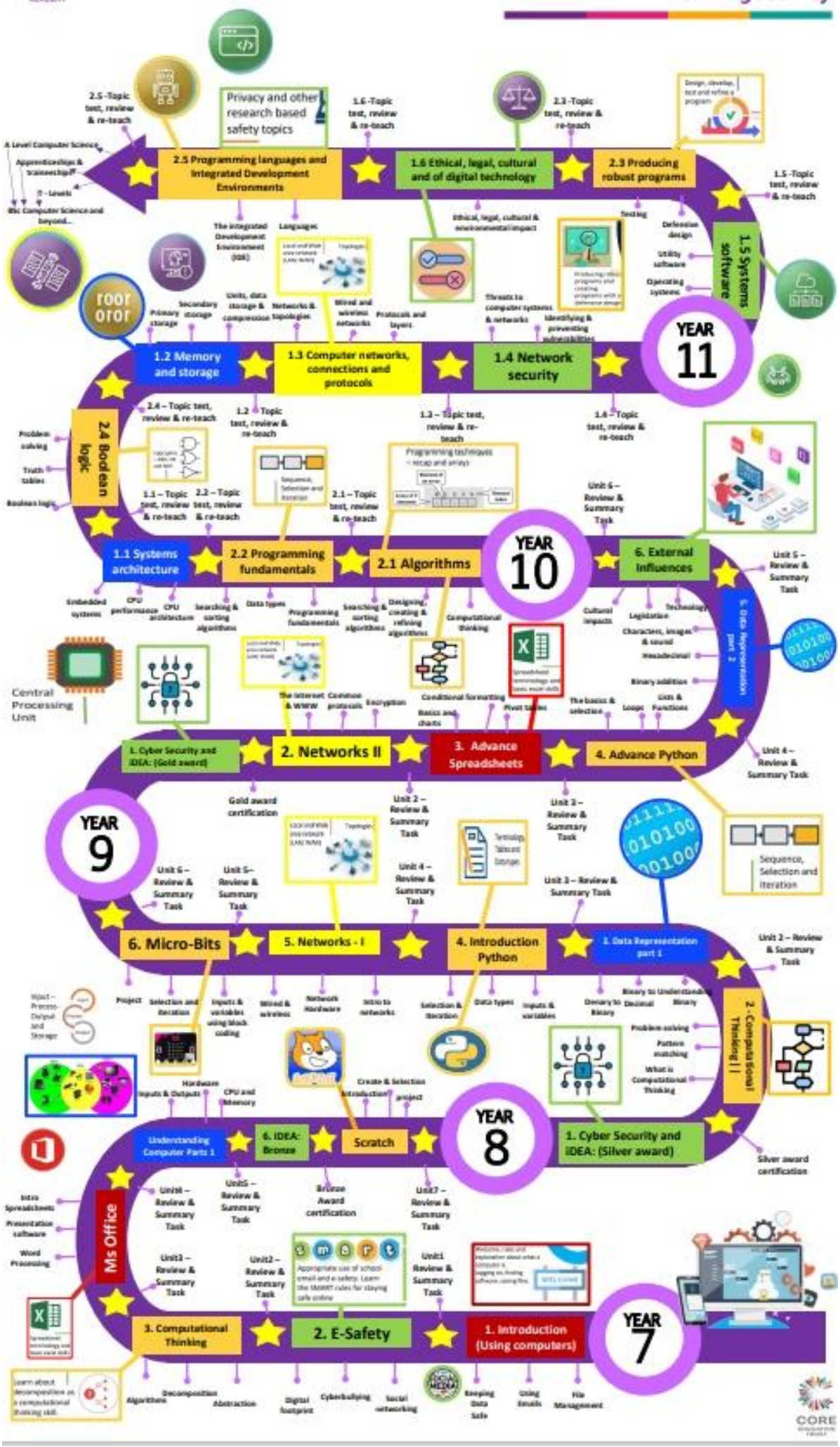
Topics covered from the beginning of the academy year to the end of this half-term.

<u>Summer:</u>

1. Networks
2. Microbits

Computer Science/IT

Learning Journey



World Wide Web

- A collection of web pages
- Stored on computers all over the world
- Accessed via the Internet
- No central storage
- No owner

Uniform resource locator (URL) – this is a web address that are unique.

www.abc.co.uk/images/logo.jpg

- Hosted on the WWW
- Name of the organisation
- A Company
- UK based
- Folder location and filename on the site

Domain names

Websites are stored on web servers connected to the internet. Each website has an IP address so people can access the pages using their browser software/ However, when you want to access a site you don't enter the IP address, you type in a domain name.

HTTP: Hyper Text transfer protocol

- A protocol is a set of rules
- HTTP defines the rules used by web browsers and servers to exchange information
- If everyone follows the same set of rules, everything works

Data Packets

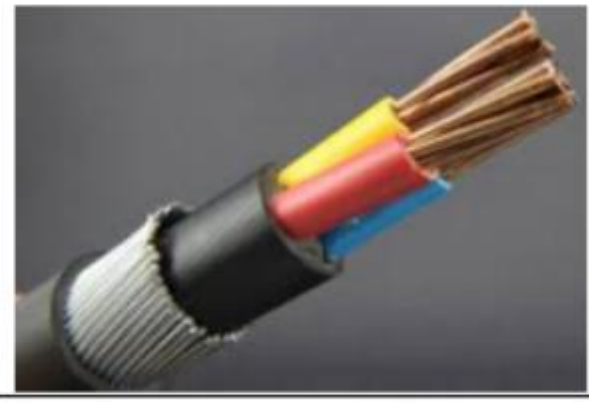
- Data transmitted over the Internet is broken down into smaller chunks or packets to be sent
- The destination and sender's addresses are added
- Each packet is numbered, sent separately, then put in the right order again at the other end

IP Addressing

IP address is like the way the postal service works. Every house has a unique address with house number, street name, town and postcode.
Every computer has a separate unique address and data can be sent to these addresses to request or display a web page for example

History of connectivity

The first copper cable, 2.500 miles long, was laid across the Atlantic in 1858. Each mile of cable, 133 miles of wire was needed.



Python -> English	
`print('hello!')`	Prints a value on screen (in this case, hello!)
`input('')`	Inputs a value into the computer.
`x=input('')`	Inputs a value and stores it into the variable x.
`x=int(input(''))`	Inputs a value into x, whilst also making it into an integer.
`print(str(x))`	Prints the variable x, but converts it into a string first.
`if name == "Fred":`	Decides whether the variable 'name' ha a value which is equal to 'Fred'.
`else:`	The other option if the conditions for an if statement are not met (eg. name = 'Bob' when it should be Fred)
`elif name == "Tim"`	elif (short for else if) is for when the first if condition is not met, but you want to specify another option.
`#`	# is used to make comments in code – any line which starts with a # will be ignored when the program runs.

Comparative Operators	
==	Equal to
!=	Not equal to
>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to

Key vocabulary	
Python	A high level programming language.
Programming	The process of writing computer programs.
Code	The instructions that a program uses.
Sequence	Parts of the code that run in order and the pathway of the program reads and runs very line in order.
Selection	Selects a pathways through the code based on whether a condition is true
Iteration	Code is repeated (looped), either ***while*** something is true or ***for*** a number of times
Algorithm	A set of rules/instructions to be followed by a computer system
Variable	A value that will change whilst the program is executed. (eg. temperature, speed)
Comparative Operator	When comparing data, an operator is used to solve the equality such as <>, != or ==
Syntax	The punctuation/way that code has to be written so that the computer can understand it. Each programming language has its own syntax.
Data Type	This indicates how the data will be stored. The most common data types are integer, string, and float/real.
String	A collection of letters, numbers or characters. (eg, Hello, WR10 1XA)
Integer	A whole number. (eg. 1, 189)
Float/Real	A decimal number, not a whole number. (eg. 3.14, -26.9)
Boolean	1 of 2 values. (eg. True, False, Yes, No)

Spanish

Topics covered from the beginning of the academy year to the end of this half-term.

<u>Summer:</u>

1. My family and friends

2. My home and free time

Viva 1
Module 4 - Mi familia y mis amigos

Spanish

¿Cuántas personas hay en tu familia?
How many people are there in your family?

En mi familia hay...	*In my family, there are...*
personas.	*people.*
mis padres	*my parents*
mi madre	*my mother*
mi padre	*my father*
mi abuelo	*my grandfather*
mi abuela	*my grandmother*
mi bisabuela	*my great-grandmother*
mi tío	*my uncle*
mi tía	*my aunt*
mis primos	*my cousins*
¿Cómo se llama tu madre?	*What is your mother called?*
Mi madre se llama...	*My mother is called...*
¿Cómo se llaman tus primos?	*What are your cousins called?*
Mis primos se llaman... y...	*My cousins are called... and...*
su hermano	*his/her brother*
sus hermanos	*his/her brothers and sisters*

¿Cómo tienes el pelo?
What's your hair like?

Tengo el pelo...	*I have... hair.*
castaño	*brown*
negro	*black*
rubio	*blond*
azul	*blue*
liso	*straight*
rizado	*curly*
largo	*long*
corto	*short*
Soy pelirrojo/a.	*I am a redhead.*
Soy calvo.	*I am bald.*

¿Cómo es?
What is he/she like?

Es...	*He/She is...*
No es muy...	*He/She isn't very...*
alto/a	*tall*
bajo/a	*short*
delgado/a	*slim*
gordo/a	*fat*
guapo/a	*good-looking*
inteligente	*intelligent*
joven	*young*
viejo/a	*old*
Tiene pecas.	*He/She has freckles.*
Tiene barba.	*He has a beard.*
mis amigos	*my friends*
mi mejor amigo/a	*my best friend*
su mejor amigo/a	*his/her best friend*

Adjectives

In Spanish most adjectives come after the word they are describing.

tengo el pelo rubio, corto y liso.

I have short, straight, blond hair.

¿De qué color tienes los ojos?
What colour are your eyes?

Tengo los ojos...	*I have... eyes.*
azules	*blue*
grises	*grey*
marrones	*brown*
verdes	*green*
Llevo gafas.	*I wear glasses.*

Culture!

Families are getting smaller in Spain and latin Ameria, and people are waiting longer to have children.

The estimated average number of children per family in four spanish speaking countries is:

Spain	1.4
Mexico	2.4
Bolivia	3.5
Chile	1.9

Grammar

The words for 'my' and 'your' are different depending on whether the noun is singular or plural.

My: mi (singlar) / mis (plural)

Your: tu (singluar) / tus (plural)

his / her: su (singluar / sus (plural)

Did you know?

It is a common stereotype that all Spanish people have dark hair and eyes, but many Spanish people have blond or red hair and blue grey eyes.

Practise online

Use this QR code to find all of the vocab online where you can listen to pronunciation and practise using games and vocab lists.

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Viva 1
Module 4 - Mi familia y mis amigos

Spanish

¿Cómo es tu casa o tu piso?
What is your house or flat look like?

Vivo en...	*I live in...*
una casa	*a house*
un piso	*a flat*
antiguo/a	*old*
bonito/a	*nice*
cómodo/a	*comfortable*
grande	*big*
moderno/a	*modern*
pequeño/a	*small*

Los números 20 – 100
Numbers 20 – 100

veinte	*20*
treinta	*30*
cuarenta	*40*
cincuenta	*50*
sesenta	*60*
setenta	*70*
ochenta	*80*
noventa	*90*
cien	*100*

Palabras muy frecuentes
High-frequency words

además	*also, in addition*
bastante	*quite*
porque	*because*
muy	*very*
¿Quien...?	*Who?*
un poco	*a bit*
mi/mis	*my*
tu/tus	*your*
su/sus	*his/her*

Carnival of Cadiz

The Carnival of Cádiz is one of the best-known carnivals in Spain. Its main characteristic is humor. Through sarcasm, mockery and irony, the main groups and the people of the street "purge" the most pressing problems of today.

The whole city participates in the carnival for more than two weeks each year, and the presence of this fiesta is almost constant in the city because of the recitals and contests held throughout the year.

Remember!

Adjectives must agree with the noun they describe.

Manuel et Cruel es alto.
Daniela es guapa.

¿Dónde está?
Where is it?

Vivo en...	*It is in...*
el campo	*the countryside*
la costa	*the coast*
una ciudad	*a town*
el desierto	*the desert*
la montaña	*the mountains*
un pueblo	*a village*
el norte	*the north*
el sur	*the south*
el este	*the east*
el oeste	*the west*
el centro	*the centre*

Culture!

In most major Spanish cities, you will see many more flats than houses.

Houses in the north of Spain can look very different from the houses in the south.

The north is green, lush and rains alot.

The south is sunny and can be very hot, so houses are often painted white to reflect the heat.

Grammar

When you are talking about location (Where something is), you use the verb estar for 'to be'. This verb is irregular.

Estoy - I am
estás = you are
está - he, she, it is
estamos - we are
estáis- you (plural) are
están - They are

Did you know?

Spain is twice as big as the UK, but only about three- quarters of the population?

Culture focus!

Diego Velazquez (1599-1660) was a Spanish painter. He was made the official royal painter by King Felipe IV.

In 1656 he painted 'La familia de Felipe IV', more commonly known as 'Las Meninas' ('The Maids of Honour'). The small girl in the painting is the Infanta Margarita (the Princess Margarita).

Many other artists have been inspired by 'Las Meninas'. One of them was the famous Spanish painter Pablo Picasso (1881-1973).

Picasso liked to experiment with shape and colour. In 1957 he painted 58 versions of 'Las Meninas'!

Practise online

Use this QR code to find all of the vocab online where you can listen to pronunciation and practise using games and vocab lists.

Viva 1
Module 2 - Mi tiempo libre

Spanish

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

Me gusta...	*I like...*
Me gusta mucho...	*I really like...*
No me gusta...	*I don't like...*
No me gusta nada...	*I don't like at all...*
chatear	*to chat online*
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 text messages*
navegar por Internet	*to surf the net*
salir con mis amigos	*to go out with friends*
ver la televisión	*to watch TV*
porque es...	*because it is...*
porque no es...	*because it is not...*
interesante	*interesting*
guay	*cool*
divertido/a	*amusing, funny*
estúpido/a	*stupid*
aburrido/a	*boring*

¿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 guitarra	*I play the guitar*

Expresiones de frecuencia
Expressions of frequency

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

Las estaciones
The seasons

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

¿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 nice weather*
llueve	*it's raining*
nieva	*it's snowing*
¿Qué haces cuando llueve?	*What do you do when it's raining?*

Present tense -ar verbs

You use the present tense to talk about what usually happens: I surf the net, I send texts.
To form the present tense of **-ar** verbs, you take off the -ar and add a different ending for each person.

hab**lar** to speak

hab**lo**	I speak	hab**lamos**	we speak
hab**las**	you speak	hab**láis**	you speak (pl)
hab**la**	he/she speaks	hab**lan**	they speak

Stem-changing verbs

Stem-changing verbs like **jugar** (to play) have regular endings, but some parts of the verb change the vowel in the 'stem'.

j**ue**go	I play	jugamos	we play
j**ue**gas	you play	jugáis	you play (pl)
j**ue**ga	he/she plays	j**ue**gan	they play

Football in Spain

The Spain national football team (Spanish: Selección de fútbol de España) is the national football team of Spain. The current head coach is Luis Enrique. The team is often called La Roja (The Red One), La Furia Roja (The Red Fury), La Furia Española (The Spanish Fury) or just La Furia (The Fury). The Spanish team became a member of FIFA in 1904, even though the team was made in 1909. Spain had their first match on the 8th of August 1920 against Denmark. Since the team's creation in 1909, they have been in 13 FIFA World Cups, and 9 UEFA European Football Championships.

Love **football**? Find out why Gary loves **Spain**!

Practise online

Use this QR code to find all of the vocab online where you can listen to pronunciation and practise using games and vocab lists.

AVOCADOS Foundation

Spanish

Adjectives

bueno	*good*
malo	*bad*
aburrido	*boring*
divertido	*fun*
estupendo	*great*
práctico	*practical*
cómodo	*comfortable*
incómodo	*uncomfortable*
barato	*cheap*
caro	*expensive*
simpático	*nice*
antipático	*awful*
bonito	*pretty*
feo	*ugly*

Verbs

Voy	*I go*
Hago	*I do/make*
Escucho	*I listen*
Como	*I eat*
Bebo	*I drink*
Compro	*I buy*
Juego	*I play*
Veo	*I see*
Hice	*I did/made*
Vi	*I watched/saw*
Fue + adjective	*It was + adjective*
Voy a (verb)	*I am going to...*
Será	*It will be*
Me gustaría	*I would like*

Opinions

me encanta /adoro	*I love*
me gusta	*I like*
no me gusta	*I don't like*
me gusta bastante	*I quite like*
me gusta mucho	*I really like*
prefiero	*I prefer*
no me gusta nada	*I don't like at all*
detesto/odio	*I hate*
En mi opinión	*In my opinion*
creo que	*I think that*
pienso que	*I think that*
opino que	*I think that*

Connectives

y	*and*
sin embargo	*however*
pero	*but*
aunque	*although*
también	*also*
porque	*because*
o	*or*
quizás	*perhaps*

Adverbs

normalmente	*normally*
generalmente	*generally*
usualmente	*usually*
especialmente	*especially*
completamente	*completely*
totalmente	*totally*
rápidamente	*quickly*
lentamente	*slowly*
finalmente	*finally*
inmediatamente	*immediately*
frecuentamente	*frequently*

Detail

muy	*very*
más	*more*
bastante	*quite*
menos	*less*
un poco	*a bit*
mucho/a/os/as	*many/a lot*
demasiado	*too*

OMG! phrases

lo bueno es que	*the good thing is that*
lo malo es que	*the bad thing is that*
lo peor es que	*the worst thing is that*
lo mejor es que	*the best thing is that*
¡Qué bien!	*Great!*
¡Qué mal!	*How awful!*

Sequencers

primero	*first*
segundo	*second*
luego	*then*
antes	*before*
después	*after*
por la mañana	*in the morning*
por la tarde	*in the afternoon*
por la noche	*in the evening*
ayer	*yesterday*
hoy	*today*
mañana	*tomorrow*
ahora	*now*
la semana próxima	*next week*
la semana pasada	*last week*

French

Topics covered from the beginning of the academy year to the end of this half-term.

<u>Summer:</u>

1. Holidays

Dynamo 2 Vert
Module 1 - Vive les vacances!

French

Point de départ
Getting started

une semaine de vacances.	*a week of holiday.*
deux semaines de vacances.	*two weeks of holiday.*
en janvier / février (etc.)	*in January / February (etc.)*
C'est pour Noël.	*It's for Christmas.*
C'est pour Pâques.	*It's for Easter.*
C'est pour les grandes vacances.	*It's for the summer holidays.*
Tu es où en vacances?	*Where are you on holiday?*
Je suis en vacances ...	*I am on holiday ...*
au bord de la mer.	*at the seaside.*
à la montagne.	*in the mountains.*
à la campagne.	*in the countryside.*
en colonie de vacances.	*at a holiday camp.*
chez mes grands-parents.	*at my grandparents' home.*
C'est amusant.	*It is fun.*
C'est ennuyeux.	*It is boring.*
C'est intéressant.	*It is interesting.*
C'est sympa.	*It is nice.*
C'est nul.	*It is rubbish.*
un peu	*a bit*
assez	*quite*
très	*very*
complètement	*completely*

The verb 'être'

Je suis	I am
Tu es	You (singular) are
Il/elle est	He/she is
Nous sommes	We are
Vous êtes	You (plural/polite) are
Ils/elles sont	They are

The verb 'avoir'

J'ai	I have
Tu as	You (singular) have
Il/elle a	He/she has
Nous avons	We have
Vous avez	You (plural/polite) have
Ils/elles ont	They have

Qu'est-ce que tu as visité?
What did you visit?

J'ai visité le château.	*I visited the castle.*
J'ai visité le lac.	*I visited the lake.*
J'ai visité le musée.	*I visited the museum.*
J'ai visité le parc.	*I visited the park.*
J'ai visité le stade.	*I visited the stadium.*
J'ai visité la cathédrale.	*I visited the cathedral.*
J'ai visité la mosquée.	*I visited the mosque.*
J'ai visité la chocolaterie.	*I visited the chocolate shop.*
d'abord	*first of all*
ensuite	*next*
puis	*then*
après	*after(wards)*
finalement	*last of all*
C'était comment?	*How was it?*
C'était amusant.	*It was fun.*
C'était cool.	*It was cool.*
C'était génial.	*It was great.*
C'était ennuyeux.	*It was boring.*
C'était intéressant.	*It was interesting.*
C'était sympa.	*It was nice.*
C'était moderne.	*It was modern.*
C'était nul.	*It was rubbish.*

Practise online

Use this QR code to find all of the vocab online where you can listen to pronunciation and practise using games and vocab lists.

Tu es allé(e) où en vacances?
Where did you go on holiday?

Je suis allé(e) en Espagne.	*I went to Spain.*
Je suis allé(e) en Grèce.	*I went to Greece.*
Je suis allé(e) au Maroc.	*I went to Morocco.*
Je suis allé(e) aux États-Unis.	*I went to the USA.*
Avec qui?	*Who with?*
Avec mon frère.	*With my brother.*
Avec ma famille.	*With my family.*
Avec mes parents.	*With my parents.*
Avec mes amis.	*With my friends.*
Tu as voyagé comment?	*How did you travel?*
J'ai voyagé en avion.	*I travelled by plane.*
J'ai voyagé en bateau.	*I travelled by boat.*
J'ai voyagé en car.	*I travelled by coach.*
J'ai voyagé en train.	*I travelled by train.*
J'ai voyagé en voiture.	*I travelled by car*

Dynamo 2 Vert
Module 1 - Vive les vacances!

French

Qu'est-ce que tu as fait pendant les vacances?
What did you do during the holidays?

Pendant les vacances ...	*During the holidays ...*	**J'ai acheté des BD.**	*I bought some comics.*
J'ai joué au tennis.	*I played tennis.*	**J'ai regardé des clips vidéo.**	*I watched video clips.*
J'ai joué au foot.	*I played football.*	**J'ai regardé un film à la télé.**	*I watched a film on TV.*
J'ai mangé des glaces.	*I ate ice creams.*	**J'ai nagé dans la mer.**	*I swam in the sea.*
J'ai mangé une pizza.	*I ate a pizza.*	**J'ai retrouvé Léo.**	*I met up with Léo.*
J'ai écouté de la musique.	*I listened to music.*	**J'ai traîné au lit.**	*I hung around in bed.*
J'ai acheté des baskets.	*I bought some trainers.*	**J'ai dormi.**	*I slept.*
J'ai acheté un tee-shirt.	*I bought a tee-shirt.*		

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

J'ai visité un parc d'attractions.	*I visited a theme park.*
J'ai bu un coca.	*I drank a cola.*
J'ai vu un spectacle.	*I saw a show.*
J'ai vu mes personnages préférés.	*I saw my favourite characters.*
J'ai fait une balade en bateau.	*I went on a boat ride.*
J'ai fait les manèges.	*I went on the rides.*
J'ai pris des photos.	*I took photos.*
Je n'ai pas mangé de glaces.	*I didn't eat any ice creams.*
Je n'ai pas acheté de souvenirs.	*I didn't buy any souvenirs.*

Culture

The **European Day of Languages (EDL)** is celebrated across Europe on the 26th of September every year. It aims to promote **the rich linguistic diversity of Europe** and raise awareness of the importance of lifelong language learning for everyone. It was set up by the Council of Europe and was first celebrated in 2001. (source:scilt.org.uk)

The perfect tense with 'avoir'

To form the perfect tense of most verbs, you need 3 things :

1. a subject pronoun (je, tu, il etc)

2. part of the verb avoir (to have)

3. a past participle (e.g. visité)

To form the past participles of regular -er verbs, take the **-er** ending off the infinitive and replace it with **-é**.
visi**ter** -> visi**té**
e.g.: j'ai visi**té** = *I visited*

Not all verbs are regular **-er** verbs. These verbs are irregular, they have irregular past participles but they still follow the 1-2-3 rule.

boire *(to drink)* -> j'ai **bu** *(I drank)*
voir *(to see)* -> j'ai **vu** *(I saw)*
faire *(to do/make)* -> j'ai **fait** *(I did)*
prendre *(to take)* -> j'ai **pris** *(I took)*

Culture

Christmas in France is a major annual celebration, as in a lot of countries around the world. Christmas is celebrated as a public holiday in France on December 25. Public life on Christmas Day is generally quiet. Post offices, banks, stores, restaurants, cafés and other businesses are closed. Many people in France put up a Christmas tree, visit a special church service, eat an elaborate meal and open gifts on Christmas Eve. Other activities also include walking in a park, participating in city life and sharing a meal with family and close friends. 'Joyeux Noël' means 'Merry Christmas' in French. (source:Wikipedia)

The perfect tense with 'être'

Some verbs, such as *aller* (to go) use **être** (not avoir) to form the perfect tense. They still follow the **1-2-3 rule:**

Je **suis allé** en Espagne. = I went to Spain.
I **est allé** au Maroc. = He went to Morocco.

The **past participle** of these verbs must **agree** with the subject. Add an extra **-e** if the subject is **feminine**. The extra **-e** is silent, but important when you are writing.

Je suis allé**e** en France. = I went to France.
Elle est allé**e** aux États-Unis. = She went to the USA.

Practise online

Use this QR code to find all of the vocab online where you can listen to pronunciation and practise using games and vocab lists.

Dynamo 2 Rouge
Module 1 - Vive les vacances!

French

Point de départ
Starting point

J'habite ...	*I live ...*
en Angleterre / Écosse / Irlande (du Nord)	*in England / Scotland / (Northern) Ireland*
au pays de Galles.	*in Wales.*
J'ai / On a ...	*I have / We have ...*
une semaine / deux semaines de vacances	*a week / two weeks of holiday*
en janvier / février (etc.).	*in January / February (etc.)*
à Noël / à Pâques.	*at Christmas / Easter.*
Je suis / Nous sommes en vacances	*I am / We are on holiday ...*
au bord de la mer.	*at the seaside.*
à la montagne.	*in the mountains.*
à la campagne.	*in the countryside.*
en colo (en colonie de vacances)	*at a holiday camp.*
en colo (en colonie de vacances)	*at a holiday camp.*
chez mes grands-parents.	*at my grandparents' home.*
C'est ...	*It is ...*
assez	*quite*
très	*very*
trop	*too*
un peu	*a bit*
complètement	*completely*
nul / sympa	*rubbish / nice*
ennuyeux / intéressant	*boring / interesting*
triste / marrant	*sad / funny*

Liaison

The letter **s** at the end of a word is normally silent. But when the next word begins with a vowel sound, you pronounce the final **s** to make it easier to say. This is called ***liaison***. The **s** sounds a bit like a **z**.

Nou**s** avons, vou**s** avez

Tu as passé de bonnes vacances?
Have you had a nice holiday?

Pendant les vacances ...	*During the holidays ...*
j'ai joué au tennis.	*I played tennis.*
j'ai mangé des glaces.	*I ate ice creams.*
j'ai retrouvé mes amis.	*I met up with my friends.*
j'ai écouté de la musique.	*I listened to music.*
j'ai acheté des baskets.	*I bought some trainers*
j'ai regardé des clips vidéo.	*I watched video clips.*
j'ai nagé dans la mer.	*I swam in the sea.*
j'ai traîné à la maison.	*I hung around the house.*

Grammaire

The verb **avoir** (to have) is an important irregular verb. You will need to use it a lot in this module!

j'ai	*I have*
tu as	*you havev*
il/elle/on a	*he/she has / we have*
nous avons	*we have*
vous avez	*you (plural or polite) have*
ils/elles ont	*they have*

Grammaire

Some verbs are irregular. You need to learn the past participles by heart!

boire (to drink) - j'ai bu (I drank)
voir (to see) - j'ai vu (I saw)
faire (to do/make) - j'ai fait (I did/made)
prendre (to take) - j'ai pris (I took)

Grammaire

A small number of verbs have infinitives ending in **-ir** (eg vomir - to vomit) or **-re** (eg perdre - to lose). They form their past participles like this:

vomir - vomi - J'ai vomi au restaurant
perdre - perdu - Il a perdu son portable

Dynamo 2 Rouge
Module 1 - Vive les vacances!

French

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

Qu'est-ce que tu as fait pendant les vacances?	*What did you do during the holidays?*
J'ai visité un parc d'attractions.	*I visited a theme park.*
J'ai bu un coca au café.	*I drank a cola in the café.*
J'ai pris beaucoup de photos.	*I took lots of photos.*
J'ai vu un spectacle.	*I saw a show.*
J'ai fait une balade en bateau.	*I went on a boat ride.*
J'ai vu mes personnages préférés.	*I saw my favourite characters.*
J'ai fait tous les manèges.	*I went on all the rides.*
d'abord	*first of all*
ensuite / puis	*then*
après	*after(wards)*
finalement	*finally*
C'était ...	*It was ...*
fantastique / génial / super!	*fantastic / great / brilliant!*
amusant / marrant / sympa	*fun / funny / nice*
intéressant / ennuyeux / nul	*interesting / boring / rubbish*
Ce n'était pas mal.	*It wasn't bad.*

Grammaire

The verb être (to be) is another key irregular verb.

je suis	I am
tu es	you are
il/elle/on est	he/she is / we are
nous sommes	we are
vous êtes	you are (plural or polite)
ils/elles sont	they are

Culture

The **European Day of Languages (EDL)** is celebrated across Europe on the 26th of September every year. It aims to promote **the rich linguistic diversity of Europe** and raise awareness of the importance of lifelong language learning for everyone. It was set up by the Council of Europe and was first celebrated in 2001.
(source:scilt.org.uk)

Grammaire

The perfect tense is a past tense. Use it to say what you **did** or **have done.**

To form the perfect tense of most verbs, you need:

1) part of the verb avoir

2) a past participle (joué, mangé, etc.)

regarder - regardé

j'ai	regardé
tu as	regardé
il/elle/on a	regardé
nous avons	regardé
vous avez	regardé
ils/elles ont	regardé

Tu es allé(e) où?
Where did you go?

Tu es allé(e) où en vacances?	*Where did you go on holiday?*
Tu es allé(e) en vacances avec qui?	*Who did you go on holiday with?*
Je suis allé(e) en vacances avec ...	*I went on holiday with ...*
ma famille / mes parents / mes copains	*my family / my parents / my friends*
On est allé(e)s / Nous sommes allé(e)s ...	*We went ...*
en Espagne / France / Grèce.	*to Spain / France / Greece.*
au Maroc / aux États-Unis.	*to Morocco / to the USA.*
Tu as voyagé comment?	*How did you travel?*
J'ai voyagé ...	*I travelled ...*
On a / Nous avons voyagé ...	*We travelled ...*
en avion / en bateau.	*by plane / by boat.*
en bus / en car / en train / en voiture	*by bus / by coach / by train / by car*

Dynamo 2 Rouge
Module 1 - Vive les vacances!

French

Mon voyage extraordinaire!
My extraordinary holiday!

Normalement,	*Normally,*
pendant les vacances	*during the holidays…*
je vais en colo,	*I go to a holiday camp,*
à la campagne	*in the countryside*
je voyage en car.	*I travel by coach.*
je nage dans la piscine.	*I swim in the pool.*
je fais du sport.	*I do sport.*
je mange des hamburger-frites	*I eat burgers and chips*
C'est un peu ennuyeux.	*It's a bit boring*
Mais l'année dernière, …	*But last year, …*
j'ai gagné un concours.	*I won a competition*
je suis allé(e) à Vanuatu.	*I went to Vanuatu.*
j'ai voyagé en avion.	*I travelled by plane.*
j'ai nagé dans la mer.	*I swam in the sea.*
j'ai fait de la voile.	*I went sailing.*
j'ai vu des dauphins.	*I saw dolphins*
j'ai mangé des fruits de mer.	*I ate seafood.*
C'était vraiment génial!	*It was really great!*

Quel désastre!
What a disaster!

J'ai oublié mon passeport.	*I forgot my passport.*
J'ai cassé mon portable.	*I broke my phone.*
J'ai perdu mon porte-monnaie.	*I lost my purse.*
J'ai choisi le poisson.	*I chose the fish.*
J'ai beaucoup vomi.	*I vomited a lot.*
Je suis tombé(e) sur la plage.	*I fell over on the beach.*
Je suis resté(e) au lit.	*I stayed in bed.*
On a raté l'avion.	*We missed the plane.*
On est arrivés en retard.	*We arrived late.*
Je n'ai pas acheté de souvenirs.	*I didn't buy any souvenirs.*
Je n'ai pas pris de photos.	*I didn't take any photos.*
Je ne suis pas sorti(e).	*I didn't go out.*
Quel désastre!	*What a disaster!*
Quelle horreur!	*How horrible!*

Les mots essentiels
High frequency words

Qualifiers	
assez	quite
très	very
trop	too
un peu	a bit
complètement	completely
vraiment	really
Time expressions	
pendant	during
normalement	normally
l'année dernière	last year
Sequencing words	
d'abord	first of all
ensuite/puis	then
après	after(wards)
finalement	finally

Grammaire

Some verbs use être (not avoir) to form the perfect tense. The past participle of these verbs must **agree** with the subject. Add an extra -e if the subject is feminine and -s if the subject is plural.

aller	to go
je suis allé(e)	I went
tu es allé(e)	you (singular) went
il est allé/elle est allée	he/she went
on est allé(e)(s)	we went
vous êtes allé(e)(s)	you (plural or polite) went
ils sont allés/elles sont allées	they went

Other verbs that take être in the perfect tense include *arriver* (to arrive), *partir* (to leave), *rester* (to stay) and *rentrer* (to return).

Cognates

Cognates, near cognates and faux amis

Cognates are spelt the same in French as in English. But remember to learn the correct French pronunciation, as it is usually different from English! How do you pronounce the following?

le bus **le train** **des photos** **des souvenirs**

Near cognates are nearly - but not exactly - the same as English words. Take extra care when learning to spell words like this!

la musique **le passeport** **le désastre**

Some words look like cognates, but they are faux amis (false friends). What do these words mean in English?

le car **le spectacle** **rester** **traîner**

AVOCADOS Foundation

French

Adjectives

bon	*good*
mauvais	*bad*
ennuyeux	*boring*
amusant	*fun*
formidable	*great*
utile	*practical*
confortable	*comfortable*
inconfortable	*uncomfortable*
pas cher	*cheap*
cher	*expensive*
aimable	*nice*
affreux	*awful*
joli	*pretty*
laid	*ugly*

Verbs

je vais	*I go*
je fais	*I do/make*
j'écoute	*I listen*
je mange	*I eat*
je bois	*I drink*
j'achète	*I buy*
je joue	*I play*
je suis allé	*I went*
j'ai fait	*I did/made*
j'ai vu	*I watched*
c'était + adjective	*It was + adjective*
je vais (+ inf)	*I am going to + inf*
ce sera	*It will be*
je voudrais	*I would like*

Opinions

j'adore	*I love*
j'aime	*I like*
je n'aime pas	*I don't like*
j'aime assez	*I quite like*
j'aime vraiment	*I really like*
je préfère	*I prefer*
je déteste	*I hate*
Je crois que	*I believe that*
Je pense que	*I think that*
je trouve que	*I find that*
À mon avis	*In my opinion*
Selon moi	*In my opinion*
D'après moi	*In my opinion*

Connectives

et	*and*
cependant	*however*
neanmoins	*however*
par contre	*however*
aussi	*also*
même si	*even if*
car	*because*
parce que	*because*
puisque	*because*
donc	*therefore*
mais	*but*
sans doute	*no doubt*
ou	*or*
peut-être	*perhaps*

Adverbs

normalement	*normally*
généralement	*generally*
d'habitude	*usually*
spécialement	*especially*
complètement	*completely*
totalement	*totally*
rapidement	*quickly*
lentement	*slowly*
finalement	*finally*
immédiatement	*immediately*
fréquemment	*frequently*

Detail

très	*very*
plus	*more*
assez	*quite*
moins	*less*
un peu	*a bit*
beaucoup	*many/a lot*
trop	*too*
aussi	*also*

OMG! phrases

ce qui est bien c'est que	*the good thing is that*
ce qui est mauvais c'est que	*the bad thing is that*
le meilleur c'est que	*the best thing is that*
le pire c'est que	*the worst thing is that*

Sequencers

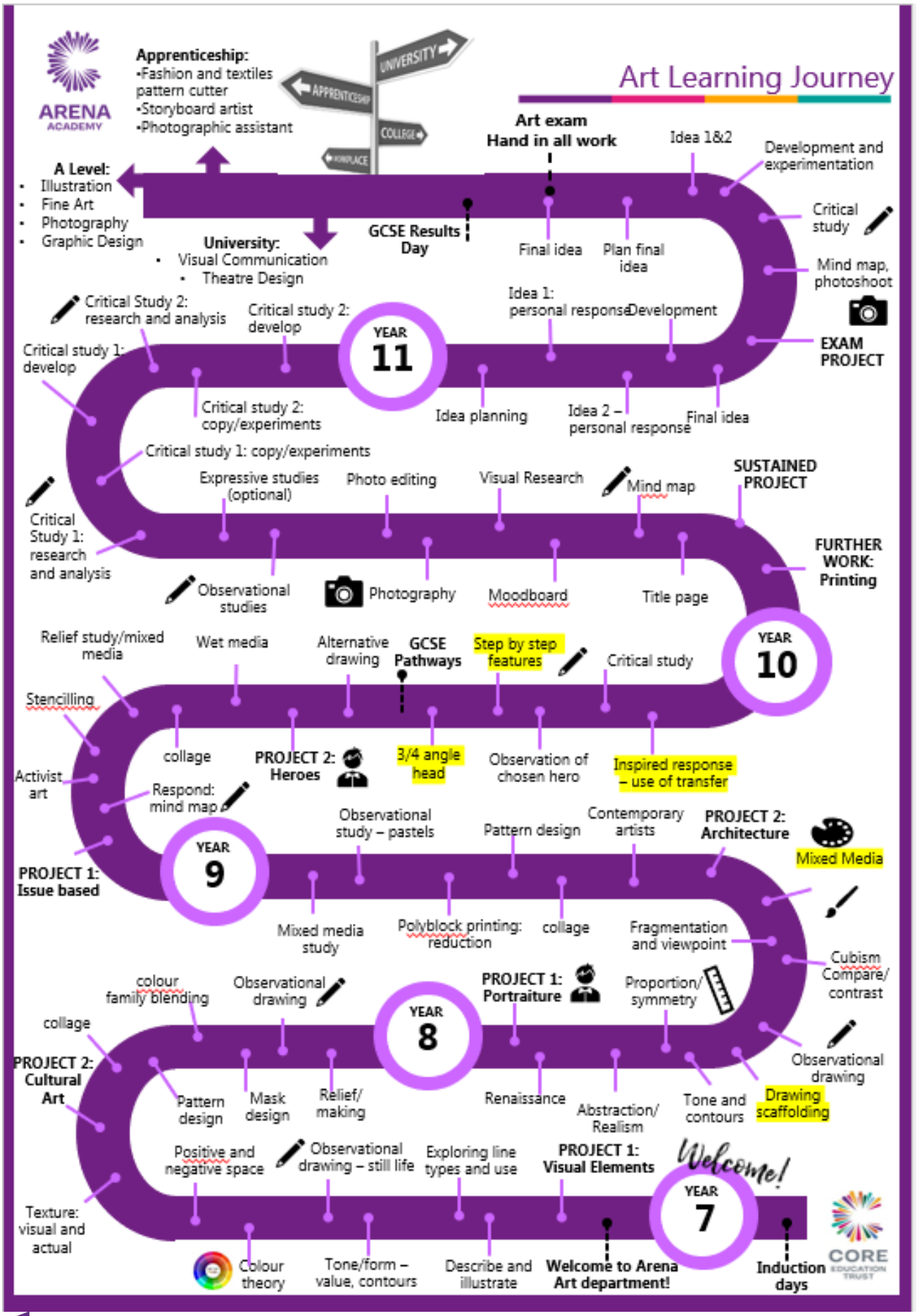
premièrement	*first*
puis	*then*
avant	*before*
après	*after*
le matin	*in the morning*
l'après-midi	*in the afternoon*
le soir	*in the evening*
hier	*yesterday*
aujourd'hui	*today*
demain	*tomorrow*
maintenant	*now*
plus tard	*later*
la semaine prochaine	*next week*
la semaine dernière	*last week*

Art

Topics covered from February half term to the end of Academy year.

<u>Summer:</u>

1. Imagined architecture collage
2. Gothic architecture observation
3. Pattern composition
4. Reduction printing
5. Mixed media/relief outcome


Art Learning Journey
ARENA ACADEMY
Apprenticeship:
•Fashion and textiles pattern cutter
•Storyboard artist
•Photographic assistant
UNIVERSITY
APPRENTICESHIP
COLLEGE
WORKPLACE
A Level:
• Illustration
• Fine Art
• Photography
• Graphic Design
University:
• Visual Communication
• Theatre Design
Art exam
Hand in all work
GCSE Results Day
Idea 1&2
Development and experimentation
Critical study
Mind map, photoshoot
EXAM PROJECT
Final idea
Plan final idea
Idea 1: personal response
Development
Idea 2 – personal response
Final idea
YEAR 11
Critical Study 2: research and analysis
Critical study 2: develop
Critical study 1: develop
Critical study 2: copy/experiments
Idea planning
Critical study 1: copy/experiments
SUSTAINED PROJECT
Expressive studies (optional)
Photo editing
Visual Research
Mind map
Critical Study 1: research and analysis
FURTHER WORK: Printing
Observational studies
Photography
Moodboard
Title page
YEAR 10
Relief study/mixed media
Wet media
Alternative drawing
GCSE Pathways
Step by step features
Critical study
Stencilling
collage
PROJECT 2: Heroes
3/4 angle head
Observation of chosen hero
Inspired response – use of transfer
Activist art
Respond: mind map
YEAR 9
Observational study – pastels
Pattern design
Contemporary artists
PROJECT 2: Architecture
Mixed Media
PROJECT 1: Issue based
Mixed media study
Polyblock printing: reduction
collage
Fragmentation and viewpoint
Cubism
Compare/ contrast
colour family blending
Observational drawing
PROJECT 1: Portraiture
Proportion/ symmetry
YEAR 8
collage
Observational drawing
PROJECT 2: Cultural Art
Pattern design
Mask design
Relief/ making
Renaissance
Abstraction/ Realism
Tone and contours
Drawing scaffolding
Positive and negative space
Observational drawing – still life
Exploring line types and use
PROJECT 1: Visual Elements
Welcome!
YEAR 7
Texture: visual and actual
Colour theory
Tone/form – value, contours
Describe and illustrate
Welcome to Arena Art department!
Induction days
CORE EDUCATION TRUST

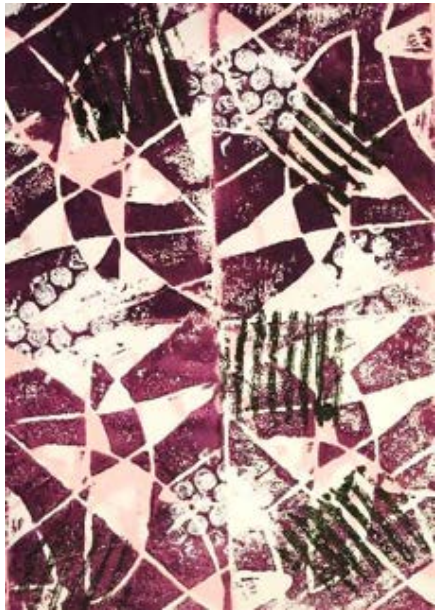
Year 8 Architecture

1. Key concepts:

Architecture is the art and science of designing and constructing buildings and other physical structures.

It involves the creative and functional arrangement of space, materials, and forms to meet human needs while considering aesthetics, safety, sustainability, and cultural values. Architecture shapes the built environment, influencing how people live, work, and interact with the world around them.

2. Exemplar work from this unit



3. Techniques/skills:

Collage:

A technique in which various materials or objects, for example paper, cloth, or photographs, are stuck onto a larger surface.

Polyblock printing:

A type of relief printing using a polystyrene plate. Several layers can be created to add depth and additional colours. Polyblock printing can be used to create repeat prints.

Relief:

A relief is a type of art in which the three-dimensional elements are raised from a flat base. This creates a surface texture and shadows from the raised elements. We will use mixed media to create relief in this unit.

4. Critical references:

Zaha Hadid

Hadid was known as an architect who always pushed the boundaries of what architecture and design could be. Many of her buildings were inspired by curves and lines found in nature. In 2004, she became the first woman to be given the Pritzker Architecture Prize - one of the world's leading architecture awards.

Sara Bagshaw

Working with a vocabulary of simple abstract shapes and lines, Sarah first creates the basis of her patterns with a variety of basic techniques – linocut, collage, bits of photographs, and painting before editing on Photoshop. Building her images up in shifting layers of colour results in patterns that sometimes appear translucent, sometimes solid, but always vibrant and bold.

Ian Murphy

Ian Murphy is a contemporary British artist celebrated for his exploration of architectural form. His work involves muted palettes, layered images, textured surfaces, exploration of permanence and decay and recording of dramatic light and shadow.

Seth Clark

Seth Clark's collages and sculpture focus on deteriorating architecture. Clark creates his works through a layering process of found paper and wood, with various mixed media and drawing incorporated later to bring definition and depth to the materials. The found materials add texture and tactility to the work.

5. Key Vocabulary

- Architecture
- Form
- Design
- Function
- Mixed media
- Collage
- Printing
- Layers
- Reduction
- Space – positive/negative
- Space – interior/exterior
- Modernist
- Gothic

6. Questions to ask yourself

How does the design of building enhance our lives?

What makes buildings beautiful? Or culturally important?

How can buildings inspire your visual outcomes?

Can you explore 3d making techniques to develop interesting interior and exterior spaces?

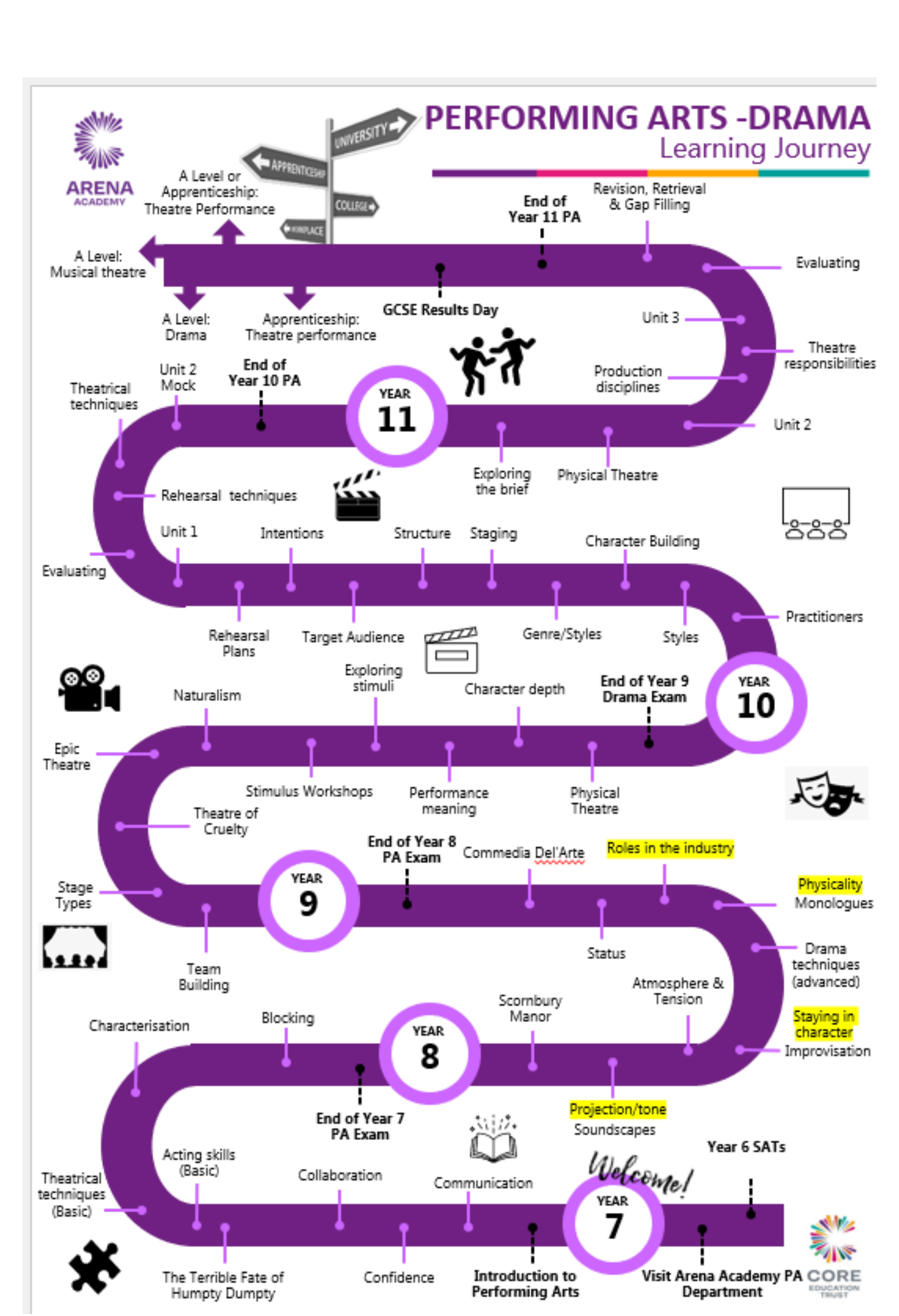
Performing Arts:Drama

Topics covered during the Year 8 Drama carousel:

Summer

1. Scornbury Manor
2. Projection/tone
3. Soundscapes
4. Improvisation
5. Atmosphere/tension
6. Staying in character
7. Drama Techniques (advanced)

PERFORMING ARTS -DRAMA
Learning Journey



Subject: **PERFORMING ARTS – DRAMA** YEAR 8 Topic: SCORNBURY MANOR

1. Acting Skills – Physical

Body Language	How an actor uses their body to communicate meaning. For example, crossing your arms could mean you are fed up.
Facial Expressions	A form of non-verbal communication that expresses the way you are feeling, using your face.
Gestures	A movement of part of the body, especially a hand or the head, to express an emotion or meaning.
Posture	The position .an actor holds their body when sitting or standing. For example, an upright posture
Gait	The way an actor walks.
Stance	The way you position yourself when standing to communicate your role. An elderly person would have a different stance to a child.

2. Acting Skills – Voice

Projection	Ensuring your voice is loud and clear for the audience to hear.
Volume	How loudly or quietly you say something (Shouting/Whispering)
Tone	The way you say something in order to communicate emotions (Eg, Angry, worried, shocked)
Pace	The speed of what you say.
Pitch	How high or low your voice is.
Pause	Moments of pause can create tension or show that you are thinking.
Accent	Use of an accent tells the audience where the character is from.
Emphasis	Changing the way a word or part of a sentence is said, to emphasise it/make it stand out. Example – "How could YOU do that?" Or "How could you do THAT?"

3. Performance Techniques –

1. **Tableaux –** When you highlight something significant in a scene through acting skills.
2. **Thought-Track –** When you speak your characters thoughts/feelings out loud to an audience.
3. **Soundscape** – A series of sounds created by actors that create a setting or suggest a scene.
4. **Choral Speech –** A group of performers say lines at the same time.
5. **Flashback –** scenes that show the past - seconds, minutes, days or years before a dramatic moment.
6. **Flashforward –** scenes where the action jumps ahead to the future of the narrative.
7. **Proxemics –** The space between characters on stage that shows their relationship.

4. Production Disciplines –

Costume Design

Marketing

Set Design

5. Overview of Topic

You will develop an understanding of the horror genre. You will be able to explore your creativity, inventiveness and imagination using performance techniques and creating characters exploring a haunted house.

6. Key characters –

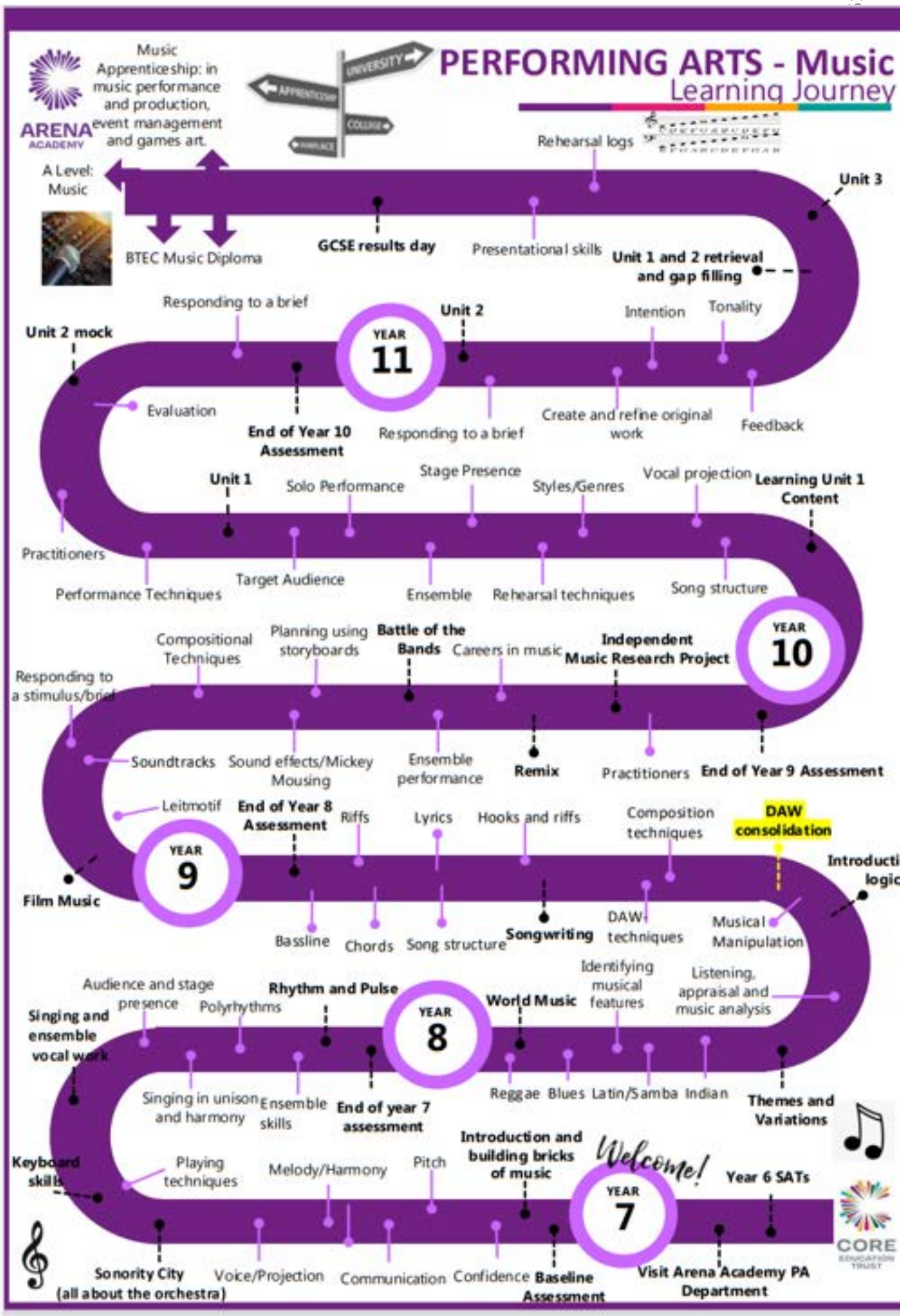
Mr/Master Scornbury
Miss Henson
Miss Green
Witch

Performing Arts: Music

Topics covered during the Year 8 Music carousel.

Summer:

1. World Music
2. Reggae
3. Blues
4. Latin/Samba
5. Indian
6. Music features
7. Themes and Variations
8. Listening and music analysis
9. Introduction to Logic


PERFORMING ARTS - Music
Learning Journey
ARENA ACADEMY
Music Apprenticeship: in music performance and production, event management and games art.
UNIVERSITY
APPRENTICESHIP
COLLEGE
WORKPLACE
A Level: Music
BTEC Music Diploma
Rehearsal logs
GCSE results day
Presentational skills
Unit 3
Unit 1 and 2 retrieval and gap filling
Responding to a brief
Unit 2
Intention
Tonality
Unit 2 mock
YEAR 11
Evaluation
End of Year 10 Assessment
Responding to a brief
Create and refine original work
Feedback
Unit 1
Solo Performance
Stage Presence
Styles/Genres
Vocal projection
Learning Unit 1 Content
Practitioners
Performance Techniques
Target Audience
Ensemble
Rehearsal techniques
Song structure
Compositional Techniques
Planning using storyboards
Battle of the Bands
Careers in music
Independent Music Research Project
YEAR 10
Responding to a stimulus/brief
Soundtracks
Sound effects/Mickey Mousing
Ensemble performance
Remix
Practitioners
End of Year 9 Assessment
Leitmotif
End of Year 8 Assessment
Riffs
Lyrics
Hooks and riffs
Composition techniques
DAW consolidation
YEAR 9
Film Music
Bassline
Chords
Song structure
Songwriting
DAW techniques
Musical Manipulation
Introducti logic
Audience and stage presence
Polyrhythms
Rhythm and Pulse
World Music
Identifying musical features
Listening, appraisal and music analysis
Singing and ensemble vocal work
YEAR 8
Singing in unison and harmony
Ensemble skills
End of year 7 assessment
Reggae
Blues
Latin/Samba
Indian
Themes and Variations
Introduction and building bricks of music
Welcome!
Keyboard skills
Playing techniques
Melody/Harmony
Pitch
Year 6 SATs
YEAR 7
Sonority City (all about the orchestra)
Voice/Projection
Communication
Confidence
Baseline Assessment
Visit Arena Academy PA Department
CORE EDUCATION TRUST

VARIATIONS

Exploring ways to develop musical ideas

A. Theme and Variations Key Words

MELODY – A tune or succession of notes, varying in pitch, that have an organised and recognizable shape. Often called the main **TUNE** or **THEME** of a piece of music or song and easily remembered.

VARIATION – Where a **THEME** is altered or changed musically, while retaining some of the primary elements, notes and structure of the original. **VARIATION FORM:**

A (Theme) **A1 (Variation)** **A2 (Variation)** **A3 (Variation)** **A4 (Variation)**

B. Augmentation and Diminution – Note Values and Duration

AUGMENTATION – the process of **DOUBLING** the note values (**DURATION**) of a theme as a means of variation.

DIMINUTION – the process of **HALVING** the note values (**DURATION**) of a theme as a means of variation.

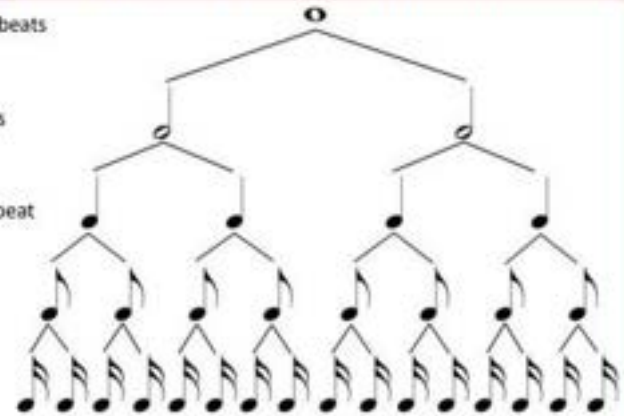
SEMIBREVE = 4 beats

MINIM = 2 beats

CROTCHET = 1 beat

QUAVER = ½ beat

SEMIQUAVER = ¼ beat



C. Variation Techniques

PITCH – Change the highness or lowness of the theme – play the same notes, but at different pitches *e.g. in different* ***OCTAVES***.

TEMPO – Change the speed of the theme – play it faster or slower.

DYNAMICS – Change the volume of the theme – play it louder or softer.

TEXTURE– Change the amount of sound we hear – play as a **SOLO**, add an **ACCOMPANIMENT** or **CHORDS**, add a **COUNTER-MELODY** (an 'extra' melody that is played or sung at the same time as the main melody, often higher in pitch and sometimes called a **DESCANT**).

TIMBRE AND SONORITY– Change the **SOUND** of the theme – play it on a different instrument.

ARTICULATION – Change the way the theme is played – smoothly (**LEGATO** - shown by a **SLUR**) or short, detached and spiky (**STACCATO** – shown by a dot).

PEDAL – A long (often very long!) note in the bass line of the music over which other parts, including the theme or a variation of the theme can be played. Also called a **PEDAL NOTE** or **PEDAL POINT** and often the **TONIC** note (but can be the **DOMINANT** or other notes).

DRONE – A long or series of repeated (often long) notes using the **TONIC** and **DOMINANT** notes together (a **FIFTH**).

MELODIC DECORATION – Adding extra notes or embellishments to the theme such as trills, turns, mordents (**ORNAMENTS**) or **PASSING NOTES** (extra notes between the main melody notes).

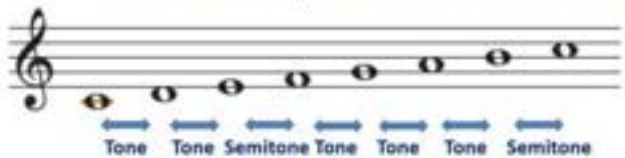
OSTINATO – Adding a repeated musical pattern (rhythmic or melodic) to the main theme as a form of variation.

CANON/ROUND - A song or piece of music in which different performers sing or perform the same THEME starting one after the other.

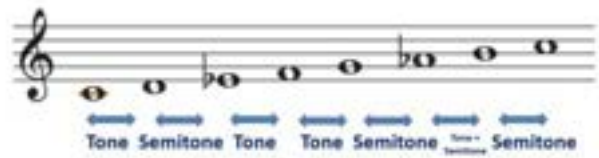
GROUND BASS – A repeated musical pattern in the bass part upon which chords, and melodies can be performed and varied "over the top" of.

D. Tonality – Major and Minor

TONALITY refers to whether a **THEME** or **MELODY** is in a **MAJOR** or **MINOR** key. Changing the tonality from major to minor or minor to major is one way of providing a variation on the theme of melody. Major and minor scales follow a certain pattern of tones and semitones:



MAJOR SCALE



MINOR SCALE

E. Inversion and Retrograde

INVERSION – Changing the **INTERVALS** between the notes of a theme so that they are upside down from the original.

RETROGRADE – A variation technique created by arranging the main theme backwards.

RETROGRADE INVERSION – Arranging the "inverted" variation of the theme backwards!

Offbeat

Exploring Reggae and Syncopation

A. How did Reggae develop?

REGGAE is one of the traditional musical styles from **JAMAICA**. It developed from :

REGGAE

MENTO	SKA	ROCK STEADY
A form of Jamaican **FOLK MUSIC** like **CALYPSO** popular in the 1950's.	Fast dance music that emerged in the 1950's fusing American R&B with **MENTO** rhythms and featuring **ELECTRIC GUITARS, JAZZY HORN SECTIONS** and characteristic **OFFBEAT RHYTHMS.**	A more vocal style of dance music which used **RIFFS, SIMPLE HARMONIES, OFFBEAT RHYTHMS** and a strong **BASS LINE**.

Reggae was first heard in the UK in the 1950's when immigrants began to settle. During the 1960's, people began importing singles from Jamaica to sell in UK shops. Now, Reggae is known as the national music of Jamaica.

B. Where is Jamaica?

C. What are Reggae Songs About?

Reggae is closely associated with **RASTAFARIANISM** (a religious movement worshipping Haile Selassie as the Messiah and that black people are the chosen people and will eventually return to their African homeland). The **LYRICS** of Reggae songs are strongly influenced by Rastafarianism and are often political including themes such as **LOVE, BROTHERHOOD, PEACE, POVERTY, ANTI-RACISM, OPTIMISM** and **FREEDOM**.

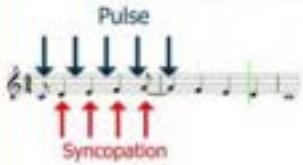
D. Offbeat Rhythms & Syncopation

OFFBEAT RHYTHMS – Rhythms that emphasise or stress the **WEAK BEATS OF A BAR**. In music that is in 4/4 time, the first beat of the bar is the strongest, the third the next strongest and the second and fourth are weaker. Emphasising the second and fourth beats of the bar gives a "missing beat feel" to the rhythm and makes the music sound **OFFBEAT,** often emphasised by the **BASS DRUM** or a **RIM SHOT** (hitting the edge of a **SNARE DRUM**) in much Reggae music.

ONBEAT RHYTHM GRID

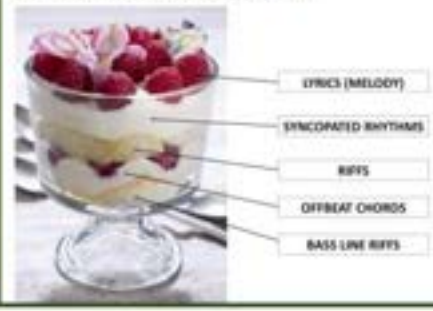
OFFBEAT RHYTHM GRID

SYNCOPATION – A way of changing a rhythm by making some notes a bit early, often so they cross over the main beat of the music giving the music a further **OFFBEAT** feel – another common feature of Reggae music.



E. Musical Features of Reggae

OFFBEAT RHYTHMS AND CHORDS (see D)
SYNCOPATED RHYTHMS AND MELODIES (see D)
SUNG LYRICS (see C)
LEAD SINGER often with **BACKING SINGERS** sometimes singing in **CALL AND RESPONSE** (see F3) accompanied by a Reggae band which often features: **BRASS INSTRUMENTS** and **SAXOPHONES, ELECTRIC GUITARS, BASS GUITAR, KEYBOARDS, DRUMS AND PERCUSSION INSTRUMENTS.**
VOCAL AND INSTRUMENTAL IMPROVISATIONS (see F2)
MELODIC RIFFS (see F5)
SLOW, RELAXED ('chilled!') **TEMPO**
4/4 METRE/TIME SIGNATURE
Most Reggae songs are structured in **VERSE AND CHORUS/POPULAR SONG FORM.**
SIMPLE HARMONIES (see F4)



THICK TEXTURAL LAYERS (see F9) "The Reggae Trifle" is an example of how many Reggae songs are 'layered'.

F. Reggae Key Words

1. **MELODY** – The main 'tune' of a piece of music, often sung by the **LEAD SINGER**.
2. **IMPROVISATION** – Previously unprepared performance.
3. **CALL AND RESPONSE** – Similar to a "Question and Answer" often the call sung by the lead singer and answered by the backing singers or instruments (the response) – musical dialogue.
4. **SIMPLE HARMONIES** – using a limited number of **CHORDS,** mainly **PRIMARY TRIADS** such as the **TONIC, DOMINANT** and **SUBDOMINANT** chords.

5. **RIFF** – A repeated musical pattern. Often the **BASS GUITAR** played repeated **MELODIC BASS RIFFS** in Reggae songs.
6. **BASS/BASS LINE** – The lowest pitched part of a piece of music often played by the **BASS GUITAR** in Reggae which plays an important role.
7. **CHORD** – 2 or more notes played together in **HARMONY**.
8. **RHYTHM** – A series of long and short sounds.
9. **TEXTURE** – Layers of sound combined to make music.

G. Who was Bob Marley?

BOB MARLEY was a famous reggae singer, **SONGWRITER**, and musician who first became famous in his band The Wailers, and later as a **SOLO ARTIST**. He was born Nesta Robert Marley on February 6th, 1945 in Nine Mile, Saint Ann, Jamaica. Although he grew up in poverty, he surrounded himself with music and met some of the future members of The Wailers. Bob Marley became involved in the Rastafarian movement and this influenced his music style greatly. Bob Marley and The Wailers worked with several famous musicians before becoming famous on their own. His career flourished and he became a cultural icon. He was the first international superstar to have been born in poverty in a Third-World country.

All That Jazz

Exploring Jazz and The Blues

African Music

European Music

Work-songs & Spirituals

Combined African **SYNCOPATIONS** and **POLYRHYTHMS** with hymn-tunes from the white settlers from Europe.
Based on African **CALL AND RESPONSE** pattern with leader (**UNISON**) singing the "call" answered by a chorus (**HARMONY**) singing the "response" (answer).

The Blues

Simple, personal, and strongly felt lyrics in **A-A-B** form.
Built on a chord progression called the **TWELVE BAR BLUES** (using **CHORDS I, IV & V**) and some **SEVENTH CHORDS**.
Uses the **BLUES SCALE** for vocal and instrumental **IMPROVISATIONS**. Melodies are often **SYNCOPATED** with instrumental **BREAKS** at the end of each vocal line.
Famous Blues singers include *Bessie Smith, Sarah Vaughan, Ella Fitzgerald, Billie Holiday.*

Ragtime

Performed on a solo piano with a leaping **VAMP** accompaniment in the left hand against **SYNCOPATED** offbeat and **CHROMATIC** melodies in the right hand.
Longer pieces of ragtime often broken down into different sections for variety. *Scott Joplin* was the most famous ragtime composer whose works include: *"The Entertainer", "Maple Leaf Rag" and "Ragtime Dance"*.

Dixieland/Trad/New Orleans Jazz

Small ensembles of 5-6 players on instruments such as drums, banjo, cornet, trombone, string bass, clarinet etc. Based on a traditional "song" but "played around" with by solo performers adding **IMPROVISATIONS** and **COUNTER MELODIES**
Soloists accompanied and 'backed' by a "**RHYTHM SECTION**". *Famous Dixieland Jazz artists include Duke Ellington, Bix Beiderbecke, Louis Armstrong.*

Swing

Larger ensembles of 10+ with a "leader" who wrote down and arranged the music for players. Sections included rhythm (piano and drums/ bass), reeds trumpets and trombones. **CHROMATIC SCALE** often used in Swing. Uses **SOLOISTS** who **IMPROVISE** against the **ENSEMBLE** in **COLLECTIVE IMPROVISATION**. Often characterised by a **SWING** rhythm which is easy to **DANCE** to. Often based on a **WALKING BASS LINE**. *Glenn Miller is probably the most famous swing band leader (and Trombonist) and his well-known piece "In the Mood".*

Bebop

Bebop developed in 1940's as swing declined in popularity. Characterised by fast tempo, tricky chord changes and emphasis placed on **VITRUOSIC IMPROVISATION** with improvisation contests.
Bands returned to 5 or 6 members and Bebop was listened to rather than danced to.
Famous Bebop musicians include *Charlie Parker and Dizzy Gillespie.*

Free/Modal Jazz

Slower Tempo than Swing and Bebop.
More laid-back feel and relaxed mood.
Continued the jazz tradition of a **SOLOIST(S)** backed by **RHYTHM SECTION. IMPROVISATION** still a key feature but more emphasis on **TIMBRE** and **SONORITY**. Based on a set of chords (often 12-bar blues or 32 bars) and based on **MODES** (a type of **SCALE**) e.g., *Dorian Mode, Lydian Mode etc.* Famous Modal Jazz artists include *Miles Davis, John Coltrane.*

A. Jazz and Blues Key Words

RIFF/OSTINATO – Short, repeated musical patterns often used in **SOLOS**.
IMPROVISATION – music created 'on the spot' (previously unprepared performance)
SEVENTH CHORD – a **TRIAD** (root, third and fifth) with a fourth note added which is seven notes about the root/tonic. **C7** = C , E, G (triad) + **B flat**.
SWING/SWUNG RHYTHM – performing a regular 'straight' rhythm with a 'lilt' in a "**ONE** and **A**, **TWO** and **A**" style (using **TRIPLETS**) common in swing music.

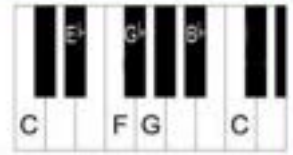
B. The Twelve Bar Blues

Some or all of these chords can be **SEVENTH CHORDS (7)**

CHORD I	CHORD I	CHORD I	CHORD I
CHORD IV	CHORD IV	CHORD I	CHORD I
CHORD V	CHORD IV	CHORD I	CHORD I

C. The Blues Scale

BLUES SCALE – a series of notes often used within improvisations in blues music *(the Blues Scale on C is shown to the right).*
BLUE NOTES – additional or extra sharpened or flattened notes in a melody.



D. Instruments of Jazz and Blues

Physical Education

Topics covered from the beginning of the academy year to the end of this half-term.

Summer:

1. Striking and Fielding
2. Athletics
3. Rounders
4. Cricket

ROUNDERS KNOWLEDGE ORGANISER

LKS2

Overview

-Rounders is a bat and ball game played between two teams. It is a striking and fielding game.

It involves batting, (hitting a ball with a bat) and running around a circuit of bases.

-Opponents use fielding to prevent the batter running around the circuit. This involves catching, tracking and stopping the ball, and throwing it to others.

-When fielding, it is important to work as a team, thinking about our position & the position of others.
-We should always follow the rules and correct techniques of striking and fielding to stay safe.

Physical

Skill	Definition	How do I do this?
Batting 	To strike the ball away from you with the surface of the bat.	-Stand slightly sideways from the person bowling/ throwing. Watch the ball carefully. Strike by moving your bat away from you. Use the centre of the bat to strike it. Look to strike the ball in space between fielders.
Fielding 	To stop a ball so that it is no longer moving. To return it to teammates to prevent runs.	-Move feet to get in line with the ball. Use two hands to stop it. Make sure that your palms are facing the ball, with wide fingers. To throw, start with throwing arm behind body. Put opposite foot to throwing arm forwards, weight on back foot. Point throwing arm in direction of target.
Bowling 	To send the ball through the air from your hand.	-The ball should be bowled underarm. Step forward with opposite foot to throwing arm to stay balanced. Use your non-throwing arm to point in the direction that you want the ball to go. Point fingers at the target as you release.
Catching 	To take hold of the ball in your hands before it bounces.	-Watch the ball carefully. Hands out as the ball approaches. Bend your knees as you prepare to catch it. Use wide fingers, eyes on the ball, soft hands to catch. Close your hands around the ball and pull it in to your body.
Running Between Bases 	To hit the ball with your hand or equipment.	-After striking, look carefully at where the ball has gone, and the fielders who are close to it. Run around the outside of the bases. Stay close to the cones, keeping them on the left-hand side. Stop at a cone if you can see that a fielder could stump you out at the next cone.

Social and Emotional

Cooperation
Cooperating is about working together and helping others. Strong teams need each individual to cooperate with teammates. Make sure your fielding is appropriately organised so there are few gaps.

Communication
We need to communicate to give and receive information from our teammates. We can do this through speaking, listening and body language. For example, communicate with batters when they should run.

Supporting and Encouraging
Encouraging and supporting others can help them to feel good and perform well. Try to help everyone stay positive.

Respect and Kindness
Respect is the act of giving attention and showing care to others. It is important to be respectful to teammates, opponents, referees and coaches. It is important to be inclusive of others, respecting people of all abilities and experience levels.

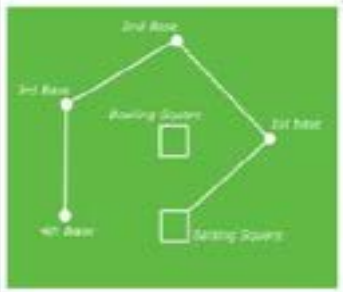
Honesty and Fair Play
Fair play is about learning the rules of the game and putting them into practice honestly. Winning only feels as good as it should when you know that you have won fairly. E.g. be honest if you are stumped out.

Managing Emotions
Whilst it is important try your hardest, you should remember that games and sports should be fun. Be considerate to others in victory and be respectful and gracious in defeat.

Key Vocabulary

Rounders
Fielding
Throwing
Stumping
Striking
Tracking
Bowler
Batter
Backstop
Collaboration
Honesty
Fair Play
Persevering

Thinking/ Strategic



Field and Positions
Bowlers bowl from the bowling square. Batters from the batting square. The backstop should be (a safe distance) behind the batter. Fielders should be positioned near bases and in spaces around the field.

-Success in rounders is about working successfully as a team. Batters cannot overtake each other on the circuit, and so all batters need to know when to run. Additionally, fielders should be organised to cover all bases and as many spaces as possible. Call so that other fielders know you are chasing a ball. This prevents collisions.
-When fielding, don't switch off! You never know when you are going to be needed to stop/catch/return the ball!

Health and Safety

Always try to follow the rules of the game.	Be aware of the people and space around you.	Store equipment safely when it is not in use.	Unused balls should be put in bags or trolleys.	Hard objects, like rounders bats and cricket balls, should be used very carefully, to avoid injury.	Make sure that you warm up properly.	Stretch your muscles before exercising.	Warm down when exercising.	Remove jewellery and wear suitable clothing/ equipment.

ATHLETICS KNOWLEDGE ORGANISER

KS1

Overview

-Athletics is the name for a number of different sports that require strength, endurance and skill. Athletics includes track and field events.

-Track events involve running and sprinting. Examples are the 100 metre sprint and hurdles.

-Field events often use skills like jumping and throwing. Examples include the shotput throw and the long jump.

-Someone competing in athletics is known as an athlete. They should learn how to perform movements safely, build our confidence and respond to feedback given by others.

Physical

Skill	Definition	How do I do this?
Sprinting 	To run a short distance at top speed.	-Keep looking straight ahead, and take big strides. -Run on the balls of your feet and lift your knees high and fast. Use your arms for balance (alternate to legs) moving from pockets to mouth.
Hurdling 	To leap over obstacles whilst running.	-Look straight ahead when running and hurdling so that you don't over-rotate. Bend your knees on take-off and landing. Count the number of strides between each obstacle and try to keep this even. Keep a rhythm between the obstacles.
Jumping 	To launch both legs off the floor at the same time	-Bend your knees on take-off and landing. -For distance, swing your arms up for momentum. -Where appropriate, take off from two feet.
Throwing 	To launch something with force from the hand.	-Begin with a high elbow in line with shoulder and back of head. Point your non-throwing arm in direction of target. Foot of non-throwing side forward. Push throwing arm forward and release.
Using multiple skills	To use the above skills together.	-Many events involve running and jumping or running and throwing. Make sure that you are still keeping the correct technique, for skill & strength.

Social and Emotional

Supporting and Encouraging
Encouraging and supporting others can help them to feel good and perform well.

Honesty and Fair Play
Fair play is about learning the rules of the game and putting them into practice honestly. We should not try to gain an unfair advantage over others.

Keeping Safe
Follow the rules and listen to the coach/ referees instructions. Store and handle apparatus properly.

Building Confidence
Some athletic moves can be difficult or dangerous. It is important that we believe in ourselves and build confidence before attempting moves.

Perseverance
Perseverance is about keeping going even when something is difficult or tiring.

Challenging Myself
Whenever we learn anything, we have to start somewhere! Improving ourselves is all about putting in hard work and practice, challenging ourselves to be better than we were before!

Key Vocabulary

Athletics
Strength
Speed
Endurance
Running
Jumping
Throwing
Sprinting
Obstacle
Equipment
Persevere
Hurdling
Distance

Thinking/ Strategic

Obstacle – Something that needs to be avoided (e.g. jumped over or moved around).

Track – The name given to events that take place on a running track. The tracks are often made of rubber for more bounce and speed. Full-sized athletics tracks are often 400 metres around.

Field –Events that do not take place on the running track, e.g. jumping and throwing events. They often take place inside the oval track.

-In athletics, it is important to try and reflect on your strengths and weaknesses in order to beat your personal bests. When things do not go well consider which parts of your technique were not quite right, and take steps to improve them. You should also try to help others to improve through offering clear and fair feedback.

Health and Safety

Exercise in safe spaces. Be mindful of others.	Keep your head up and know what is around you.	Warm up properly including stretching your muscles.	Bend your knees when you land jumps.	When using obstacles, make sure that they are a safe height and are not fixed in the ground.	Make sure that equipment is in working order.	Make sure that equipment is put away properly.	Warm down after exercising.	Remove jewellery and wear suitable clothing/ equipment.

CRICKET KNOWLEDGE ORGANISER

LKS2

Overview

-Cricket is a bat and ball game played between two teams. It is a striking and fielding game.

It involves batting. Batters try to protect their wicket and score runs. They can score runs either by striking the ball past the boundary, or by running between the creases without being stumped.

-Opponents use bowling and fielding to try to get the batter out, and to try and prevent runs. This involves catching, tracking and stopping the ball, and throwing it to others.

-Cricket involves working as a team, thinking about our position & the position of others.

Physical

Skill	Definition	How do I do this?
Batting 	To strike the ball away from you with the surface of the bat.	-Fingers and thumbs wrapped around the bat handle. Make a 'V' using thumb and forefinger. Dominant hand at the bottom. Feet parallel, shoulder-width apart. Push the bat straight, swinging arms away from the body. Keep head and the rest of the body still. Keep eye on the ball.
Fielding 	To stop a ball so that it is no longer moving. To return it to teammates to prevent runs.	-Move feet to get in line with the ball. Use two hands to stop it. Make sure that your palms are facing the ball, with wide fingers. To throw, start with throwing arm behind body. Put opposite foot to throwing arm forwards, weight on back foot. Point throwing arm in direction of target.
Throwing 	To send the ball through the air from your hand.	-You should now be developing overarm throwing. Step forward with opposite foot to throwing arm to stay balanced. Use non-throwing arm to point in direction that the ball should go. Point fingers at target as you release.
Catching 	To take hold of the ball in your hands before it bounces.	-Watch the ball carefully. Hands out as the ball approaches. Bend your knees as you prepare to catch it. Use wide fingers, eyes on the ball, soft hands to catch. Close your hands around the ball and pull it in to your body.
Underarm Bowling 	To send the ball underarm towards the wicket from your hand.	-Step forward with the opposite foot to your bowling arm in order to stay balanced. Keep your bowling arm straight so that the ball travels straight. Release the ball with fingertips pointing towards the target.

Social and Emotional

Cooperation
Cooperating is about working together and helping others. Strong teams need each individual to cooperate with teammates. Make sure your fielding is appropriately organised so there are few gaps.

Communication
We need to communicate to give and receive information from our teammates. We can do this through speaking, listening and body language. For example, communicate with batters when they should run.

Supporting and Encouraging
Encouraging and supporting others can help them to feel good and perform well. Try to help everyone stay positive.

Respect and Kindness
Respect is the act of giving attention and showing care to others. It is important to be respectful to teammates, opponents, referees and coaches. It is important to be inclusive of others, respecting people of all abilities and experience levels.

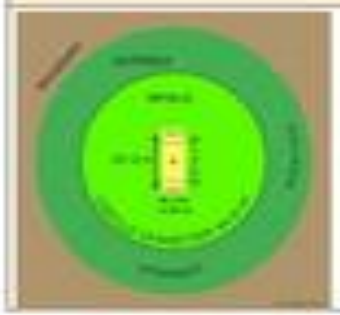
Honesty and Fair Play
Fair play is about learning the rules of the game and putting them into practice honestly. Winning only feels as good as it should when you know that you have won fairly. E.g. be honest if you are run out.

Managing Emotions
Whilst it is important try your hardest, you should remember that games and sports should be fun. Be considerate to others in victory and be respectful and gracious in defeat.

Key Vocabulary

- Cricket
- Fielding
- Throwing
- Stumping
- Striking
- Batting
- Bowler
- Batter
- Wicket
- Crease
- Pitch
- Stumps
- Runs

Thinking/ Strategic



Scoring Runs

-1 run for each time running between the wickets.

-4 runs for hitting the ball past the boundary (hitting the ground first).

-6 runs for hitting the ball past the boundary without bouncing.

Ways to get a batter out

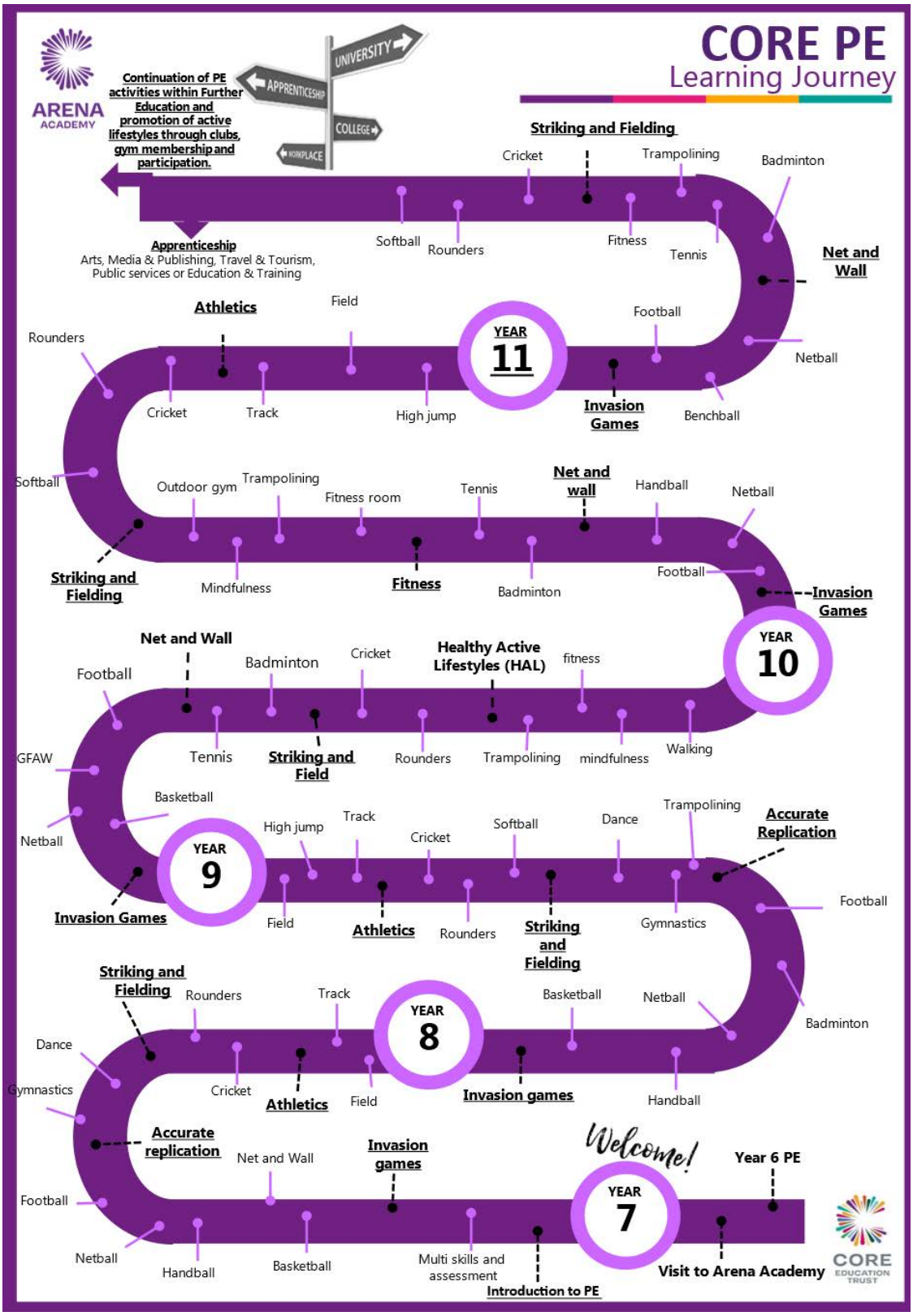
-Bowled: Bowling the ball at the stumps, past the batter, and knocking off the wicket.

-Caught: Catching the ball after it has been struck by the batter's bat (without it bouncing).

-Run-out: The ball knocks the wicket down whilst the batter is not in the batting crease (e.g. if they are trying to run between the creases).

Health and Safety

Always try to follow the rules of the game.	Be aware of the people and space around you.	Store equipment safely when it is not in use.	Unused balls should be put in bags or trolleys.	Hard objects, like rounders bats and cricket balls, should be used very carefully, to avoid injury.	Make sure that you warm up properly.	Stretch your muscles before exercising.	Warm down when exercising.	Remove jewellery and wear suitable clothing/ equipment.


CORE PE
Learning Journey
ARENA ACADEMY
Continuation of PE activities within Further Education and promotion of active lifestyles through clubs, gym membership and participation.
UNIVERSITY
APPRENTICESHIP
COLLEGE
WORKPLACE
Apprenticeship
Arts, Media & Publishing, Travel & Tourism, Public services or Education & Training
YEAR 11
Striking and Fielding
Cricket
Trampolining
Badminton
Softball
Rounders
Fitness
Tennis
Net and Wall
Athletics
Field
Football
Rounders
Cricket
Track
High jump
Netball
Invasion Games
Benchball
YEAR 10
Softball
Outdoor gym
Trampolining
Fitness room
Tennis
Net and wall
Handball
Netball
Striking and Fielding
Mindfulness
Fitness
Badminton
Football
Invasion Games
Net and Wall
Football
Badminton
Cricket
Healthy Active Lifestyles (HAL)
fitness
Tennis
Striking and Field
Rounders
Trampolining
mindfulness
Walking
GFAW
YEAR 9
Basketball
Netball
High jump
Track
Cricket
Softball
Dance
Trampolining
Accurate Replication
Invasion Games
Field
Athletics
Rounders
Striking and Fielding
Gymnastics
Football
Striking and Fielding
Rounders
Track
YEAR 8
Basketball
Netball
Badminton
Dance
Gymnastics
Cricket
Athletics
Field
Invasion games
Handball
Accurate replication
Net and Wall
Invasion games
Welcome!
Year 6 PE
YEAR 7
Football
Netball
Handball
Basketball
Multi skills and assessment
Introduction to PE
Visit to Arena Academy
CORE EDUCATION TRUST

Design Technology

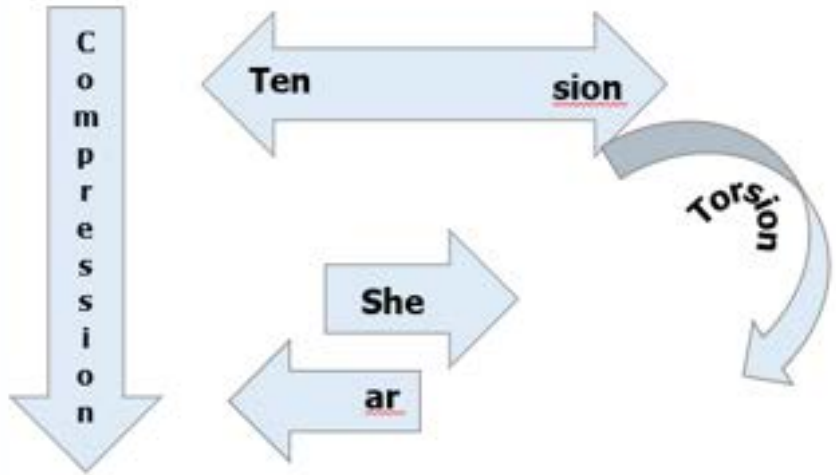
Topics covered from the beginning of the academy year to the end of this half-term.

<u>Summer:</u>

1. Mechanical Systems
2. Industry & Enterprise

Mechanical Systems

Forces



Motion

Linear

Rotation

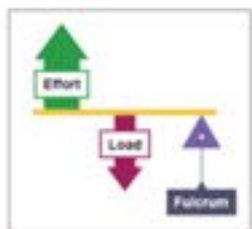
Oscill ating

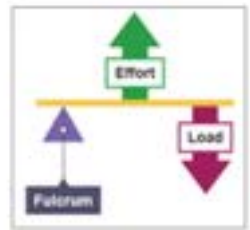
Recip rocating

Levers

1st Class Lever:
Fulcrum in the centre
E.g. Scissors

2nd Class Lever:
Load in the centre
E.g. wheelbarrow





3rd Class Lever:
Force in the centre
E.g. Lifting a dumbbell

Gears and Pulleys

A Pulley is a grooved wheel, that has a belt running through it

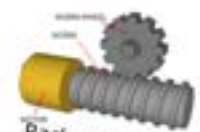
This uses rotary motion and is often used to help with heavy loads, and transfer force from a motor to a tool in machines like drills, etc

Gears have teeth that mesh together with each other (like teeth on a zip)

They mainly focus on rotary motion on tools and machinery e.g. car steering and pillar drills

Bevel Gear

Spur Gear



Rack and Pinion

Worm and Wheel

Automation

This is when machines and robotics help make products or make them for you.
Often this is done by **CAD (Computer Aided Design)** and **CAM (Computer Aided Manufacture)**

This helps products be made quicker, with more accuracy. Reducing errors humans make to products.

However, these machines are expensive to buy, need specialist training to use and need constant maintenance to keep them working properly

Virtual Marketing

This is when websites, social media and email are used to promote and sell products. This has become very popular in recent years, with big social media apps being funded by advertisers

Companies can also pay search engines to push their company further to the top of the results page, so customers are more likely to click it.

Cooperatives

A Cooperative is an Enterprise that is run by members that are part of the workforce or customers.

This means the organisation is democratic and often supports the local community. They are set-up to protect the rights of their members and ensure the same rules apply to everyone

Enterprise

This is when an idea is developed into a business and produces a viable product.

Often, one of the biggest enterprises in in apps for smartphones

To make sure ideas are protected from being copied, a **Patent** can be applied for. This legally protects your idea on invention from being stolen.

Crowdfunding

This is where ideas are funded by large groups of ordinary people.

www.Kickstarter.com is a good example of this.

Fair Trade

This is an organisation that promotes fair pay, working conditions and better trade with farmers in developing countries

You can tell when something is Fairtrade as it will often have the symbol on the product or packaging. Common Fairtrade items include; bananas, cotton and chocolate.

FAIRTRADE

Modern and Smart Materials

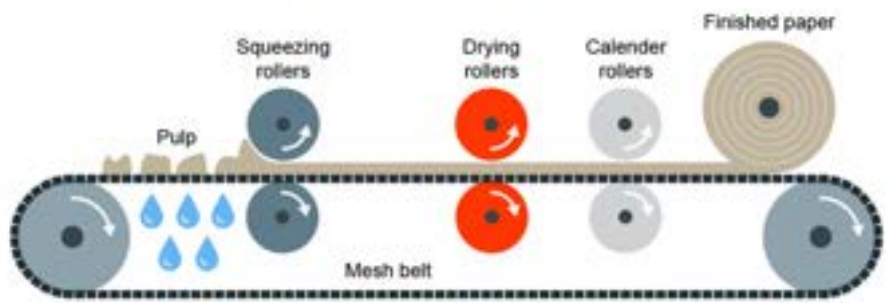
Papers and Boards

Modern Materials are materials that have been developed recently		
Material	**Key info**	**Examples**
Corn-starch Polymers	These are plant-based polymers that are a replacement for plastics that are **biodegradable** but cannot be recycled.	Plastic bottles, tubs, food containers, etc
Flexible MDF	Made in the same way as normal MDF but with grooves cut into the surface so it is flexible. **Flexiply** is the same but for Plywood. These can easily be shaped into curves	Modern furniture, interior walls and room dividers
Titanium	High strength to weight ratio. Doesn't corrode or rust. Suitable for medical use as its hypo-allergneic	Prosthetics, medical applications, sports cars, etc
Kevlar	A woven polymer with a high strength to weight ratio.	Bullet-proof vests, tyres, helmets, etc

Papers and Boards come from trees. **The Stock forms** for papers are: rolls, sheets, A4, A3, etc		
Material	**Key info**	**Uses/ Examples**
Cartridge Paper	Thick white paper, completely opaque and more expensive than photocopy paper	Sketching, ink drawings
Layout Paper	Light, semi-translucent, good for blending inks and artist markers	Sketching, drawing and some tracing
Corrugated Cardboard	Strong but light. Rigid triangles of card sandwiched between a top and bottom layer.	Outer packaging, food packaging
Duplex Board	Light card with white outside layers. Waxy coating can be added	Cheap packaging. If waxy coating is applied, can be used for food
Foil-lined Board	White card coated with a thin aluminium layer. Foil is great for insulation and water resistance	Takeaway containers
Solid White Board	High-quality white card with a smooth finish. Stiff and holds colours well	Greetings cards, packaging and advertising

Smart Materials are materials that change and react to the stimuli		
Material	**Key info**	**Examples**
Thermochromic Pigments	Change colour in reaction to heat	Kettles, baby bottles, etc
Photochromic Pigments	Change colour in reaction to light	Colour changing glasses, windows, etc
Shape Memory Alloy	Returns to its original shape, in reaction to heat	Braces and glasses
Polymorph	Granules that once exposed to hot water, become a modelling material (like a dough or clay)	Modelling and repairs

Primary Processing of Papers and Boards



Paper is made by first making pulp. Pulp is a mix of tree fibres and water. This is cooked and bleached white, and adding any other additives.
The pulp is then drained and goes through **Calendering** where the pulp is drained and goes through rollers to convert it to its stock forms

ARENA
ACADEMY

Personal Development

1	**Why do you need to Know British Values?** Understanding British values is an important way to enable you to embrace the key values that you need to be equipped for life in modern British society. There are 5 fundamental British Values. **Through understanding the British values of Democracy, the Rule of Law, Individual Liberty, Mutual Respect, and Acceptance for those with different faiths and beliefs**, you will develop self-knowledge, be better able to make the right choices and make contributions to the school and the wider community.		
Democracy			
2	**Democracy**	8	Examples of Political Parties: Liberal Democrats, Labour, Green Party, Conservatives
3	In the United Kingdom we vote (age 18 +) for the people we want to run our councils and Government.		
4	We vote for Members of Parliament (MP's). Elections take place at least once every 5 years.		
5	In our democracy there are political parties. At the time of writing the political party who has the majority of MP's in Parliament is the Conservative Party. Labour are currently the opposition Party.	9	When elections take place for Members of Parliament, the public go to vote. Traditionally this happens on a Thursday, and people vote in a secret ballot. People only know who you vote for if you decide to tell them – it is rude to ask!
6	The Leader of the Conservatives and our current Prime Minister is Theresa May. The Leader of the Opposition is Jeremy Corbyn.	10	Where can I see British Values at School? Democracy – School Council / Form Representatives / Student Executive. We hold mock elections and in PSHE you will learn more about politics. We participate in the MAT debating competition, held in the council chamber at the Town Hall.
7	MP's debate in the Palace of Westminster, in the House of Commons. On the opposite side of the Building is the House of Lords. The House of Lords (unelected members) ratify law and policies put forward by parliament.		
The rule of law			
11	In the UK, we have laws which determine what is legal and illegal. You are expected to know the difference between right and wrong.	14	There are consequences for making the wrong choice or taking illegal actions. We all take responsibility for our actions.
12	The rule of law is a principle that individuals and institutions are subject and accountable to, which is fairly applied and enforced.	15	Where can I see British Values at School? Rule of Law – Our Behaviour Systems and Behaviour Policy. We have agreed rules and expectations so that our school is a safe and happy place where all differences are reconciled peacefully. We have a PCSO that comes into school to educate you in the law.
13	Those who commit crimes will ultimately be brought to justice through the legal system including Police officers, courts and lawyers. The rule of law acts as a deterrent, to deter people from criminal acts.		
Individual liberty			
16	In the UK you are free to have an opinion (unless it is extremist) and believe in what you want without discrimination.	18	Where can I see British Values at School? Mutual Respect – Our academy ethos, antibullying and assemblies. Boundaries are used to ensure you are safe.
17	You have the freedom to make choices and decisions without being judged.		
Mutual **respect** for and **tolerance** of those with different faiths and beliefs and for those without faith.			
19	Mutual Respect and Tolerance are the proper regard for an individuals' dignity, which is reciprocated, and a fair, respectful and polite attitude is shown to those who may be different to ourselves.	21	We should all actively challenge students, staff or parents expressing opinions contrary to the values we hold in society and as a school and those that underpin the fabric of a democratic Britain. This is crucial to us to protect one another and to tackle 'extremist' views and prevent people from being radicalised.
20	Differences in terms of faith, ethnicity, gender, sexuality, age, young carers and disability, are differences that should be respected, tolerated and celebrated.	22	Where can I see British Values at School? Acceptance of Faith – RE Lessons and Assemblies. We give you messages of tolerance and respect for others no matter what their ethnicity, beliefs, sexuality, gender or disability.

Democracy	Rule of Law	Individual Liberty	Mutual Respect	Tolerance