



KING'S LYNN ACADEMY

KNOWLEDGE ORGANISER

Year 8 Term 3 2025-26



Name:

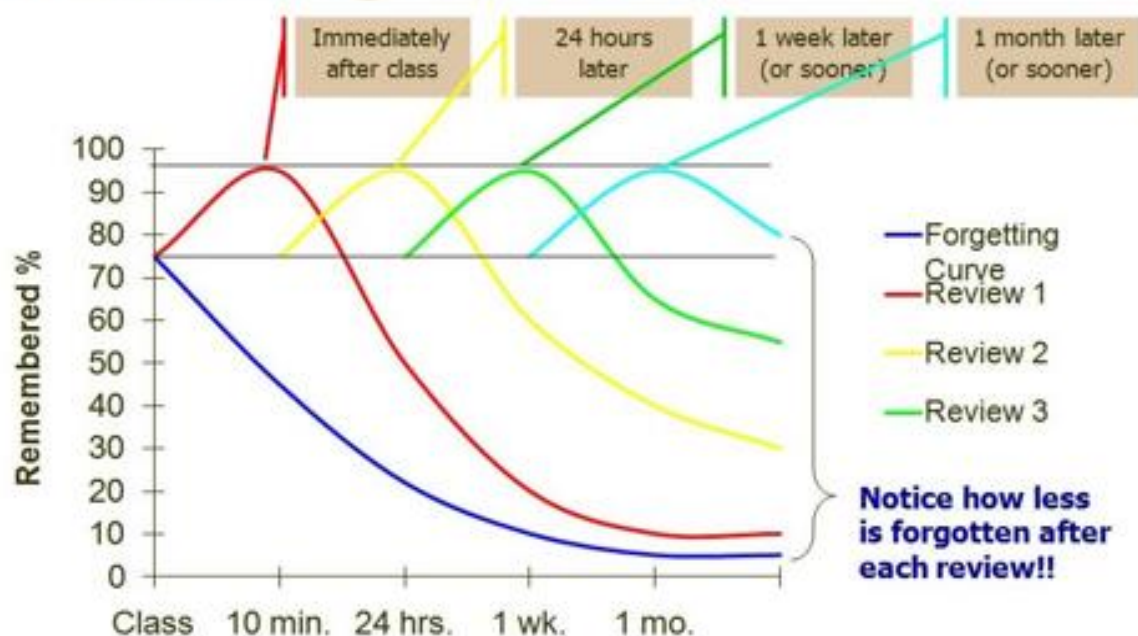
Home Learning

At KLA, we deem it is important to set about making excellent progress in your child's learning by reinforcing crucial knowledge beyond the classroom. To help structure this important aspect of their learning pupils have access to Knowledge Organisers for all subject areas. The Knowledge Organisers will help your son/daughter to learn a wide range of knowledge to prepare them for lessons, low/high stake assessments and GCSE public examinations, and the world of work when used appropriately, consistently and in structured time. Knowledge Organisers encourage pupils to be independent when developing knowledge. Each half term pupils will receive a booklet, which comprises of Knowledge Organisers and the Journey for all subjects in the curriculum. Moreover, this booklet is available on the school website and emailed to parents.

Why Knowledge Organisers?

The GCSE specifications have a greater focus on application, reasoning and evaluation skills. This leaves less time in class to focus on 'the bits they just have to know'. If knowledge retention is improved, this will have a positive impact on levels of attainment and achievement.

Overcoming the Curve



Decay theory states that if learning is not used, revisited or rehearsed it simply fades away.

How to use your Knowledge Organiser

To get the most out of the Knowledge Organisers, your son/daughter should be learning sections and then testing themselves.

Self - Help Apps

Mind Shift



The **Mind Shift** app helps you learn how to relax, to develop more helpful ways of thinking, and identify active steps that will help you take charge of your anxiety. This app includes strategies to deal with everyday anxiety, as well as specific tools to tackle:

Test Anxiety, Perfectionism, Social Anxiety, Performance Anxiety, Worry, Panic and Conflict

Headspace



Headspace teaches you the basics of meditation and mindfulness. As well as guided meditation courses and guides exercises. As well as animations, articles and videos, all in the distinct Headspace style.

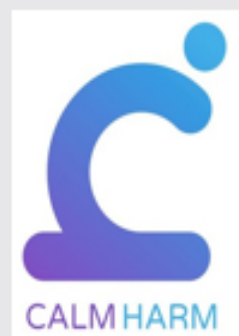
You can try Headspace for yourself and learn the essentials of meditation and mindfulness with their free Basics course

For Me



For Me is an app/website designed by ChildLine to support young people up to the age of 19. The app covers many issues, including self-harm, anxiety, bullying and body image.

Calmharm



Calmharm provides tasks that help you resist or manage the urge to self-harm.

Learn to ride the wave with the free Calm Harm app using these activities:

Comfort, **Distract**, **Express Yourself**, **Release**, **Random** and **Breathe**.

Distract: helps to combat the urge by learning self control

Comfort: helps to care rather than harm

Express Yourself: helps get feelings out in a different way

MyLife



KOOTH is a free, anonymous, confidential, safe, online wellbeing service offering counselling, information and forums for young people.

KOOTH offers access to counsellors 365 days per year 12.00 – 22.00 Monday – Friday 18.00 – 22.00 Saturday and Sunday.

www.kooth.com

Subject Contents



English



Maths



Science



Geography



History



Physical Education



Design Technology



Food



Computing



Personal Development & PDA



Music & Drama



Art



**Are you concerned about yourself or someone else?
Report your concerns to the Safeguarding Team**



**Mrs Goldup, Mrs Germaney, Mrs Roberts,
Ms Griffiths-Pugh & Mrs Webber**

kla.safeguarding@kla.eastern-mat.co.uk



End of Year 8 exam

Creative writing: poetry

Analytical writing: building an essay



Study of poetry: relationships

Class reading: reading for pleasure



Analytical writing: tentative language

Context: Shakespeare's tragedies

Analytical writing: personification & alliteration

Study of the play: Romeo and Juliet



Term 3

Analytical writing: sequencing ideas

Analytical writing: embedding quotations

Class reading: reading for pleasure

Context: Orwell's intentions

Creative writing: persuasive speech

Analytical writing: symbolism

Context: the Russian Revolution



Analytical writing: introductions

Term 2

Study of the novel: Animal Farm



Class reading: reading for pleasure

Analytical writing: alternative interpretations

Creative writing: descriptive & narrative

Analytical writing: detailed topic sentences

Context: the detective genre

Analytical writing: writer's methods



Study of short stories: Sherlock Holmes

Term 1

Welcome to KLA, your journey starts here!

Word:	Definition:
Feud	An argument in which two people or groups remain angry with each other for a long time.
Tragedy	A genre of play which has a noble, flawed protagonist, who makes a mistake and suffers a fall from his position.
Personification	Giving human qualities to non-living things.
Fate	A power that some people believe controls everything that happens, in a way that cannot be prevented.
Free will	The power people have to control their own path in life, rather than being controlled by fate.
Prologue	An opening part that comes at the beginning of a play, story, or long poem.
Contrast	When you compare two things to reveal their differences.
Oxymoron	A figure of speech that combines contrasting words with opposing meanings.
Hyperbole	Exaggeration for deliberate effect.
Patriarchy	A society where men are the holders of power and women have limited choices.
Dramatic irony	When the audience is aware of something that the characters are not.
Foreshadowing	Hinting or indicating a future event.
Authoritative	Commanding and self-confident; likely to be respected and obeyed.
Verse	Writing which has rhythm, meter or rhyme.
Prose	The everyday language we use when writing which has no rhythm or rhyme.
Imagery	When a writer uses figurative language to convey their intended picture to the reader.
Soliloquy	An act of speaking one's thoughts aloud when by oneself, on stage if in a play.
Pun	A humorous play on words
Banish	To drive away or expel from a country of place.
Hierarchy	A system where people or things are ranked above or below one another.
Justice	Fair behaviour or treatment. The reasonable administration of the law and upholding of it.

Year 8 – Term 3: Romeo and Juliet & Poetry

Key Knowledge

Context:	
Writer's Background	Shakespeare is a renowned English poet, playwright and actor. He was born in Stratford-upon-Avon in 1564. He was a founding member of The Lord Chamberlain's Men, an acting company. He is best known for his plays, having written 38 in his lifetime. Shakespeare married Anne Hathaway and had a family when he was relatively young.
The Elizabethan Era	Elizabeth I is one of the most famous and iconic British Queens in our history. She took an interest in the theatre and, like other nobles and monarchs, offered patronage to particular actors. Elizabeth was unusual as a woman ruling without a husband at a time of patriarchy.
Tragedy Genre	Tragedies were one of Shakespeare's preferred genres of play to write. A classic Shakespearean tragedy would focus on a noble male character, who has an unfortunate flaw. This character makes mistakes and falls from grace. Typically, normal order is somehow resumed after the action, even if it ends in death and suffering.

Characters:	
Romeo	<ul style="list-style-type: none"> A young and charming man. A member of the Montague family. Thoughtful, reflective, emotional. Falls deeply in love with Juliet.
Juliet	<ul style="list-style-type: none"> A strong-willed, brave woman. A member of the Capulet family. Defies her family and patriarchy. Is equally in love with Romeo.
Tybal	<ul style="list-style-type: none"> A short-tempered, violent man. Juliet's cousin. Seeks to challenge other men. Is a victim of the families' feud.
Lord Capulet	<ul style="list-style-type: none"> The father of Juliet. Initially is sweet and affectionate. Turns angry and assertive. The head of the Capulet house.
The Friar	<ul style="list-style-type: none"> A religious figure. Offers Romeo advice and support. Is trusted with Romeo's plots. Hopes to resolve the families' feud.
The Nurse	<ul style="list-style-type: none"> A maternal figure. Trusted and loved by Juliet. Is mostly aware of Juliet's secrets. A supporter of the Capulets.
Benvolio	<ul style="list-style-type: none"> Calm, reasonable, measured. Not a stereotypical male figure. Tries to keep the peace. Romeo's cousin.

Analytical Writing: TEAL Paragraphs	
Topic Sentence	A statement of your view, written in response to the question.
Evidence	A quotation from the text which supports your topic sentence.
Analysis	Identifying the words and methods used by the writer & explaining their effects.
Link to Context	Making connections between your point to the writer, social context or genre.

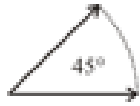
Poetry Writing: Our Process	
Vocab	Acquiring the best, most precise & suitable words to express your ideas.
Planning	Unfiltered thinking of ideas, which you can then select and sequence.
Writing	Expressing your planned ideas in full sentences and paragraphs.
Editing	Inspecting and improving your work.

Year 8 Maths

KING'S LYNN ACADEMY

End of Year Exam

The data handling cycle



Measures of location



Line symmetry & reflection



Angles in parallel lines & polygons



Area of trapezia & circles

Term 3

Number sense

Fractions & percentages

Standard index form

Indices

Sequences

Mid Term Exam

Term 2

Brackets, equations & Inequalities

Tables & probability

Representing data

Working in the Cartesian plane

Multiplicative change

Multiplying & dividing fractions

Ratio & Scale

Term 1

Welcome to KLA your Journey starts here

YEAR 8 - DEVELOPING GEOMETRY...

Angles in parallel lines and polygons

@whisto_maths

What do I need to be able to do?

By the end of this unit you should be able to:

- identify alternate angles
- identify corresponding angles
- identify co-interior angles
- Find the sum of interior angles in polygons
- Find the sum of exterior angles in polygons
- Find interior angles in regular polygons

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

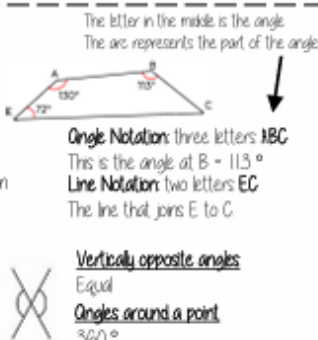
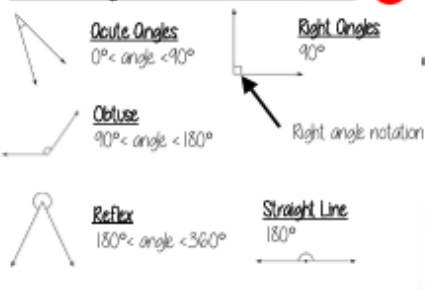
Isosceles: Two equal size lines and equal size angles (in a triangle or trapezium)

Polygon: A 2D shape made with straight lines

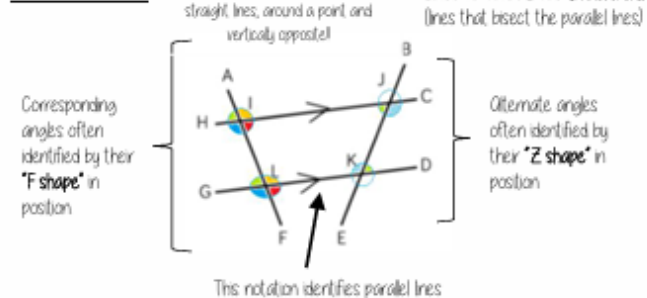
Sum: Addition (total of all the interior angles added together)

Regular polygon: All the sides have equal length, all the interior angles have equal size

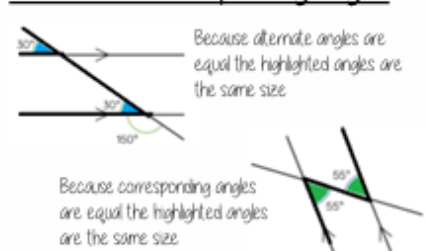
Basic angle rules and notation R



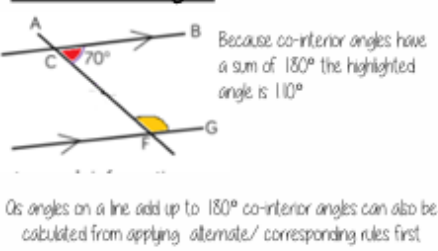
Parallel lines



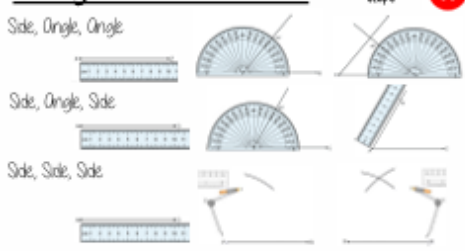
Alternate/ Corresponding angles



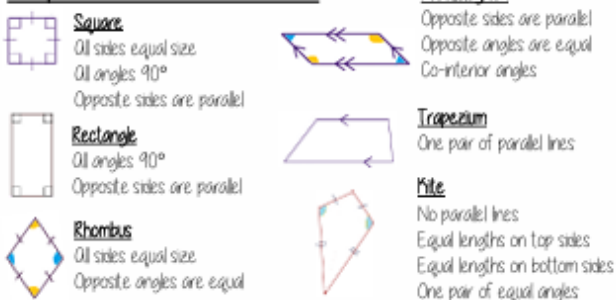
Co-interior angles



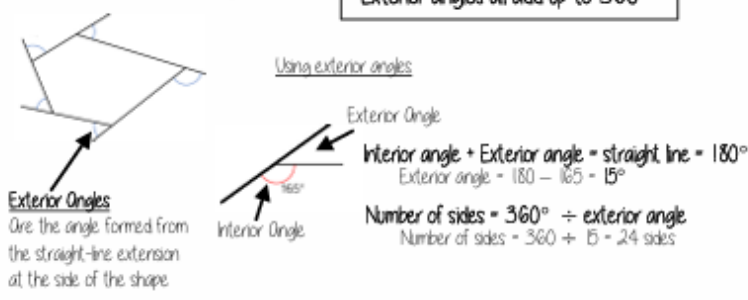
Triangles & Quadrilaterals R



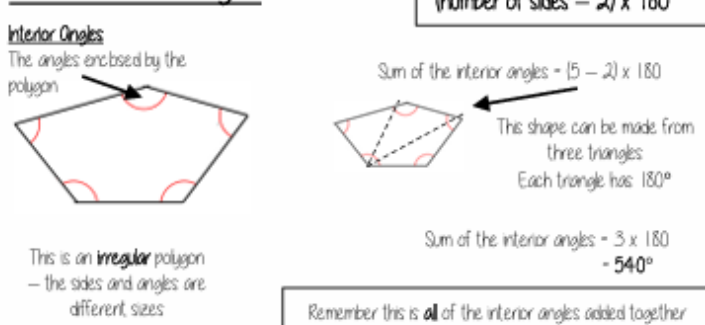
Properties of Quadrilaterals



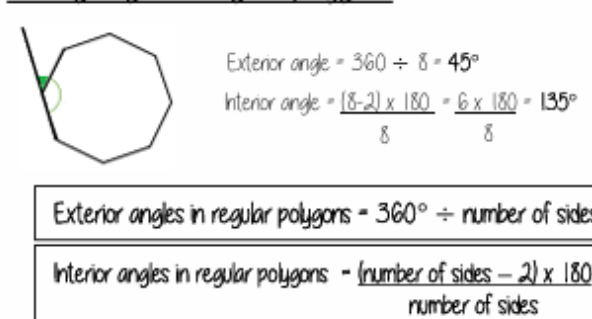
Sum of exterior angles



Sum of interior angles



Missing angles in regular polygons



YEAR 8 - DEVELOPING GEOMETRY...

Line symmetry and reflection

@whisto_maths

What do I need to be able to do?

By the end of this unit you should be able to:

- Recognise line symmetry
- Reflect in a horizontal line
- Reflect in a vertical line
- Reflect in a diagonal line

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

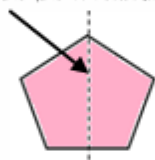
Perpendicular: lines that cross at 90°

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)

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

Paralelgram

No lines of symmetry



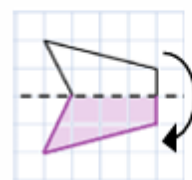
A circle has an infinite amount of lines of symmetry



Reflect horizontally/ vertically (1)



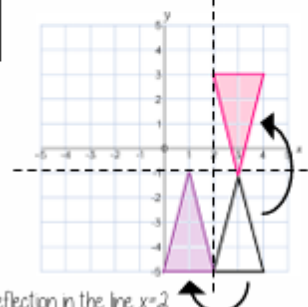
Reflection in a vertical line



Reflection in a horizontal line

Note a reflection doubles the area of the original shape

Reflection on an axis grid

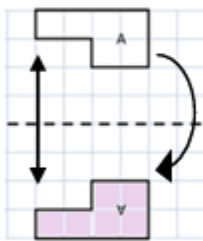


Reflection in the line $y=2$

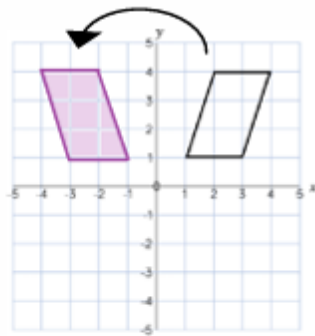
Reflection in the line $x=2$

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 $x=0$



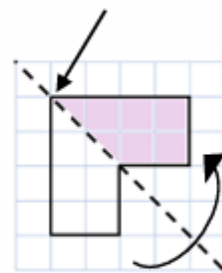
Lines parallel to the x and y axis

REMEMBER

Lines parallel to the x -axis are $y = \dots$
Lines parallel to the y -axis are $x = \dots$

Reflect Diagonally (1)

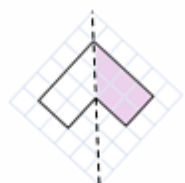
Points on the mirror line don't change position



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

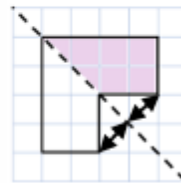
Turn your image

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



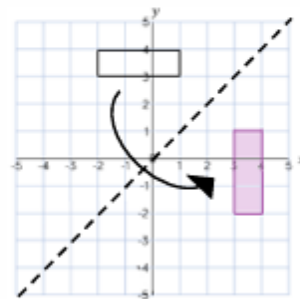
Drawing perpendicular lines

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

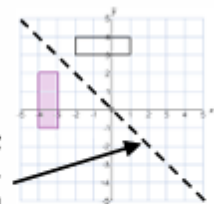


Reflect Diagonally (2)

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

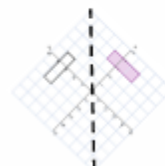


This is the line $y = -x$
The x and y coordinate have the same value but opposite sign



Turn your image

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



YEAR 8 - DEVELOPING GEOMETRY...

Area of trapezia and Circles

@whisto_maths

What do I need to be able to do?

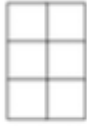
- By the end of this unit you should be able to:
- Recall area of basic 2D shapes
 - Find the area of a trapezium
 - Find the area of a circle
 - Find the area of compound shapes
 - Find the perimeter of compound shapes

Keywords

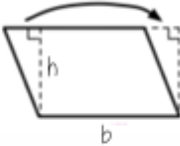
- Congruent:** The same
- Area:** Space inside a 2D object
- Perimeter:** Length around the outside of a 2D object
- Pi (π):** The ratio of a circle's circumference to its diameter.
- Perpendicular:** At an angle of 90° to a given surface
- Formula:** A mathematical relationship/ rule given in symbols. E.g $b \times h$ = 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

Area - rectangles, triangles, parallelograms

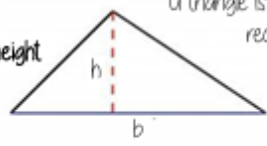
Rectangle
Base x Height



Parallelogram/ Rhombus
Base x Perpendicular height



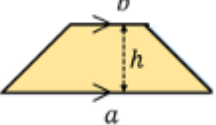
Triangle
 $\frac{1}{2} \times$ Base x Perpendicular height



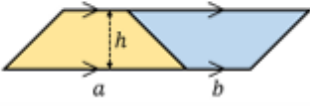
A triangle is half the size of the rectangle it would fit in

Area of a trapezium

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



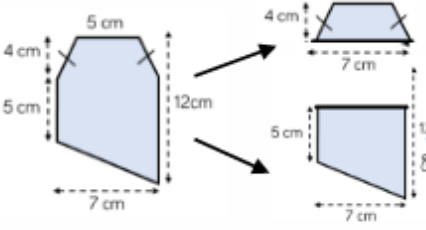
Why?



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

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
Top: 5 cm, Bottom: 7 cm, Height: 4 cm

Shape B - non-standard trapezium
Top: 5 cm, Bottom: 7 cm, Height: 8 cm

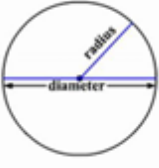
Shape A + Shape B = total area
 $\frac{(5+7) \times 4}{2} + \frac{(5+8) \times 7}{2} = 24 + 45.5 = 69.5 \text{ cm}^2$

Units


Area of a circle (Non-Calculator)

Read the question - leave in terms of π or if $\pi \approx 3$ (provides an estimate for answers)

Area of a circle
 $\pi \times \text{radius}^2$




Diameter = 8 cm
 \therefore Radius = 4 cm




$\pi \times \text{radius}^2$
 $= \pi \times 4^2$
 $= \pi \times 16$
 $= 16\pi \text{ cm}^2$

Find the area of one quarter of the circle



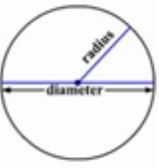
Circle Area = $16\pi \text{ cm}^2$
Quarter = $4\pi \text{ cm}^2$

Area of a circle (Calculator)



SHIFT $\times 10^{-1}$

Area of a circle
 $\pi \times \text{radius}^2$



How to get π symbol on the calculator

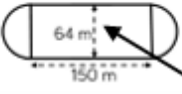
It is important to round your answer suitably - to significant figures or decimal places. This will give you a decimal solution that will go on forever!

Compound shapes including circles

Circumference
 $\pi \times \text{diameter}$

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 = $\pi \times 64 = 64\pi$

Arc lengths + Straight lengths = total perimeter
 $= 64\pi + 150 + 150$
 $= (300 + 64\pi) \text{ m}$
 OR = 501.1 m

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

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

YEAR 8 - DEVELOPING GEOMETRY...

Line symmetry and reflection

@whisto_maths

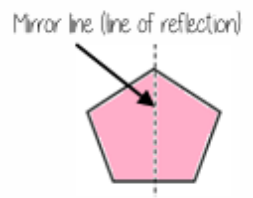
What do I need to be able to do?

- By the end of this unit you should be able to:
- Recognise line symmetry
 - Reflect in a horizontal line
 - Reflect in a vertical line
 - Reflect in a diagonal line

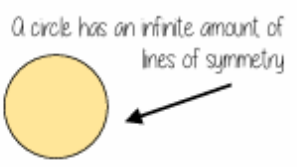
Keywords

- 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)

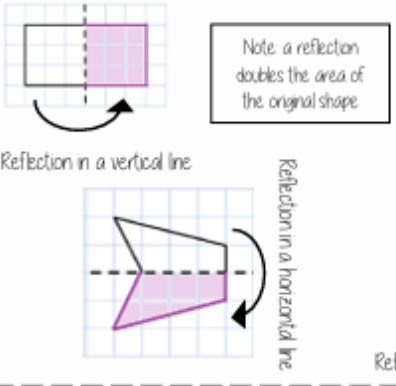
Lines of symmetry



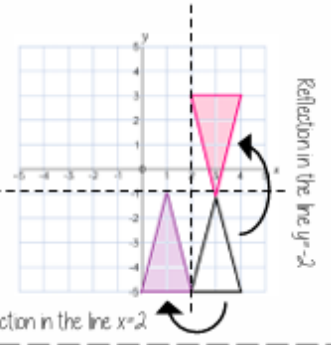
Shapes can have more than one line of symmetry...
 This regular polygon (a regular pentagon has 5 lines of symmetry)



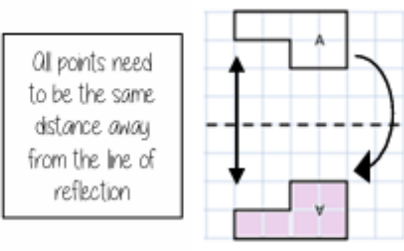
Reflect horizontally/vertically (1)



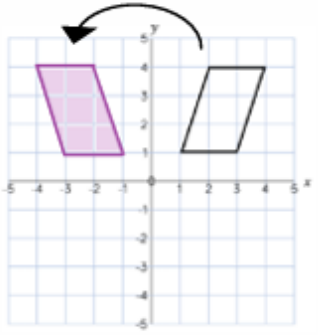
Reflection on an axis grid



Reflect horizontally/vertically (2)



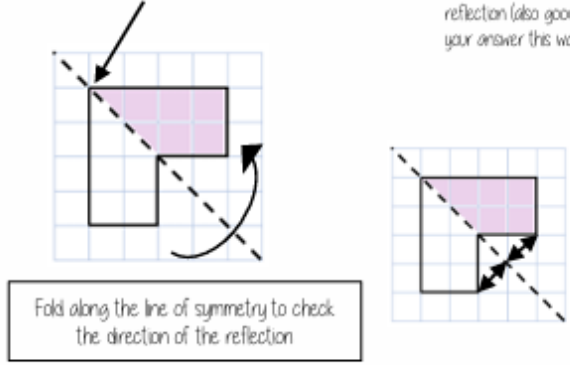
Reflection in the line y axis - this is also a reflection in the line $x=0$



Lines parallel to the x and y axis
 REMEMBER
 Lines parallel to the x-axis are $y = \dots$
 Lines parallel to the y-axis are $x = \dots$

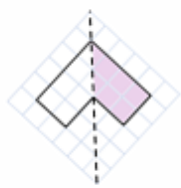
Reflect Diagonally (1)

Points on the mirror line don't change position



Turn your image

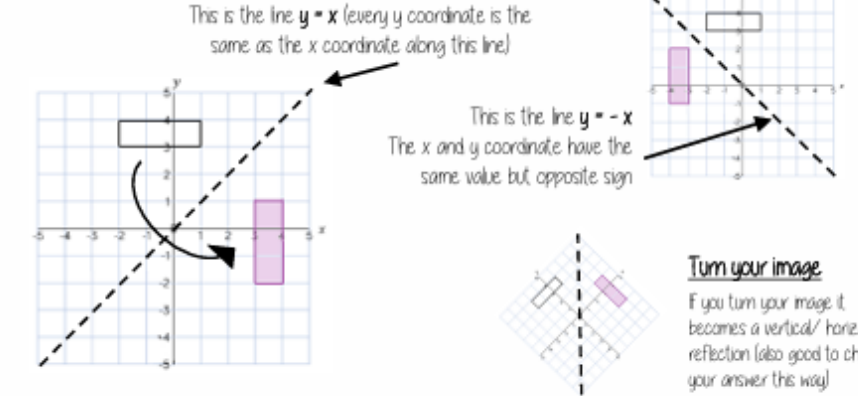
If you turn your image it becomes a vertical/ horizontal reflection (also good to check your answer this way)



Drawing perpendicular lines

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

Reflect Diagonally (2)



Turn your image

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

YEAR 8 - REASONING WITH DATA... The data handling cycle

@whisto_maths

What do I need to be able to do?

By the end of this unit you should be able to:

- Set up a statistical enquiry
- Design and criticise questionnaires
- Draw and interpret multiple bar charts
- Draw and interpret line graphs
- Represent and interpret grouped quantitative data
- Find and interpret the range
- Compare distributions

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

Set up a statistical enquiry



Features of a data collection sheet

Grouped or ungrouped categories	Data Title	Tally	Frequency

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

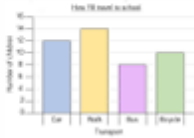
Pictogram

Language	Number of people
French	8
Spanish	6
German	2

● = 4 people

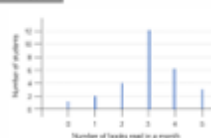
- Need to remember a key
- Visually able to identify mode

Bar Chart



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

Line Chart



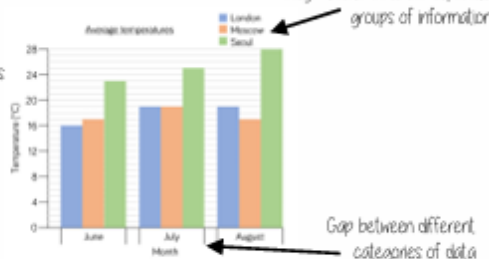
- Gaps between the lines
- Clearly labelled axes
- Scale for the axes
- Discrete Data

Represents quantitative data

Multiple Bar chart

Compares multiple groups of data

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



Draw and interpret Pie Charts

R

Remember a circle has 360°

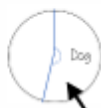
Type of pet	Dog	Cat	Hamster
Frequency	32	25	3

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

$\frac{32}{60} \times 360 = 192^\circ$



Use a protractor to draw This is 192°

Multiple method

Qs 60 goes into 360 - 6 times. Each frequency can be multiplied by 6 to find the degrees (proportion of 360)

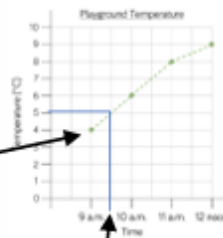
Represents quantitative, discrete data

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

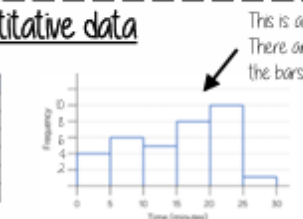


It is possible to make estimates from the line e.g. temperature at 9.30am is 5°C

Grouped quantitative data

Time (minutes)	Frequency
0 <= t < 5	4
5 <= t < 10	6
10 <= t < 15	5
15 <= t < 20	5
20 <= t < 25	10
25 <= t < 30	1

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



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

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

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

Find and interpret the range

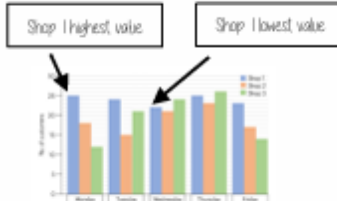
The range is a measure of spread

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

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

Difference between the biggest, and smallest values



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

YEAR 8 - REASONING WITH DATA...

Measures of location

@whisto_maths

What do I need to be able to do?

By the end of this unit you should be able to:

- Understand and use mean, median and mode
- Choose the most appropriate average
- Identify outliers
- Compare distributions using averages and range

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 shows 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

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 $55 \div 5$

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

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 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

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 employees

Identify outliers

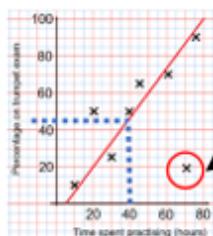
Outliers are values that stand well apart from the rest of the data

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 than Lucy because his scores have a greater range. Lucy performed better on average because her scores have a similar mean and a higher median"

Science

Year 8

Year 9

KING'S LYNN ACADEMY

Term 6

Physics
Light

Biology
Respiration

Term 5

Experimental Science
Standard Procedures

Physics
Electrical Energy

Chemistry
Earth Systems

Term 4

Chemistry
Reactants and Products

Biology
Tissues and Organs

Term 3

Experimental Science
Standard Procedures

Physics
Movement
Gravity

Term 2

Chemistry
Pure Substances

Biology
Life Diversity

Term 1

Welcome back to KLA your Journey continues





Matter

Earth systems: Big ideas

What expert understanding do we want after 5 years?

Earth systems interact

Big idea

The cycling of matter in the Earth systems depends on physical and chemical processes, over short and long timescales. Humans rely on resources from these systems for minerals, fresh water, fuels and other raw materials.

How does the unit develop this?

Rock cycle Key Concept

The three rock types that make up Earth's crust were formed by processes that link together in a never-ending cycle

Sub-concepts

Igneous rock, sedimentary rock, metamorphic rock, weathering, erosion

Facts

- A mineral is a naturally occurring element or compound
- Crystals are non-metal minerals whose atoms are arranged in a giant structure
- Definitions of permeable/porous and impermeable
- The rock layers inside Earth are the crust, the mantle and the core.

Water cycle Key Concept

The water cycle moves water through Earth's systems and is driven by energy from the sun and gravity

Sub-concepts

Evaporation, condensation

Facts

- Water falls to Earth as precipitation (rain, snow, hail, sleet)
- Transpiration is losing water from leaves via evaporation

Know the facts		Key words	
1	The Structure of the Earth consists of the inner core, outer core, mantle and crust.	1	Rock Cycle: Sequence of processes where rocks change from one type to another.
2	The inner core is made of solid iron. The outer core is liquid.	2	Weathering: The wearing down of rock by physical, chemical or biological processes.
3	Rocks are continuously eroded by weathering and climatic changes.	3	Erosion: Weathering of rock and its movement by water, ice or wind (transportation).
4	The eroded bits of rock are transported by water to other places towards the sea.	4	Sedimentary Rock: Formed from layers of sediment, and which can contain fossils. Examples are limestone, chalk and sandstone.
5	Bits of rock can be deposited on top of each other in layers.	5	Igneous Rock: Formed from cooled magma, with minerals arranged in crystals. Examples are granite, basalt and obsidian.
6	Layers of rock can be built up over time and cemented together as water is squeezed out of the layers, forming sedimentary rock.	6	Metamorphic Rock: Formed from existing rocks that are exposed to heat and pressure over a long time. Examples are marble, slate and schist.
7	Lava is magma that has come through the Earth's crust in volcanic eruptions and due to movement of the tectonic plates	7	Freeze-thaw weathering: The process where water gets into cracks in rocks and then freezes. As the water freezes it expands, breaking rocks apart over time.
8	The rate of cooling affects the crystal size in igneous rock. Faster cooling produces smaller crystals.	8	Tectonic Plates: The Earth's crust is made up of large plates that move around due to convection currents in the Mantle.
9	Heat and pressure can change igneous rock and sedimentary rock, forming metamorphic rock.	9	Evaporate: Change from liquid to gas at the surface of a liquid, at any temperature.
10	The water cycle shows how water enters and leave different stores of water.	10	Boil: Change from liquid to a gas of all the liquid when the temperature reaches boiling point.
11		11	Condense: Change of state from gas to liquid when the temperature drops to the boiling point.
12		12	Precipitation: rain, snow, sleet, or hail that falls to or condenses on the ground.
		13	Transpiration: Transpiration is the process of water movement through a plant and its evaporation from aerial parts, such as leaves, stems and flowers.



Forces

Gravity: Big ideas

What expert understanding do we want after 5 years?

Fields produce forces
Big idea

Gravitational, electric, and magnetic forces act at a distance. These can be explained by force fields that extend through space and can move other objects. Objects with mass cause attractive gravitational fields

Electric and magnetic forces are different aspects of one interaction. Magnets cause magnetic fields and changing magnetic fields cause electric fields. Many devices use this interaction to generate motion and electricity.

How does the unit develop this?

Gravitational force
Key Concept

Every object exerts a gravitational force. Gravity holds planets and moons in orbit around larger bodies but depends on distance and mass

Facts

- Gravity decreases with distance

Weight
Key Concept

Weight is the force an object exerts on its support and which causes it to fall. It is mass x gravitational field strength

Sub-concepts

Gravitational field strength

Facts

- Weight = mass x g (field strength)
- Weight is in N, mass in kg

Solar system
Key Concept

The solar system is modelled as planets rotating on tilted axes, orbiting the Sun. It explains day and year length, seasons and how planets and moons appear

Sub-concepts

Planet, orbit, satellite

Facts

- Axis, day and year length
- Planets revolve at different distances from the Sun, which explains different year lengths and temperatures

Know the facts		Key words
1	Forces are pushes or pulls Force is measured in Newtons(N)	1 Equilibrium: State of an object when opposing forces are balanced.
2.	Forces exist when objects interact- this produces and interaction pair	2 Deformation: Changing shape due to a force.
3	Friction, air resistance and water resistance are contact forces.	3 Newton: Unit for measuring forces (N).
4.	Friction can be reduced by lubrication. Air resistance and water resistance can be reduced by streamlining.	4 Resultant force: Single force which can replace all the forces acting on an object and have the same effect.
5.	When the resultant force on an object is zero, it is in equilibrium and does not move, or remains at constant speed in a straight line.	5 Friction: Force opposing motion which is caused by the interaction of surfaces moving over one another. It is called 'drag' if one is a fluid.
6.	You can draw a force diagram to show the forces acting on an object and label their size (length or thickness of the arrow) and direction with Newtons.	6 Tension: Force extending or pulling apart.
7	If forces are not balanced the object will speed up, slow down or change direction	7 Compression: Force squashing or pushing together.
8	Drag/frictional forces slow down falling or accelerating objects.	8 Contact force: One that acts by direct contact.
9	When the resultant force on an object is zero, it is in equilibrium and does not move, or remains at constant speed in a straight line.	9 Streamlined: Shaped to reduce resistance to motion from air or water.
10		10 Equilibrium : when forces cancel each other out
		11 Density: How much matter there is in a particular volume, or how close the particles are.

Know the facts		Key words
1	The Earth is one of eight planets in our Solar System.	Galaxy: Collection of stars held together by gravity. Our galaxy is called the Milky Way.
2.	Planets large objects that are (almost) spherical in shape and orbit the Sun.	Light year: Distance light travels in a year (over 9 million, million kilometres).
3	The Earth spins on its axis 1 times a day. That is why we have day and night.	Stars: Bodies which give out light, and which may have a solar system of planets.
4.	The Earth has seasons as the Earth is moving around the Sun and some parts are tilted towards the Sun and other parts are tilted away from the Sun.	Orbit: Path taken by a satellite, planet or star moving around a larger body. Earth completes one orbit of the Sun every year.
5.	Pluto is no longer classed as a planet as it is too small and is quite spherical enough. It hasn't been a planet since 2006.	Exoplanet: Planet that orbits a star outside our solar system.
6.	A year is the time taken to make one complete orbit around the Sun.	Asteroid: A rock in space.
7	We see the Moon due to reflection of the Sun's light	Comet: Made of dust and ice.
8	Planets further from the sun are colder	Natural satellite : an object in space which formed from dust rocks
9	The universe consists of millions of galaxies. Each galaxy contains billions of stars. Each star may have planets, comets and asteroids orbiting them.	Meteor : are bits of dust, rocks that burn up as they move through the Earth's atmosphere.
10	The Moon has different phases due to the positioning of the Earth, Sun and Moon.	Meteorite : is a meteor that has made it to the Earth's surface
11	Our solar system is part of the Milky Way - a galaxy containing hundreds of millions of stars.	Gravity: the force that helped pull the dust and gas together to form our Solar system
12	There are millions of galaxies in the universe.	Constellation : A group of stars we can see in the night sky.
13	A solar eclipse happens when the moon is between the Sun and the Earth	Solar System: The planets form a solar system
14	A lunar eclipse happens when the Earth is between the sun and the moon	Milky way: the name of our galaxy



Light: Big ideas

Energy

What expert understanding do we want after 5 years?

Radiation transfers energy

Big idea

Radiation is the emission of waves or subatomic particles, from a source, which spread through space and through materials.

Waves transfer energy without the material moving, and travel as longitudinal vibrations, or as transverse electromagnetic oscillations. Waves have characteristic properties when they meet boundaries, and pass into different materials. High energy wave cause ionisation.

How does the unit develop this?

Reflection

Key Concept

We see objects by reflected light. When a light ray strikes a reflective surface, it changes direction, and the angle of the incident and reflected rays are equal

Sub-concepts

Ray model, image

Facts

- Definition of: Scattering, incident ray, reflected ray, angle of incidence, angle of reflection, total internal reflection
- The difference between absorption and transmission

Refraction

Key Concept

When light passes into a different material, light changes direction. The direction the light bends depends on the difference in refractive index of the two materials.

Sub-concepts

Lens

Facts

- Definition of: Dispersion, retina, spectrum
- The difference between converge and diverge
- How light rays are affected by convex and concave lenses

Know the facts		Key words	
1	Light travels as a transverse wave.	1	Vacuum: A space with no particles of matter in it.
2	The law of reflection states that angle of incidence is equal to the angle of reflection.	2	Incident ray: The incoming ray.
3	When light enters a denser medium it bends towards the normal; when it enters a less dense medium it bends away from the normal.	3	Reflected ray: The outgoing ray.
4	Light travels at 300 million metres per second in a vacuum.	4	Normal line: From which angles are measured, at right angles to the surface.
5	Different colours of light have different frequencies.	5	Refraction: Change in the direction of light going from one material into another.
6	When a light ray meets a different medium, some of it is absorbed and some reflected.	6	Transparent: A material that allows all light to pass through it.
7	Prisms disperse white light to produce a continuous spectrum	7	Translucent: A material that allows some light to pass through it.
8	Photoreceptors are sensitive to light – there are 2 types rods and cones	8	Opaque: A material that allows no light to pass through it.
9		9	Retina: Layer at the back of the eye with light detecting cells and where image is formed.

What expert understanding do we want after 5 years?

Reactions rearrange matter

Big idea

During a chemical reaction, bonds are broken and the atoms of the reacting substances rearrange to form new bonds. The products have different properties to the reactants. In physical changes the molecules do not change, but their positions and their motion may.

How does the unit develop this?

Acid reactions

Key Concept

There is a pattern in how an acid reacts with a metal or metal carbonate. A word equation shows the reactants and products.



Sub-concepts

Chemical reaction, word equation

Facts

- Tests for hydrogen and carbon dioxide

Oxidation & reduction

Key Concept

During a chemical reaction a substance may gain oxygen (oxidation) or lose oxygen (reduction)

Know the facts		Key words
1	The pH scale shows how acidic or alkaline a solution is.	pH: Scale of acidity and alkalinity from 0 to 14.
2	Acids have a pH below 7. The lower the pH the stronger the acid.	Indicators: Substances used to identify whether unknown solutions are acidic or alkaline.
3	Neutral solutions have a pH of 7	Base: A substance that neutralises an acid - those that dissolve in water are called alkalis.
4	Alkalis have a pH above 7. The higher the pH the more alkaline the solution.	Concentration: A measure of the number of particles in a given volume.
5	Acids and alkalis can be corrosive or irritant, and require safe handling.	Neutralisation: a reaction when an acid reacts with a substance that cancels it out bringing the solution closer to pH7.
6	Hydrochloric acid, sulfuric acid and nitric acid are strong acids.	Universal indicator: mixture of dyes, it changes colour to show how acidic or alkaline a substance is.
7	Litmus is an indicator. Blue litmus paper turns red when an acidic solution is applied. Red litmus turns blue on when an alkaline solution is applied.	Corrosive: a substance which can burn your skin and eyes - wear eye protection.
8	A base is a substance which neutralises an acid	Acid: a substance which taste sour and has a pH in the range 0-6.
9	In a neutralisation reaction, an acid cancels out a base or a base cancels out an acid.	Alkali: a substance which feels soapy and has a pH in the range 8-14.
10	If an acid reacts with a metal the products are a salt and hydrogen	acid + metal → salt + hydrogen e.g. nitric acid + calcium → calcium nitrate + hydrogen
11	If an acid reacts with a base there are two products: a salt and water	acid + alkali → salt + water e.g. hydrochloric acid + sodium hydroxide → sodium chloride + water
12	Sulfuric acid produces sulfates	H₂SO₄: Sulfuric acid
13	Hydrochloric acid produces chlorides	HCl: Hydrochloric acid
14	Nitric acid produces nitrates	HNO₃: Nitric acid

Know the facts		Key words
1	Physical changes are reversible	1 Fuel: Stores energy in a chemical store which it can release as heat.
2.	Chemical changes are NOT reversible	2 Chemical reaction: A change in which a new substance is formed.
3	In a reaction atoms are rearranged to make a new substance	3 Physical change: One that changes the physical properties of a substance, but no new substance is formed.
4.	Chemical reactions can make useful products and transfer energy.	4 Reactants: Substances that react together, shown before the arrow in an equation.
5.	In oxidation reactions ,substances join together with oxygen to form oxides	5 Products: Substances formed in a chemical reaction, shown after the reaction arrow in an equation.
6.	Exothermic change transfers energy to the surroundings	6 Conserved: When the quantity of something does not change after a process takes place.
7	Endothermic change transfers energy from the surroundings	7 FeO : this is the formula for iron oxide
8	Combustion is the burning of a substance in oxygen.	8 Fossil fuels : these are petrol diesel gas and coal
9	Combustion gives off heat and light.	9 Non-renewable – a substance which cannot be replaced once it is used up
10	When hydrocarbons undergo combustion the products produced will include carbon dioxide and water vapour.	10 Balanced symbol equation :shows the formula of the reactants, how they are arranged and the relative amounts of reactants and products
11	Thermal decomposition involves breaking down large molecules with heat to give simpler products.	
12	In a chemical reaction mass is conserved. The mass of the reactants equals the mass of the products.	
13	Atoms in a chemical reaction only get re-ordered - they are not created or destroyed.	



Respiration: Big ideas

What expert understanding do we want after 5 years?

Cells are Alive

Big idea

- Organisms are made of cells, which themselves have parts that carry out different functions. Organisms exist as single cells (unicellular) or many cells (multicellular). In multicellular organisms, cell division is essential for growth, development, and repair. Cells differentiate to form specialised cells that perform diverse functions.
- All living systems need matter and energy. Matter fuels respiration, the energy-releasing chemical reaction that provides energy for life functions and provides the material for growth and repair of tissue. Plants and algae use sunlight, water, and carbon dioxide to facilitate photosynthesis, which stores energy, forms plant matter, releases oxygen, and maintains plants' activities.

How does the unit develop this?

Aerobic

Key Concept

Aerobic respiration is a series of chemical reactions in cells, where oxygen reacts with glucose to release energy

Facts

- Heart rate can be measured in beats per minute (BPM)

Anaerobic

Key Concept

Respiration without oxygen is anaerobic respiration, or fermentation. It releases less energy than aerobic respiration

Sub-concepts

Fermentation, oxygen debt

Know the facts	Key words
Multicellular organisms are composed of cells which work together to form a tissues and these group together to make organs..	Diffusion: movement of particles from a place where they are high in concentration to a place where they are in a lower concentration.
Both Plant and Animal cells have a cell membrane, nucleus, cytoplasm and mitochondria.	Chloroplast: Absorbs light energy so the plant can make food (photosynthesis).
Plant Cells also have a Cell Wall, Chloroplasts and usually a Permanent Vacuole.	Cell membrane: Surrounds the cell and controls movement of substances in and out.
Uni-cellular organisms are adapted to carry out functions that in multi-cellular organisms are done by different types of cells.	Nucleus: Contains genetic material (DNA) which controls the cell's activities.
Medical treatments can work at an individual cell, tissue, organ or organ system level.	Mitochondria: Part of the cell where energy is released from food molecules.
Photosynthesis occurs inside chloroplasts.	Circulatory System: Transports substances around the body.
Cells are the building blocks of life – they are the smallest units in an organism.	Respiratory System: Removes Carbon Dioxide from the blood and allows Oxygen to be absorbed and transported.
Specialised cell: Has a particular shape and structure to carry out a specific job.	Muscular- Skeletal Systems: Muscles and bones working together to cause movement and support the body
Respiration is the process by which living things produce energy.	Digestive System: Breaks down and then absorbs smaller food molecules.
Fermentation is a useful chemical process which makes alcohol and carbon dioxide.	Glucose: a type of sugar molecule
Oxygen Debt is a temporary oxygen shortage in the body tissues arising from exercise.	Aerobic: in the presence of oxygen
Lactic Acid is a chemical made in anaerobic respiration	Anaerobic: in the absence of oxygen

Geography

Year 8

Year 9

KING'S LYNN ACADEMY

Dubai/UAE

Half Term 6

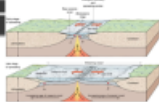


The Middle East

Earthquake effects



Plate margins



Volcano formation

Opportunities

Tectonics

Half Term 5



Challenges

Adaptations



Desertification



Locations



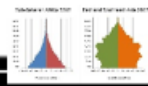
Nigeria focus



Hot deserts

Half Term 4

Physical Geography



The Sahara



Africa

Populations

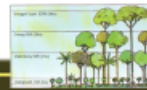
Rainforest threats

Half Term 3



Location of biomes

Adaptations



ecosystems



Characteristics



Tropical rainforests

Half Term 2

Gender equality

Why do people live in poverty?



Health inequality

Welcome back to KLA. Your journey continues.

Half Term 1

Measuring development

Development





Is your fieldwork SAP?

- S** – Safe to carry out
- A** – Accessible
- P** – Possible in the time you have

Analysing Graphs and Data

- P** – Pattern: describe the general pattern of your data.
- E** – Example/evidence: use specific numbers/facts from your graphs to support the pattern
- A** – Anomalies: are there any points in your data that don't fit the pattern.
- L** – Link to enquiry question.

Keywords

Fieldwork	The studying of Geography outside the classroom.
Primary data	Data that you personally collect when doing fieldwork.
Secondary data	Data that someone else has collected e.g. data another school has collected or a newspaper article.
Quantitative data	Data with a numerical value.
Qualitative data	Data that is words or images, usually containing views, opinions or feelings.
Analysis	Detailed examination of something usually data.
Conclusion	Drawing together results to reach an answer or decision. In fieldwork drawing results from data to answer the enquiry question.
Evaluation	Weighing up the positives and negatives of something. In fieldwork it refers to weighing the reliability and accuracy of results.
Accuracy	How limited errors have been, therefore making data more likely to give true results.
Reliability	How trustworthy your data is based on it being a good representation of possible data to be collected.
Bias	When something is not done fairly as there is a preference given. For example only asking one age group their opinion about something.

Methods for collecting data

Questionnaires

Using open and closed question to ask people's opinions about something or about their own behaviours e.g. how often they visit a particular place.

Tally counts

Counting numbers of a particular thing.

Biodiversity tally



Using a quadrat to choose a particular area of a location. Then within the quadrat counting the number of particular species seen. It can be done in timed conditions.

Field sketch

Drawing annotated geographical drawing of a particular area. It focuses on the main aspects of the area and is limited to include the main focus of the fieldwork. e.g. drawing a few sheep not necessarily the exact number.

Temperature measure

Using a thermometer taking the temperature in a particular location.

Clone Town Survey

Taking a count of different types of shop and whether they are independently owned or chain stores.

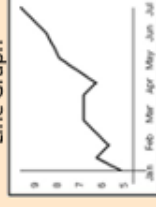
Fieldwork Process

Decide on area → Enquiry Question → Methods → Collecting Data →

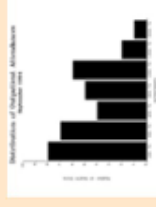
Present data → Analyse data → Conclusion → Evaluation

Graphs for presenting data

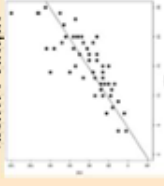
Line Graph



Bar Chart



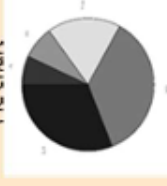
Scatter Graph



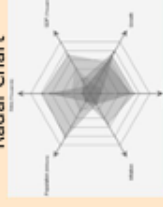
Divided Bar Graph

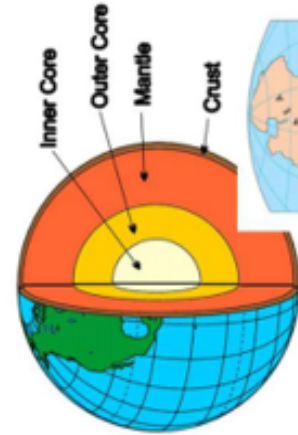


Pie chart



Radar Chart





Structure of the Earth

Crust: solid rock; 0-60 km thick; continental (granite rock) and oceanic (basalt rock) The crust is divided into plates, that move very slowly. Mantle: molten rock; ~2,900 km thick
 Outer core : liquid metal; iron and nickel; ~4400°C
 Inner core: solid metal; iron and nickel; ~6100°C

Plate Margins

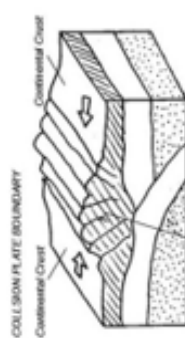
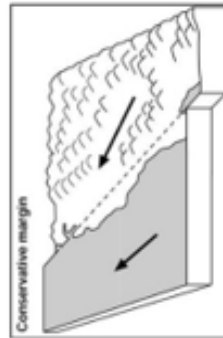
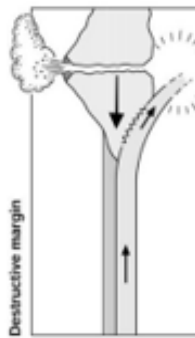
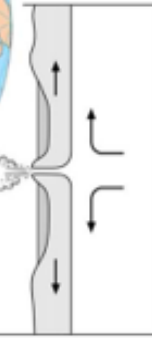
Constructive: plates move apart (diverge).
 Volcanoes and earthquakes
 Examples: Iceland; East African Rift Valley

Destructive: as the plates converge, the oceanic plate subducts under continental plate.
 Fold mountains and ocean trenches
 Volcanoes and earthquakes
 Example: Andes and Peru-Chile Trench

Conservative: plates slide alongside each other
 Earthquakes
 Example: San Andreas Fault in California

Collision: continental plates collide into each other as they move towards each other (converge)
 Fold mountains
 Earthquakes
 Example: Himalayas

Old volcanoes, now being eroded
 Oahu, Molokai, Maui, Big Island, Hawaii
Hotspot, created by a mantle plume:
 (Feeding only the Big Island)



Anomaly: Hotspot

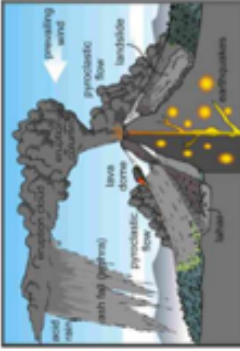
At a hotspot, a super-hot plume of magma rises through the crust, not along a plate margin. As the plate moves, new islands form and the old ones stop growing and start being eroded. Volcanoes form, and small earthquakes too, due to magma movement. Examples: Hawaii; Yellowstone Volcano



Volcanoes

Shield volcano: largest volcanoes on earth; made of basalt magma; wide base; low height; not steep
 Example: Kilauea (Hawaii) and Erta Ale (Ethiopia)

Stratovolcano (composite): most of the world's volcanoes are composite volcanoes; made of more viscous magma; made of layers of lava and ash; steep sides; tall



Keywords

1	Magma	Molten (liquid) rock in the mantle
2	Lava	Magma that has reached the surface
3	Pressure	Physical force (pressure builds up when tectonic plates lock together and can't move)
4	Friction	Resistance or difficulty in moving. Tectonic plates are rough and so there is friction when they move.
5	Fold mountain	Mountains that formed when tectonic plates collide and cause the plates to wrinkle
6	Ocean trench	A deep valley formed on the ocean floor where one tectonic plate subducts under another
7	Tsunami	Large ocean wave caused by underwater earthquake

Why live near a volcano?
 + tourism; precious metals; fertile soil; geothermal energy
 - inability to leave (poverty, family, land); belief that disasters are acts of God (fatalism); a disaster has not taken place in a long time; lack of awareness

Case Long-term Studies
Tohoku 11/03/2011
Richter Scale 9.0
Fuego Volcano 03/06/2018
Explosivity Index 3

Location	Japan	Guatemala
Causes	Pacific Plate subducting under North American Plate	Cocos Plate subducting under North American Plate
Primary Effects	~ 16,000 people died ~ 4000 people missing ~ 6000 people injured ~ 128,500 homes & businesses destroyed	~ 110 deaths ~ 200 people missing ~ 300 injured Mud and ash covered roads and crops
Secondary Effects	Flooding destroyed crops Tsunami wave and flooding (reached 39 m high, travelled 10 km inland on eastern side of Japan) Fukushima nuclear power plant severely damaged Disruption to: shipping; travel; agriculture (farming); economy	Ash fell 15 km away Heavy rain caused landslides Destroyed crops caused food shortages Lung diseases due to breathing in ash and gases Disruption to: travel; agriculture; economy Increased levels of poverty
Immediate Responses	Military aircraft identified areas needed most urgent help Roads cleared to bring water/food/ medical care / tents	Search & Rescue teams clear roads to reach people Water / food / medical care / tents Evacuation
Responses	Continued training, education Rebuild infrastructure (roads, electricity, buildings)	Education and evacuation drills response systems Rebuilding infrastructure

History

1453 - 1760

Year 8

KING'S LYNN ACADEMY

Year 9

Introduction to Empire



Georgian Aristocracy



Creation of Great Britain

Parliamentary Government

Half Term 6

The Glorious Revolution



The Great Fire of London

Restoration England



The Restoration

Trial and execution

Cromwell's Commonwealth

Half Term 5

Fighting the English Civil War

The Outbreak of War

Charles I and Parliament

James I and the Gunpowder Plot

Half Term 4

Rich and Poor in Tudor England



The Spanish Armada

The Elizabethan Golden Age



Mary I's counter reformation

Elizabeth I



Half Term 3

Henry VIII and Edward VI

The English Reformation

Henry's 'Great Matter'



The young Henry VIII

The Reformation

Half Term 2



The 'New' World

Christopher Columbus



Global exploration

Welcome back to KLA. Your journey continues.

Half Term 1

The Italian Renaissance

Print, gunpowder and astronomy



Year 8 History Knowledge Organiser Summer Term

Commonwealth and Restoration and The Georgian Britain



The Commonwealth and Restoration 1649 - 1689

Tier 2 Vocabulary	Tier 3 Vocabulary
<p>Commonwealth: the period when England ceased to be a monarchy and was at first ruled by parliament.</p> <p>Exile: being forced to live outside your native country, typically for political reasons.</p> <p>Firebreaks: a man might get incombustible material used to prevent the further spread of fire.</p> <p>Godly Providence: the peaceful rejection of James II as King, and replacement by William and Mary.</p> <p>Illegitimate: not recognised as lawful, once used to describe someone born of unmarried parents.</p> <p>Military Dictatorship: a form of government where the military hold sole power over the state.</p> <p>Plague: the most common variant is bubonic plague, named after the swellings on victim's bodies.</p> <p>Rational thought: the idea that reasoning, not superstition, should be the source of human knowledge.</p> <p>Royal Society: a group founded in 1660 for the advancement of scientific knowledge.</p>	<p>Declaration of Breda: a series of promises made by Charles II prior to his restoration as king.</p> <p>Glorious Revolution: the peaceful rejection of James II as King, and replacement by William Mary.</p> <p>Great Seal: a seal used to show the monarchs approve of important state documents.</p> <p>Lord Protector: the title given to Oliver Cromwell as head of the English state and the Church of England.</p> <p>Miasma: the theory that diseases caused by the spreading smell of poisonous cloud of bad air.</p> <p>Regicide: the deliberate killing of a monarch, or the person responsible for doing so.</p> <p>Restoration: the return of the monarchy to England with Charles II's Coronation in 1660.</p> <p>Rump Parliament: the remaining members of the parliament after it is purged before Charles I's trial.</p> <p>The Bill of Rights: a document establishing parliament's rights and limitations to the monarch's power.</p>

Georgian Britain

Tier 2 Vocabulary	Tier 3 Vocabulary
<p>10 Downing Street: traditional home of the English Prime Minister since the reign of George I.</p> <p>Aristocracy: the government of a country by an elite class, often with hereditary titles.</p> <p>Clan: ancient family from the Highlands of Scotland.</p> <p>Great Britain: a name given to the island comprising England Wales and Scotland.</p> <p>Highlands: a sparsely populated area of northern Scotland known for its mountainous landscape.</p> <p>House of Commons: the lower house in parliament, where seats go to MPs elected by the people.</p> <p>House of Lords: the upper house in parliament, where at this time seats are inherited by members of the peerage.</p> <p>Satirical: using humour to criticise human failings, often in the context of politics.</p> <p>Suppression: a dominant political power limiting the freedom and activity of a group of people.</p>	<p>Act of Settlement: a law passed in 1701 ensuring a Protestant would succeed Queen Anne.</p> <p>Act of Union: a law which united England and Scotland in 1707 and created Great Britain.</p> <p>Grand Tour: journey taken by upper class young men to experience the art and culture of Europe.</p> <p>Highwayman: armed robbers on horseback who attacked people travelling in stagecoaches.</p> <p>Jacobite: supporters of the Stuart claim to the throne, following the Exiles of James II.</p> <p>Season: a 6-month period when parliament was in session and the aristocracy came to London.</p> <p>Share: a portion of a company that can be bought, bringing with it a portion of the profits.</p> <p>Stagecoach: a horse drawn carriage used for long distance travel.</p> <p>Tories: a political party which originally formed to protect the power of the King.</p> <p>Whigs: a political party which originally formed to limit the power of the King.</p>

Evaluation & Development of Head Heart Hands



Rules – Confidence – Solving

Goal Setting

Term 6



Analysis – Resilience – Competitive

Goal Setting

Term 5



Responsibility – Leadership - Tactics

Components of Fitness

Term 4



Feedback – Respect - Technique

Components of Fitness

Term 3



Understanding – Communication - Ability

Muscles and Bone

Term 2



Knowledge - Effort - Fitness Levels

Muscles and Bones

Term 1



PE
Yr 8

Welcome to PE

Year 8 Evaluation & Development

HEAD

Feedback



Responsibility

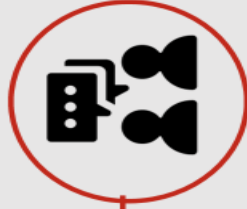


HEART

Respect



Leadership



Students begin to evaluate their own and others' performance using the Head, Heart, Hands framework. They reflect on how to improve skills, behaviours, and decision-making.

HANDS

Techniques



Tactics



Physical Education Specific Learning Content

Components of Fitness

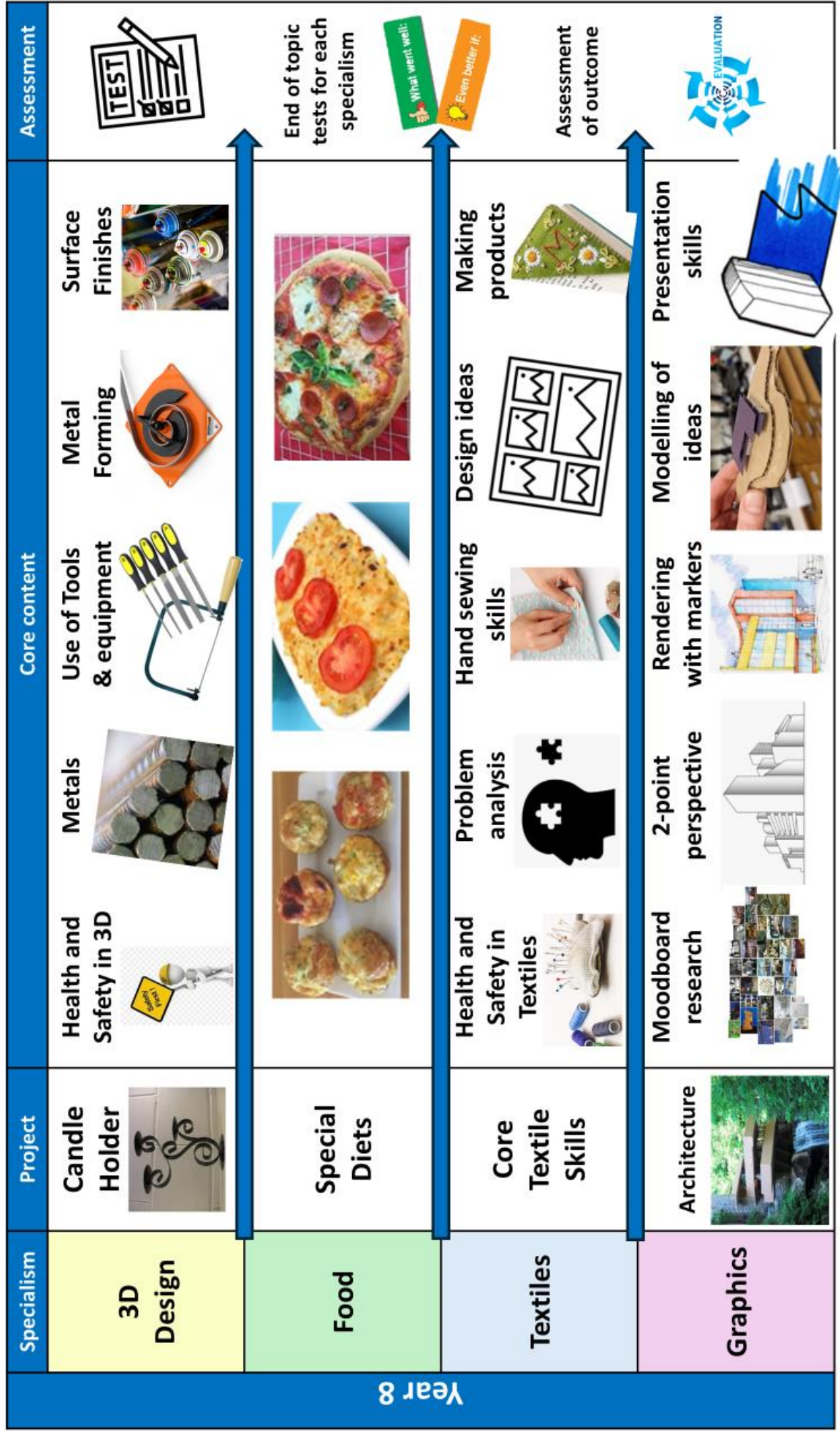
Skill

Fitness and Health

Apply to sport

Knowledge of the rules

Over the year students rotate through areas of departmental specialism, experiencing specialist teaching to develop knowledge and understanding of key creative skills.



Year 8 Textiles Knowledge Organiser

What is a brief?

Brief - A brief set of instructions given to a person about a job or task.

What is a specification?

A list of rules that a product must fit to when being made and designed. Precise detail.

Natural materials

Textiles made from natural fibres are known as natural fabrics. Used for hundreds and even thousands of years.

Some natural textiles include:

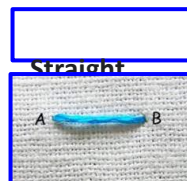
Linen – Cotton – Hemp – Silk – Cashmere – Wool – Jute – Bamboo – Mohair –Leather

Synthetic materials

Synthetic fibres (man-made fibres) are produced by joining chemical monomers into polymers using a chemical reaction called polymerisation. Some synthetic materials include:

Acetate - Acrylic - Microfiber - Nylon - Polyester - Polyvinyl-chloride (PVC) - Spandex

Embroidery Stitches:



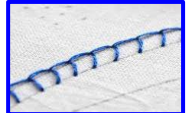
Stem



Star



Blanket



Possible research methods

Market Research

Questionnaires or interviews can be used to find out people's likes/dislikes and so on. This helps the designer understand what the target group wants from a product.

Product Analysis

Designers analyse and evaluate similar existing products to what they plan on designing to highlight positive and negative aspects and help them in what they design.

Designer/Artist research

Designers may look to designers/artist to help them decide on visual information in their design and help them to understand how something is made using design/artistic processes.

H&S Rules:

- Listen to the Teacher at all times and follow instructions INSTANTLY
- All tripping hazards removed – Stools tucked under work stations, bags/coats away
- Equipment put away neatly where found after use
- Focus on your own work – not a chatting opportunity



Textile scissors

Felt



Embroidery thread



Embroidery needle



Food KS3 Learning Journey

YEAR 9

Students on rotation with DT

Food Technology - Theory: Focusing on theory ready for KS4 -Health and Safety, Food allergies/intolerances, consumer awareness and food waste. Practical: A range of dishes using higher level cooking skills with presentation.



9



YEAR 8

Students on rotation with DT

Food Technology Theory - Health and Safety, Nutrition- focusing on dairy, protein, fats and oils, carbohydrates and fruits and vegetables. Practical - A range of dishes building on cooking skills with dishes that incorporates the following - fermentation, coagulation, aeration and gelatinisation.



8

YEAR 7

Students on rotation with DT

Food Technology - Theory - Health and Safety, personal hygiene and the Eatwell Guide. Sensory Analysis. Practical - A range of dishes building cooking skills, such as learning about knife skills, different cooking methods and presentation.



7

Knowledge organiser

Year 8 KS3 Cooking and Nutrition

Prior Learning / Context:

Prior learning includes introduction to the Eatwell Guide and the principles of healthy eating. Basic cooking skills, including knife skills and cooker safety completed.

Assessment:

- Retrieval Practice – quizzing, starter/plenary tasks
- Formal knowledge assessments – delivered in time with reporting
- Food skills assessed after practical

Themes:

- Healthy Eating guidelines
- Food preparation
- Food safety
- Food provenance
- Food labels
- Methods of cooking

Context: Lessons

- Six Practical lessons
- The 4 Cs
- Healthy Eating
- Preventing food poisoning
- Key Temperatures
- Recall of Eatwell Guide
- Food Provenance
- Food labels
- Assessment

Preventing Food Poisoning (the 4Cs)



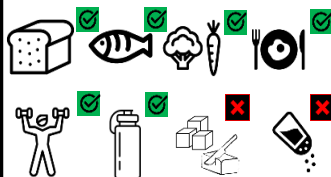
Key temperatures

Freeze -18C, Chill 0-5C, Danger Zone 5-63C, Cook 75C+

The Eatwell Guide



8 healthy eating tips



Dairy and Alternatives

- Products made from cows milk
- Good sources of protein and calcium

Protein

- Products including meat, fish, egg & plant alternatives eg soya
- Needed for growth and repair

Fats and Oils

- Animal fats (saturated) and vegetable oils (unsaturated)
- For energy and warmth

Carbohydrates

- Pasta
- Flour both for Energy

Fruit & Vegetables

- How to incorporate 5 a day

Methods of Cooking

- **Rubbing in use of shortening** – prevent gluten formation when making pastry
- **Fermentation** – use of yeast for making of dough
- **Coagulation** – heating protein to set a mixture
- **Aeration** – role of fats and eggs
- **Gelatinisation** - All in one sauce

Future Learning:

- **Year 9:** Macro/ Micronutrients, Seasonal foods, Types of Food Poisoning, Different choices
- **KS4:** Hospitality and Catering

Key Vocabulary

Eatwell guide ,Food Provenance, Red Tractor, British Lion stamp, Bacteria, Danger zone, Key Temperatures, Protein, Food Labels, Coagulation, Rubbing in, Fermentation ,Aeration, Gelatinisation, Eight tips for Healthy Eating

Year 9 –

Year 8 Computing Learning Journey

Spreadsheets

Functions & Charts
Filtering & Sorting



Networks

LANs, WANs & Connection Types
Topologies
Network Hardware



Programming with Edublocks

Drawing shapes with Turtle
user input and variables
Selection with If-Else
Subroutines



KEY VOCABULARY

Term One - Networks

- **Network:** Two or more computers connected to share data and resources.
- **LAN:** Local Area Network – a network in a small geographical area like a school.
- **WAN:** Wide Area Network – a network that covers a large geographical area.
- **Topology:** The physical or logical layout of a network (e.g., star, bus).
- **Router:** A device that connects different networks together and routes data.



Term Two - Spreadsheets

- **Spreadsheet:** A program that stores data in rows and columns for analysis.
- **Cell:** The intersection of a row and column in a spreadsheet.
- **Formula:** A calculation using cell references (e.g., =A1+B1).
- **Function:** A predefined formula (e.g., SUM, AVERAGE, IF).
- **Filter:** A tool to display only the rows that meet specific criteria.



Term Three - Programming with Edublocks

- **Variable:** A storage location in a program that holds a value.
- **Input:** Data given to a program by the user.
- **Selection:** A decision-making process using if, elif, else.
- **Iteration:** Repeating a block of code using loops (for, while).
- **Subroutine:** A named section of code that performs a specific task (function or procedure).



Quick Recap Questions



1. What is the difference between LAN and WAN?
2. Give an example of a spreadsheet function and explain what it does.
3. What is a variable used for in programming?
4. What is the difference between selection and iteration?
5. What is the purpose of a subroutine in code?

Intimate Relationships & consent

KING'S LYNN ACADEMY

PD & PDA

Year 8



Spirited Arts

What religion thinks about Money & Wealth



Half Term 6

Sexual Orientation & Gender

Puberty Recap

Careers

What religion thinks about Environment

What religion thinks about celebrity & social media

What religion thinks about poverty

What religion thinks about war



What religion thinks about Gender & Sexuality

First Aid - Fainting

Half Term 5

Legal and Illegal Drugs



First Aid - Bleeding & Head Injuries

Women in Islam



Islam Today

Festivals



Hajj

Half Term 4



Sawm & Zakah



Muhammad



Qur'an

Mosque



Shahadah and Salah



Digital Footprint



Sending Pics



Festivals



Body Image

Half Term 3



Parliament



Worship



Church Visit

Political Parties

Pilgrimage

Monarchy



Resurrection and Ascension

Half Term 2



Heaven and Hell

History of Christianity

Incarnation



Mental Health Crucifixion



Mental Health

Beliefs about

Half Term 1



What are the Abrahamic Faiths?

Goal Setting



Welcome to your Personal Development Journey

YR8 KNOWLEDGE ORGANISER - PD

WORLD VIEWS

THINGS YOU NEED TO BE ABLE TO DO:

- UNDERSTAND WHAT RELIGIONS THINK ABOUT THE FOLLOWING:

WAR

POVERTY

ENVIRONMENT

GENDER & SEXUALITY

CELEBRITIES & SOCIAL MEDIA

MONEY & WEALTH



TIER 2 VOCAB

RESPONSIBILITIES – SOMETHING THAT IT IS YOUR JOB OR DUTY TO DEAL WITH

POVERTY – A STATE WHERE INDIVIDUALS LACK THE FINANCIAL RESOURCES TO MEET ESSENTIAL NEEDS, INCLUDING FOOD, SHELTER, HEATING AND SOCIAL PARTICIPATION

SEXUALITY – A PERSONS IDENTITY IN RELATION TO THE GENDER OR GENDERS WHICH THEY ARE TYPICALLY ATTRACTED TO

WEALTH – A LARGE AMOUNT OF MONEY OR VALUABLE POSSESSIONS THAT SOMEONE HAS

YR8 KNOWLEDGE ORGANISER - PDA

INTERNET SAFETY

THINGS YOU NEED TO BE ABLE TO DO:

- UNDERSTAND WHAT IS A DIGITAL FOOTPRINT
- UNDERSTAND WHAT DEVICE ADDICTION IS
 - THE IMPACTS OF SOCIAL MEDIA
- EXPLAIN THE LAW ON SEXTING AND SENDING PHOTOS
 - WHAT EFFECTS OUR BODY IMAGE
 - THE IMPACT OF ONLINE GAMING



KEY QUESTIONS:

- WHAT IS A DIGITAL FOOTPRINT?
- WHAT IS DEVICE ADDICTION
- WHAT EFFECTS OUR BODY IMAGE?

TIER 2 VOCABULARY

DIGITAL FOOTPRINT – INFORMATION ABOUT A PERSON THAT EXIST BECAUSE OF AS A RESULT OF THEIR ONLINE ACTIVITY

DEVICE ADDICTION – A BEHAVIOURAL ADDICTION THAT INVOLVES COMPULSIVE AND EXCESSIVE USE OF A DEVICE

BODY IMAGE – A PERSONS SUBJECTIVE PICTURE OR MENTAL IMAGE OF THEIR OWN BODY

HEALTHY LIFESTYLE & WELL BEING

THINGS YOU NEED TO BE ABLE TO DO:

- TO UNDERSTAND WHAT A HEALTHY LIFESTYLE IS
- WHAT IS MEANT BY HEALTHY EATING & SLEEPING
 - WHAT ARE UNHEALTHY HABITS
 - HOW TO DEAL WITH INJURIES
 - HOW TO DEAL WITH FAINTING



KEY QUESTIONS:

- WHAT IS A HEALTHY LIFESTYLE?
- WHAT ARE THEY WAYS WE CAN IMPROVE OUR EATING?
- HOW CAN WE OVERCOME UNHEALTHY HABITS?
- WHY IS FIRST AID IMPORTANT?

TIER 2 VOCABULARY

HEALTHY LIFESTYLE – A WAY OF LIVING THAT PROMOTES PHYSICAL, MENTAL AND SOCIAL WELL-BEING, AND LOWERS THE RISK OF SERIOUS ILLNESS OR EARLY DEATH

UNHEALTHY HABITS – A BEHAVIOUR THAT CAN NEGATIVELY IMPACT A PERSONS MENTAL AND PHYSICAL HEALTH

FIRST AID – HELP GIVEN TO A SICK OR INJURED PERSON UNTIL FULL MEDICAL TREATMENT IS AVAILABLE

Year 9

Music

Year 8

KING'S LYNN ACADEMY

Topic 4

Game Themes



Music in Game



Composing and Performing



Popular Music



Patterns in Classical Music



Exploring Ostinatos in Western Classical Tradition

Topic 3 Continued

Riffs and Hooks in Popular music

Hooks

Exploring Musical Patterns

Riffs

Ostinato



Reggae Context

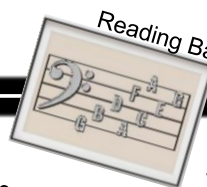
Topic 3

Hook and Riffs Off Beat Chords



Typical Features

Recapping notes



Reading Bass Clef

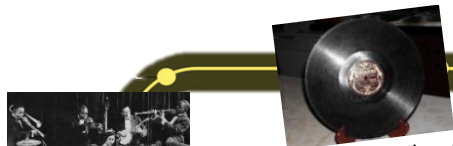
Bass Clef

Topic 2

Offbeat



Rehearsing



Introduction of Records



The Creation of Jazz



WALKING BASS FOR JAZZ & BLUES

Topic 2 Continued

Jazz and Blues Continued

The 1920s



Context (Delta Blues)

Learning the 12 Bar Blues Chords



IMPROV!

Features of Blues

C MAJOR TRIAD
Major Triads on Keyboards



Topic 1

Jazz and Blues



Welcome back to KLA your Journey continues

Year 8 Topic 3

Hooks and Riffs

Key Facts:

RIFE:

A riff is a pattern of notes or chords that are repeated throughout a song.

OSTINATO:

An ostinato is a repeated pattern of notes or chords that are repeated throughout a song. This is in classical music .

{Riff 1}

1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 +

A|7-----7-10--7--5-3-----2-----|
E|-----|
C|-----|
G|-----|

{Riff 2}

1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 +

A|7-----7-10--7--5-3--5--3-2-----|
E|-----|
C|-----|
G|-----|



**ICONIC
GUITAR RIFFS**



Drama

(Performing Arts)

Applying Realism Techniques
Konstantin Stanislavski

Year 9

KING'S LYNN ACADEMY

Realism Topic 4

Year 8

Key System



Taking Direction

Working as a team



Script Work

Learning a script



Writing scripts



Preparing a Performance

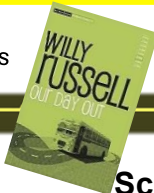
Topic 3 Continued



Curious Incident of the Dog in the Night-Time

Features of a script

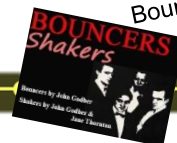
Playwrights



Our Day Out



Dear England



Bouncers

Topic 3

Script Work

Performing



Improvisation Techniques

Improvisation games



What is improvisation?



Improvisation



Performance



Building confidence

Topic 2

Creating a Performance



Audience Participation



Little Red Riding Hood

Typical Plot



Watching and Evaluating Performance

Pantomime

Gender Role Reversal

Slapstick Comedy

Topic 1 Continued



Character Development

Names & Stories



Pantomime

Explorative Activities

Use of voice



Stock Characters

Pantomime



Topic 1

Welcome back to KLA your Journey continues



PANTOMIME



Stock Characters



Keywords

Stock Character – A stereotypical character, easily recognisable by audiences because of their predictable traits. This is usually seen in common social or literary stereotypes. Example: Hero, Villain or Princess.

Gender Role Reversal – Taking on a role of the opposite gender and acting using their typical behaviours.

Audience Participation – The audience being actively involved in the performance.



IMPROVISATION

What is it? - Making something up on the spot.

Required from students:

- Time and practice
- Freedom and confidence to be silly
- Confidence in dialogue and storytelling
- Team work

DISC - FOUR MAIN SKILLS NEEDED FOR IMPROVISATION

Dialogue

Imagination

Storytelling

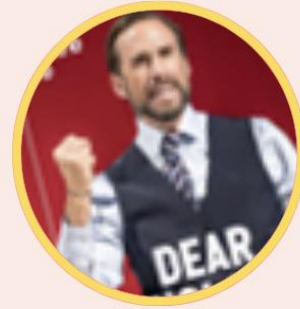
Confidence



SCRIPT WORK



Our Day Out - Willy
Russel



Dear England -
James Graham



Playwright - A person who writes a play.

Stage Directions - an instruction in the text of a play indicating the movement, position, or tone of an actor, or the sound effects and lighting.



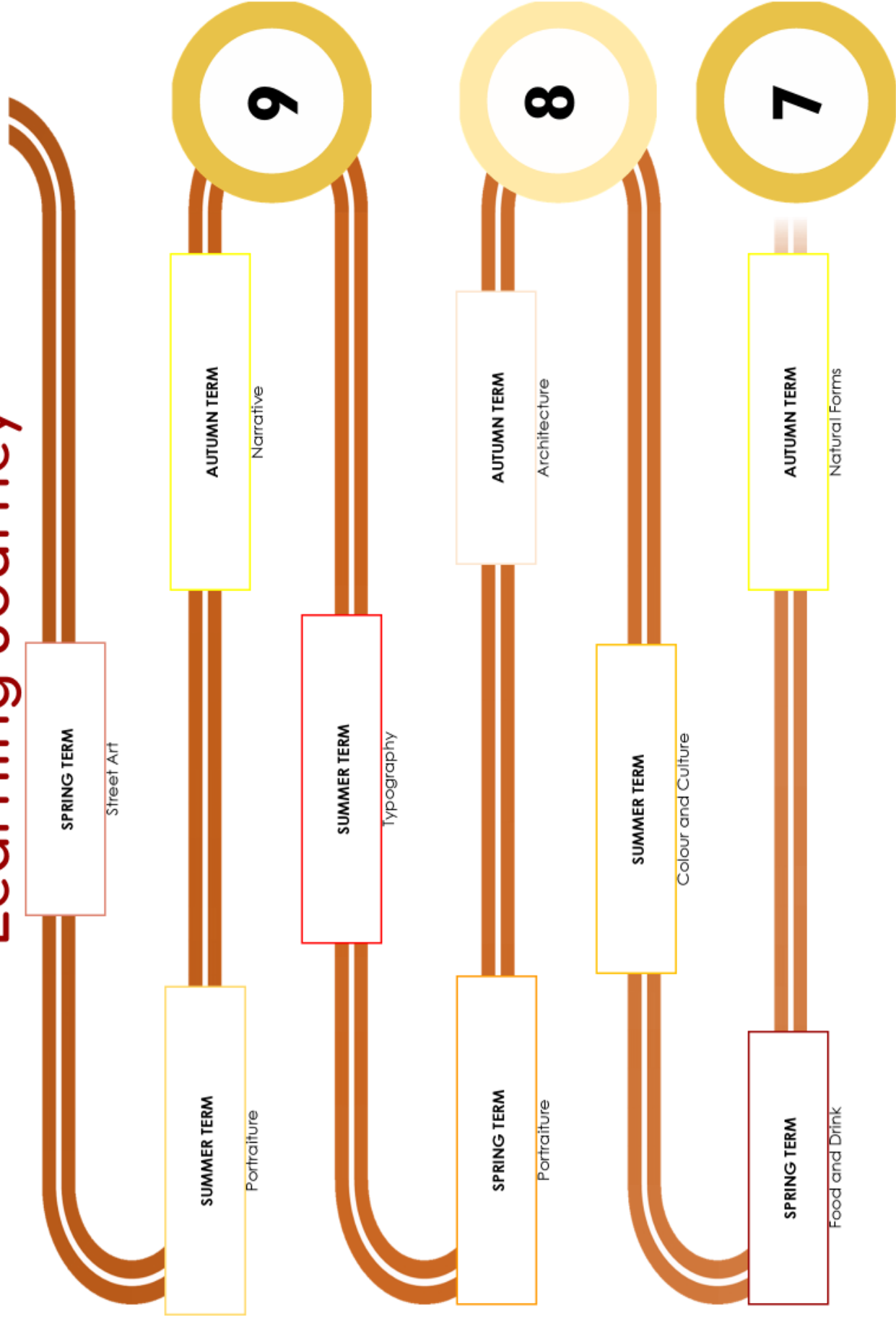
Bouncers - John
Godber



Curious Incident of the Dog
in the Night-Time - Simon
Stephens

KS3 Art

Learning Journey



Year 8 Spring/Summer Term Knowledge Organiser

Art Specific Language and Terms

Scaling Up	A technique to help enlarge an image accurately. A grid is drawn over the image to be copied and also onto the paper (both to scale). The image is then copied in sections.	Colour Blending	The change from one colour to another gradually. The colour change should appear smooth and is achieved when the two colours are mixed and layered smoothly without an obvious step or line.
Oil paint	Oil paint is a slow-drying paint that consists of particles of pigment suspended in a drying oil that forms a tough, coloured film on exposure to air.	Layering	Applying paint in stages, starting with lighter base colours and adding darker tones later over the top. Often there can be multiple layers to a painting.
Acrylic Paint	Acrylic paint is a fast-drying paint made of pigment suspended in acrylic polymer emulsion.	Poster Paint	Poster paint is a distemper paint that usually uses a type of gum-water or glue size as its binder.
Gouache Paint	Gouache is a type of water-soluble paint that, unlike watercolour, is opaque so the white of the paper surface does not show through.	Observation	Looking closely at the original image/source so that all the detail and colour changes are seen and replicated.

In art, the term **painting** describes both the act of painting, (using either a brush or other implement, such as palette knife, sponge, or airbrush to apply the paint); and the result of the action – the painting as an object.

Paintbrush choice:

Flat brushes are versatile. Their long bristles can lay smooth patches of color, make long, bold strokes or when using their edges, execute fine crisp lines. Marks made with a flat brush have a distinctive square edge.

Round brushes come in pointed and blunt tips. Both can be used to create a linear mark by applying more or less pressure during the stroke; the pointed round brush is ideal for fine detail.

The 4 most versatile brushes:



David Carson

Bob and Roberta Smith



Black Dog Publishing

Year 8 Spring/Summer Term Knowledge Organiser

Art Specific Language and Terms

Typography	Typography is the art and technique of arranging type to make written language legible and appealing when displayed.	Leading	Leading is the space between individual lines of type.
Typographer	A Typographer is someone who designs a typeface or who arranges type.	Display Typeface	A display typeface is a typeface that is used for visual impact, rather than for extended passages of text.
Kerning	kerning is the process of adjusting the spacing between letters.	Script Typeface	Script fonts can be formal scripts, derived from 17 th century formal writing or styles that look informal or handwritten as well as calligraphic scripts which emulate calligraphy.
Lino-cut printing	Lino-cut printing is a form of printmaking where the printing plate is cut into lino. The lino-cut is then inked, a piece of paper placed over it, and then run through a printing press or pressure applied by hand to transfer the ink to the paper.	Graphic Designer	Graphic designers create visual concepts, using computer software or by hand, to communicate ideas that inspire, inform, and captivate consumers. They develop the overall layout and designs for advertisements, brochures, magazines, and branding.

Types of Font:

Sans-serif:
(without flicks)

AaBbCc
AaBbCc

Serif:
(with flicks)

Changing the
weight or

Sans is the French word
for without.

size

Weight and Size:

of type
changes the emphasis

Joby Carter

Joby Carter, born in Maidenhead in 1975 is a traditional signwriter, decorative artist, restoration specialist and author. I'm also an experienced teacher of heritage decorative art skills including signwriting and the endangered craft of fairground art.

