



KNOWLEDGE ORGANISER

Year 6



Curriculum Intent Statement -

At St. Augustine's Catholic Primary School, we are passionate about children's learning. The Cognitive Load research theory and Rosenshine's Principles of Instruction highlights that children learn through remembering and recalling and this theory is embedded within the knowledge of our curriculum.

'Learning is Remembering and Recalling...'

Our curriculum is planned and sequenced around the specific vision of the National Curriculum, our Curriculum Drivers, the Laudato Si and the Gospel Values. This is based upon our School Catholic Mission that we have a moral purpose for our pupils to flourish in a safe, happy and stimulating environment, and leave us with the knowledge and skills, personal qualities and aspirations, to make the world a better place, inspired by the Gospel. We believe that this core belief underpins everything we do here at St. Augustine's.

St. Augustine's curriculum will provide inspiring and relevant learning opportunities for our children to develop the knowledge and skills that can be fluently applied across all subject areas. It will ensure that all children's individual needs and experiences are developed through local, national and global contexts.

In order for children to relate to their learning, topic areas will be carefully planned and supported through external visitors talking about their experiences, or class trips to supplement the children's learning.

Curriculum Development - Intent

LauDato Si, National Curriculum and Gospel Values



Using our Secrets to Success...



Rosenshine's Principles of Instruction

Parents in Partnership and Knowledge Organisers

English
Reading
Writing
Phonics
Spelling
Punctuation
Grammar

Maths
Arithmetic
Fluency
Reasoning
Problem Solving

RE
Knowledge &
Understanding
Engagement &
Response
Analysis & Evaluation

The Culture Team
History
Geography
French (MFL)

The Arts and Technology Team
Design
Technology Art
Music
Computing

The Healthy Hearts and Minds Team
PE
Science
PSHE / RSHE

Being the 'Best we can be'

Our Laudato Si key question this half term...

What can we do to support those
less fortunate than us?



Our Focus Gospel Values this half term are...



How can we forgive those around us and
shown kindness to everyone we meet?

School Mission Statement

**Lead us Lord,
To act justly,
To love tenderly,
And to walk humbly.**



Amen



Love London

London Then and Now

This half term, Year 6's topic is all about our capital city London.

We will be learning about:

- How London has changed over the last 500 years
- How London may change in the future to become a clean, green and sustainable city.
- Multiculturalism in the UK.
- Art and architecture in the city (with a focus on British Iranian architect Zaha Hadid and British artist Stephen Wiltshire)

How can I help my child with this topic:

- Research information about the capital and how it is constantly evolving.
- Visit websites for key attractions such as The Tate Modern, The Natural History Museum, The Science Museum etc.
- Support your child with their topic homework grid (found on Google Classrooms and the school website).

The next few slides will show you some of the things that we will be covering within specific subjects. Each subject will look at a specific set of skills that will allow children to meet the National Curriculum objectives within Year 6.

English Knowledge - KEY VOCABULARY

Grammar Key Vocabulary – Sentence Level

Simple sentence – a sentence that makes sense on its own and has a subject and a verb.

Compound sentence – two independent simple sentences that are joined with a conjunction.

Complex sentence – a simple sentence with an additional clause that gives extra information (e.g. a subordinate or relative clause). The additional clause does not make sense on its own and relies on the rest of the sentence for meaning.

Subordinate clause – provides additional information within a sentence.

Relative Clause – provides extra information relating to the noun. Relative clauses begin with relative pronouns.

Adverbial phrases – describe how, when, where or why the verb happens e.g. in the garden, before school, at the park (adverbials at the start of a sentence must be followed by a comma).

Subject – the noun that is doing the verb e.g. *The dog chased the ball.*

Object – the noun that is having the verb done to it e.g. *The dog chased the ball.*

Active voice – the subject comes before the verb in a sentence e.g. *The dog chased the ball.*

Grammar Key Vocabulary – Word Level

Prefix – a group of letters that is placed before the stem of a word to add meaning or change the meaning of the root work. e.g. happy with the prefix 'un' changes to unhappy.

Suffix – a group of letters placed after the stem of a word to change the meaning or function. E.g. thought (noun) plus the suffix 'ful' changes the noun to thoughtful (adjective)

Root word – the basic form of a word to which prefixes and suffixes are added. Sometimes referred to as the stem.

Punctuation Key Vocabulary

Parenthesis () , , - - additional information or an aside within a sentence. Punctuated with brackets (for short or formal information), dashes – for informal chatty – and commas for clauses.

English Knowledge & Skills

WRITING – Biography writing and short stories.

Biography features – past tense, informative/factual, third person, chronological order

Story writing features - AMPS descriptive techniques to describe setting, atmosphere and characters:

Alliteration – Most of the **initial letter sounds** of the words in each line are the same.

Metaphor – Saying an object **is** something.

Personification – A **human** quality is given to an object.

Simile - Comparison is used by using ‘**as a**’ or ‘**like a**’.

Plot – developing problems and solutions within a story.

Dialogue – using the speech of characters to advance action in a story.

READING Key vocabulary

Word meaning - Explaining the meaning of words in context and explaining how word choice enhances meaning.

Retrieval - Finding details and information from a text.

Prediction - Saying what will happen next or as a result of something.

Comprehension – understanding the text and how content is related to the meaning as a whole.

Inference - reaching a conclusion which you can explain and justify with evidence from the text.

Deduction - Using evidence in a text to support an idea.

Summary – summarising main ideas from across paragraphs.

Don't forget the Vocabulary Challenge!

SPELLING

- Changes to root words when adding different suffixes
- Common exception words (words that do not follow spelling patterns)
- Possessive apostrophe
- Plurals
- Focus on Year 5/6 curriculum words (on next slide)

HOW TO HELP – Writing

- Read biographies of famous people of interest with your child.
- When reading fiction texts, spot and discuss interesting use of language and AMPS used by the author. Discuss why you think they used certain language.

HOW TO HELP - Grammar

- Speak in grammatically accurate sentences.
- Spot grammar being taught at school when reading.
- Work together on your child's IXL homework.

HOW TO HELP - Reading

- Read with your child (lots)
- Discuss vocabulary and develop understanding of new words
- Visit local libraries
- Read comics/magazines/newspapers
- Let your child see you read
- Make reading enjoyable- not a battle
- Let children read what interests them

Spelling Y5 & 6 Curriculum words

accommodate
accompany
according
achieve
aggressive
amateur
ancient
apparent
appreciate
attached
available
average
awkward
bargain
bruise
category
cemetery
committee
communicate
community
competition

conscience
conscious
controversy
convenience
correspond
criticise
curiosity
definite
desperate
determined
develop
dictionary
disastrous
embarrass
environment
equip
equipped
equipment
especially
exaggerate
excellent

existence
explanation
familiar
foreign
forty
frequently
government
guarantee
harass
hindrance
identity
immediate
immediately
individual
interfere
interrupt
language
leisure
lightning
marvellous
mischievous

muscle
necessary
neighbour
nuisance
occupy
occur
opportunity
parliament
persuade
physical
prejudice
privilege
profession
programme
pronunciation
queue
recognise
recommend
relevant
restaurant
rhyme

rhythm
sacrifice
secretary
shoulder
signature
sincere
sincerely
soldier
stomach
sufficient
suggest
symbol
system
temperature
thorough
twelfth
variety
vegetable
vehicle
yacht

Help your
child to
practice
spelling and
using these
words.

Look for
them in
books.

Can they
write them
in their
homework?

Maths Knowledge– KEY VOCABULARY

SHAPE AND ANGLES

Angle – formed when two lines meet at a shared point, measured in degrees

Right angle – an angle that measures 90 degrees

Acute angle – any angle that measures less than 90 degrees

Obtuse angle – any angle that measures more than 90 degrees and less than 180 degrees.

Reflex angle – an angle measuring more than 180 degrees but less than 360 degrees

Horizontal – lines going left to right parallel to the horizon – e.g. the x axis

Vertical – lines going up/down perpendicular to the horizon – e.g. a y axis

Parallel – pairs of lines that are an equal distance apart and in extended would never meet

Perpendicular – lines that meet at a right angle

Polygon – a flat, two dimensional shape with straight sides

Regular – a polygon with all angles the same size and sides the same length

Irregular – a polygon where sides and angles are not all the same length and size

Two dimensional – a flat shape with sides and vertices

Three dimensional – a shape that can “stand up” with faces made from 2D shapes

Vertex – the pointy “corners” of 3D shapes

Vertices – the “corners” of 2D shapes

Radius – the distance from the centre of a circle to the circumference

Diameter – the distance from one side of the circle to the other going through the centre (twice the radius)

Circumference – The perimeter of a circle

STATISTICS

Bar chart – has horizontal and vertical axis and uses bars to show the value of each data category.

Pictogram.

Frequency table – a table in which you record tally marks and then total the tallies. The total is the frequency.

Tally chart – a chart in which you gather information using tallies in groups of 5 for ease of counting.

Pie chart – represents discrete data, each segment represents a data category.

Continuous data – data that is continuous – e.g. infinite number of decimal points (weight, height)

Discrete data – data that cannot be made more precise (e.g. number of children in a class you can't have 30.2 children – it must be an integer)

Line graph – used to show change to a measurement over time.

Average – a number expressing the typical value of a set of data.

Mean – an average of numbers calculated by adding all the numbers and dividing the total by how many numbers there are.

Median – the middle value in a set of data

Mode – the value that occurs the most in a set of data.

Fluency, Reasoning and Problem Solving Key Vocabulary

Fluency - Using number and calculation skills accurately and efficiently

Reasoning - Following a line of enquiry, justifying and proving their answers

Problem Solving - Solving real life and logical problems using mathematical understanding

Maths – Properties of Shape and Angles

This half term we are learning to :

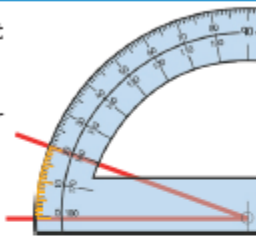
- Draw 2D shapes using given dimensions and angles
- Recognising where angles meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
- Calculate missing angles.
- Find missing angles in triangles, quadrilaterals and regular polygons.

Using a Protractor

Place the cross or circle at the point of the angle you are measuring.

Read from the zero on the outer scale of your protractor.

Count the degree lines carefully.



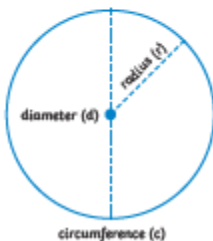
Parts of Circles

A circle is a 2D shape. The perimeter of a circle is called the **circumference** (c). The distance across the circle, passing through the centre, is called the **diameter** (d).

The distance from the centre of the circle to the circumference is called the **radius** (r).

$$r \times 2 = d$$

$$\frac{d}{2} = r$$



Angle Types



Acute Angles

Any angle that measures less than 90° is called an **acute** angle.



Obtuse Angles

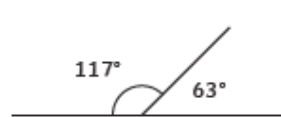
Any angle that measures greater than 90° and less than 180° is called an **obtuse** angle.



Reflex Angles

Any angle that measures greater than 180° is called a **reflex** angle.

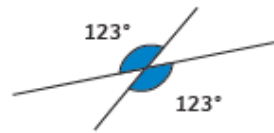
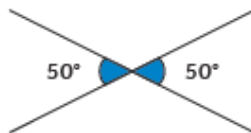
Calculating Angles



Angles on a straight line always total 180°.



Angles around a point always total 360°.



Opposite angles that share a vertex are equal.

$\frac{1}{4}$ turn
90°



$\frac{1}{2}$ turn
180°



$\frac{3}{4}$ turn
270°

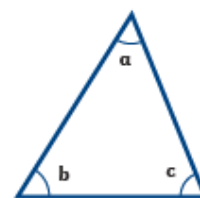


1 turn
360°



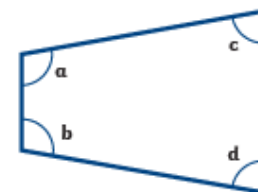
Multiples of 90° can be used as descriptions of a turn.

Angles in a Triangle



$$a + b + c = 180^\circ$$

Angles in a Quadrilateral



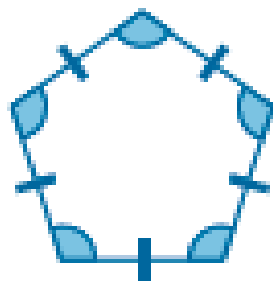
$$a + b + c + d = 360^\circ$$

Angles in Regular Polygons

As the number of sides of a polygon increases by one, the total of the interior angles increases by 180° . When n = number of sides, this formula can be used to find the size of each angle in a regular polygon:

$$\text{Sum of Interior Angles} = (n - 2) \times 180^\circ$$

$$\text{Each Angle} = \frac{(n - 2) \times 180^\circ}{n}$$

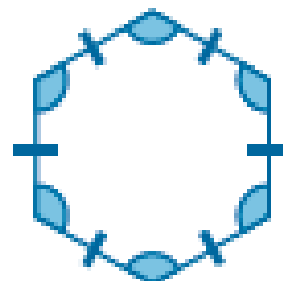


Pentagon

$$n = 5$$

$$(5 - 2) \times 180^\circ = 540^\circ$$

$$540^\circ \div 5 = 108^\circ$$



Hexagon

$$n = 6$$

$$(6 - 2) \times 180^\circ = 720^\circ$$

$$720^\circ \div 6 = 120^\circ$$

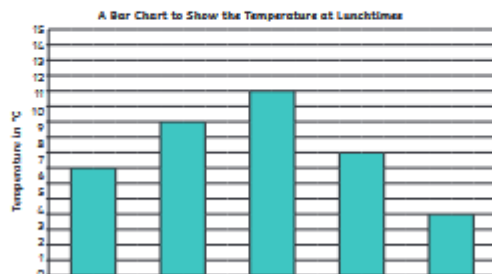
Maths – Statistics

This half term we are learning to :

- Reading and interpreting line graphs
- Drawing line graphs and using them to solve problems.
- Reading and interpreting pie charts (including using percentages)
- Drawing pie charts
- Calculating the mean, median and mode averages.
- Interpreting bar charts, timetables and pictograms.

Bar Chart

A bar chart has a horizontal axis and a vertical axis. Bars show the data value of each category. There must be a gap between each bar. The scale of the bar chart is chosen based on the data range.



Frequency Table

Eye Colour	Tally	Frequency
brown		6
blue		8
green		3
grey		4
hazel		5

Tally marks are used to help count things. Each vertical line represents one unit. The fifth tally mark goes down across the first four to make it easier to count.

The frequency column is completed after all the data has been collected.

Interpreting Data

Information can be shown in tables, charts or graphs.

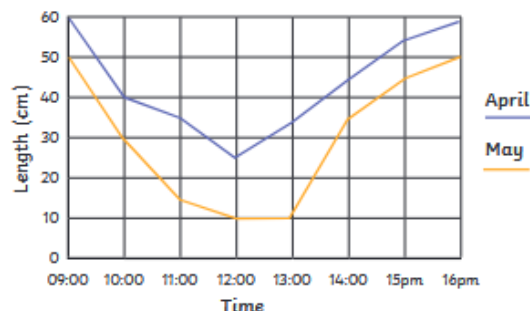
Interpreting data simply means understanding or working out what is being shown by a table, graph or chart and being able to answer questions about that information.

Line Graph

Line graphs are used to show changes to a measurement over time.

Data shown in a line graph is continuous. Sets of points are joined together to make the line.

A line graph to show the length of shadows over time

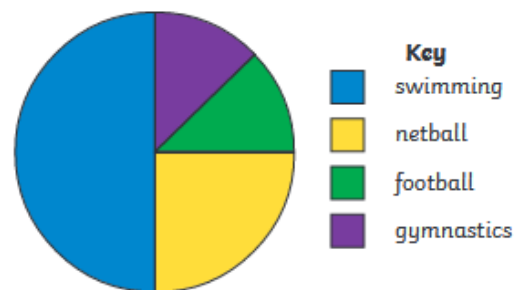


Pie Charts

Pie charts represent discrete data.

A circle is divided into segments, where each segment represents a data category. The size of each segment matches its proportion of the total amount.

A pie chart to show children's favourite sports



24 children were asked in total.

Swimming = $\frac{1}{2}$ so $\frac{1}{2}$ of 24 = 12 children

Netball = $\frac{1}{4}$ so $\frac{1}{4}$ of 24 = 6 children

Football = $\frac{1}{8}$ so $\frac{1}{8}$ of 24 = 3 children

Gymnastics = $\frac{1}{8}$ so $\frac{1}{8}$ of 24 = 3 children

HOW TO HELP WITH MATHS AT HOME

Mental arithmetic games – e.g. Countdown.

Regularly revisit times tables facts up to 12×12 .

Use maths in daily life – cooking (e.g. use formulas given for cooking per kg), measures, shopping etc.

Be positive about maths at home!

Embrace struggle! Teach your child that it's good to get stuck! This is how we learn best. Allow time for resilience building.

IXL
TT Rockstars
Topmarks

Religious Education

Pentecost – Witness: Serving Reconciliation– Healing: Inter-relating



PENTECOST

- The courage to be a witness
- The Holy Spirit enabling people to witness to the Easter message
- Jesus appearing to his disciples
- The Ascension of Jesus
- Stephen chosen to spread the Word
- Witness to the Easter Message
- Modern witnesses to the power of the Holy Spirit
- Ourselves as a witness

RECONCILIATION

- When people become sick and need care
- The Sacrament of the Anointing of the Sick (during Mass and for those who are very ill)
- Jesus caring for the sick
- Caring for those in need; a Christian responsibility
- Lourdes, a place of healing

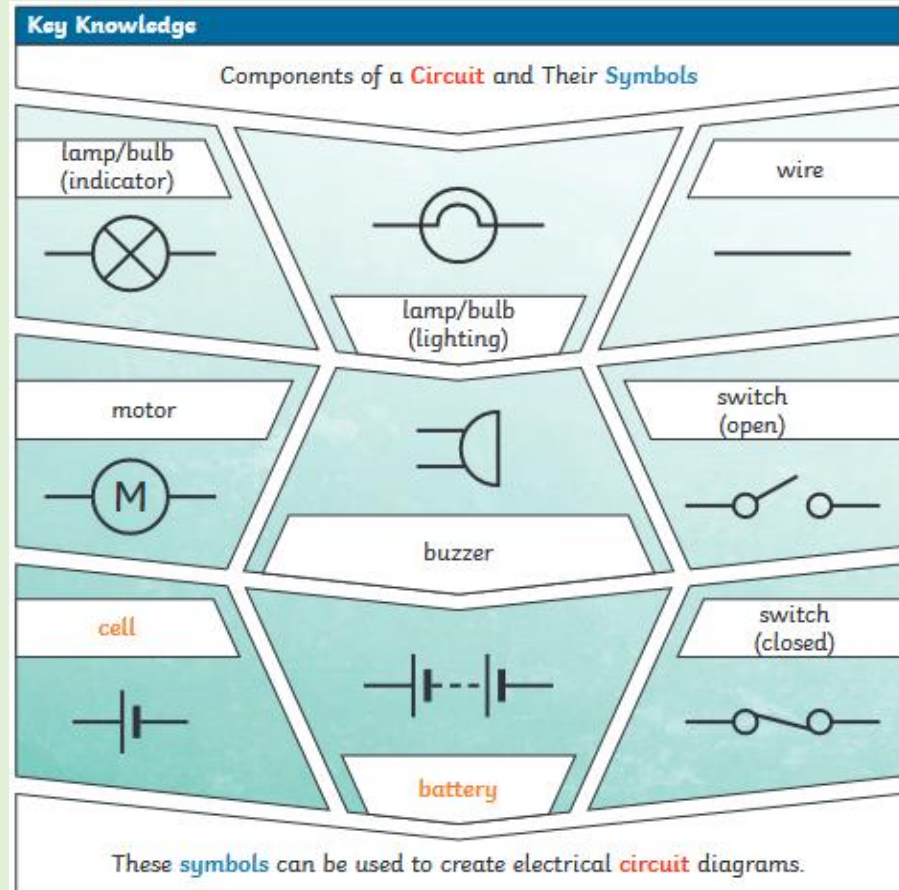
Science – Electricity

Key Vocabulary

Key Vocabulary	
circuit	A path that an electrical current can flow around.
symbol	A visual picture that stands for something else.
cell/battery	A device that stores energy as a chemical until it is needed. A cell is a single unit. A battery is a collection of cells .
current	The flow of electrons , measured in amps .
amps	How electric current is measured.
voltage	The force that makes the electric current move through the wires. The greater the voltage , the more current will flow.
resistance	The difficulty that the electric current has when flowing around a circuit .
electrons	Very small particles that travel around an electrical circuit .

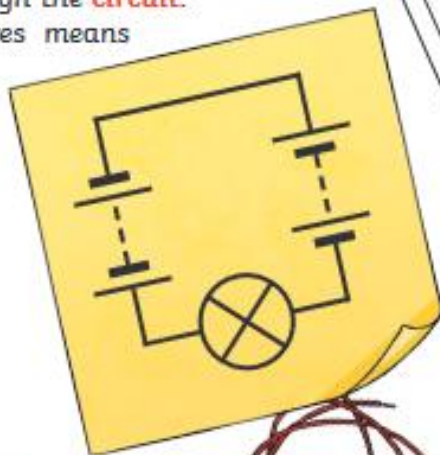
Year 6 Skills:

- Associating the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.
- Comparing and giving reasons for variations in how components functions, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches
- Using recognised symbols when representing a simple circuit in a diagram.



What will make a bulb brighter or a buzzer louder?

- More **batteries** or a higher **voltage** create more power to flow through the **circuit**.
- Shortening the wires means the **electrons** have less **resistance** to flow through.



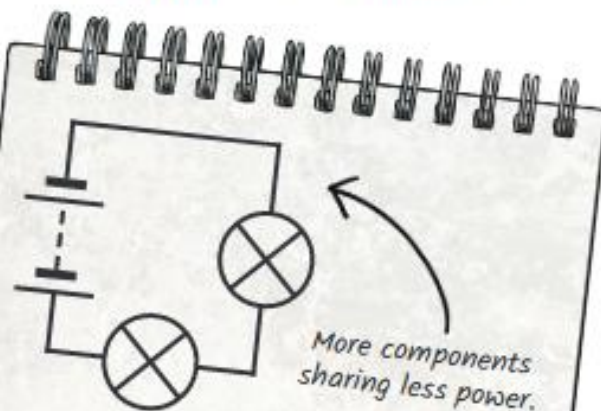
What will make a bulb dimmer or a buzzer quieter?

- Fewer **batteries** or a lower **voltage** give less power to the **circuit**.
- More buzzers or bulbs mean the power is shared by more components.
- Lengthening the wires means the **electrons** have to travel through more **resistance**.

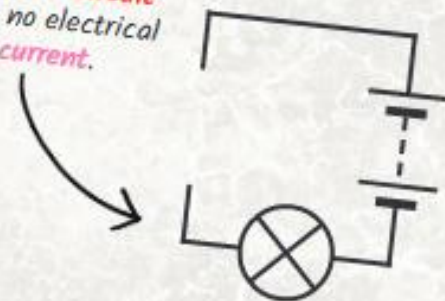


Series Circuit

A **circuit** that has only one route for the **current** to take. If more bulbs or buzzers are added, the power has to be shared and so they will be dimmer or quieter. If just one part of this series **circuit** breaks, the **circuit** is broken and the flow of **current** stops.



A broken **circuit** with no electrical **current**.



Computer Science

Coding and Programming

- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs



Scratch

- Writing code to move a Sprite
- Using script to control a sprite
- Making a character dance
- Using the 'if' statement
- Moving a sprite using the keyboard
- Using a variable



Geography & History Knowledge

LOVE LONDON – London Then and Now

Year 6 Geography and History Skills:

- Naming and locating countries and cities of the UK and identifying their human, physical and topographical features
- Locating and naming cities of the UK and identifying how they have changed over time.



Art – Architecture and Skylines

Year 6 Skills

- Identify artists who have worked in similar ways to our own
- Understanding architecture and the achievements of famous architects.
- Exploring achievements of great artists.
- Develop ideas using different or mixed media, using a sketchbook
- Manipulate and experiment with the elements of art: line, tone, pattern, texture, form, space, colour and shape



Stephen
Wiltshire



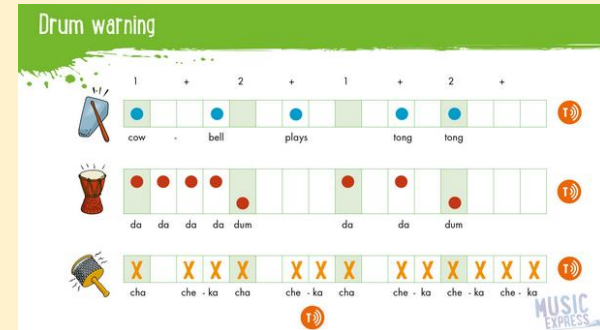
Key Vocabulary :

Architect
Design
Purpose
Skyline
Sketch
Perspective
Shade
Tone
Depth
Line

Music

Year 6 Skills

- Singing traditional Ghanaian songs.
- Devising rhythmical actions to music.
- Improvising descriptive music.
- Playing rhythmic cycles.
- Combining rhythmic cycles in a percussion piece.
- Singing and playing call and response songs in groups.
- Developing a descriptive composition.



Key Vocabulary

- Rhythm
- Temp
- Improvise
- Call and response
- Composition

RSE

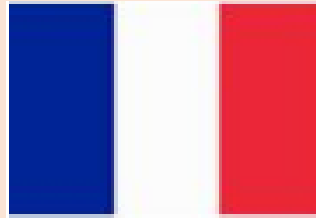
Calming the Storm
Gifts and Talents
Girls' Bodies
Boys' Bodies
Spots and Sleep
Body Image
Emotional Changes
Staying Safe Online



French

Focus topics:

- Animals and pets
- Verbs, quantifiers and adjectives
- Stories and rhymes



PE

Rugby



Year 6 Skills:

- Choose, combine and perform skills more fluently and effectively in invasion, striking and net games
- Understand, choose and apply a range of tactics and strategies for defence and attack
- Use these tactics and strategies more consistently in similar games
- Understand why exercise is good for fitness, health and wellbeing
- Understand the need to prepare properly for games
- Develop ability to evaluate own and others' work, and to suggest ways to improve it
- Know why warming up and cooling down are important.

Foundation Subject IMPACT QUESTIONS

Geography

How has the city of London changed over the past 500 years and how might it change in the next 100 years?

Religious Education

How can we be witnesses of the power of the Holy Spirit?

PE

What strategic and tactical principles of attack are used in rugby?

Science

How and why does voltage change the brightness of a bulb or volume of a buzzer?

Computing

What is the difference between coding and programming?

Art

What techniques does Zara Hadid use in her architectural designs and why?

Music

What is a rhythmic cycle and how can it be used within percussion performances?

RSE

What changes will occur in the next few years of your life and how are you prepared to deal with them?

French

Can you understand, ask and answer questions about pets?

