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 this 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…

How can we protect the world as we know it?

Our Focus Gospel Values this half term are…

How do you show compassion to others around you?

School Mission Statement

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

Amen

Save our Planet
Laudato Si

This half term, Year 6's topic is all about Saving our Planet.
We will be learning about:
- Climate change and the effects on our planet
- The impact of habitat loss and destruction of rainforests on the Earth
- The importance of healthy seas
- The impact of exploiting wildlife on both us and the planet
- What we can do to reverse the damaging effects of global warming and climate change.

How can I help my child with this topic:
- Watch the David Attenborough series Our Planet (On Netflix or on You Tube)
- Discuss and actively participate in recycling and reusing schemes
- Discuss responsibly sourced groceries and support sustainable farming and products.

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

Subjunctive form– used in formal writing to show a wishful tone or suggestions. Formed with:
1) verb + that – e.g. It is *essential that we wash our hands thoroughly.*
2) Use of 'were' – e.g. If I *were* to win the lottery.

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.*

Passive voice – the object comes before the verb in a sentence e.g. *The ball was chased by the dog.*

Grammar Key Vocabulary – Word Level

Preposition – describes when or where something is in relation to something else (after, before, under, inside).

Homophones – words that sound the same but are different:
e.g. there, their and they're,
affect and effect
stationary and stationery

Subordinating conjunction – a word that connects an independent clause to a dependent clause (because, although, however).

Co-ordinating conjunction – a word that joins two elements of equal importance (FANBOYS – for, and, nor, but, or, yet, so).

Synonyms – a word that means the same as another e.g. old and ancient.
Antonyms - a word that means the opposition – e.g. old and young.

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.
Semi colon ; used to join independent clauses (clauses that make sense on their own) in the place of a conjunction.
Colon : used to introduce a list or to join two independent clauses when the second clause relates to the first.
Hyphens to avoid ambiguity used to avoid confusion between words which would otherwise have the same spelling but a different meaning.

English Knowledge & Skills

WRITING – Explanation texts, Report writing and Formal Letter Writing

Audience – who is the text aimed at and how will this change your formality
Purpose – why is it being written What is the desired outcome and what language features will you use because of this?

Subjunctive form – formed with verb + that – used in formal writing.
Passive voice – used when presenting information to change the focus of a sentence from the subject to the object, changing the emphasis

Report features – layout features including headings, subheading and bullet points

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

- Words using **s** or **sc**
- Words with **ible** or **ibly**
- **Plural possessive apostrophes**
- Words ending **cial** and **tial**
- **Homophones**
- Words families based on common words
- Hyphenated words

HOW TO HELP – Writing

- Read a variety of non fiction text, reports, non fiction books and discuss the layout and language features.
- Expose them to real life formal letters received through the post and spot formal writing features.
- Share explanation texts – e.g. user guides for household appliances.

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	conscience	existence	muscle	rhythm
accompany	conscious	explanation	necessary	sacrifice
according	controversy	familiar	neighbour	secretary
achieve	convenience	foreign	nuisance	shoulder
aggressive	correspond	forty	occupy	signature
amateur	criticise	frequently	occur	sincere
ancient	curiosity	government	opportunity	sincerely
apparent	definite	guarantee	parliament	soldier
appreciate	desperate	harass	persuade	stomach
attached	determined	hindrance	physical	sufficient
available	develop	identity	prejudice	suggest
average	dictionary	immediate	privilege	symbol
awkward	disastrous	immediately	profession	system
bargain	embarrass	individual	programme	temperature
bruise	environment	interfere	pronunciation	thorough
category	equip	interrupt	queue	twelfth
cemetery	equipped	language	recognise	variety
committee	equipment	leisure	recommend	vegetable
communicate	especially	lightning	relevant	vehicle
community	exaggerate	marvellous	restaurant	yacht
competition	excellent	mischievous	rhyme	

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 les 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
Volume – the amount of three dimensional space taken up by a closed surface

RATIO & PROPORTION

Ratio – shows how much of one thing there is in comparison to another
Proportion – a part, share or number considered in relation to the whole
Part – part of a whole
Whole – the entire quantity or amount
Scale factor – the number by which all components of an object are multiplied in order to create a proportional enlargement or reduction
Enlargement – making a shape larger but keeping relationship between angles and sides the same
Similar – a shape that has the same properties but has been enlarged or reduces (made smaller)

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 :

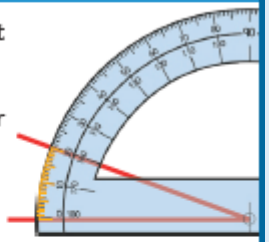
- Draw 2D shapes using given dimensions and angles
- Illustrate and name parts of a circle including the diameter, circumference and radius.

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.

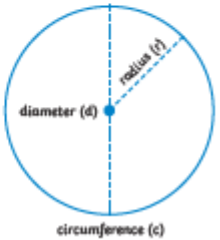


Parts of Circles

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).

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



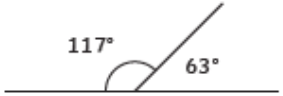
Angle Types

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.

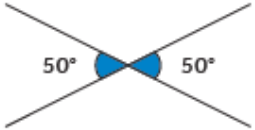
Reflex Angles
Any angle that measures greater than 180° is called a **reflex** angle.

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°

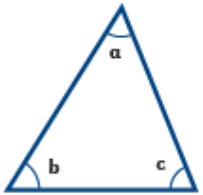
$\frac{1}{2}$ turn
180°

$\frac{3}{4}$ turn
270°

1 turn
360°

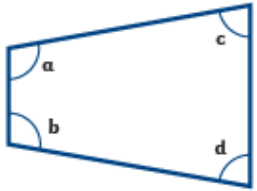
Multiples of 90° can be used as descriptions of a turn.

Angles in a Triangle



$a + b + c = 180°$

Angles in a Quadrilateral



$a + b + c + d = 360°$

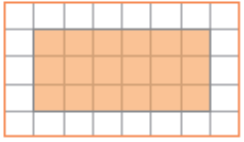
Maths – Perimeter, Area and Volume

This half term we are learning to :

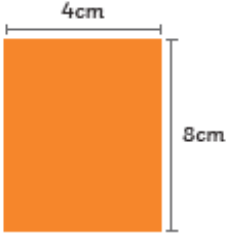
- Recognise that shapes with the same areas can have different perimeters and vice versa
- Recognise when it is possible to use formulae for area and volume of shapes
- Calculate the area of parallelograms and triangles
- Calculate and compare volume of cubes and cuboids.

Area of Rectangles

length × width = area of a rectangle



Counting squares:
area = 18cm²
Use formula:
6cm × 3cm
area = 18cm²

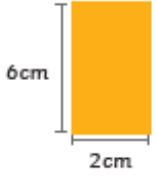


8cm × 4cm area = 32cm²

Perimeter of Rectangles

perimeter = length + width + length + width or (length + width) × 2

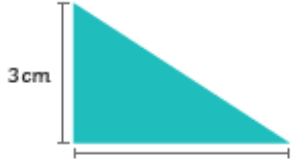
5cm + 4cm + 5cm + 4cm
area = 18cm²



(6 + 2) × 2
area = 16cm²

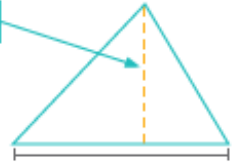
Area of Triangles

base × perpendicular height ÷ 2 = area of a triangle

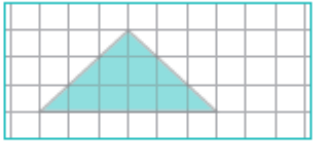


8cm × 3cm ÷ 2
area = 12cm²

perpendicular height = 5cm



6cm × 5cm ÷ 2
area = 15cm²

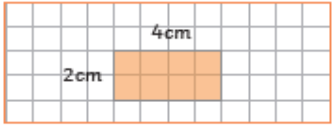


Counting squares:
6 whole squares = 6cm²
6 half squares = 3cm²
6cm² + 3cm² = 9cm²
area = 9cm²

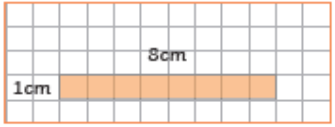
Using formula:
6cm × 3cm
÷ 2 = 9cm²
area = 9cm²

Perimeter and Area

Shapes with the same area can have different perimeters.

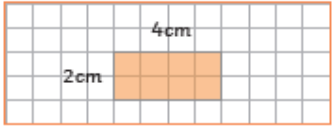


area = 8cm² perimeter = 12cm

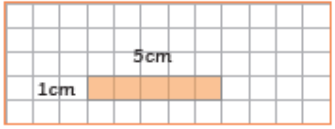


area = 8cm² perimeter = 18cm

Shapes with the same perimeter can have different areas.



area = 8cm² perimeter = 12cm

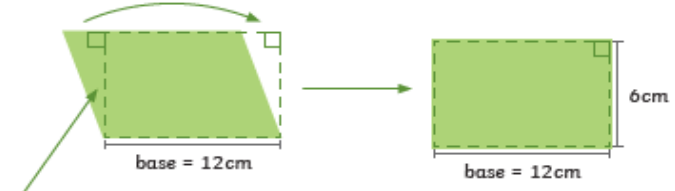


area = 5cm² perimeter = 12cm

Area of Parallelograms

base × perpendicular height = area of a parallelogram

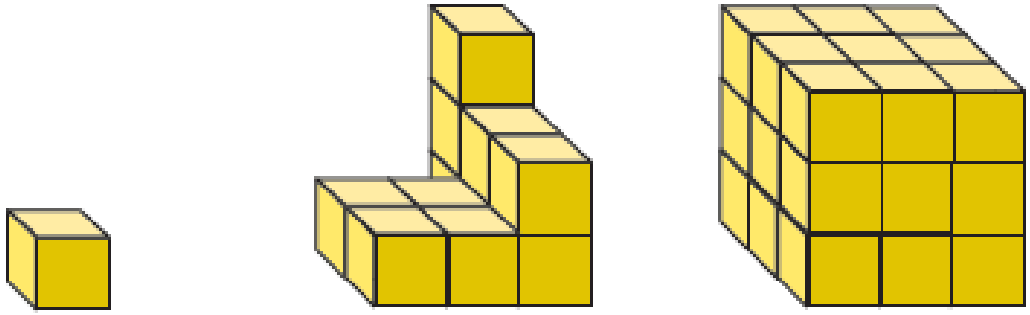
A parallelogram can be transformed into a rectangle.



perpendicular height = 6cm

12cm × 6cm = 72cm²

Volume - Counting Cubes



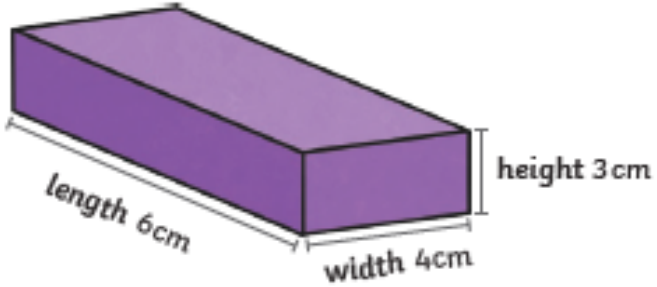
= 1cm³

11cm³

27cm³

Volume of Cuboids

length × width × height = volume of a cuboid



Multiply dimensions in **any** order:

3cm × 6cm × 4cm

volume = 72cm³

Maths – Ratio and Proportion

This half term we are also learning to :

- Solve problems involving the relative sizes of two quantities where missing values can be found using integer multiplication and division facts.
- Solve problems involving similar shapes where the scale factor is known.
- Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

Ratio Language

For every 1 circle, there are 2 triangles.

For every 2 bananas, there are 3 apples.

For every 1 football, there are 3 rugby balls.

The Ratio Symbol

The ratio of footballs to rugby balls: 1:4

The ratio of rugby balls to footballs: 4:1

The ratio of circles to triangles: 2:3

The ratio of triangles to circles: 3:2

The ratio of apples to bananas: 1:2

The ratio of bananas to oranges: 2:3

The ratio of apples to bananas to oranges: 1:2:3

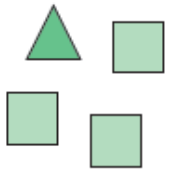
The ratio of oranges to bananas to apples: 3:2:1

Ratio and Fractions

For every 1 rugby ball, there are 2 footballs.

Ratio of rugby balls to footballs: 1:2

$\frac{1}{3}$ of the balls are rugby balls.



For every 1 triangle, there are 3 squares.

Ratio of triangles to squares: 1:3

$\frac{1}{4}$ of the shapes are triangles.

Ratio and Proportion Problem-Solving

To use the ingredients for 1 person, you divide all the quantities by 10 (÷ 10).

To use the ingredients for 5 people, you halve all the quantities (÷ 2).

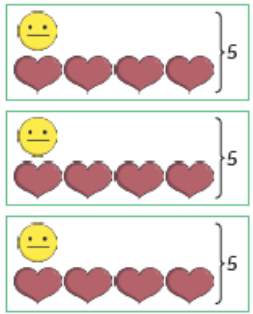
Ingredients for Fruit Smoothie (serves 10 people)

- 800g of bananas
- 500g of strawberries
- 200g of raspberries
- 700ml of milk
- 300ml of natural yogurt

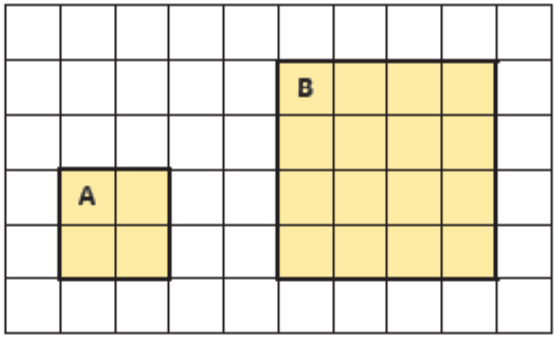
To use the ingredients for 20 people, you double all the quantities (× 2).

In a bag of 15 sweets, there is 1 smiley face sweet for every 4 love heart sweets.

Therefore, there will be 3 smiley face sweets and 12 love heart sweets in the bag.



Scale Factors

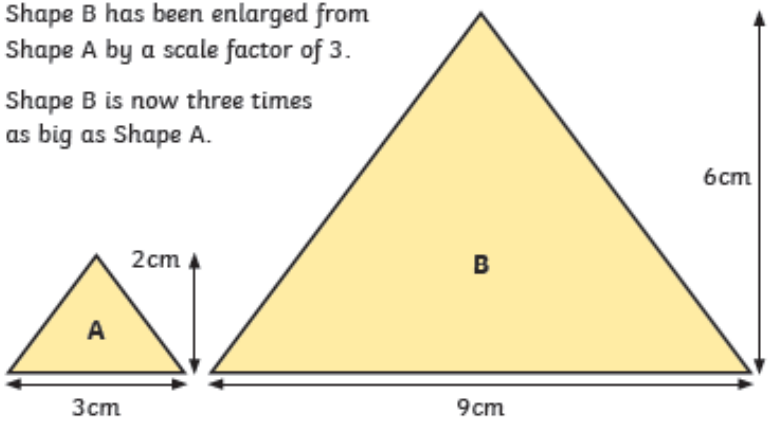


Shape A has been enlarged by a scale factor of 2 to make Shape B.

Shape B is now two times as big as Shape A.

Shape B has been enlarged from Shape A by a scale factor of 3.

Shape B is now three times as big as Shape A.



HOW TO HELP WITH MATHS AT HOME

Mental arithmetic games – e.g. Countdown.

Regularly revisit times tables facts up to 12 x 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

Religious Education

Eucharist – Unity: enabling people to live in communion
Lent/Easter – Death and New Life: celebrating Jesus' Death and Resurrection

•How do we express being in communion with one another?
•What can a school community do to enhance the sense of feeling included and forgiven?
•What is done for those who might feel excluded?
•What can home, school and parish do to help all people relate on a deeper level?

•Remember the suffering and death of Jesus
•Understanding Jesus as the Bread of Life – the grain of wheat dies in order to life
•The story of Lazarus
•The Liturgy of Good Friday and the Passion of the Lord
•The significance of the Adoration of the Holy Cross
•The liturgy of the Easter Vigil in the Holy Night and the symbols
•The Resurrection

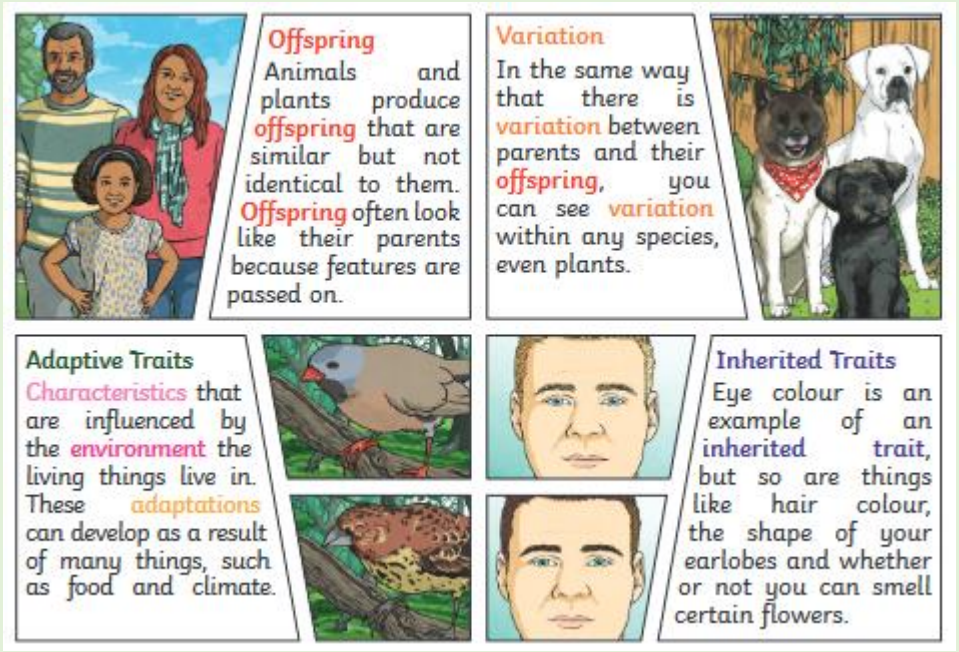
Science – Evolution and Inheritance

Key Vocabulary

offspring	The young animal or plant that is produced by the reproduction of that species.
inheritance	This is when characteristics are passed on to offspring from their parents.
variations	The differences between individuals within a species.
characteristics	The distinguishing features or qualities that are specific to a species.
adaptation	An adaptation is a trait (or characteristic) changing to increase a living thing's chances of surviving and reproducing.
habitat	Refers to a specific area or place in which particular animals and plants can live.
environment	An environment contains many habitats and includes areas where there are both living and non-living things.

Year 6 Skills:

- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
- Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

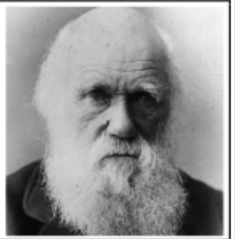


Key Vocabulary

evolution	Adaptation over a very long time.
natural selection	The process where organisms that are better adapted to their environment tend to survive and produce more offspring.
fossil	The remains or imprint of a prehistoric plant or animal, embedded in rock and preserved.
adaptive traits	Genetic features that help a living thing to survive.
inherited traits	These are traits you get from your parents. Within a family, you will often see similar traits, e.g. curly hair.

Important scientists

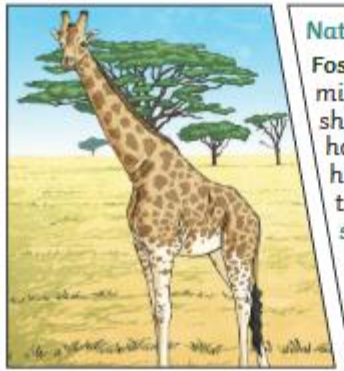
Charles Darwin



Charles Robert Darwin (12 February 1809 – 19 April 1882) was an English born evolutionary biologist, naturalist and geologist who was best known for his contributions to the science of evolution. He first formulated his theory in his book "On the Origin of Species" in 1859.

Mary Anning

Mary Anning (21 May 1799 – 9 March 1847) was an English fossil collector, dealer, and palaeontologist who became known around the world for important finds she made in Jurassic marine fossil beds in the cliffs along the English Channel at Lyme Regis in the county of Dorset in Southwest England.



Natural Selection

Fossils of giraffes from millions of years ago show that they used to have shorter necks. They have gradually **evolved** through **natural selection** to have longer necks so that they can reach the top leaves on taller trees.

Environments

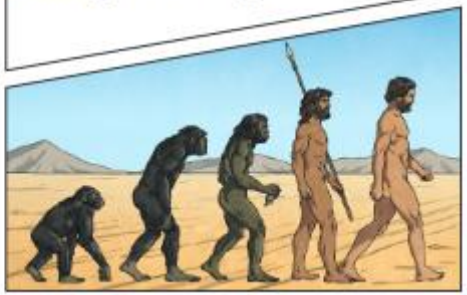
There are many types of **environment** around the world. Polar regions, deserts, rainforests, oceans, rivers, and grasslands are all **environments**.

Habitats

A good **habitat** should provide shelter, water, enough space and plenty of food.

Fossils are the preserved remains, or partial remains, of ancient animals and plants. **Fossils** let scientists know how plants and animals used to look millions of years ago. This is proof that living things have **evolved** over time.

Evolution is the gradual process by which different kinds of living organism have developed from earlier forms over millions of years. Scientists have proof that living things are continuously **evolving** - even today!



Computer Science – Spreadsheets & Blogging

Spreadsheets Year 6 Skills:

- Creating pie charts and graph using date input into spreadsheets
- Organising data alphabetically or by numerical value

			Pocket	Money	Planner			Guinea pig list	
Weekly money in		Savings			Things to save for			guinea pig	£40.00
weekly basic	£2.00	birthday savings	£75.00			£150.00		cage	£80.00
keeping my room tidy	£1.50	christmas money	£50.00			£140.00		water bottle	£2.50
emptying the dishwasher	£1.00	other savings	£11.00			£5.00		food bowl	£3.00
cleaning the car	£2.00	Total	£136.00			£15.00		hay	£4.00
mowing the lawn	£3.00					£10.00		bedding	£4.00
Total	£9.50				Money out	£320.00		toys	£6.00
								Total	£139.50

Purple Mash
2Blog

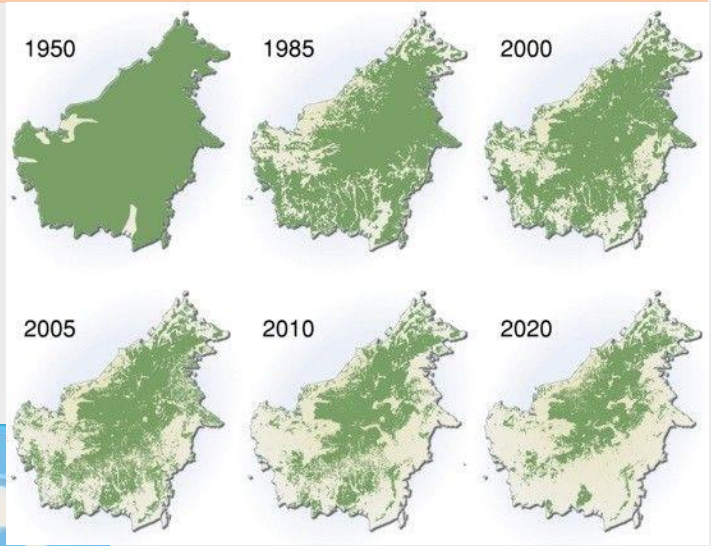
Blogging Year 6 Skills:

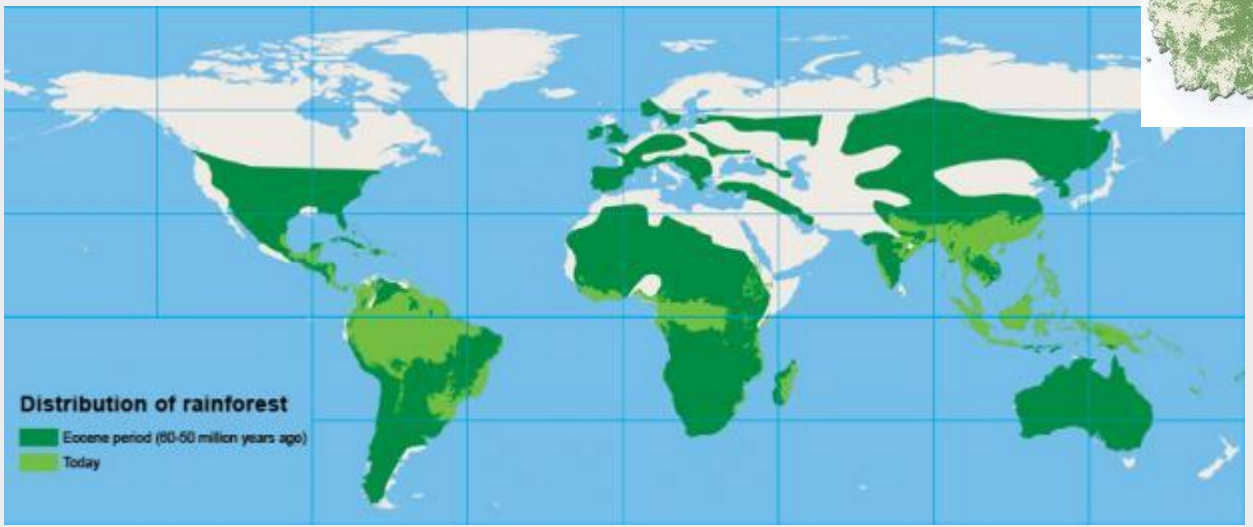
- Identify the purpose of writing a blog and the features of successful blog writing
- Plan the theme and content for a blog
- Work collaboratively to plan a blog
- Know how to write a blog with a specific purpose
- Know how to contribute to an existing blog
- Understand how and why blog posts are approved and develop an awareness of the issues surrounding inappropriate posts and cyberbullying.

Geography Knowledge
Laudato Si – Save Our Planet

Year 6 Geography Skills:

- Locate the world's countries, using maps to focus on Europe and North and South America
- Name and locate countries and identify key human and physical characteristics including land use patterns and how it has changed over time.
- Describe and understand key aspects of physical geography including climate zones, vegetation belts





Art - Landscapes

Year 6 Skills

- Identify artists who have worked in similar ways to our own
- Demonstrate a wide variety of ways to make different marks with dry and wet media
- 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

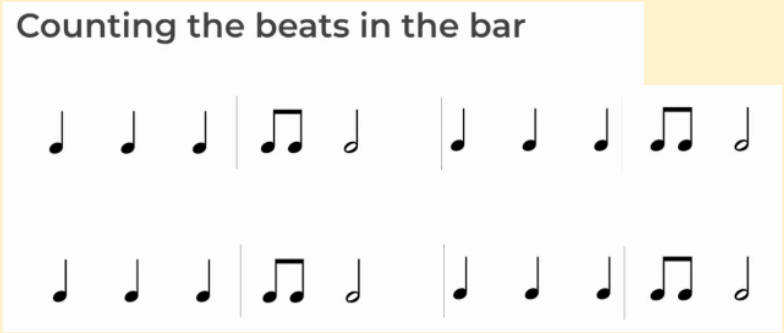
Key Vocabulary :

Line
Tone
Pattern
Texture
Form
Space
Perspective

Music

Year 6 Skills

- Understand musical notation.
- Explore changes in metre.
- Develop understanding of irregular metre.
- Develop understanding of compound time.



Key Vocabulary

- Musical bar
- Musical notation
- Compound time
- Metre
- Irregular metre

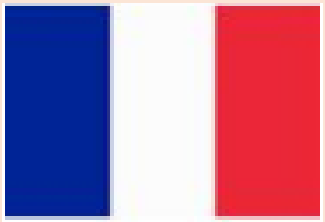
PSHE

- **Two sides to every story**
- **Fakebook friends**
- **Tolerance and respect for others**
- **Democracy in Britain: elections and how laws are made**
- **Basic first aid**

French

Focus topics:

- Revision of colours.
- Parts of the body.
- Verbs, quantifiers and adjectives.



PE

Netball

Year 6 Skills:

- Develop a broader range of techniques and skills for attacking and defending
- Develop consistency in their skills know and apply the basic strategic and tactical principles of attack, and to adapt them to different situations
- Choose and apply skills more consistently in all activities
- Know and understand the basic principles of warming up, and understand why it is important for a good-quality performance
- Understand why exercise is good for their fitness, health and wellbeing
- Choose and use information to evaluate their own and others' work and suggest improvements in own

Foundation Subject IMPACT QUESTIONS

Geography	What impact is human activity and land use having on the Earth?
Religious Education	What do Christians believe the impact of Jesus' resurrection is on humanity?
PE	What strategic and tactical principles of attack are used in netball?
Science	What did Charles Darwin's work teach us about how species change and adapt?
Computing	What are blogs and how are they used effectively?
Art	What techniques do artists use in landscape paintings?
Music	Can you explain what metre and irregular metre means?
PSHE	What is a democracy and why do you think it is important to have a democratic society?
French	Can you name colours and the parts of the body in French?