KNOWLEDGE ORGANISER
Year 4

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 reduce food waste?

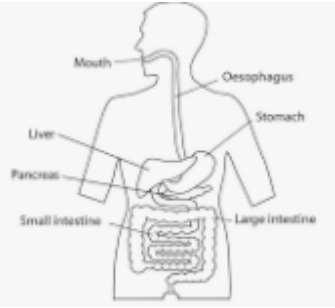
Our Focus Gospel Value this half term is…

How do you show peace in what you do?

School Mission Statement

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

Amen



Foods Fabulous Journey

This half term, Year 4 are learning about teeth, our digestive system and food chains..
We have lots of exciting things planned, including:
Learning how we need to look after our teeth using eggs!
Becoming a giant food chain using all of us and some string!
Being artists like Andy Warhol and Roy Lichtenstein, creating our own pop art.
Reading, enjoying and learning linked to the fabulous text James and the Giant Peach.

How can I help my child with this topic:
Ask them to tell you what they have done at school – have discussions about their learning**.**
Look up activities about teeth, the digestion system and food chains that you could try at home.
Talk to your child about an artist that you really like and look at some of their work together.
Practice times tables together, make games out of it.
Take part in some of the topic grid homework tasks – this can be found on Google Classrooms.

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 4.

English Knowledge - KEY VOCABULARY

Spelling Key Vocabulary -

Compound Word - A word that contains two or more root words e.g. news+paper, ice+cream

Key Word/Common Exception Word - A word which can't be phonetically decoded

Prefix - A prefix is added at the beginning of a word in order to turn it into another word e.g. disappear

Suffix - Suffix A suffix is an 'ending', used at the end of one word to turn it into another word e.g. teacher

Homophone - Two different words are homophones if they sound exactly the same when pronounced e.g. hear/here

Pronoun - Word that takes the place of a noun e.g. it, he, she

Grammar key vocabulary -

Possessive Pronoun - Words that demonstrate ownership e.g. His, her

Verb - Verbs are sometimes called 'doing words' because many verbs name an action that someone does e.g. run, cook

Modal Verb - An auxiliary verb that expresses necessity or possibility e.g. might, should, will, must

Auxiliary Verb - A verb that helps make sense e.g. They have been swimming

Adverb - These modifying the verb e.g. quickly, happily

Adverbial - Linking ideas across paragraphs using adverbials of time [e.g. later], place [e.g. nearby] and number [e.g. secondly] or tense choices [e.g. he had seen her before]

Fronted Adverbial - Words or phrases at the beginning of a sentence, used to describe the action that follows e.g. Later that day, I heard the bad news

Question - Asks something e.g. **Why aren't you my friend?**

Statement - States a fact or something that has happened. **E.g. You are my friend.**

Command - Something you have to do. **E.g. Be my friend!**

Exclamation - When something is exclaimed- start with 'what' or 'how'. **E.g. What a good friend you are!**

English Knowledge & Skills

Grammar

Noun Phrase - A phrase where an adjective is used before a noun to describe it e.g. blue table, fierce fox

Tense - Shows whether you are writing about the past, present or future

Relative Clause - Clauses that begin with who, which, where, when, whose, that, or an omitted relative pronoun

Subordinate Clause - Typically introduced by a conjunction, that forms part of and is dependent on a main clause (e.g. 'when it rang' in 'she answered the phone when it rang').

Direct Speech - The part being spoken e.g. Rachel shouted loudly "Watch out!"

Indirect / Reported Speech - Summarising what has been said e.g. He said they'd already eaten when he'd arrived.

Speech Marks - Punctuation used around the part being spoken e.g. The conductor shouted, "Sit down!"

HOW TO HELP – Writing

- Discuss descriptive techniques when reading.
- Discuss how authors develop the plot in their stories.
- Look at dialogue and how it moves a story on.
- Encourage your child to write as much as possible for as many different purposes as you can.

SPELLING

- Words with a /shun/ sound, spelt with 'sion'
- Words with a /shun/ sound splt with 'ssion'
- Words with a /shun/ sound spelt with 'tion'
- Words with a /shun/ sound spelt with 'cian'
- Words with 'ough' to make a long /o/, /oo/ or /or/ sound
- Year 3 and 4 CEW challenge.

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.

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 Y3 & 4 Common Exception words

Year 3 and 4 Common Exception Words

Aa	breath	consider	enough	group	island	natural	popular	**Rr**	surprise
accident	breathe	continue	exercise	guard	**Kk**	naughty	position	recent	**Tt**
accidentally	build	**Dd**	experience	guide	knowledge	notice	possess	regular	therefore
actual	busy	decide	extreme	**Hh**	**Ll**	**Oo**	possession	reign	though
actually	business	describe	**Ff**	heard	learn	occasion	possible	remember	thought
address	**Cc**	different	famous	heart	length	occasionally	potatoes	**Ss**	through
although	calendar	difficult	favourite	height	library	often	pressure	sentence	**Vv**
answer	caught	disappear	February	history	**Mm**	opposite	probably	separate	various
appear	centre	**Ee**	forward	**Ii**	material	ordinary	promise	special	**Ww**
arrive	century	early	forwards	imagine	medicine	**Pp**	purpose	straight	weight
Bb	certain	earth	fruit	increase	mention	particular	**Qq**	strange	woman
believe	circle	eight	**Gg**	important	minute	peculiar	quarter	strength	women
bicycle	complete	eighth	grammar	interest	**Nn**	perhaps	question	suppose	

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

Number and the 4 Operations

Multiples - Times tables e.g. 2, 4, 6, 8, and 10 are multiples of 2. To get these numbers, you multiplied 2 by 1, 2, 3, 4, etc.

Factors - numbers that go into a given number (come in pairs) e.g. factors of 12 are:
1 and 12 2 and 6 3 and 4

Common Multiples - A number that is a multiple of two or more numbers. The common multiples of 3 and 4 are 12, 24... The lowest common multiple (LCM) of two numbers is the smallest number (not zero) that is a multiple of both

Prime Number - A Prime Number can be divided evenly only by 1, or itself; it must be a whole number greater than 1. e.g. 5

Square Numbers - A number which is the product of itself. E.g. 9 is a square number 3 × 3 = 9

Cubed Numbers - A number multiplied by itself three times. The cube of 2 is 8 (2 x 2 x 2)

Convert - A change in the form of a measurement, different units, without a change in the size or amount e.g. millimetres to centimetres

Perimeter, Area - Perimeter is the distance around a two dimensional shape. Area is the amount of space inside the flat (2-dimensional) object such as a triangle or circle

HOW TO HELP

Mental arithmetic games – e.g. Countdown.

Regularly revisit times tables facts up to 12 x 12.

Use maths in daily life – cooking, 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

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 –

This half term we are learning to :

- Add and subtract up to 4-digit numbers.
- Measure length and perimeter.
- Multiply and divide.

Addition and Subtraction Methods

Add 4-digit numbers

No exchange

```
  5162
+ 3427
------
  8589
```

Starting with the ones, add each column in turn.

One exchange

```
  5162
+ 3497
------
  8659
   1
```

Starting with the ones, add each column in turn. When adding 6 tens + 9 tens = 15 tens = 1 hundred + 5 tens

Place 1 hundred under the hundreds answer and 5 tens in the answer.

Multiple exchanges

```
  5864
+ 3497
------
  9361
  111
```

Starting with the ones, add each column in turn. Exchange tens, hundreds and/ or thousands as required.

Subtract 4-digit numbers

No exchange

```
  5789
- 3421
------
  2368
```

Starting with the ones, subtract each column in turn.

One exchange

```
  6 1
  5749
- 3471
------
  2278
```

Starting with the ones, subtract each column in turn. When subtracting 4 tens -7 tens, exchange 1 hundred to make:

14 tens – 7 tens = 7 tens

Multiple exchanges

```
  6131
  5742
- 3476
------
  2266
```

Starting with the ones, subtract each column in turn. Exchange tens, hundreds and/ or thousands as required.

Round to Estimate

1635 + 386 = 2021

Round to the nearest ten

1640 + 390 = 2030

Round to the nearest hundred

1600 + 400 = 2000

Both give a reasonable estimate, but rounding the nearest ten is more accurate.

9362 – 5729 = 3622

Round to the nearest hundred

9400 – 5700 = 3700

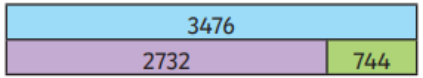
Round to the nearest thousand

9000 – 6000 = 3000

Rounding to the nearest hundred is much more accurate in this case.

Checking Strategies

Using Inverse



3476 – 744 = 2732 can be checked using 2732 + 744 = 3476

This part whole shows the inverse calculations using these three numbers.

1549 + 2688 = 4237	2688 + 1549 = 4237
4237 – 1549 = 2688	4237 – 2688 = 1549

Adding in a different order

420 + 372 + 280 =

Change to

420 + 280 + 372 =

As 420 + 280 = 700

(because 42 + 28 = 70)

420 + 280 + 372 = 700 + 372 = 1072

Maths –

Area and Perimeter

Area is the amount of space inside a 2D shape.

Perimeter is the total **distance** around the outside of a 2D shape.

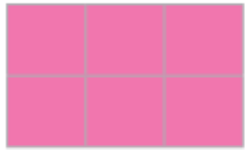
Units of Measure for Perimeter

km	1 **kilometre** = 1000 **metres**
m	1 **metre** = 100 **centimetres**
cm	1 **centimetre** = 10 **millimetres**
mm	

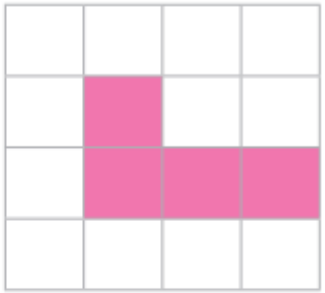
Measuring Area

We can count **squares** to find the **area** of a **rectilinear** shape.

Area = 1 square



Area = 6 squares



Area = 4 squares

Rectilinear Figures

A **rectilinear** figure is a 2D shape whose sides all meet at **right angles** (90°).

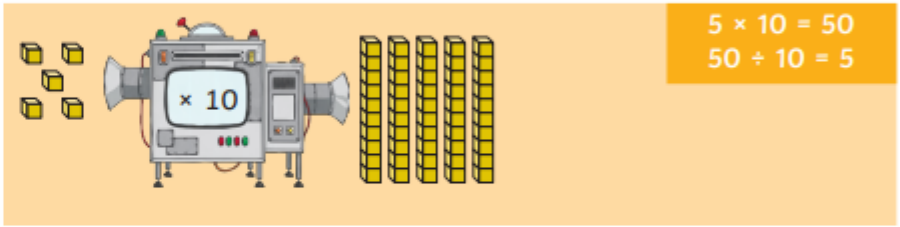
TIMES TABLES – Are a vital part of school learning. Please support your child as much as possible with learning all their times tables.

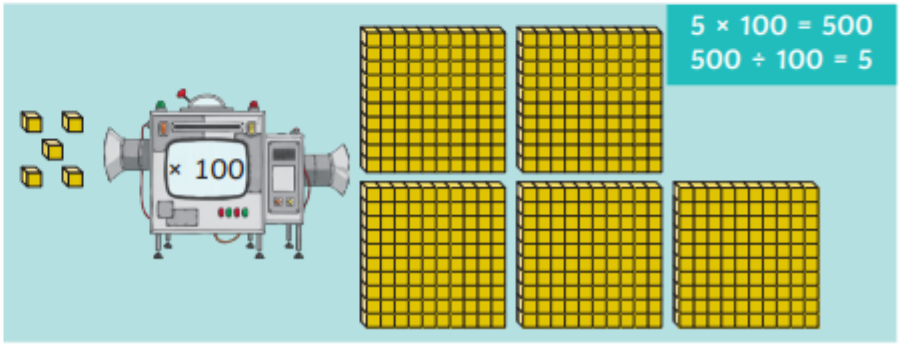
Maths –

Multiplication and Division Facts

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Use Place Value to Multiply and Divide Mentally





Short Division with Exact Answers

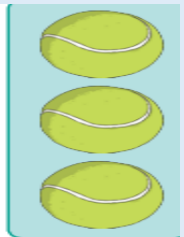
There are 69 tennis balls packed in tubes of 3.

There are 23 tubes altogether.

69 ÷ 3 = 23

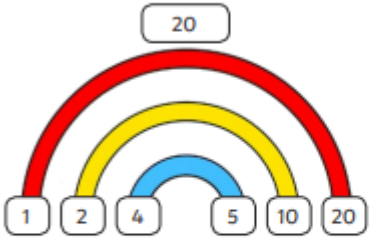
$$\begin{array}{r} 23 \\ 3\overline{)\,69} \end{array}$$

69		
23	23	23



Maths –

Factor pairs and Commutativity



The factors of 20 are 1, 2, 4, 5, 10 and 20.

The factor pairs are:

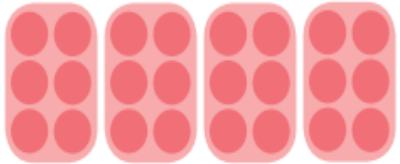
1 and 20 | 2 and 10 | 4 and 5

5 × 4 = 20

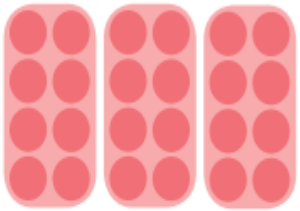
4 × 5 = 20

Mental Calculations for Solving Problems

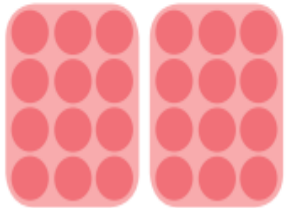
(2 × 3) × 4 = 24

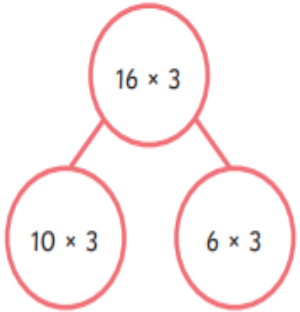


(2 × 4) × 3 = 24



(3 × 4) × 2 = 24





30 + 18 = 48

Multiply Using Formal Written Methods

Th	H	T	O	
	5	4	3	
×			4	
		1	2	(4 × 3)
	1	6	0	(4 × 40)
2	0	0	0	(4 × 500)
2	1	7	2	

Th	H	T	O
	5	4	3
×			4
2	1	7	2
	1	1	

Remember to move any regrouped numbers into the next column. After the next multiplication, add the regrouped number to the answer.

Religious Education

Advent and Christmas

Advent and Christmas: The Church's seasons of preparing to receive God's gift of love and friendship in.

- **What do Christians thank God for?**
- **What does God's gift of love mean for us and how does it affect the way we live our lives?**
- **Why do you think Jesus came to earth?**
- **Why does the Church celebrate Gaudete Sunday during Advent?**
- **What was the symbolism of the Wise Men's gifts?**
- **Why do you think the colour of the priest's vestments change from purple to**
- **white or gold?**

Science

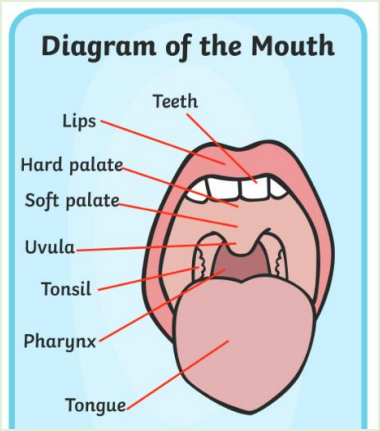
Year 4 Skills:

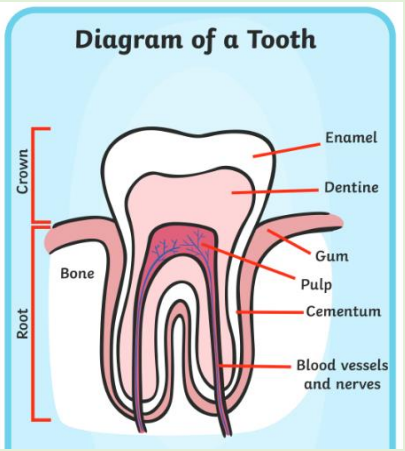
Animals including Humans

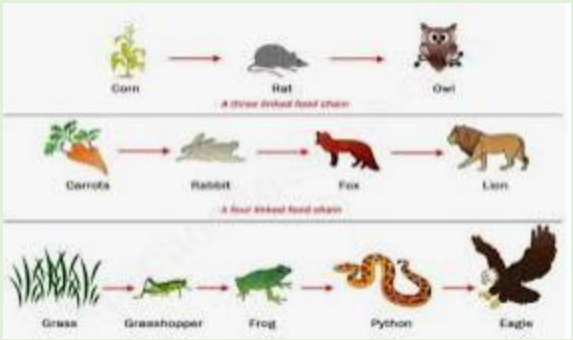
- Describe the simple functions of the basic parts of the digestive system in humans.
- Identify the different types of teeth in humans and their simple functions.
- Construct and interpret a variety of food chains, identifying producers, predators and prey.

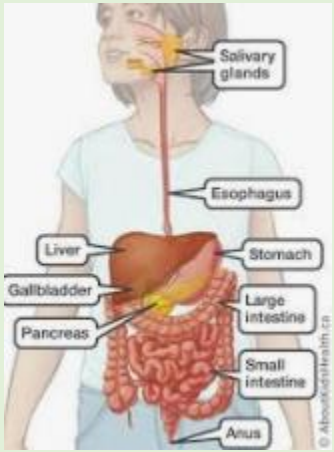
Key vocabulary:

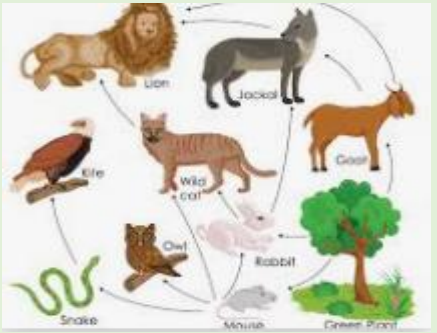
Canine
Molar
Premolar
Enamel
Dentine
Pulp
Cementum
Uvula
Pharaynx
Tonsil
Hard and soft palate
Esophagus
Gall bladder
Intestines
Pancreas
Predator
Prey









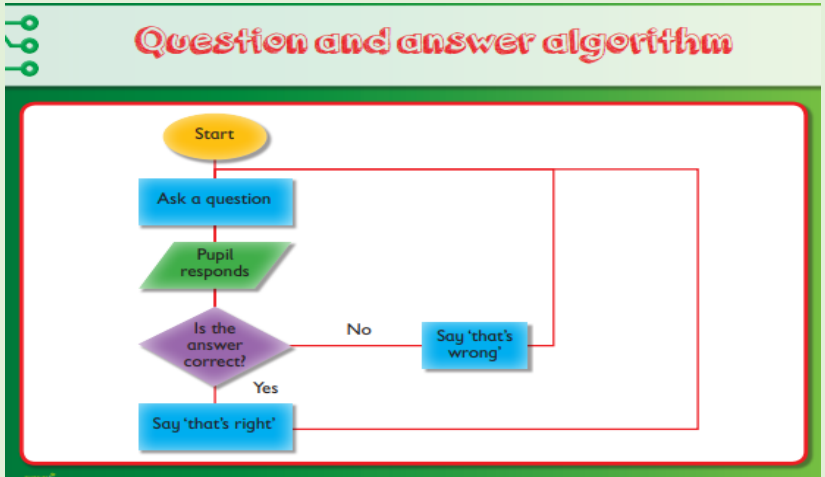


Computer Science -

Rising Stars
We Are Software Developers

Year 4 Skills:

- **Play and analyse educational games – identifying features that make it a success.**
- **Plan and design a game .**
- **Make a prototype of the game you have designed.**
- **Make a prototype and once completed then test it.**
- **Evaluate your design.**



Word bank

debug

input

interface

output

program

prototype

repetition

variable

Art

Year 4 Skills

•Research, create and refine a print using a variety of techniques.

•Select broadly the kinds of material to print with in order to get the effect they want.

Key Vocabulary:

Pop art
Bold
Culture
Print
Repeated pattern
Primary colours

Music

Musical focus: Composition

Seasons and the environment provide the stimuli for compositions. The children make descriptive accompaniments and discover how the environment has inspired composers throughout history

Year 4 Skills

Controlling pulse and rhythm

- Recognise rhythmic patterns.
- Perform a repeated pattern to a steady pulse.
- Identify and recall rhythmic and melodic patterns.
- Identify repeated patterns used in a variety of music. (Ostinato).

MUSIC EXPRESS AGE 8-9

Key Vocabulary

•Timbre •Texture •Pitch •Dynamics •Duration •Tempo •Structure

PSHE

Me and My Relationships

Key Questions:

What might you like about other people?
What might other people like about you?
Is it ok to say 'No' to someone we care about sometimes?
How might you show a feeling using your body and face?
What is the difference between being unkind, teasing and bullying?

PE

Gymnastics

Year 4 Skills

- Develop the range of actions, body shapes and balances they include in a performance.
- Perform skills and actions more accurately and consistently.
- Create gymnastic sequences.
- Use compositional devices when creating their sequences, such as changes in speed or direction.
- Describe how the body reacts during different types of activity and how this affects the way they perform.
- Describe their own and others work, making simple judgements about the quality of the performances and suggesting ways they could be improved.

Foundation Subject
IMPACT QUESTIONS

Science	Can you name the types of teeth and their functions? What are the key parts of the digestive system? Why are food chains important?
RE	What are the joys and demands of the commitment required in the gift of love and friendship?
PE	How do changes in speed, level and direction change the dynamic of movement?
ICT	Do variables make a difference to computer games?
Art	What or who might be used in a piece of pop art today? Which techniques would you need to use in pop art pieces?
French	Can you name the colours in French? What does 'Quel age as-tu'? Mean?