KNOWLEDGE ORGANISER
Year 5

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 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.

National Curriculum

Gospel Values, Catholic Virtues, Laudato Si & British Values

JUSTICE KINDNESS COURAGE INTEGRITY FORGIVENESS PEACE COMPASSION HUMILITY

Using our Secrets to Success…

Don't give up · Try new things · Work hard · Understand others · SUCCESS · Concentrate · Improve · Imagine · Push yourself

Roshenshine's Principles of Instruction & Jonathan Lear

Curriculum Drivers and Teams

English	**Maths**	**RE**	**History**	**Geography**	**Science**
Reading	Arithmetic	Knowledge & Understanding	Music	Art	RHE/PSHE
Writing	Fluency	Engagement & Response	French (MFL)	DT	PE
Phonics	Reasoning	Analysis & Evaluation	Computing		
SPaG	Problem Solving				

Parents in Partnership & Pupil Voice

Being the 'Best we can be'

School Mission Statement

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

Amen

MEDICINE THROUGH TIME

This half term, Year 5 are continuing their learning about the history of medicine.
We have lots of exciting things planned, including:

- Learning about medical developments from the Medieval times to present.
- Learning about vaccine development from the Oxford AstraZeneca team.
- Learning about how The Black Death entered the UK through our very own home town of Weymouth
- Learning how the NHS and welfare state was developed.

How can I help my child with this topic:
Find out facts about the medicine through time –

What inspirational people have helped developed the medicine we know today?
Encourage children to speak to older relatives who remember to formation and early stages of the NHS.
Talk to the children about the Covid-19 vaccination efforts and news stories related to the vaccine role out

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 5.

English - KEY VOCABULARY

Grammar Key Vocabulary – Sentence Level

Active voice – subject, verb then object within a sentence – the subject comes first In the sentence making it the more important noun. (e.g. The dog chased the ball.)

Passive voice – object, verb then subject within a sentence – the object comes fist in the sentence making it the more important noun. (e.g. The ball was chased by the dog.)

Adjectives – used to describe a noun (e.g. the **brightest** star)

Adverb - used to describe a verb (e.g. she asked **excitedly**)

Adverbials of time ad place – a phrase explaining when or where the verb happened.

Pronouns – used to replace a noun (e.g. it, he, they)

Grammar Key Vocabulary – Word Level

Subject – the noun doing the verb (e.g. The **dog** chased the ball)**.**

Verb – the action or doing word in a sentence. (e.g. The **dog chased** the ball)**.**

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

Modal verb – describes how likely the verb is to happen (e.g. must, should, might, will)

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).

Punctuation Key Vocabulary
Inverted commas "…" – use to contain dialogue in narrative.
Commas – used to embed clauses within a sentence, to separate items within a list or to clarify meaning.

Sentence Level Grammar Vocabulary

Decoding - Breaking down a word into different phonemes to help read it.

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

Inference - Making assumptions about what is happening in a text.

Retrieval - Finding information from a text.

Comprehension - Understanding what has been read.

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

Don't forget the Reading Challenge!

English

WRITING – Non Chronological Report Writing

Present tense – using verbs in the present, showing that something is happening now

Structural signposts – in reports these are often subheadings to guide the reader to the information they require.

Generalised language – generalising using the singular and plural (e.g. Snails have a protective shell. or The snail's shell protects its body.)

Glossary – a section at the end of a report defining technical vocabulary.

HOW TO HELP – Writing
- Discuss non fiction reports when reading.
- Discuss use of language features in non-fiction texts the children read at home.
- Look for technical vocabulary and use a glossary to help understand new words.

SPELLING -
- Words with 'silent' letters
- Modal verbs
- Words ending in 'ment'
- Adverbs of possibility and frequency

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 – KEY VOCABULARY

MULTIPLICATION AND DIVISION

Multiply/times – lots of or groups of (e.g. 3 x 2 = 3 lots of 2 which = 6**)**

Divide – to share into equal group (e.g. 6 ÷ 2 = 3 or 6 shared equally into 2 groups gives 3 in each group).

Remainder – the left over number when a number cannot be shared equally into groups.

Factor – a number that divides into another number with no remainder. (e.g. 2 and 3 both go into 6 with no remainders so are both factors of 6).

Factor pairs – a pair of number that multiply to make a given number (e.g. factor pairs of 12 are 1 and 12, 2 and 6, 3 and 4)

Multiple – a multiple is a number in the times table of (e.g. multiples of 6 are 6, 12, 18, 24, 30 etc).

Product – the answer of a multiplication calculation (e.g. 3 x 4 = 12 so 12 is the product of 3 and 4)

Squared numbers – the answer of a number multiplied by itself (e.g. 6 x 6 = **36**)

Cubed numbers – the answer of a number multiplied by itself 3 times (e.g. 4 x 4 x 4 = **64**)

Prime numbers – only had 2 factors, 1 and itself (e.g. 3 – the only factors are 1 and 3)

PERIMETER AND AREA

Perimeter – the distance around a shape

Area – the square units inside the shape (the amount of space it takes up)

Length – the measure of the longest side of a rectangle

Width – the measure of the shortest side of a rectangle

Rectilinear – a shape made up of straight sides and right angles (sometimes they look like rectangles have been joined together)

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.

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 – Multiplication and Division
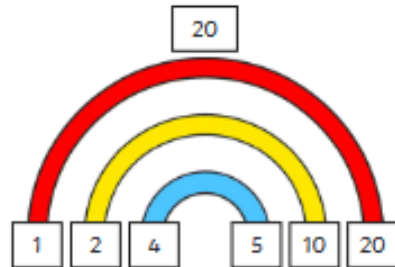
This half term we are learning to :

- Mentally multiply and divide numbers
- Multiply and divide numbers by 10, 100 and 1000
- Identify multiples and factors of given numbers (including factor pairs and common factors)
- Find squared and cubed numbers and use the correct notation for them
- Identify prime numbers

Prime Numbers

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Factors

A factor is a number that divides into another number exactly, without leaving a remainder.

20

1 2 4 5 10 20

A common factor is a factor of 2 or more numbers.

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

Factors of 6
2
6
1 3
Factors of 15
15
5
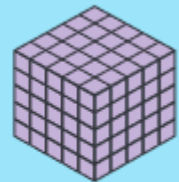
Squared² and Cubed³ Numbers

$2^2 = 4$

$2 \times 2 = 4$

$2^3 = 8$

$2 \times 2 \times 2 = 8$

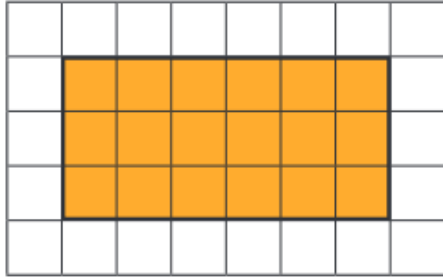$5^2 = 25$

$5 \times 5 = 25$

$5^3 = 125$

$5 \times 5 \times 5 = 125$

This half term we are learning to :
- Find the area and perimeter of rectangles
- Find the area and perimeter of composite rectilinear shapes
- Compare the areas of different rectangles.

The area of a rectangle on a grid:

Multiply the length × width
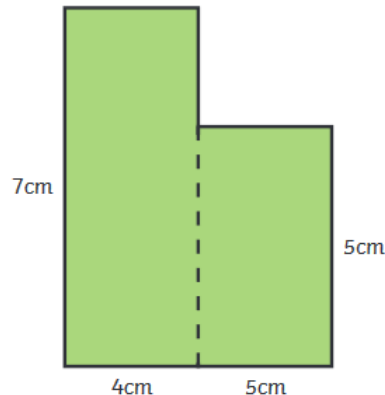= 6 × 3 = 18 squares.

Measure the perimeter of a rectangle:

w

l

Measure the length (l) and width (w).
Perimeter = l + w + l + w or (l + w) × 2

The area of a rectangle = length (l) × width (w).

w

l
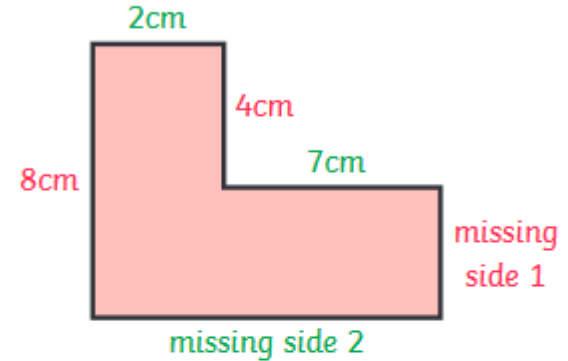
To find the area of a compound shape, divide the shape into rectangles with known dimensions:

7cm

5cm

4cm   5cm

Area = 7cm × 4cm + 5cm × 5cm
     = 28cm² + 25cm²
     = 53cm²

Calculate the missing sides of this rectilinear shape to find the perimeter:

2cm

4cm

7cm

8cm

missing side 1

missing side 2

* This shape is not drawn to the dimensions specified.

Missing side 1 + 4cm = 8cm,
so missing side 1 = 4cm.

Missing side 2 = 2cm + 7cm = 9cm

Perimeter = sum of all sides =
2cm + 4cm + 7cm + 4cm + 9cm + 8cm = 34cm

Advent & Christmas

Loving

- What has been your experience of waiting?
- How do you think you can best use the time you spend waiting?
- How do you behave when you are waiting and why?
- What do you think waiting hopefully means?

Advent is a time when we appreciate the love in our lives and prepare to celebrate love becoming a reality in the person of Jesus. Christians at Christmas celebrate the gift of Jesus given by God as a sign and expression of God's love. Giving and receiving reflects the truth that all life is given by God and life is given meaning through the gift of Jesus.

Science: Living Things and their Habitats

Key Knowledge
Learn these key facts—key points in red

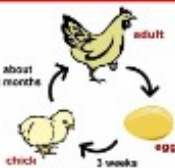All living things go through these 7 life processes

Characteristics of living things
MRS GREN
Movement
Respiration
Sensitivity
Growth
Reproduction
Excretion
Nutrition

- Chickens, like all birds, lay eggs. Inside an egg that has been fertilised, a chick will grow and eventually hatch.

adult — about 3 months — chick — 3 weeks — egg

- A similarity of female birds, mammals most reptiles and some species of fish is that their eggs are fertilised inside the female.

- Mammal life cycle

Late adulthood — Adulthood — Adolescent
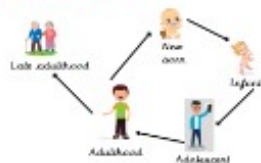
Sexual reproduction of a plant

- The stamen is the male part of the flower which holds pollen

- The carpel is the female part of the flower which contains eggs.

- Pollen travels from the anthers of one flower to the stigma of another plant. This is called pollination. Plants rely on bees or other insects to carry their pollen while some pollen floats in the wind.

- After pollination, the pollen grain and the egg join together, fertilisation.

- The fertilised egg will develop into a seed.

Stigma · Stamen · Ovary · Petal
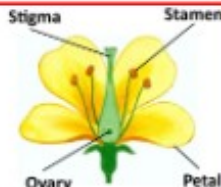
Asexual reproduction of a plant

Plant cuttings: Some plants stems can grow roots if they are planted in the correct conditions, such as geraniums. This allows for people to make lots of copies of the same plant.

Runners: Some plants, like strawberry plants, grow runners which have new plants on the end. These plants are an exact copy of the parent plant from which they have grown.

Bulbs: Other plants (onions, daffodils, garlic and tulips) produce bulbs which will grow if they are planted. The bulbs form under the soil. This helps the plant to survive during the winter months.

Frogs start off life as a mass of eggs called frogspawn. The eggs then hatch into tadpoles. They then gradually grow a set of back legs, and front legs. They lose their gills, and their tail shrinks.

Life Cycle of a Frog
Butterfly Life Cycle
Both animals go though meta-morphosis.

A butterfly starts its life as an egg, which hatches into a caterpillar. Eventually, the caterpillar forms a chrysalis. Inside the chrysalis, it undergoes metamorphosis, before emerging as an adult butterfly.

Focus Scientists

Jane Goodall, a behaviourist, is best known for her 60 year research on social interactions of wild chimpanzees.

Sir David Attenborough, a naturalist, who has dedicated his life to the study of natural history.

Key Vocabulary
Understand these key words

Word	Definition
behaviourist	someone who studies animal behaviour: how they learn from their environment, rather than emotions or feelings.
naturalist	an expert in, or a student of, natural history.
seed dispersal	it is the way seeds get from the parent plant to a new place.
stigma	the stigma is the area where pollen is received.
stamen	the stamen is the part of the flower that produces pollen. There are two main parts of the stamen: the filament and anther.
life processes	there are seven life processes that every living thing has in common.
asexual reproduction	offspring obtain all of their information from just one individual (one parent).
pollination	the transference of pollen to a flower, or plant to allow fertilisation. Happens in sexual reproduction
life cycles	the series of changes that an animal or plant goes through from the beginning to the end of its life.
root	the part of a plant which attaches it to the ground. It transfers water and nutrients to the rest of the plant.
germination	the development of a plant from a seed or spore after a period of dormancy.

Computer Science – CRYPTOGRAPHY

We Are Crytographers

Year 5 Skills:

- Transmitting information in semaphore
- Using Morse code
- Using the Caesar cipher to create and crack codes
- Substitution ciphers and frequency analysis
- Password security
- Security on the web
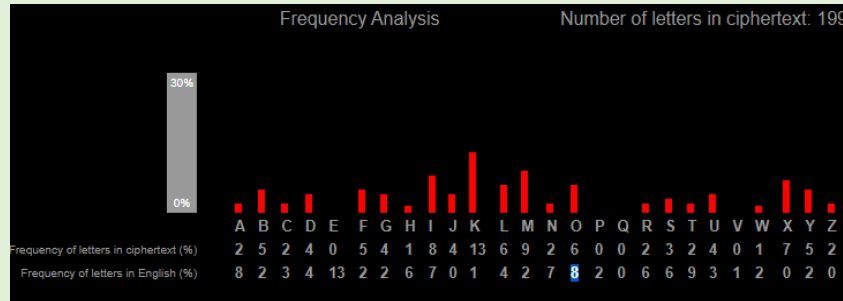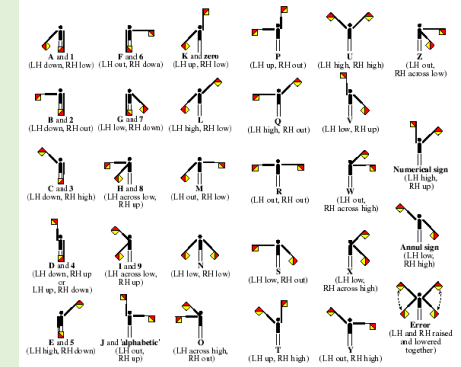
Key vocabulary:

- cryptography
- ciphers
- semaphore
- Morse code
- encryption

Frequency Analysis — Number of letters in ciphertext: 199

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency of letters in ciphertext (%)	2	5	2	4	0	5	4	1	8	4	13	6	9	2	6	0	0	2	3	2	4	0	1	7	5	2
Frequency of letters in English (%)	8	2	3	4	13	2	2	6	7	0	1	4	2	7	8	2	0	6	6	9	3	1	2	0	2	0

Year 5 History Skills:

-Can pupils explain how cultural, religious, social and political history contributed to the development of medicine through the ages?
- Can pupils draw a timeline and place periods and events studied (inc. work from previous year groups) on timeline correctly?

History
Medicine Through Time

Marie Curie
Florence Nightingale
Louis Pasteur
Joseph Lister

WW1 and WW2 and how medicine improved because of injuries…

The Great Plague

The development of the NHS

Smallpox and developing vaccinations

Art

Year 5 Skills
- To improve their mastery of art and design techniques through exploring shades and tones
- To learn about artists and their techniques (Banksy)
- To keep notes in sketch books as to how they might improve work in the future.
- To experiment with different styles which artists have used.
- To evaluate the use of techniques and overall effectiveness of artwork

Key Vocabulary :
Sketch
Pencil
Line
Shade
Tone

Banksy
Shamsia Hassani

Music

Christmas song competition

Year 5 Skills
-To describe, compare and evaluate music using musical vocabulary
- To compose a song that meets specific criteria (considering structure, tempo, rhythm, melody, lyrics and dynamics)
- To maintain own parts whilst others are performing theirs, working together to produce a performance.

Key Vocabulary
- Tempo
- Pitch
- Dynamics
- Ostinato
- Rhythm
- Pentatonic scale
- Structure

Classic Christmas Songs

RHE/PSHE

PSHE Key Skills:

- 'Thinking about habits'
- Dealing with dilemmas
- Independence and responsibility
- How to spot bullying

RHE:
- Spots and sleep
- Body Image

French

Pets

Year 5 Skills
- Identify and name nouns saying if they are masculine or feminine
- Hold short conversations where children are saying 2 or 3 things using familiar language.
- Alter some adjectives to fit with the gender of nouns
- Read and write in short paragraphs on a familiar top

Topics:
The children will be learning about pets including common names for pets, how to use articles (a/an/the), giving names etc.

PE

Gymnastics

Year 5 Skills
- to perform symmetrical and asymmetrical balances
- To develop the straight-forward, straddle and backwards rolls
- To explore different methods of traveling, linking actions in both canon and synchronization
- To perform progressions on inverted movements
- To match and mirror actions both on the floor and on apparatus.
- To create, perform and evaluate a partner sequence.

Foundation Subject IMPACT QUESTIONS

History

What/who has helped and hindered progress in medicine since the middle ages and how?

PE

What makes a good gymnastic routine? Explain.

French

How can you describe your pets in French?

Science

What similarities and differences are there between the life cycles of different animals and why do you think this is?

Music

What musical techniques make a Christmas song successful and why?

Computing

What methods are used for safely transmitting messages online?

PSHE

How do our bodies, habits and thoughts change during puberty and how can we best handle these changes?

Art

How can artists use shade and tone to portray emotion and meaning>