



**CURRICULUM  
INFORMATION  
2021 / 2022**

**YEAR 4**

## **Curriculum Information for Parents: Year 4 2021/2022**

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Dear Parents/Guardians

We are looking forward to a happy and successful new school year. At Thornton, we aim to provide stimulating and exciting activities within the framework of our curriculum, in order to enable your daughter to reach her full potential.

We recognise that the bond between home and school is of vital importance so in order to keep you fully informed, we have enclosed a copy of the relevant Programme of Study for your daughter's Year Group. This contains a broad outline of what we intend to cover with your child throughout the coming Academic Year.

During the year, your daughter will receive written reports and there will be Parental Consultations, when you will have the opportunity to make an appointment to discuss your daughter's progress with her teacher(s), however, if you have any questions or concerns at all, please do not hesitate to contact your child's Form Teacher by telephone or e-mail. They will be only too pleased to arrange a mutually convenient time to meet with you.

The school diary is a very important means of communicating on a daily basis. It would help us if you could find the time to read/check it each evening with your child and sign it each week.

Thank you in advance for your support during the coming Academic Year. We will do our very best to ensure that your daughter feels secure, happy and supported in her learning, and we look forward to meeting you throughout the school year.

With very best wishes

Val Holmes  
Head of Thornton College

# Curriculum Information

## Year 4

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### **Subject:           Computing**

Computing in Years 3 and 4 is taught in discrete lessons.

The Computing syllabus is based on the requirements of the 2014 National Curriculum. There are three areas of focus:

- Computational Thinking - programming and finding out how digital systems work
- Digital Literacy – being responsible, competent, confident and creative users, especially as concerns the internet.
- Information Technology – use technology purposefully to create, organise, store, manipulate and retrieve digital content.

These areas will be covered throughout the year and be revisited several times.

Students will have an opportunity to:

- design, write and debug programs
- 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.
- understand computer networks including the internet
- appreciate how [search] results are selected and ranked.
- use search technologies effectively to present data and information
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
- understand the opportunities [networks] offer for communication and collaboration.
- be discerning in evaluating digital content.
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

### **Subject: Creative Curriculum**

Creative Curriculum at Thornton aims to engage children in the learning processes and expand their skills, knowledge and interests. Creative Curriculum encompasses the study of History, Geography, Art and D.T. It is mapped to the National Curriculum and delivered through a rich variety of learning activities, making creative links between all aspects of learning. The curriculum works on a two-year cycle to foster collaboration amongst the children and a wide range of opportunities for learning.

The learning experience will be broadened through educational visits and visitors in school.

Throughout the curriculum, we will aim to equip the children with life skills as well as knowledge.

The children will be learning to learn by:

- being resilient
- being reflective
- being resourceful
- taking risks
- planning, revising and reviewing
- collaborating and listening
- questioning, imagining and making links
- perseverance

Topics are explored on a two-year cycle.

#### **Cycle B (2021-2022):**

Michaelmas Term:	Inventors
	Meet the Artists
Lent Term:	The Romans in Britain
Trinity Term:	Rainforests

#### **Cycle A (2022-2023):**

Michaelmas Term:	Anglo-Saxons and Vikings
Lent Term:	World War Two
Trinity Term:	Modern Europe

In addition to English, the children will explore topics throughout the curriculum, working towards the National Curriculum objectives which are detailed next.

The statements below are the National Curriculum objectives for Key Stage Two. Therefore, the children will build upon these skills as they progress through Key Stage Two. Children in Year 3 and 4 will begin to work towards these objectives.

### Art and Design

Throughout Key Stage Two:

- Pupils will be taught to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of Art, Craft and Design.
- Pupils will be taught to improve their mastery of Art and Design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay].
- Pupils will be taught about great artists, architects and designers in history.

### Design and Technology

Throughout Key Stage Two, children will be taught to:

- Design:
  - Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
  - Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.
- Make:
  - Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] accurately.
  - Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.
- Evaluate:
  - Investigate and analyse a range of existing products.
  - Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
  - Understand how key events and individuals in design and technology have helped shape the world.
- Technical knowledge:
  - Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
  - Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].
  - Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].
  - Apply their understanding of computing to program, monitor and control their products.

### History

Throughout Key Stage 2:

- Pupils should continue to develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives within and across the periods they study.
- They should note connections, contrasts and trends over time and develop the appropriate use of historical terms.
- They should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance.
- They should construct informed responses that involve thoughtful selection and organisation of relevant historical information.
- They should understand how our knowledge of the past is constructed from a range of sources.

### Geography

Throughout Key Stage 2, pupils will be taught:

- Locational knowledge:
  - Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities.
  - Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time.
  - Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night).
- Place knowledge:
  - Understand geographical similarities and differences through the study of Human and Physical Geography of a region of the United Kingdom, a region in a European country, and a region within North or South America.
- Human and physical geography:
  - Describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.
  - Describe and understand key aspects of Human Geography, including: types of settlement and land use, economic activity including trade links,

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and the distribution of natural resources including energy, food, minerals and water.

- Geographical skills and fieldwork:
  - Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.
  - Use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world.
  - Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.



**Subject: French**

### **Michaelmas Term**

#### **Where in the World?**

This term, we will teach your daughter key vocabulary related to countries/continents and animals. She will learn specific vocabulary of countries of the United Kingdom, continents and animals from different continents and a country's position related to the equator. She will learn key phrases connected to the themes.

By the end of term, we aim for your daughter to be able to:

- listen and respond to topic vocabulary
- answer questions orally using the topic vocabulary
- write an answer in a sentence using the topic vocabulary
- use an English/ French dictionary to translate from English to French

### **Lent Term**

#### **What's the Time?**

This term, your daughter will learn how to tell the time: o'clock, half past, quarter past and quarter to. She will learn how to read timetables and TV schedules and answer simple questions about these. There will be a final lesson which is a mathematics lesson, calculating the difference between two times.

By the end of term, we aim for your daughter to be able to:

- say and write a sentence to tell the time (o'clock)
- count in fives to at least 30
- understand and use the terms avant and après
- answer questions about a TV schedule

### **Trinity Term**

#### **Holidays and Hobbies**

This term, your daughter will learn key vocabulary related to holidays, weather and seasons, sports and hobbies. She will learn specific vocabulary of how to say what the weather is like, temperatures, names of different sports and hobbies. She will learn key phrases connected to the themes.

By the end of term, we aim for your daughter to be able to:

- listen and respond to topic vocabulary
- answer questions orally using the topic vocabulary
- write an answer in a sentence using the topic vocabulary
- present ideas and information orally to a range of audiences

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In addition to twice-weekly lessons at school, your daughter will have the opportunity to practise reading, writing, speaking and listening to French on a daily basis through Duolingo For Schools, where her progress and attainment is tracked via an online classroom. This is an optional homework. Nevertheless, it is incentivised by the opportunity to earn house points and be awarded certificates on a half-termly basis.

### **Subject: Literacy**

#### **Speaking and Listening**

To include:

- General class discussion and instruction related to the whole curriculum.
- Regular discussion time.
- Regular role-play.
- Regular performance.
- Listening to stories and other text.
- Reading aloud.

#### **Reading**

Pupils read regularly from the Oxford Reading Tree/Collins scheme and take reading books home on a daily basis.

Once children can read aloud and comprehend these texts confidently, they become free readers – meaning that they can choose their own books independently from the library as part of their own reading regime.

Pupils read aloud regularly to the Class Teacher/Assistant, using a range of cues to help them decode the text.

Pupils read books of their choice regularly, in order to foster a love of literature of all genre.

Pupils visit the school library once per week and make a free choice of two books to take home and share with an adult.

A wide variety of class stories and texts are read to the children during the year.

#### **Word reading attainment targets**

- apply their growing knowledge of root words, prefixes and suffixes (etymology and morphology) both to read aloud and to understand the meaning of new words they meet
- read further exception words, noting the unusual correspondences between spelling and sound, and where these occur in the word.

#### **Comprehension attainment targets**

- develop positive attitudes to reading and understanding of what they read by:
- listening to and discussing a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
- reading books that are structured in different ways and reading for a range of purposes
- using dictionaries to check the meaning of words that they have read
- increasing their familiarity with a wide range of books, including fairy stories, myths and legends, and retelling some of these orally

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- identifying themes and conventions in a wide range of books
- preparing poems and play scripts to read aloud and to perform, showing understanding through intonation, tone, volume and action
- discussing words and phrases that capture the reader's interest and imagination
- recognising some different forms of poetry [for example, free verse, narrative poetry]
- understand what they read, in books they can read independently, by:
- checking that the text makes sense to them, discussing their understanding and explaining the meaning of words in context
- asking questions to improve their understanding of a text
- drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence
- predicting what might happen from details stated and implied
- identifying main ideas drawn from more than one paragraph and summarising these
- identifying how language, structure, and presentation contribute to meaning
- retrieve and record information from non-fiction
- participate in discussion about both books that are read to them and those they can read for themselves, taking turns and listening to what others say.
- Spelling attainment targets
- use further prefixes and suffixes and understand how to add them
- spell further homophones
- spell words that are often misspelt
- place the possessive apostrophe accurately in words with regular plurals [for example, girls', boys'] and in words with irregular plurals [for example, children's]
- use the first two or three letters of a word to check its spelling in a dictionary
- write from memory simple sentences, dictated by the teacher, that include words and punctuation taught so far.

### Handwriting attainment targets

- use the diagonal and horizontal strokes that are needed to join letters and understand which letters, when adjacent to one another, are best left unjoined
- increase the legibility, consistency and quality of their handwriting [for example, by ensuring that the downstrokes of letters are parallel and equidistant; that lines of writing are spaced sufficiently so that the ascenders and descenders of letters do not touch].

### Writing

Pupils learn writing skills discretely and through the teaching of Creative Curriculum. Good quality books will be used to model how authors construct their own texts.

### Writing attainment targets

- plan their writing by:
  - discussing writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar
  - discussing and recording ideas
- draft and write by:
  - composing and rehearsing sentences orally (including dialogue), progressively building a varied and rich vocabulary and an increasing range of sentence structures
  - organising paragraphs around a theme
  - in narratives, creating settings, characters and plot
  - in non-narrative material, using simple organisational devices [for example, headings and sub-headings]
- evaluate and edit by:
  - assessing the effectiveness of their own and others' writing and suggesting improvements
  - proposing changes to grammar and vocabulary to improve consistency, including the accurate use of pronouns in sentences
- proof-read for spelling and punctuation errors
- read aloud their own writing, to a group or the whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear.
- extending the range of sentences with more than one clause by using a wider range of conjunctions, including when, if, because, although
- using the present perfect form of verbs in contrast to the past tense
- choosing nouns or pronouns appropriately for clarity and cohesion and to avoid repetition
- using conjunctions, adverbs and prepositions to express time and cause
- using fronted adverbials
- indicate grammatical and other features by:
  - using commas after fronted adverbials
  - indicating possession by using the possessive apostrophe with plural nouns
- using and punctuating direct speech
- use and understand the grammatical terminology accurately and appropriately when discussing their writing and reading.

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### Spelling:

- use further prefixes and suffixes and understand how to add them spell further homophones
- spell words that are often misspelt
- place the possessive apostrophe accurately in words with regular plurals [for example, girls', boys'] and in words with irregular plurals [for example, children's]
- use the first two or three letters of a word to check its spelling in a dictionary
- write from memory simple sentences, dictated by the teacher, that include words and punctuation taught so far.

### Terminology:

Year 4:	
<b>Word</b>	The grammatical difference between <b>plural</b> and <b>possessive</b> –s Standard English forms for <b>verb inflections</b> instead of local spoken forms [for example, <i>we were</i> instead of <i>we was</i> , or <i>I did</i> instead of <i>I done</i> ]
<b>Sentence</b>	Noun phrases expanded by the addition of modifying adjectives, nouns and preposition phrases (e.g. <i>the teacher</i> expanded to: <i>the strict maths teacher with curly hair</i> ) <b>Fronted adverbials</b> [for example, <i>Later that day, I heard the bad news.</i> ]
<b>Text</b>	Use of paragraphs to organise ideas around a theme Appropriate choice of <b>pronoun</b> or <b>noun</b> within and across <b>sentences</b> to aid <b>cohesion</b> and avoid repetition
<b>Punctuation</b>	Use of inverted commas and other <b>punctuation</b> to indicate direct speech [for example, a comma after the reporting clause; end punctuation within inverted commas: <i>The conductor shouted, "Sit down!"</i> ] <b>Apostrophes</b> to mark <b>plural</b> possession [for example, <i>the girl's name, the girls' names</i> ] Use of commas after <b>fronted adverbials</b>
<b>Terminology for pupils</b>	determiner pronoun, possessive pronoun adverbial

### **Subject: Mathematics**

At Thornton, we follow the requirements set out in the 2014 National Curriculum. In all years we are striving to ensure the children become **fluent** in the fundamentals of Mathematics, **reason mathematically** and can **solve problems** by applying their Mathematics to a variety of routine and non-routine problems with increasing sophistication.

The following areas will be covered in Year 4.

#### **Number – Number and Place Value**

Students are taught to

- count in multiples of 6, 7, 9, 25 and 1000
- find 1000 more or less than a given number
- count backwards through zero to include negative numbers
- recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
- order and compare numbers beyond 1000
- identify, represent and estimate numbers using different representations
- round any number to the nearest 10, 100 or 1000
- solve number and practical problems that involve all of the above and with increasingly large positive numbers
- read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.

#### **Number – Addition and Subtraction**

Students are taught to:

- add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- estimate and use inverse operations to check answers to a calculation
- solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

### Number – Multiplication and Division

Students are taught to:

- recall multiplication and division facts for multiplication tables up to  $12 \times 12$
- use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers
- recognise and use factor pairs and commutativity in mental calculations
- multiply two-digit and three-digit numbers by a one-digit number using formal written layout
- solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as 'n' objects are connected to 'm' objects.

### Number – Fractions (including decimals)

Students are taught to:

- recognise and show, using diagrams, families of common equivalent fractions
- count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
- solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
- add and subtract fractions with the same denominator
- recognise and write decimal equivalents of any number of tenths or hundredths
- recognise and write decimal equivalents to  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$
- find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
- round decimals with one decimal place to the nearest whole number
- compare numbers with the same number of decimal places up to two decimal places
- solve simple measure and money problems involving fractions and decimals to two decimal places.



### Measurement

Students are taught to:

- Convert between different units of measure [for example, kilometre to metre; hour to minute]
- measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
- find the area of rectilinear shapes by counting squares
- estimate, compare and calculate different measures, including money in pounds and pence
- read, write and convert time between analogue and digital 12- and 24-hour clocks
- solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

### Geometry – Properties of Shapes

Students should be taught to:

- compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
- identify acute and obtuse angles and compare and order angles up to two right angles by size
- identify lines of symmetry in 2-D shapes presented in different orientations
- complete a simple symmetric figure with respect to a specific line of symmetry.

### Geometry – Position and Direction

Students should be taught to:

- describe positions on a 2-D grid as coordinates in the first quadrant
- describe movements between positions as translations of a given unit to the left/right and up/down
- plot specified points and draw sides to complete a given polygon.

### Statistics

Students should be taught to:

- interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
- solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

### **Subject: Music**

All girls in Music throughout Prep develop their knowledge and skills in Music through:

- Perform
- Explore and Compose
- Listen, Reflect and Appraise

These key skills will be explored through the teaching of:

#### **Using their voices**

These skills will be taught in a weekly singing lesson. Students will be able to:

- Sing songs in a variety of styles with an increasing awareness of the tone of their voices and the shape of the melody
- Copy short phrases and be able to sing up and down in step independently
- Sing songs showing musical expression (phrasing, changes of tempi, dynamics; reflecting the mood and character of the song and its context)
- Sing two/three part rounds with more confidence and increasing pitch accuracy
- Sing confidently as part of a small group or solo being aware of posture and good diction.

#### **Michaelmas Term**

##### **Learning to perform songs on the Ukulele**

Students will:

- Play music that includes RESTS
- Play by ear – find known phrases or short melodies using tuned instruments
- Play music in a metre of 2 or 3 time
- Read and play from some conventional music symbols
- Follow a leader, stopping / starting, playing faster / slower and louder / quieter
- Perform to an audience of adults, an assembly or other classes with increasing confidence.

#### **Lent Term**

##### **Listening to Music, appraising and composing**

Studying Saint Saens', Carnival of the Animals, students will be introduced to programme music. They will compose their own animal compositions based on their listening work. Students will:

- Describe feelings or moods in music using 'tense' or 'calm' sounds using **dynamics**, different **tempi**, different **timbres** etc.

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- Compose by combining and controlling sounds to achieve a desired effect
- Evaluate their and other's compositions with musical language
- Know how sounds can create a particular effect (**timbre**)
- Compose rhythm patterns in music from different times and places (**duration**)
- Compose a simple melody from a selected group of notes (i.e. a pentatonic scale)

### Trinity Term

#### **Further listening**

Students will consolidate their listening skills by studying one of BBC's Ten Pieces, Mambo from West Side Story. This will lead to performances and group compositions using Samba drums. Students will:

- Identify repeated rhythmic ostinato or melodic phrases in live or recorded music.
- Recognise and talk about some contrasting styles of music using appropriate musical language (the **tempo, dynamics, metre, texture, timbre**).
- Recognise music from different times and countries identifying key elements that give it its unique sound.
- Identify the use of metre in 2 or 3 in a piece of recorded or live music.
- Recognise the combined effect of layers (texture) of sound by listening to their own compositions and recordings.

### **Subject: PSHEE**

Personal, Social, Health and Economic (PSHE) Education helps pupils develop the knowledge, skills and attributes they need to keep themselves healthy and safe and prepare for life and work in modern Britain. Evidence shows that PSHE programmes can have a positive impact on both academic and non-academic outcomes for pupils.

The PSHE provision at Thornton College Junior School is a 'spiral curriculum' meaning that specific learning builds for pupils as they move through the school, gradually expanding and deepening their knowledge, skills and attributes as it increases in complexity. The learning opportunities that all pupils will encounter during the academic year have been divided into three core themes: **Health & Wellbeing; Relationships; Living in the Wider World.**

All PSHE teaching takes place in a respectful, safe learning environment and is underpinned by our school ethos and values. The curriculum content complies with the statutory requirements for Primary Relationships and Health Education and is in line with best practice and consultation with the PSHE Association. The new curriculum is mandatory in all schools effective from September 2020. If you would like any further information about the content of the curriculum, please contact Mrs Sablon.

#### **Health & Wellbeing:**

- Healthy Lifestyle: balanced lifestyle, making choices, common drugs, hygiene and germs
- Growing & Changing: setting goals, changes at puberty, changes and feelings
- Keeping Safe: safety in our local area and online, people who help them to stay healthy and safe

#### **Relationships**

- Feelings & Emotions: keeping something confidential and when to break a confidence, dares
- Healthy Relationships: acceptable and unacceptable physical contact, peer disputes and conflict
- Valuing Difference: sharing points of view and listening to others

#### **Living in the Wider World**

- Rights & Responsibilities: debate health and well-being issues, difference and diversity
- Environment: sustainability of the environment
- Money: saving and budgeting, interest and loans

**Subject:**                **Physical Education**

**Working with Mrs Tisdale, Mrs Johnson and Miss Dean.**

During Key Stage 2 the students have a scheme of work for PE and also games based on the following activities:

- Games: Hockey, Netball, Cricket and Badminton
- Swimming and water safety
- Athletics
- Gymnastics
- Dance
- Health Related Fitness

Through each element children should learn about:

- acquiring and developing skills
- selecting and applying skills, tactics and compositional ideas
- knowledge and understanding of fitness and health
- evaluating and improving performance

### **Games**

#### **Invasion Games**

In this unit children learn simple attacking tactics and start to think about how to organise themselves to defend their goals.

In invasion games, they enter their opponent's territory with the "ball" and try to get into good positions for shooting or reaching the goal. They will also work on their knowledge of specific positions in Netball and Hockey. They will begin to learn more complex rules.

#### **Striking and Fielding Games**

In this unit children learn how to hit or strike the ball, so that they can score runs. When fielding they learn how to work together to keep the batters' scores down.

When fielding they try to prevent runs or points being scored. They also gain an understanding of basic crickets' rules and decision making.

They will continue to learn positions for Cricket and begin to learn more complex rules.

### **Net/Wall Games**

In this unit children learn how to hit a shuttle cock or ball over a net to score points. They learn basic strokes and serves. They will begin to understand basic rules and tackles to outwit an opponent.

### **Swimming Activities and Water-Safety**

The children have one swimming session per week during summer term. In this unit children focus on swimming more fluently, improving their swimming strokes and personal survival techniques. In all swimming activities, children have to keep afloat and propel themselves through water.

Learning to swim enables them to take part in a range of water-based activities.

### **Athletics**

In this unit children continue developing good basic running, jumping and throwing techniques. They are set challenges for distance and time that involve different styles and combinations of running, jumping and throwing. This unit also prepares them for Sports Day.

### **Dance**

In Dance girls continue to develop their musicality and performance in class as well as being able to expand their vocabulary knowledge. Throughout this year girls look at dynamics in Dance, both through the music and through their own body movements in class. We also study partner work in lessons, girls are taught basic balances and lifts that they are then able to incorporate into their own choreography.

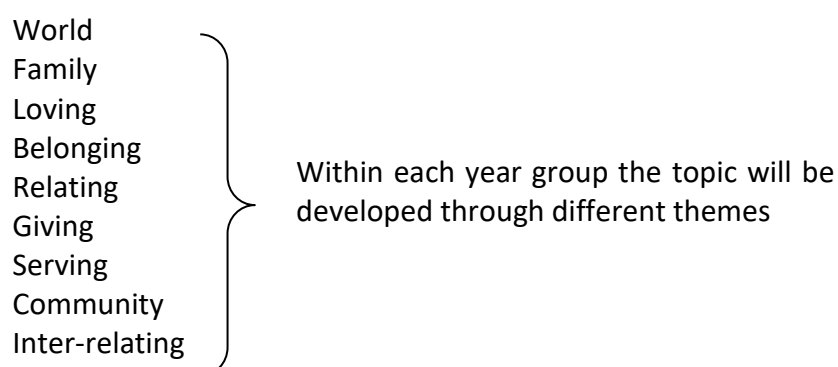
### **Subject: Religious Education**

#### **‘Come and See’**

‘Come and See’ is the Catholic Primary Religious Education programme through which we teach RE in the Preparatory School.

Through the process of Explore, Reveal and Respond, themes and topics are studied throughout the year.

All year groups will explore topics of:



Each topic will be spread over four weeks:

- Week 1:** Topic is introduced and life experiences are explored and reflected upon
- Week 2 & 3:** Knowledge and understanding of the Catholic / Christian faith is revealed through Scripture, Tradition, Rites, Prayers and Christian living.
- Week 4:** Learning is remembered, celebrated and responded to in daily life.

Throughout the year, the topics of Judaism, Hinduism, Islam and Sikhism will be on a rolling program. The students will learn about the customs, beliefs and holy books of other World Religions.

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THEMES & TOPICS	EARLY YEARS 1 & 2	YEAR 1 & FS 1	YEAR 2 & FS 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
<b>Domestic church family</b>	<b>Myself</b> God knows and loves each one	<b>Families</b> God's love and care for every family	<b>Beginnings</b> God at every beginning	<b>Homes</b> God's dream for every family	<b>People</b> The family of God in Scripture	<b>Ourselves</b> Created in the image of God	<b>Loving</b> God who never stops loving
<b>Baptism/ Confirmation belonging</b>	<b>Welcome</b> Baptism; a welcome to God's family	<b>Belonging</b> Baptism an invitation to belong to God's family	<b>Signs &amp; Symbols</b> Signs & symbols in Baptism	<b>Promises</b> Promises made at Baptism	<b>Called</b> Confirmation: a call to witness	<b>Life choices</b> Marriage commitment and service	<b>Vocation &amp; Commitment</b> The vocation of priesthood and Religious life
<b>Advent/ Christmas loving</b>	<b>Birthday</b> Looking forward to Jesus' birthday	<b>Waiting</b> Advent, a time to look forward to Christmas	<b>Preparations</b> Advent; preparing to celebrate Christmas	<b>Visitors</b> Advent: waiting for the coming of Jesus	<b>Gift</b> God's gift of love & friendship in Jesus	<b>Hope</b> Advent; waiting in joyful hope for Jesus; the promised one	<b>Expectations</b> Jesus born to show God to the world
<b>Local church community</b>	<b>Celebrating</b> People celebrate in Church	<b>Special people</b> People in the parish family	<b>Books</b> The books used in Church	<b>Journeys</b> Christian family's journey with Jesus	<b>Community</b> Life in the local Christian community ministries in the parish	<b>Mission</b> Continuing Jesus' mission in diocese (ecumenism)	<b>Sources</b> The Bible, the special book for the Church
<b>Eucharist relating</b>	<b>Gathering</b> The parish family gathers to celebrate Eucharist	<b>Meals</b> Mass; Jesus' special meal	<b>Thanksgiving</b> Mass; a special time for saying thank you to God for everything, especially Jesus	<b>Listening &amp; Sharing</b> Jesus gives himself to us in a special way	<b>Giving &amp; Receiving</b> Living in communion	<b>Memorial Sacrifice</b> The Eucharist the living memorial of Jesus' sacrifice	<b>Unity</b> Eucharist enables people to live in communion.
<b>Lent / Easter giving</b>	<b>Growing</b> Looking forward to Easter	<b>Change</b> Lent a time for change	<b>Opportunities</b> Lent; an opportunity to start anew in order to celebrate Jesus' new life	<b>Giving all</b> Lent a time to remember Jesus' total giving	<b>Self-discipline</b> Celebrating growth to new life	<b>Sacrifice</b> Lent a time of aligning with the sacrifice already made by Jesus	<b>Death &amp; New Life</b> Celebrating Jesus' death & resurrection
<b>Pentecost serving</b>	<b>Good news</b> Passing on the good news of Jesus	<b>Holidays &amp; Holy days;</b> Pentecost: Feast of the Holy Spirit	<b>Spread the Word</b> Pentecost a time to spread the Good News	<b>Energy</b> Gifts of the Holy Spirit	<b>New life</b> To hear & live the Easter message	<b>Transformation</b> Celebration of the Spirit's transforming power	<b>Witnesses</b> The Holy Spirit enables people to become witnesses
<b>Universal Church world</b>	<b>Our World</b> God's wonderful world	<b>Neighbours</b> Neighbours share God's world	<b>Treasure</b> God's treasure; the world	<b>Special Place</b> Holy places for Jesus	<b>God's People</b> Different saints show people what God is like	<b>Stewardship</b> The Church is called to the stewardship of Creation	<b>Common Good</b> Work of the worldwide Christian family
<b>Reconciliation inter-relating</b>	<b>Friends</b> Friends of Jesus	<b>Being Sorry</b> God help us to choose well Sacrament of Reconciliation	<b>Rules</b> Reason for rules in the Christian family. Sacrament of Reconciliation	<b>Choices</b> The Importance of examination of conscience. Sacrament of Reconciliation	<b>Building bridges</b> Admitting wrong, being reconciled with God and each other. Sacrament of Reconciliation	<b>Freedom &amp; Responsibility</b> Commandments enable Christians to be free & responsible	<b>Healing</b> Sacrament of the Sick



**Subject: Science**

### **Working Scientifically**

Girls' work in Year 4 develops and extends their grasp of scientific skills and methods introduced in Year 3. The girls will continue to ask their own scientific questions, and they will become increasingly independent in thinking of effective ways to answer them. Children will learn more about devising and carrying out fair tests, and about recording and analysing their data. They will learn how to look for patterns in data, including changes, similarities and differences, and with support they will learn how to explain these clearly, drawing appropriate conclusions (including considering ways of improving investigations, identifying new questions to be answered, and devising new tests to find the answers). Children will become more independent and confident using secondary sources for research, including using simple keys, and they will begin to distinguish between times when secondary sources provide the best way of finding answers, and times when first-hand observations and tests are more appropriate. Children will also become more confident and proficient in communicating their results to others, through oral presentations as well as written reports, charts, graphs, etc. The use of ICT as a method for presenting, processing and recording data will increase in complexity and girls will use dataloggers and learn more about handling continuous data and spotting patterns.

### **Michaelmas Term**

#### **Animals, including humans – Teeth**

Children will continue the work done in Year 2 and 3 on the importance of nutrition for animals' health, by looking at the different food groups and finding out about the contribution that each group makes. They will learn to describe the simple functions of the basic parts of the digestive system in humans and will have opportunities to compare and contrast the needs of different animals (including humans). This work will be extended later in Key Stage 2. The girls will focus in particular on teeth, and will learn about the roles and functions of the different types of teeth, making observations to compare the teeth of herbivores, carnivores and omnivores and discussing possible reasons for the differences. They will explore the real world of the Dentist to enhance further their understanding of this theme.

#### **States of Matter**

Children will learn how to group materials according to whether they are solids, liquids or gases. They will work scientifically when they do simple experiments with water to show its different properties in solid, liquid and gaseous form. They will also look at how different materials change when heated or cooled (i.e. chocolate and butter). They will learn about the role of evaporation and condensation in the water cycle, and will do simple experiments to identify the effect of temperature on the rate of evaporation. Girls will explore the separation of simple materials, and through encounters with Luigi the chef, they will explore the world of cookery and the property of materials in a context.

### **Lent Term**

#### **Sound**

Girls will learn about how sounds are made, and through simple tests and experiments (including with musical instruments) they will notice the link between vibration and sound. They will conduct tests to explore how different factors can change pitch and volume. The girls will carry out a detailed investigation on soundproofing and will examine the role of dataloggers in accurate measurements. They will make their own instruments and use their existing knowledge of musical instruments to enhance their investigations.

#### **Electricity**

The girls will learn to make a simple electrical circuit using different components, including bulbs, buzzers, motors and switches. They will record their circuits pictorially and symbolically and use a form of directed self-discovery to solve problems. Children will conduct observations to work out the effects of adding a switch to a circuit, and will find out how to arrange a circuit in order for a bulb to light. They will learn about conductors and insulators, and in particular that metals tend to be good conductors. They will do some simple tests to show whether different materials can fill a gap in an electrical circuit. Girls will learn to troubleshoot their own electrical circuits and will face challenges to solve problems using components. All girls will master these aspects and, where their ability allows, they will move further to discover electronic circuitry and parallel circuits.

### **Trinity Term**

#### **Habitats and Micro-habitats in the Thornton Environment**

Children will continue to observe and identify plants and animals in the Thornton environment, and will learn how to classify animals into vertebrates and invertebrates using classification keys. They will also learn to group plants into different categories, such as flowering and non-flowering plants. As part of their study of the local environment, children will learn about how animal and plant habitats are affected by changes in the environment (both human and natural) throughout the year. Girls will construct and interpret a variety of food chains, identifying producers, predators and prey. They will use an increasingly accurate set of methods for studying in the field and will learn to compare and contrast conditions and species, making links between conditions and the animals/plants that are found. In this unit, the Thornton grounds and innovative use of ICT, including digital microscopy, will support girls' understanding.

#### **Science Learning Outside the Box (LOB)**

Where possible children will carry out *cross curricular activities* in order to develop further their exploratory and personal learning skills and assess the development of their scientific skills alongside. These tasks, set in familiar contexts, help to develop children's higher order thinking skills.

#### **Learning outside the classroom (LOC)**

Learning outside the classroom is a vital part of education for students in the 21st century. It is our belief that we should utilise the school and its environment as much as possible. Students are encouraged to explore and utilise the outdoor environment as much as possible as a stimulus for their science learning.