



THORNTON

**CURRICULUM
INFORMATION
2023 / 2024**

YEAR 5

Curriculum Information for Parents: Year 5 2023/2024

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

Louise Shaw
Head of Thornton College

Curriculum Information

Year 5

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Subject: Art, Craft & Design

Aims and Purposes of Art, Craft and Design

Art, Craft and Design offers opportunities to:

- stimulate children's creativity and imagination by providing visual, tactile and sensory experiences and a unique way of understanding and responding to the world;
- develop children's understanding of colour, form, texture, pattern and their ability to use materials and processes to communicate ideas, feelings and meanings;
- explore with children, ideas and meaning in the work of artists, craftspeople and designers, and help them learn about their different roles and about the functions of Art Craft and Design in their own lives and in different times and cultures;
- help children to learn how to make thoughtful judgements and aesthetic and practical decisions and become actively involved in shaping environments.

Content of Art, Craft and Design at Key Stage 2

Key Stage 2

During Key Stage 2, Art, Craft and Design is about developing children's creativity and imagination by building on their knowledge, skills and understanding of materials and processes through providing more complex activities. Children's experiences help them to develop their understanding of the diverse roles and functions of Art and Design in the locality and in the wider world.

Children:

- improve their control of materials, tools and techniques and become more confident in using visual and tactile elements, materials and processes to communicate what they see, feel and think;
- increase their critical awareness of the roles and purposes of art in different times and cultures by commenting on works and asking questions like: 'What is this work about?' 'Why was it made – for what purpose?' 'What visual and tactile elements are used?' 'How are they combined and organised?' 'What materials and processes were used to make it?' 'When and where was it made?' 'What do I think and feel about it?'

Language and Communication

- exploring ideas about the starting points for their work;
- asking and answering questions about source materials and how these help them to develop their ideas, including recording ideas and annotating work in their sketchbooks;
- finding out about Art, Craft and Design and its context in the wider world through discussion and extracting information from sources such as reference books and the internet;
- discussing and comparing their own and others' work and explaining their own views.

Values and Attitudes

Children have opportunities in Art, Craft and Design to:

- consider their own attitudes and values in relation to images and artefacts and learn to challenge assumptions, stereotypes and prejudice in visual and other forms;
- develop respect for their own and others' work and learn how to offer and receive constructive feedback and praise;
- work with others, listening to and respecting each other's ideas and learning to value different strengths and interests within the group;
- develop a respect for the materials and resources that they use in their work and learn to evaluate critically their own and others' use of these;
- value the natural and man-made environment, including the distinctiveness of the locality, and learn to evaluate critically the role and function of art and design within it.

Helping Children Improve their Drawing

Children will be encouraged to practise their drawing skills on a regular basis. They should develop the willingness to make working drawings and to accept that it is good practice to rework drawing (without the need for an eraser) as they observe with increasing accuracy and develop their understanding.

Children will be challenged to draw:

- from observation, imagination and experience using their sketchbooks where appropriate;
- at different scales and on different surfaces;
- in two and three dimensions using different media, for example; wire wool and clay, as well as traditional media;
- for different purposes, for example; to explore ideas, to explain ideas to themselves and others, to record information about what has been observed.

Creative Process:

Children will be encouraged to proactively progress the creative process from initial ideas through to final outcomes by:

- working out ideas, plans and designs;
- developing ideas for their work;
- looking back at and reflecting on their work, reviewing and identifying their progress;
- ongoing recording of their learning and achievement, which they can use to further develop their ideas, skills and understanding.

Children will develop a range of approaches to using their portfolios.

These might include using their portfolios:

- to keep a visual record of their observations made from a range of first-hand sources, such as interesting objects, plant forms, buildings and people. Children should develop and practise the skills of drawing from observation on a regular basis, so that they can increase and sustain their concentration;
- to record a personal response to their experiences and their environmental way of communicating ideas, feelings and interests;
- to analyse the methods and techniques used by different artists, craftspeople and designers;
- for visual and annotated notes about line, tone, colour, pattern and so on, for reference for their own creative work;
- for visual and other notes, including personal comments about artists, craftspeople and designers and about particular works that interest them that they study in school and on visits to museums, galleries and exhibitions.

Subject: Computer Science

Computing in Years 5 and 6 is in discrete lessons. We follow a scheme of work that runs from Year 1 to Year 6 to ensure there is continuity and progression in each academic year.

Aims:

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 s concerns the internet.
- E-Safety – using technologies safely, respectfully and responsibly and becoming discerning in evaluating digital content.

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

Course Content:

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; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration,
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content,
- 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,
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

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Delivery and Assessment:

- Carried out primarily through Firefly (the School's Learning Platform) and One Drive to support remote access.
- Formative assessment during lessons through observation of progression tasks uploaded to Firefly and marked with a percentage of Success Criteria achieved. Each criterion is worth 3 marks, 1 = not achieved, 2 = almost, 3 = achieved. Student is able to see their mark for each objective and their total percentage.

Summative assessment through Firefly tasks and Unit Tests.

Subject: Design & Technology

16-week Course

Aims:

We wish to encourage children to:

- Identify, investigate and outline design possibilities
- Design and make prototypes that are fit for purpose
- Analyse and evaluate
- Demonstrate and apply knowledge and understanding of relevant specialist techniques and processes

Course Content

- Safe working practice - the design of a graphical safety wall sign.
- The design and manufacture of a pocket-mirror or padded shape from felt with appliqué/embellished decoration – involving surface design and use of hand sewing techniques/embroidery stitches.
- The design and manufacture of a key ring or magnet from plywood- involving hand sawing and surface decoration.

To include:

- Study of a Brief.
- Investigation.
- Creative designing from a source.
- Making of templates.
- Properties of materials.
- Step by step flow diagram.
- Designing a title page using ICT

The following processes and relevant tools:

- Marking out, pinning.
- Shaping and forming by cutting.
- Neatening.
- Obtaining a good surface finish.
- Joining methods – bonding, stitching.
- Components – Polymer mirror board, buttons, magnet, split-ring
- Illustration and writing up of processes used.
- Testing and Evaluation of product.

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Greeting's card – the design and manufacture of a card for an occasion, using lightweight multimedia materials. (Occasions may include – Harvest, Christmas, Easter, Valentines' Day, Mothers'/Fathers' Day.)

Masks – using a card base and multimedia applied decoration.

General design exercises:

- School Uniform/fashion outfits.
- Wrapping paper design using Repeat Patterns.
- Gift box – using nets.

Projects may vary from year to year depending on student ability and group sizes.

Alternative project titles include:

- Glove puppets
- Mobiles
- Paper sculpture–figures
- Fabric beads/jewellery
- Decorated magnets
- Weaving
- Woven decorated bracelet

Assessment

Assessment is carried out at the end of each half term and reports are written twice yearly. Grades are given for Participation, Attainment, Progress and Organisation at the end of each half-term period.

Subject: French

Michaelmas Term

Getting To Know You

This half term, your daughter will apply previous skills and knowledge of topic areas such as spellings and jobs and she will have a chance to recap her prior knowledge. She will learn to express her emotions and to talk about the future, using two different tenses. An old favourite story provides a fun background for some of the grammar work, whereas career ambitions help with the rest.

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

- demonstrate their prior learning from previous units.
- say a simple future sentence.
- give an intention for the immediate future.
- use body language or gestures to help understand.
- say how they are feeling.
- follow a simple story and recognise key vocabulary.
- present information about themselves with support.

All About Ourselves

This half term, your daughter will apply previous knowledge of topic areas such as clothes and the body, developing her vocabulary at the same time. She will learn to describe her own appearance and will be introduced to some key grammatical features of French, such as the position of adjectives. She will have the opportunity to talk about her emotions and health, increasing her conversational skills.

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

- name some parts of the body.
- respond appropriately when asked a simple question.
- give a simple description of their eyes and hair.
- place the adjective correctly in a simple sentence.
- use a small number of everyday verbs in simple dialogues.
- make simple statements in the third person.
- match emotion/health words in their pictures.

Lent Term

That's Tasty

In this half term, your daughter will learn key vocabulary related to food and drink. She will learn specific vocabulary of how to say what drinks she likes, what she likes to eat for breakfast, fillings for sandwiches, toppings for pizzas, what snacks she likes and also the opening and closing times of shops. 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 a modelled sentence.
- take part in a role play using the key phrases studied

Family and Friends

In this half term, your daughter will apply previous skills and knowledge of topic areas such as animals, homes and family to extend her conversation abilities. She will expand her vocabulary and consolidate her understanding of descriptive language, including subjective descriptions. She will learn how French adjectives must 'agree' with the noun they describe, in relation to both number and gender. She will find out more about possessive adjectives and be able to explain a family network in detail.

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

- join in traditional songs and rhymes
- recognise rhyming sounds
- use first person possessive adjectives confidently and recognise that third person is different
- introduce family members
- say what sort of home they live in and name items inside
- give a simple opinion about a named animal or object
- construct a simple sentence about a variety of topics

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Trinity Term

School Life

This half term, we will teach your daughter key vocabulary related to objects, subjects and prepositional language. There is a Maths lesson which will teach your daughter the names of 2D shapes. In the last two lessons of the half term, your daughter will learn questions and answers which she would use at school. 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 topic vocabulary.
- answer questions in writing using the topic vocabulary.
- take part in a conversation with a partner and show it to an audience.

Time Travelling

This half term, your daughter will apply previous skills and knowledge of topic areas such as numbers and dates, extending this to talk about key events in French history. She will be introduced to one of the common past tenses in the French language, learn to give dates of birth/death for famous French people and begin to use grammatical terms such as conjugation, the auxiliary and the infinitive verb. She will improve her inter-cultural understanding in a cross-curricular way.

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

- recognise number words in spoken sentences.
- say numbers larger than 100.
- match the subject and verb for high-frequency verbs.
- recognise when someone is saying a date.

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 a compulsory homework from Year 5 onwards but is further incentivised by the opportunity to earn house points and be awarded certificates on a half-termly basis.

Subject: Geography

Through the study of Geography in Upper Key Stage Two, children will develop an increasingly detailed understanding of the world around them. The girls will investigate elements of their immediate environment whilst also exploring the wider world. Children will expand their awareness of Physical Geography, including locational Geography, whilst also exploring Geography from human and economic perspectives.

The Year 5 and 6 Geography Curriculum at Thornton College aims to meet the requirements of the National Curriculum. The girls will have started to work towards the National Curriculum objectives in Years 3 and 4 during Creative Curriculum and they will continue to explore, embed and consolidate understanding in Years 5 and 6 during discrete Geography lessons. Thus, the girls will continue to develop:

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.
 - Human Geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water.

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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.

In Year 5, children will have discrete History and Geography lessons. They will rotate between History and Geography topics each half term. During a Geography half-term, the girls will have one 80 minute lesson each week. However, cross-curricula links will be made where possible. They will begin to use globes, atlases and maps with increasing independence and there will be opportunities to use, explore and present ideas using computer technology. Children will begin to research concepts with increasing independence and will begin to make connections and links between areas of study.

The Year 5 Geography Curriculum primarily focuses on the study of Physical Geography. Across the year, the girls will explore:

Michaelmas 1: The water cycle, coasts and rivers

Lent 1: Mountains, volcanoes, earthquakes and Tsunamis

Trinity 1: Climate Zones and Biomes.

Subject: History

Through the study of History in Upper Key Stage Two, children will continue to deepen their understanding of past events, societies and movements. The girls will investigate the social, cultural, economic and political histories of both ancient civilisations and modern societies whilst building an understanding of chronology. They will also begin to explore the significance of historical events, analyse, interpret and assess primary and secondary material and pose key questions.

The Year 5 and 6 History Curriculum at Thornton College aims to meet the requirements of the National Curriculum. The girls will have started to work towards the National Curriculum objectives in Years 3 and 4 during Creative Curriculum and they will continue to explore, embed and consolidate understanding in Years 5 and 6 during discrete History lessons. Thus, the girls will 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.

In Year 5, children will have discrete History and Geography lessons. They will rotate between History and Geography topics each half term. During a History half-term, the girls will have one 80 minute lesson each week. However, cross-curricula links will be made where possible. Children will begin to research concepts and historical periods with increasing independence, using both published texts and the internet to develop their understanding. Children will also be encouraged to make connections between different periods of study, to ask questions and verbalise opinions clearly.

During Year 5, the girls will explore:

Michaelmas 2: The Ancient Egyptians

Lent 2: Ancient Greece

Trinity 2: Crime and Punishment

Subject: English

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.

A Public Speaking Week will be held annually whereby each pupil will be required to present to their class: a show and tell, a poem of their choosing and a reading from a book of their choosing.

Reading

Children in upper Key Stage 2 are encouraged to read a range of genres throughout their reading regime. Fluency and comprehension – both verbal and written – are the key focuses when developing the girls' reading. At this stage, the children will be encouraged to be more analytical about what they read, thinking about the writer's choices and evaluating them. Cracking Comprehension is used as a tool for teaching this.

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

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

Word reading attainment targets

- apply their growing knowledge of root words, prefixes and suffixes (morphology and etymology) both to read aloud and to understand the meaning of new words that they meet.

Comprehension attainment targets

Maintain positive attitudes to reading and understanding of what they read by:

- continuing to read and discuss an increasingly 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
- increasing their familiarity with a wide range of books, including myths, legends and traditional stories, modern fiction, fiction from our literary heritage, and books from other cultures and traditions

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- recommending books that they have read to their peers, giving reasons for their choices
- identifying and discussing themes and conventions in and across a wide range of writing
- making comparisons within and across books
- learning a wider range of poetry by heart
- preparing poems and plays to read aloud and to perform, showing understanding through intonation, tone and volume so that the meaning is clear to an audience
- understand what they read by:
 - checking that the book makes sense to them, discussing their understanding and exploring the meaning of words in context
 - asking questions to improve their understanding
 - 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
 - summarising the main ideas drawn from more than one paragraph, identifying key details that support the main ideas
 - identifying how language, structure and presentation contribute to meaning
 - discuss and evaluate how authors use language, including figurative language, considering the impact on the reader
 - distinguish between statements of fact and opinion
 - retrieve, record and present information from non-fiction
 - participate in discussions about books that are read to them and those they can read for themselves, building on their own and others' ideas and challenging views courteously
 - explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary
- provide reasoned justifications for their views

Writing

Year 5 is marked by growing confidence, control and fluency in writing fiction, non-fiction and poetry. Teachers emphasise the purpose and audience for all forms of writing. They encourage children to be experimental and adventurous and, wherever possible, give them choice and control over their writing. A greater focus on complexity of sentence structures and interesting vocabulary encourages the girls to add sophistication to their writing, making choices about audience and purpose.

Writing attainment targets

Plan their writing by:

- identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own
- noting and developing initial ideas, drawing on reading and research where necessary
- in writing narratives, considering how authors have developed characters and settings in what students have read, listened to or seen performed
- draft and write by:
 - selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning
 - in narratives, describing settings, characters and atmosphere and integrating dialogue to convey character and advance the action
- précising longer passages
- using a wide range of devices to build cohesion within and across paragraphs
- using further organisational and presentational devices to structure text and to guide the reader [for example, headings, bullet points, underlining]
- evaluate and edit by:
 - assessing the effectiveness of their own and others' writing
 - proposing changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning
 - ensuring the consistent and correct use of tense throughout a piece of writing
 - ensuring correct subject and verb agreement when using singular and plural, distinguishing between the language of speech and writing and choosing the appropriate register
- proof-read for spelling and punctuation errors
- perform their own compositions, using appropriate intonation, volume, and movement so that meaning is clear.

Spelling, Punctuation and Grammar

There is a focus on spelling, punctuation and grammar in Year 5 in order to develop writing skills across the curriculum. The children are taught an increasing range of spelling rules, exceptions to those rules and how to apply prefix and suffix knowledge to unfamiliar words. The girls are encouraged to apply the foundations of previous punctuation rules and begin using more complex punctuation such as dashes, brackets and commas for parenthesis and colons to introduce lists. A more in depth understanding of grammar and how sentence structure can be manipulated will help the girls to improve their editing skills and make informed decisions about the sentence choices they make.

Spelling attainment targets

- use further prefixes and suffixes and understand the guidance for adding them
- spell some words with 'silent' letters [for example, knight, psalm, solemn]
- continue to distinguish between homophones and other words which are often confused
- use knowledge of morphology and etymology in spelling and understand that the spelling of some words needs to be learnt specifically.
- use dictionaries to check the spelling and meaning of words
- use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary
- use a thesaurus.

Punctuation and grammar attainment targets

- recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms
- using passive verbs to affect the presentation of information in a sentence
- using the perfect form of verbs to mark relationships of time and cause
- using expanded noun phrases to convey complicated information concisely
- using modal verbs or adverbs to indicate degrees of possibility
- using relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun
- learning the grammar for Years 5 and 6
- indicate grammatical and other features by:
 - using commas to clarify meaning or avoid ambiguity in writing
 - using hyphens to avoid ambiguity
 - using brackets, dashes or commas to indicate parenthesis
 - using semi-colons, colons or dashes to mark boundaries between independent clauses
 - using a colon to introduce a list
- punctuating bullet points consistently

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Year 5:	
Word	Converting nouns or adjectives into verbs using suffixes [for example, <i>-ate</i> ; <i>-ise</i> ; <i>-ify</i>] Verb prefixes [for example, <i>dis-</i> , <i>de-</i> , <i>mis-</i> , <i>over-</i> and <i>re-</i>]
Sentence	Relative clauses beginning with <i>who</i> , <i>which</i> , <i>where</i> , <i>when</i> , <i>whose</i> , <i>that</i> , or an omitted relative pronoun Indicating degrees of possibility using adverbs [for example, <i>perhaps</i> , <i>surely</i>] or modal verbs [for example, <i>might</i> , <i>should</i> , <i>will</i> , <i>must</i>]
Text	Devices to build cohesion within a paragraph [for example, <i>then</i> , <i>after that</i> , <i>this</i> , <i>firstly</i>] Linking ideas across paragraphs using adverbials of time [for example, <i>later</i>], place [for example, <i>nearby</i>] and number [for example, <i>secondly</i>] or tense choices [for example, he <i>had</i> seen her before]
Punctuation	Brackets, dashes or commas to indicate parenthesis Use of commas to clarify meaning or avoid ambiguity
Terminology for students	modal verb, relative pronoun relative clause parenthesis, bracket, dash cohesion, ambiguity

Handwriting

Children use joined handwriting for all writing, including drafting. They concentrate on increasing handwriting speed and continue to *develop increasing speed* and accuracy in typing. Teachers demonstrate and expect accurate spelling and punctuation, combined with legibility, modelling these three technical aspects of writing as a major aid to meaning, as well as a courtesy to the reader.

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 5:

Number – Number and Place Value

Students are taught to:

- read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
- count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
- interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
- round any number up to 1 000 000 to the nearest 10, 100, 1 000, 10 000 and 100 000
- solve number problems and practical problems that involve all of the above
- read Roman numerals to 1000 (M) and recognise years written in Roman numerals

Number – Addition and Subtraction

Students are taught to:

- add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)
- add and subtract numbers mentally with increasingly large numbers
- use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
- solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

Number – Multiplication and Division

Students are taught to:

- identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers

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- know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers
- establish whether a number up to 100 is prime and recall prime numbers up to 19
- multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
- multiply and divide numbers mentally drawing upon known facts
- divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context
- multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
- recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)
- solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes
- solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
- solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

Number – Fractions (including decimals and percentages)

Students are taught to:

- compare and order fractions whose denominators are all multiples of the same number
- identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
- recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$]
- add and subtract fractions with the same denominator and denominators that are multiples of the same number
- multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$]

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- recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- round decimals with two decimal places to the nearest whole number and to one decimal place
- read, write, order and compare numbers with up to three decimal places
- solve problems involving number up to three decimal places
- recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal
- solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.

Measurement

Students are taught to:

- convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)
- understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints
- measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
- calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes
- estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water]
- solve problems involving converting between units of time
- use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.

Geometry – Properties of Shapes

Students are taught to:

- identify 3-D shapes, including cubes and other cuboids, from 2-D representations

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- know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
- draw given angles, and measure them in degrees ($^{\circ}$)
- identify:
 - angles at a point and one whole turn (total 360°)
 - angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°)
 - other multiples of 90°
- use the properties of rectangles to deduce related facts and find missing lengths and angles
- distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

Geometry – Position and Direction

Students are taught to:

- identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.

Statistics

Students are taught to:

- solve comparison, sum and difference problems using information presented in a line graph
- complete, read and interpret information in tables, including timetables.

Subject: Music

All girls develop their knowledge and skills in Music by taking part in activities based around:

- Performance
- Exploring music and Composition
- Listening, Reflecting and Appraising

Key skills will also be explored in the weekly singing lesson where students will learn how to use their voices effectively in a choral context.

Students will develop the following skills:

- Sing confidently in a wide variety of styles with expression
- Communicate the meaning and mood of the song
- Sing a simple second part of a two or three part song with confidence
- Maintain own part in a round
- Begin to read music notation to learn songs
- Perform a song from memory with attention to phrasing, dynamics and accuracy of pitch, for a special occasion

Michaelmas Term

Exploring Music and composing

Studying Overture by Grazya Bacewick, students will be introduced to music with hidden meaning. They will compose their own compositions based on the listening work. Students will:

- Study how texture is created by layering rhythmic and/or melodic ostinatos.
- Develop ideas, using musical devices such as repetition, question and answer, ostinato.
- Improvise in a variety of styles
- Create own simple songs reflecting the hidden meaning, using morse code.
- Arrange a song for class performance with an appropriate pitched and unpitched accompaniment.
- Refine own compositions after evaluation.
- Perform own compositions to an audience.
- Use musical vocabulary and knowledge to help identify areas for development or refinement when composing.
- Use a range of symbols (traditional notation and/or graphic) to record compositions.

Lent Term

Class Performance and Composition

Studying Kerry Andrew's No Place Like, students will be introduced to soundscapes. They will perform parts of the music together as a class and compose their own version. Students will:

- Perform on a range of instruments in mixed groups to an audience, with confidence
- Read and play with confidence from traditional notation
- Continue to play by ear on pitched instruments, extending the length of phrases, melodies played.
- Perform with sensitivity to different dynamics, tempi
- Lead/conduct a group of instrumental performers
- Maintain own part on a pitched instrument in a small ensemble
- Identify and discuss 'what happens when' within simple musical structures
- Recognise and identify features of expression (phrasing, melody, harmony, different dynamics, metre and tempi) in an extract of live or recorded music

Trinity Term

Travel Diary – Further Listening, Performing and Composing

Students will look at music from around the world learning key features and skills from Indian, African and South American Music. Students will:

- Explore characteristics of various styles, for example, Brazilian rhythms, Indonesian Gamelan, African drumming, Irish folk music, Chinese pentatonic scales, etc.
- Improvise in a variety of styles
- Distinguish differences in timbre and texture between a wide variety of instruments and instrumentation
- Compare two pieces of instrumental music from different countries and discuss the similarities and differences
- Use musical vocabulary and knowledge to talk about and discuss music from a variety of sources, traditions and cultures, including performances of their own and others' compositions
- Use musical vocabulary and knowledge to help identify areas for development or refinement when composing.

Subject: PSHEE

Personal, Social, Health and Economic (PSHE) Education helps students 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 students.

The PSHE provision at Thornton College Prep School is a 'spiral curriculum' meaning that specific learning builds for students 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 students 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: positive and negative factors on health and wellbeing, informed choices, balanced diet
- Growing & Changing: setting goals, aspirations, intensity of feelings, coping with bereavement and grief
- Keeping Safe: personal safety in the local environment, online safety, sharing images, mobile phone safety

Relationships

- Feelings & Emotions: responding to feelings in others
- Healthy Relationships: actions and consequences, working collaboratively, negotiation and compromise
- Valuing Difference: listening to others, raising concerns and challenge

Living in the Wider World

- Rights & Responsibilities: rules and laws, anti-social behaviour, respecting and resolving difference
- Environment: Different rights, responsibilities and duties
- Money: finance, looking after money, interest, loan, tax

Subject: Physical Education

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

- Games: Hockey, Netball and Cricket
- Swimming and water safety
- Athletics
- Dance

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

Swimming

In this unit children develop stroke technique with particular focus on front crawl and backstroke. This is combined with contrasting 'fun' activities.

Games

Invasion Games

In this unit children develop skilful attacking and team play. They learn how to work well as a team when attacking and explore a range of ways to defend. They will also continue to learn rules and positions in both Netball and Hockey. Skills will be refined through small sided games. They will continue to refine their tactical awareness in full sided games. At this stage rules are applied more strictly.

Striking and Fielding Games

In this unit children develop the range and quality of their skills and understanding. They learn how to play the different roles of bowler, wicket keeper, fielder and batter. There is a focus on effective decision making and tactical awareness.

Athletics

In this unit children continue to develop techniques for specific athletic events. They will gain an understanding of efficient techniques when running, jumping and throwing. They will also gain an understanding of rules in preparation for Sports Day.

Net/Wall Games

In this unit children learn the quality of their range of skills. They will refine tactical play and be more able to select and apply different shots. They will also learn more complex rules.

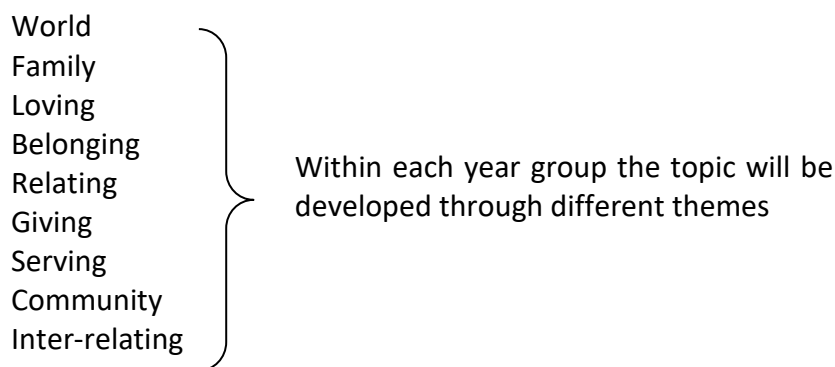
Subject: Religious Education

‘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, festivals and beliefs of other World Religions.

Curriculum Information for Parents: Year 5 2023/2024

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

Subject: Science

Working Scientifically

During Year 5, girls will use a wider range of methods to record their results and data with increasing accuracy, including labelled scientific diagrams and models, as well as tables, bar graphs and line graphs. During the year, girls will become confident with the use of ICT for handling and presenting data in continuous and categorical forms and will begin to use simulation programs and dataloggers to explore scientific questions and hypotheses. With increasing independence, they will distinguish between fact and opinion. They will continue to learn about how scientific ideas have developed over time, finding out about the work of influential scientists. Children will become more independent in designing their own enquiries and experiments and will outline the key variables when designing a fair test, considering how to effectively control them. They will also become more confident in using the results of their experiments to make predictions and suggest further research questions. They will report their findings orally and in writing, and learn how to use relevant scientific language and illustrations to communicate ideas. This continues in Year 6 as children become more independent scientific thinkers.

Michaelmas Term

Properties and changes of materials (reversible and irreversible changes)

This links with Year 3 and 4 work on magnetism and electricity and the states of matter. Children conduct tests to identify the properties of everyday materials (hardness, solubility, conductivity and magnetism) and experiment with different materials to find out about reversible changes (melting, dissolving and evaporating). They learn how to recover substances from solution, through evaporation, and explore ways of separating mixtures into solids and liquids by filtering and sieving. Children will experiment with heating, cooling, dissolving and mixing different substances to understand the concepts of reversible change and changes of state. This will enable them to draw connections to irreversible or hard to reverse changes (burning, rusting or other chemical reactions). With support, they will observe the effect of burning, or the irreversible chemical changes involved in cooking. Children will find out about scientists who helped to create new materials with advantageous properties through chemical change, and learn how these materials can be used.

Lent Term

Earth and Space

Children will learn about the solar system and the way that the Earth moves relative to the Sun, and the Moon relative to the Earth. They will create and use simple models of the solar system and use these to demonstrate why we experience day and night on Earth. They will find out about different time zones and understand why it isn't the same time all over Earth simultaneously. They will also learn about how our heliocentric (Sun-centred) model of the solar system differs from the geocentric (Earth-centred) model used in the past.

Forces

Building on their Year 3 work on forces and magnets, children learn about the effects of gravity and drag forces, such as friction and air and water resistance. They will find out how and why drag forces slow moving objects down, devising experiments to show air resistance, or look at how friction works to slow down a wheeled vehicle when a brake is applied. Children will learn how levers, pulleys, gears work, and how they transfer force and motion. They will look at the work of scientists such as Galileo and Isaac Newton.

Trinity Term

Living things and their habitats

Children will build on their Year 2 and 4 work, studying the life cycles of humans, animals (mammals, amphibians, insects and birds) and plants in greater depth (focusing on birth, growth, development, reproduction and death in animals, and growth, reproduction and death in plants). They will make observations of plant and animal reproduction by growing plants, or rearing and caring for baby animals, and will work scientifically when they make observations of animal and plant life cycles in the local environment. They will extend this by finding out about the work of naturalists and animal behaviourists, making comparisons and beginning to think about possible reasons for similarities and differences.

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.