



THORNTON

**CURRICULUM
INFORMATION
2024 / 2025**

YEAR 1

Curriculum Information for Parents: Year 1 2024/2025

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 1

Table of Contents

Subject	Page no
Computing	4
Creative Curriculum	5-7
French	8
English	9-13
Learning Development	14
Mathematics	15-16
Music	17-18
PSHEE	19
Physical Education	20
Religious Education	21
Science	22-23

Curriculum Information for Parents: Year 1 2024/2025

Subject: Computing

Computing in Years 1 and 2 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 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:

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- use technology safely, respectfully and responsibly; keeping personal information private; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Curriculum Information for Parents: Year 1 2024/2025

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 A (2024-2025):

Michaelmas Term: Weather Experts, Oceans and Seas

Lent Term: Events Beyond Living Memory:
The Great Fire of London

Trinity Term: A Local Study
Significant Individuals: Monarchs

Cycle B (2025-2026):

Michaelmas Term: Significant Individuals: Ice Explorers

Lent Term: We are Britain

Trinity Term: Changes within Living Memory

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

Curriculum Information for Parents: Year 1 2024/2025

The statements below are the National Curriculum objectives for the whole of Key Stage One. Children will begin to develop these skills and work towards these objectives:

Art and Design

- to use a range of materials creatively to design and make products
- to use drawing and painting to develop and share their ideas, experiences and imagination
- to develop a wide range of art and design techniques using colour, pattern, texture, line, shape, form and space
- to learn about the work of a range of artists, craft makers and designers, describing the differences and similarities between different practices and disciplines, and making links to their own work

Design and Technology

- Design
 - Design purposeful, functional, appealing products for themselves and other users based on design criteria
 - Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.
- Make
 - Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing)
 - Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics
- Evaluate
 - Explore and evaluate a range of existing products
 - Evaluate their ideas and products against criteria design
- Technical knowledge
 - Build structures, explore how they can be made stronger, stiffer and more stable
 - Explore the use of mechanisms (for example, levers, sliders, wheels and axels), in their products.

History

- Students should develop an awareness of the past, using common words and phrases relating to the passing of time.
- They should know where the people and events they study fit within a chronological framework and identify similarities and differences between ways of life in different periods.

Curriculum Information for Parents: Year 1 2024/2025

- They should use a wide vocabulary of everyday historical terms.
- They should ask and answer questions, choosing and using parts of stories and other sources to show that they know and understand key features of events.
- They should understand some of the ways in which we find out about the past and identify different ways in which it is represented.

Geography

Throughout Key Stage One, girls will develop:

- Locational knowledge:
 - Name and locate the world's seven continents and five oceans.
 - Name, locate and identify characteristics of the four countries and capital cities of the United Kingdom and its surrounding seas.
- Place knowledge:
 - Understand geographical similarities and differences through studying the Human and Physical Geography of a small area of the United Kingdom, and of a small area in a contrasting non-European country.
- Human and physical geography:
 - Identify seasonal and daily weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the North and South Poles.
 - Use basic geographical vocabulary to refer to key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather.
 - Use basic geographical vocabulary to refer to key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop.
- Geographical skills and fieldwork:
 - Use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied at this key stage.
 - Use simple compass directions (North, South, East and West) and locational and directional language [for example, near and far; left and right], to describe the location of features and routes on a map.
 - Use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features; devise a simple map; and use and construct basic symbols in a key.
 - Use simple fieldwork and observational skills to study the geography of their school and its grounds and the key human and physical features of its surrounding environment.

Subject: French

Michaelmas Term

Getting To Know You

This term, your daughter will learn about basics of the French language. The girls will learn to greet each other, exchange names, ask how someone is, count to 10 and say how old they are.

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

- say hello and goodbye
- introduce themselves
- say if they are feeling good/bad/so-so
- count to 10
- say how old they are

Lent Term

All About Me

This term, we will teach your daughter to understand and follow instructions, name parts of the body, identify colours and say what she is wearing.

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

- give and respond to simple classroom instructions appropriately
- name parts of the body from a song
- identify colours
- name items of clothing

Trinity Term

Food Glorious Food

This term, we will use an easy-to-follow story as its inspiration and is designed to pick up and develop your daughter's learning. By joining in with the story, your daughter will learn the vocabulary for a range of food, to express likes and dislikes, and to count and use plural nouns.

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

- follow a story and join in the repeated parts
- say what foods from a set they like / dislike
- describe the colour or size of an object
- ask politely for something

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 texts.
- 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. Their teacher may provide them with a selection of poems to choose from if they wish.

Reading

The teaching of phonics will be carried out using the Little Wandle accredited phonics scheme.

Students will use flashcards and games to consolidate the phonetic knowledge and skills in the national curriculum. The girls will then explore good quality texts to teach fundamental text type features and explore reading comprehension skills. These texts will form the baseline of their writing.

Students will be engaged in a range of reading activities using fiction, non-fiction and poetry books. The speaking and listening activities support the children's ability to understand the text. The Cracking Comprehension programme amongst other comprehension texts will be used to teach the skills of reading and comprehending efficiently, with a specific focus on answering written questions.

Students read aloud regularly to the Class Teacher/Assistant, using phonetic understanding along-side a range of cues to help them decode the text.

Students read books of their choice daily for differentiated reading.

In addition to the texts explored in class, students read regularly from the Oxford Reading Tree and Collins scheme and take reading books home on a daily basis.

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

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

Attainment targets – Word reading

- apply phonic knowledge and skills as the route to decode words
- respond speedily with the correct sound to graphemes (letters or groups of letters) for all 40+ phonemes (sounds), including, where applicable, alternative sounds for graphemes
- read accurately by blending sounds in unfamiliar words containing letters and sounds that have been taught
- read common exception words, noting unusual correspondences between spelling and sound and where these occur in the word
- read words containing taught letters and sounds and –s, –es, –ing, –ed, –er and –est endings
- read other words of more than one syllable that contain taught letters and sounds
- read words with contractions [for example, I'm, I'll, we'll], and understand that the apostrophe represents the omitted letter(s)
- read aloud accurately books that are consistent with their developing phonic knowledge and that do not require them to use other strategies to work out words
- re-read these books to build up their fluency and confidence in word reading.

Attainment targets – Comprehension

- develop pleasure in reading, motivation to read, vocabulary and understanding by:
 - listening to and discussing a wide range of poems, stories and non-fiction at a level beyond that at which they can read independently
 - being encouraged to link what they read or hear read to their own experiences
 - becoming very familiar with key stories, fairy stories and traditional tales, retelling them and considering their particular characteristics
 - recognising and joining in with predictable phrases
 - learning to appreciate rhymes and poems, and to recite some by heart
 - discussing word meanings, linking new meanings to those already known
- understand both the books they can already read accurately and fluently and those they listen to by:
 - drawing on what they already know or on background information and vocabulary provided by the teacher

Curriculum Information for Parents: Year 1 2024/2025

- checking that the text makes sense to them as they read and correcting inaccurate reading
- discussing the significance of the title and events
- making inferences on the basis of what is being said and done
- predicting what might happen on the basis of what has been read so far
- participate in discussion about what is read to them, taking turns and listening to what others say
- explain clearly their understanding of what is read to them.

Writing

Students' writing development will be nurtured through creative curriculum where they will learn English skills amongst their humanities topics. They will analyse real books to inspire their own writing.

Writing styles will include: compositional writing - creating texts based on an interesting stimulus or their own ideas; imaginative writing and writing for a specific purpose and audience (non-fiction writing).

Attainment targets

- write sentences by:
 - saying out loud what they are going to write about
 - composing a sentence orally before writing it
 - sequencing sentences to form short narratives
 - re-reading what they have written to check that it makes sense
- discuss what they have written with the teacher or other students
- read aloud their writing clearly enough to be heard by their peers and the teacher
- leaving spaces between words
- joining words and joining clauses using and
- beginning to punctuate sentences using a capital letter and a full stop, question mark or exclamation mark
- using a capital letter for names of people, places, the days of the week, and the personal pronoun 'I'

Curriculum Information for Parents: Year 1 2024/2025

Terminology:

Year 1:	
Word	Regular plural noun suffixes –s or –es [for example, <i>dog, dogs; wish, wishes</i>], including the effects of these suffixes on the meaning of the noun Suffixes that can be added to verbs where no change is needed in the spelling of root words (e.g. <i>helping, helped, helper</i>) How the prefix un– changes the meaning of verbs and adjectives [negation, for example, <i>unkind, or undoing: untie the boat</i>]
Sentence	How words can combine to make sentences Joining words and joining clauses using <i>and</i>
Text	Sequencing sentences to form short narratives
Punctuation	Separation of words with spaces Introduction to capital letters, full stops, question marks and exclamation marks to demarcate sentences Capital letters for names and for the personal pronoun I
Terminology for students	letter, capital letter word, singular, plural sentence punctuation, full stop, question mark, exclamation mark

Spelling

- Learn the letters and sounds of the alphabet
- Apply knowledge of phonemes alongside ‘Look-Say-Cover-Write-Check’ method in order to learn to spell

Attainment targets

- spell:
 - words containing each of the 40+ phonemes already taught
 - common exception words
 - the days of the week
- name the letters of the alphabet:
 - naming the letters of the alphabet in order
 - using letter names to distinguish between alternative spellings of the same sound
- add prefixes and suffixes:
 - using the spelling rule for adding –s or –es as the plural marker for nouns and the third person singular marker for verbs
 - using the prefix un–
 - using –ing, –ed, –er and –est where no change is needed in the spelling of root words [for example, *helping, helped, helper, eating, quicker, quickest*]

- apply simple spelling rules taught.
 - write from memory simple sentences dictated by the teacher that include words using the letters and sounds and common exception words taught so far.

Handwriting

- Students will learn to form their letters of a correct and neat size and once complete, will begin to join all of their letters (except capital letters).
- Daily handwriting practice will take place in order to learn how to hold a pencil correctly, and how to form letters correctly, to produce letters of a regular shape and size, to space letters and words regularly.

Attainment targets

- sit correctly at a table, holding a pencil comfortably and correctly
- begin to form lower-case letters in the correct direction, starting and finishing in the right place
- form capital letters
- form digits 0-9
- understand which letters belong to which handwriting 'families' (i.e. letters that are formed in similar ways) and to practise these.

Learning Development

The Learning Development Department offers support for individual students either on a regular or occasional basis as the need arises. The Head of Learning Development works closely with pastoral staff, subject specialists and parents to support curriculum access for all and to offer advice and guidance so all students can develop and achieve to their highest potential.

The provision for Special Educational Needs is detailed in the school's Special Educational Needs policy. Parents are welcome to contact the school SENCo, Mrs Woodruff, at any time should they have questions, concerns or suggestions.

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 1:

Number – number place and value

Students are taught to:

- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
- count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
- identify one more and one less of a given number
- identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- read and write numbers from 1 to 20 in numerals and words.

Number – addition and subtraction

Students are taught to:

- read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including zero
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as

$$7 = \square - 9.$$

Number – multiplication and division

Students are taught to:

- solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

Number – fractions

Students are taught to:

- recognise, find and name a half as one of two equal parts of an object, shape or quantity
- recognise, find and name a quarter as one of four equal parts of an object, shape or quantity

Measurement

Students are taught to:

- compare, describe and solve practical problems for:
 - lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
 - mass/weight [for example, heavy/light, heavier than, lighter than]
 - capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
 - time [for example, quicker, slower, earlier, later]
- measure and begin to record the following:
 - lengths and heights
 - mass/weight
 - capacity and volume
 - time (hours, minutes, seconds)
- recognise and know the value of different denominations of coins and notes
- sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
- recognise and use language relating to dates, including days of the week, weeks, months and years
- tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.

Geometry – properties of shapes

Students are taught to:

- recognise and name common 2-D and 3-D shapes, including:
 - 2-D shapes [for example, rectangles (including squares), circles and triangles]
 - 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].

Geometry – position and direction

Students are taught to:

- Describe position and movement
 - Including whole, half and three-quarter turns

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

Students will:

- Use and develop the singing voice through regular singing of simple songs focusing on pitch to begin with, then phrasing.
- Perform at school and outside functions (e.g. Harvest Festival, Awards, MK Festival to name a few).
- Practise control of the expressive elements: **timbre, dynamics, tempo, pitch, rhythm** through songs in different moods/accumulative songs and songs for different purposes lullabies, work songs, singing games etc.
- Listen carefully and develop their aural memory by drawing attention to sounds as they occur, including identifying some elements and instruments of the orchestra.
- Evaluate their own and others' work and improve on their own work.

Michaelmas Term

Learning to listen to music by looking at Sibelius' Finlandia. Students will:

- Explore loud and quiet sounds whilst making sounds on their body
- Create a graphic score and new pieces of music
- Moving to a pulse and music
- Playing classroom instruments

Lent Term

Developing aural skills further by listening to a new piece of music, Lark Ascending. Students will:

- Explore the difference between high and low pitch
- Lead a musical activity
- Listen to and identify sounds outside then mirroring sounds they hear
- Link an instrument to a character
- Composing short pieces of music

Curriculum Information for Parents: Year 1 2024/2025

Trinity Term

Learning to follow traditional notation and compose using instruments. Students will:

- Identify notes in C major scales
- Use aural skills to find melodies as a class, such as Twinkle Twinkle
- Learn to follow traditional notation on the whiteboard
- Rehearse rhythmic accuracy
- Compose in groups

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. If you would like any further information about the content of the curriculum, please contact Mrs Sablon.

Health & Wellbeing:

- Healthy Lifestyle: healthy bodies, hygiene
- Growing & Changing: setting goals, change and loss and how it feels
- Keeping Safe: household products, asking for help

Relationships

- Feelings & Emotions: recognising and sharing feelings
- Healthy Relationships: keeping safe, special people
- Valuing Difference: respecting similarities and difference in others, sharing views and ideas

Living in the Wider World

- Rights & Responsibilities: group rules, uniqueness and similarities in people
- Environment: Looking after the local environment
- Money: where money comes from, how to use it, saving and spending

Subject: Physical Education

Working with Miss Bates and P.E. Staff

During Preparatory School the students have a scheme of work for P.E. based on the following activities:

- Games
 - striking and fielding
 - netball skills
 - hockey skills
 - fundamental movement skills
- Athletics
- Dance

Through each element the students should learn about:

- acquiring and use of skills in a variety of settings
- selecting and applying skills, tactics and ideas into co-operative and competitive situations
- working co-operatively with others
- following rules and instructions
- developing a sense of fairplay

Games

In this unit children develop basic game-playing skills, in particular throwing and catching. They have an opportunity to play in small games.

In all games activities, children think about how to use skills, strategies and tactics to get an advantage over the opposition.

There is focus on improving hand-eye co-ordination in particular, as well as their fundamental movement skills, e.g. agility, control and balance.

Athletics

In this unit, children learn the fundamentals of running, jumping and throwing and prepare for Sports Day events.

Dance

Throughout the year, girls will develop their basic knowledge of Dance vocabulary. The children also begin to develop musicality, performance skills and the ability to dance with a partner. Girls also look at a variety of different dance styles to broaden their dance knowledge. Towards the end of the year, the girls are encouraged to work on choreographing a short phrase with a partner using steps they have learnt throughout the year.

Subject: Religious Education

For Religious Education we follow the new national 'Religious Education Directory'. It is a spiral curriculum and so the topics covered throughout the year are repeated by each year group but at greater depth as the students progress through the school. The topics covered are:

- Creation and Covenant
- Prophecy and Promise
- Galilee to Jerusalem
- Desert to Garden
- To the Ends of the Earth
- Dialogue and Encounter.

Subject: Science

Working Scientifically

Across Key Stage 1, girls will progressively develop their knowledge and experience of scientific methods and skills. The foundations for this are laid in Year 1, building on children's earlier explorations of the world around them in the Early Years Foundation Stage. Children will begin to learn how to work scientifically by applying basic methods and skills to the topics they study. The concept of working scientifically is introduced in a very natural way, as children make observations and ask questions about what they observe. They will begin to use some simple scientific equipment to help them observe closely, learn how to conduct simple tests and start to record the data gathered using simple tables and lists. They will use the results of their tests and their observations to help them work out the answers to their questions. The girls learn how to identify different members of a class of objects and how to differentiate and classify objects – skills they will go on to develop in Year 2, where there will also be a greater emphasis on recording their results and on increasingly accurate measurement.

Plants*

Children will learn the names and features of a range of common plants, including trees and flowering plants. This is done by real experience of growing plants and by frequent and continuous use of the school grounds throughout the year. Girls have the opportunity for hands-on experience and observation of plants which they are helping to grow themselves. They will become familiar with, and will compare, the different parts of plants, including trunk/stem, branches, leaves, roots, flowers, petals, seeds, bulbs and fruit. Children will practise working scientifically when they make close observations of plants, draw and label the different parts of plants, and record how plants change over time. They will build on this work when they continue their study of plants and differences between living, non-living and dead things, in Year 2.

Animals, Including Humans*

Children will practise working scientifically as they study animals in the Thornton environment, including different types of birds and mammals, and a range of other animals such as fish, amphibians and reptiles. They will also learn about pet animals. Through practical experience they will find out about how to care for animals, and they will learn the names of a wide range of animals. They will compare and contrast different types of animals, grouping them in different ways (e.g. carnivores, herbivores and omnivores). Children will learn about the main parts of the human body, and draw and label pictures of different body parts. They will focus on the senses, the body parts associated with each, and do a range of practical experiments and explorations using their senses. This work will be extended in Year 2 when they continue their study of animals and habitats.

Everyday Materials

Children will explore a range of different materials, learning the names of them and identifying the key properties of each. They will practise working scientifically when they take part in simple experiments and tests to identify and compare the properties of materials, and find out how some materials can change shape when squashed, bent, stretched etc. They will build on this work in Year 2, when they learn more about the uses of everyday materials.

Seasonal Changes*

Children will learn about the weather and how it changes with the seasons. They will make some direct observations of the changing day length throughout the year and work scientifically to observe and record seasonal changes in plants and the environment around them. They could also think about what seasonal changes mean for animals. Their work on the Sun will help support their understanding of Light which is introduced in Year 3.

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.

Science 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. Units marked * are taught throughout the year and students explore the outdoor environment as much as possible as a stimulus for their science learning.