SCIENCE

Spotlight on Curriculum

Proud to be part of

Bishop Chadwick
Catholic Education Trust

WHY SCIENCE?

Science helps us to answer our biggest questions and to meet our most basic needs: from explaining the deepest mysteries of the universe to the structure of elementary particles that form atoms. The findings of science have fundamentally shaped every aspect of our world. Science drives innovation, creating new knowledge to help us solve current and future problems. All young people are entitled to a high-quality science education, to the curiosity it engenders and the understanding and the opportunity it brings.

Research review series: Science (February 2023)

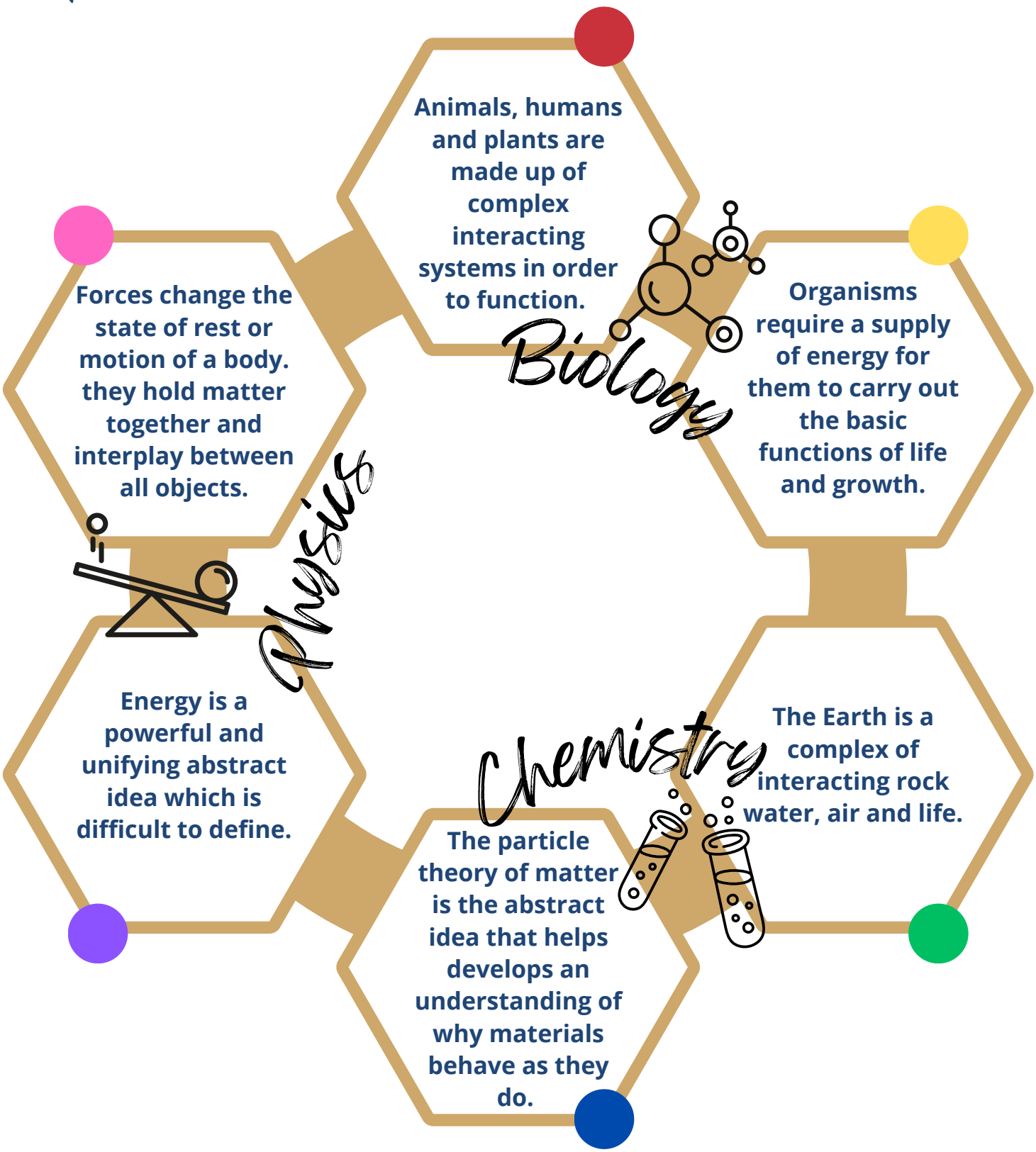
We aim for our pupils to learn:

- about the **products** of science, such as atoms and cells, and are able to explain the material world and 'develop a sense of excitement and curiosity about natural phenomena'
- about the **practices** of science, and how scientific knowledge becomes established through scientific enquiry phenomena
- about scientific uses and its significance to society and their own lives
- how science education also provides the foundation for a range of diverse and valuable careers that are crucial for economic, environmental and social development

"Introducing children to science is like unlocking a treasure chest of wonder and curiosity; celebrating past discoveries and offering a gateway to explore what lies ahead."

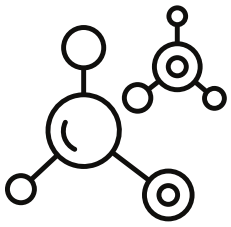
CURRICULUM DESIGN

The Science curriculum is designed to assess what children know and remember over time, and is separated into the three disciplines: Biology, Physics and Chemistry.



A THRESHOLD CURRICULUM

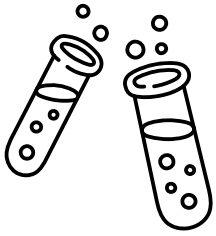
Threshold Concepts are carefully interleaved within the curriculum from EYFS to KS5 so that they are revisited and reinforced with different content and context attached to the concept over time.



Biology

- **Animals, humans, and plants are made up of complex interacting systems to function.**
- **Organisms require a supply of energy for them to carry out the basic functions of life and growth.**

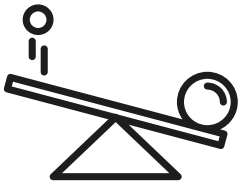
The two threshold concepts in Biology are taught across the following 3 topics: Plants, Animals & Humans and Living Things & their habitats. The concepts stem from the idea that all living organisms are made from cells. Most organisms are multicellular (contain sophisticated systems to carry out the various life processes, which require energy.) Pupils develop an idea of how plants and animals can be grouped and categorised before exploring various parts and systems in plants and humans. Pupils start by identifying a variety of common animals, describing, and comparing their structure. This then leads to them grouping common animals into carnivores, herbivores and omnivores as well as identifying the major parts of the human body. Over time, pupils will explore in more depth the major body systems in humans, this also is linked to the concept of organism requiring energy. We take the opportunity to study the human digestive, circulatory, respiratory and skeletal systems as well as the importance of nutrition, a balanced diet and the impact of lifestyle choices. It is also explored using food chains, habitats, competition, as well as in plants, whereby plant structure, transport of materials, substances required for growth and the life cycle of a flowering plant are studied. We take the opportunity to study flowers, trees and plant growth in line with the changing seasons. Organisms also require energy to reproduce; this is explored in plants and animals whereby lifecycles, sexual and asexual reproduction are studied. We teach evolution and inheritance towards the end of primary, as being more conceptually difficult, pupils can use the knowledge they have gained over time to help build on the idea that plants and animals are classified which links to evolution.



Chemistry

- **The Earth is a complex of interacting rock, water, air and life.**
- **The particle theory of matter is the abstract idea that helps us to develop an understanding of why materials behave as they do.**

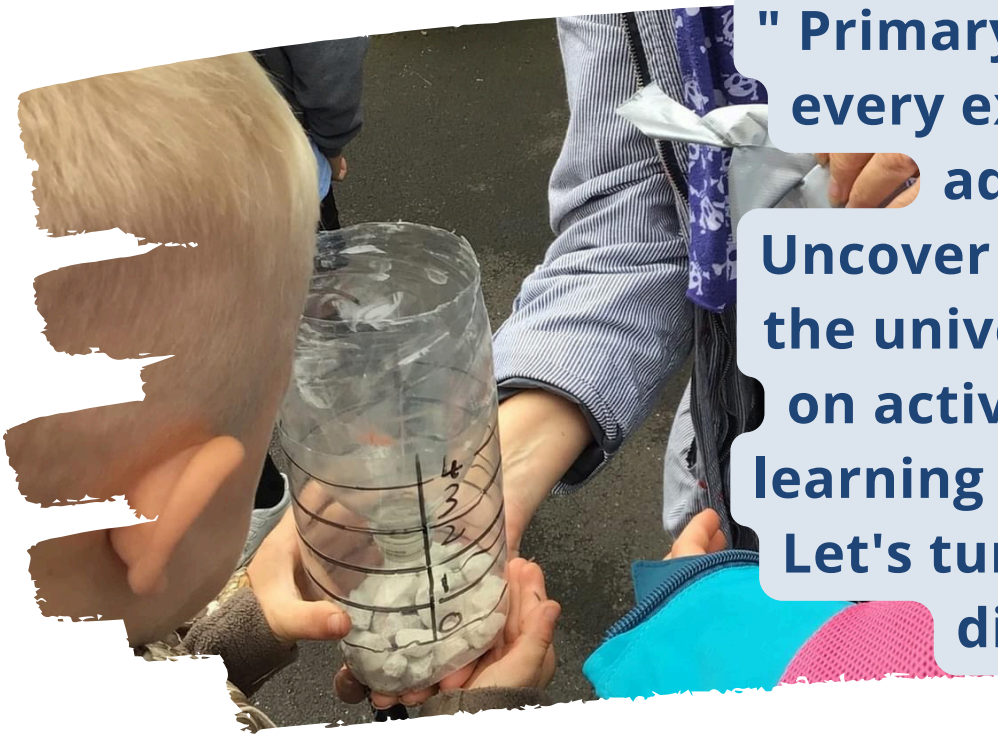
Chemistry is taught across the Materials topic. The concepts stem from the idea that all materials are made from atoms/particles and everyday materials behave in different ways, which can relate to simple physical properties and the arrangement of particles. The concept is more complex and increasingly abstract over the course of the curriculum, which prepares pupils for Chemistry at secondary school. Other aspects of chemistry are developed using the concept that earth's resources can occur because of natural phenomena. Pupils start by distinguishing between an object and the materials from which it is made, identifying everyday materials, describing their physical properties, being able to group materials based their properties and comparing the suitability of everyday materials for particular uses. The opportunity is then taken to look at the physical properties of rocks and rock, fossil and soil formation which links with the concept that earth is a complex of interacting rock water, air and life. As the topic progresses pupils look at the particle model of solids, liquids and gases and what happens to materials when heated or cooled and how evaporation and condensation are related to the water cycle. Pupils then begin to explore the nature of physical and chemical reactions as well as separating simple mixtures.



Physics

- **Energy is a powerful and unifying abstract idea, difficult to define.**
- **Forces change the state of rest or motion of a body. They hold matter together and interplay between all objects**

The two concepts in Physics are taught across a range of topics including Light, Sound, Electricity, Earth & Space and Forces & Magnets. Energy is a fundamental concept of physics that enables the explanation and prediction of many phenomena and contributes to the unification of the various branches of physics. Foundation lessons in Earth & Space and Electricity have been introduced to prepare pupils well for this highly abstract concept. The curriculum explores different forms of energy stores including electricity, sound and hearing and light and seeing. Pupils explore light, reflections and shadows before then being able to explain, referencing its properties. Pupils in KS2 learn how sounds are made, features of sound waves including pitch, amplitude and dissipation. Electricity includes common electrical appliances, constructing simple series circuits, common conductors and insulators, recognising components from circuit diagrams and investigating components in series circuits. Force is a useful idea because it is the key to explaining changes in the motion of an object or in its shape. Understanding forces help us to predict and control the physical world around us. Pupils study contact and non-contact forces including magnetism and magnetic materials. Contact forces are explored through air and water resistance. Levers, gears and pulleys also look how forces can be useful in everyday contexts Earth and Space adopts both concepts, since it involves the force of gravity, which influences many dynamic processes within the earth's interior, on and above its surface. Energy is transferred from the sun to Earth via electromagnetic waves, or radiation. The topics studied include the movement of the earth and other planets relative to the sun and its solar system, movement of the moon and explaining day and night. We take the opportunity to study earth and space in the winter months when nights are longer, and children can participate in observing the moon and stars at a reasonable time at home.



" Primary science - where every experiment is an adventure! Uncover the mysteries of the universe with hands-on activities that make learning fun and exciting. Let's turn curiosity into discovery!"

Clear end points identified with explicit teaching of threshold concepts and opportunities to promote careers.

Signature pedagogies referenced and expected outcomes identified.

Science Curriculum Rationale

Primary Biology: Plants

About the Units

What knowledge and procedures need to be learnt by the end point?
The concept involves becoming familiar with different types of plants, their structure and reproduction.

Which threshold concepts need to be emphasised?
- Animals, humans and plants are made up of complex interacting systems in order to function.
- Organisms require a supply of energy to carry out the basic functions of life and to grow.
- The earth is a complex of interacting rock, water, air and life.

How will you assess if the knowledge and procedures have been secured?
Regular recapping through progressive delivery of each unit.
End of unit quizzes will provide strong evidence for factual recall. Assessment tasks will be designed to demonstrate understanding and application of knowledge taught.

Career links: Gardener, designer, farmer, agriculture

How will this link to other aspects of science and the wider curriculum?
Primary Biology: Living Things Units (Y2-6)
Geography (Y6): Biomes

How will pupils...

Think like a scientist (vocabulary/language/big ideas)

Children will use increasingly sophisticated language to identify, describe and explain.
They will be able to:
- relate seasonal changes in the environment to their scientific understanding.
- describe how different parts of plants function.
- explain why some plants survive better than others in certain conditions.
- Recognise the role of flowers in the life cycle of flowering plants.

Behave like a scientist (working scientifically/scientific enquiry)

Children will be given opportunities throughout each unit to investigate and experiment. They will:
- Ask questions, which become increasingly more sophisticated and thoughtful
- Make observations; predicting and recording results (tables, tally charts, graphs, drawing)
- Use simple equipment such as a magnifying glass, petri dish, forceps

Progression of Knowledge	Unit 1	Unit 2	Unit 3	Across Units/Subjects
	Pupils are able to identify and name a variety of common plants, including garden plants, wild plants and trees (classified as deciduous and evergreen). Pupils are able to identify the basic structure of these using words such as root, stem/trunk, leaves and flowers. They use simple observation to describe how seeds grow.	*Pupils identify and describe the functions of different parts of the flowering plant including roots, stems, leaves and flowers. They use observation to describe how seeds and bulbs grow and find out how plants need water, light and suitable warmth to grow and stay healthy.*	*Pupils explore the requirements of plants for life and growth and investigate the way in which water is transported within plants. They recognise the role of flowers in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.*	*It is important to revisit knowledge taught to help pupils organise new knowledge. Pupils will be able to relate knowledge of plants to studies of evolution and inheritance and to their studies of all living things.* *The recognise the importance of plant life and diversity when studying Biomes in geography.*

Progression of knowledge is clearly outlined to ensure pupil learning is built upon each time the theme is revisited. This avoids repetition of activity and promotes deep and transferable knowledge over time.

High quality teaching in Science is essential. Whilst individual teachers should be responsive to the needs of children, we will support our staff to be effective teachers of Science, by:

- unpacking the curriculum expectations and making progression clear, demonstrated on the curriculum journey pathway.
- engaging with high quality CPD to improve teacher subject knowledge and address misconceptions.
- Ensuring high expectations in Science, outlined as unit overviews.
- Providing opportunities for active learning, through the inclusion of 'Investigation Cards'
- Using relevant contexts and building on experiences familiar to pupils
- Providing opportunities for collaborative learning, within school and through transition visits
- Teaching for understanding and making connections across the curriculum and to everyday life.
- Accurately assessing the progress pupils make through weekly recaps and end of unit assessment tasks.

Our threshold concepts relate to three domains of scientific knowledge and explicitly teach disciplinary and substantive. The two are vital to eachother. For example, when 'thinking like a scientist' pupils need a depth of substantive knowledge (established scientific knowledge, such as knowing the parts of the plant or naming the planets in the solar system) in order to know how to establish and refine scientific knowledge, for example by carrying out practical procedures (described as disciplinary knowledge) .

PLANNING FOR PROGRESSION

- **identify** and **name** a variety of common wild and garden plants, including deciduous and evergreen trees.
- identify and **describe** the basic structure of a variety of common flowering plants, including trees.
- (seasonal change) **observe** changes across the four seasons

- **observe** and **describe** how seeds and bulbs grow into mature plants
- **find out** and **describe** how plants need water, light and suitable temperature to grow and stay healthy
- **identify** and **describe** the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers (moved from Y3)

- **identify** and **describe** the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers
- **explore** the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant
- **investigate** the way in which water is transported within plants
- **explore** the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.

Biology Unit: Plants

What does progression of knowledge look like?

Year	Progression of knowledge.
1	• Flowering plants have a root, stem, leaves and a flower • Trees can be deciduous which means the leaves are lost yearly- usually in the autumn • Trees can be evergreen which means there are always leaves on the tree (leaves are continually replenished throughout the year • Trees and plants have roots, stems and leaves but plants have a softer stem • Trees are made of roots, trunk, branches and leaves. • Grasses and ferns consist entirely of leaves. • In autumn, the leaves on deciduous trees change colour, fruits and nuts fall to the ground. Farmers can harvest the crops. • In Spring, birds sing, trees produce leaves and flowers blossom and the landscape changes • Trees are examples of plants
2	• Plants can grow from seed or bulbs • Seeds and bulbs germinate and grow into seedlings • Seedlings grow into mature plants • Plants need light, water, space, suitable temperature in order to grow • Some plants grow best in full sun • Some plants grow best in the shade • Some plants need lots of water • Some plants don't need much water • Some plants grow quicker than others.
3	• Plants contain roots to absorb water and nutrients from the soil • Plant roots also anchor the plant to provide support • Plants contain a stem/ trunk which is responsible for transporting water and nutrients around the plant. • Plants contain flowers which contain the stamen, carpel, petal, ovule, sepal and stem • Plants need light, water, space, suitable temperature in order to grow • The level of nutrients required depends on the type of plant • Insects like bees and wasps transfer the pollen from the male part of a flower to the female part of other flowers • Seeds can also be dispersed by wind, animal fur, animals eating them (and excreting them), in water and if the seed pod explodes • The roots absorb water from the soil, the stem transports it to the leaves, water evaporates from the leaves which causes more water to be absorbed from the soil
Key Stage 3 NC	• Cells as the fundamental unit of living organisms, including how to observe, interpret and record cell structure using a light microscope • The functions of the cell wall, cell membrane, cytoplasm, nucleus, vacuole, mitochondria and chloroplasts • The similarities and differences between plant and animal cells • Reproduction in plants, including flower structure, wind and insect pollination, fertilisation, seed and fruit formation and dispersal, including quantitative investigation of some dispersal mechanisms. • The role of leaf stomata in gas exchange in plants. • The reactants in, and products of, photosynthesis, and a word summary for photosynthesis • The dependence of almost all life on Earth on the ability of photosynthetic organisms, such as plants and algae, to use sunlight in photosynthesis to build organic molecules that are an essential energy store and to maintain levels of oxygen and carbon dioxide in the atmosphere • The importance of plant reproduction through insect pollination in human food security • How organisms affect, and are affected by, their environment, including the accumulation of toxic materials.

For each Science theme taught, the curriculum will be unpacked so that teachers are clear of the learning across all year groups. This is intended to promote a change of culture within Primary Science, whereby teachers have an awareness and understanding of the learning journey of pupils within scientific themes, rather than risking narrowly focusing on the learning expected of individual year groups. This will allow essential links and connections to be made within the learning.
The six threshold concepts will underpin the learning within themes and across units. As pupils move through the primary years, their understanding of the concepts will develop, and they will be able to articulate the science with increasing confidence.

Biology: Plants

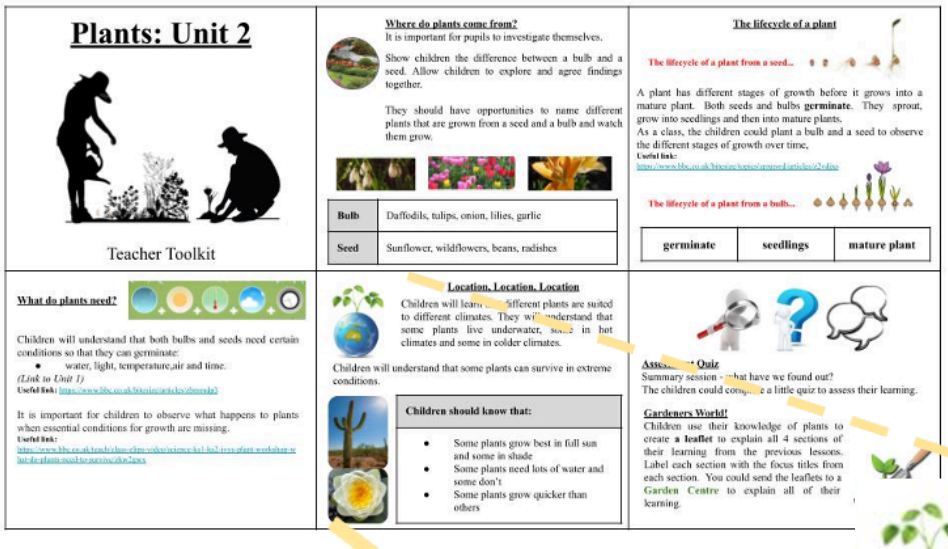
Plants: Unit 1 — **Identify** and **name** basic structure and types

Plants: Unit 2 — **Observe** and **describe** what plants need

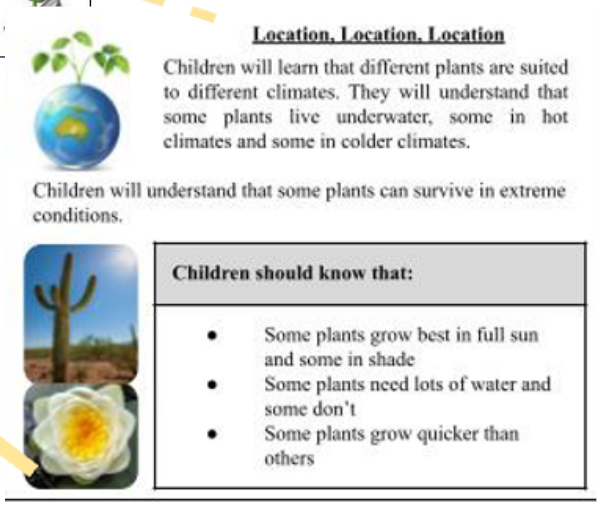
Plants: Unit 3 — **Investigate** structure and function

What's in the garden?	Is a tree a plant?	How does plant life change? -Autumn Watch-	How does plant life change? -Spring Watch-	Tell me! What can you see? (Assessment)
← Observation of growth e.g. bean, cress →				
Where do plants come from?	The lifecycle of a plant	What do plants need?	Location, Location, Location!	Gardeners World (Assessment)
← Controlled experiment: Testing conditions for plant growth →				
Parts of a flower	What plants need	Pollination	Seed Dispersal	Time to Share (Assessment)
← *practical strand* →				

Threshold Concepts in Science				
	Animals, humans and plants are made up of complex interacting systems in order to function.		The particle theory of matter is the abstract idea that helps us to develop an understanding of why materials behave as they do.
	Organisms require a supply of energy for organisms to carry out the basic functions of life and to grow.		Energy is a powerful and unifying abstract idea which is difficult to define.
	The earth is a complex of interacting rock, water, air and life.		Forces change the state of rest or motion of a body. They hold matter together and interplay between all objects.



Lesson sequences are provided as a guide to ensuring sequential learning across a unit and within a particular aspect of science. This allows for agreed knowledge content and consistency. It also acts as a tool to quickly identify gaps in learning and recover lost learning over time.



TEACHER TOOLKIT CONTENT...

The purpose of the teacher toolkit is to inspire and equip our staff to be the best teachers of science they can be. The resources and guidance created, alongside bespoke CPD opportunities, will upskill teachers to deliver science with confidence. Whist a set standard will be outlined, and pace and progression set out, there remains a level of flexibility allowing teachers space to design their science narrative to reflect our own unique contexts.

By doing so, we aim to provide an agreed pathway through the curriculum with our other BCCET schools and therefore achieve consistency on entry to KS3.

The toolkit is intended to provide the necessary tools for schools to design outstanding science provision in their own unique contexts and surroundings. As such it will include:

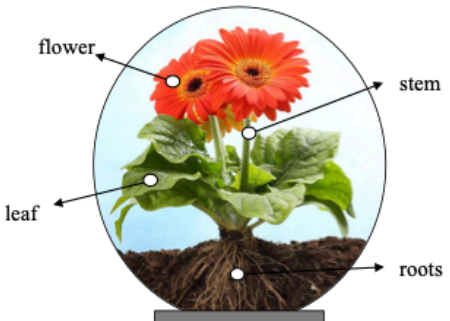
- A **Science Learning Journey,** detailing when the sciences are taught, revisited and which threshold concepts are met along the way.
- Curriculum Rationale and supporting documents which outline progression through the units within a science theme.
- **Unit Overviews**, each divided into 5 stages of learning providing the expected knowledge learned. They are age appropriate and progressive in their content.
- **Investigation Cards** providing guidance on how to carry out accurate investigations to ensure high quality practical strands through which pupils develop the skills of working scientifically.
- **Misconceptions** document to teach through common errors and ensure accurate and precise scientific knowledge is learned.
- **End of Unit Assessments:** Knowledge quiz and presentation task
- **Learn it! Link it!** A reference tool intended for pupils to track and discuss their own learning throughout the unit.

LEARN IT! LINK IT!

LEARN IT! LINK IT!
UNIT 1: PLANTS

Working Scientifically

- Ask questions
- Collect data
- Observe
- Classify
- Test/experiment



Parts of the plant

Key Learning

Remember to make links to what you already know…

- ☐ The main parts of the plant are the flower, stem, leaves and roots
- ☐ The different parts of the plant have different functions
  - Roots – anchor the plant
  - Leaf – makes food
  - Stem – carries water
  - Flower – attracts insects
- ☐ Trees are a type of plant
- ☐ There are two main types of tree; deciduous and evergreen
- ☐ Autumn and Spring are two of the four seasons
- ☐ In the autumn, the leaves on deciduous trees change colour and fall to the ground
- ☐ In the spring many plants begin to regrow, trees and large bushes begin to blossom

Metacognition: Assess the task, plan the approach, apply strategies, reflect.

Key Vocabulary

deciduous: Trees with leaves that change colour in autumn and fall to the ground.
evergreen: Trees that keep their colour and leaves all through the seasons.
acorn: A fruit of the oak tree a smooth oval nut in a rough cup-shaped base
conker: the hard, shiny dark brown nut of a horse chestnut tree
harvest: to collect what has been planted and grown in the ground. It is usually done by farmers, and in the autumn season. This is also called picking **crops.**
bulbs: refers to plants that have underground, fleshy storage structures
seeds: part of a flowering plant, capable of developing into another such plan
blossom: a flower or a mass of flowers, especially on a tree or bush.

Significant People/Career Links

- Joseph Hooker, an Englishman, came from a family of scientists who specialised in studying plants.
- His father was Glasgow University's professor of botany and as a child, Hooker studied mosses and orchids.
- He wrote books about plants

Horticulture is the agriculture of plants, mainly for food, materials, comfort and beauty for decoration

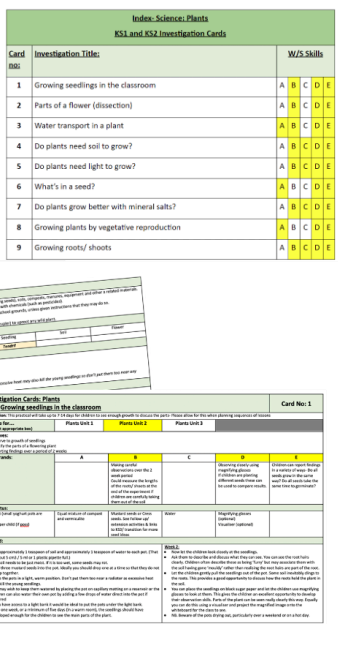
A high-quality science curriculum not only identifies the important concepts and procedures for pupils to learn, it also plans for how pupils will build knowledge of these over time.

DfE Review 2021

WORKING SCIENTIFICALLY

Investigation cards complement each unit. A This choice of investigation will form the basis of the practical strand for each unit. The Investigations relate directly to the skills outlined in the National Curriculum and are divided into:

- Asking questions
- Test hypotheses
- Gathering and recording
- Analysis
- Communication



Index- Science: Plants
KS1 and KS2 Investigation Cards

Card no:	Investigation Title:	W/S Skills
1	Growing seedlings in the classroom	A B C D E
2	Parts of a flower (dissection)	A B C D E
3	Water transport in a plant	A B C D E
4	Do plants need soil to grow?	A B C D E
5	Do plants need light to grow?	A B C D E
6	What's in a seed?	A B C D E
7	Do plants grow better with mineral salts?	A B C D E
8	Growing plants by vegetative reproduction	A B C D E
9	Growing roots/ shoots	A B C D E

Plants: Misconceptions

What some pupils think	Notes....
Soil is inert and it just holds the plant in its place	The soil contains the minerals that plants need for healthy growth. The soil also contains many other organisms that live inside the soil
Plants get all they need from "plant food"	Plant food provides nitrates that help plants make the proteins they need to grow. Soil also contains these nitrates and the decaying remains of plants and animals is what puts the nitrates into the soil. Plants do not have a digestive system so it's important not to refer to the nutrients/ minerals as food to avoid misconceptions later on. "Plant food" is often sold in garden centres or attached to a bunch of flowers but if you look at the labels you can see the usual minerals (NPK- Nitrogen, Phosphorus and Potassium) that plants need for healthy growth.
Plants obtain their energy directly from the sun	Pupils often think that the sunlight is directly linked to the plant growing. Photosynthesis requires sunlight- this process releases glucose for the plant to use as an energy store/ resource. In order for a plant to grow they need to make proteins (more complex molecules) They combine the glucose with other molecules in order to make proteins. It is the protein that makes the plants grow, they need the sunlight to produce the glucose initially to make the proteins. This misconception often continues throughout KS3 and KS4
Leaves are mainly to catch and take in water	As pupils link water collecting and running off leaves they sometimes relate it to their function. The main function of a leaf is to carry out photosynthesis. Water is lost via the leaves in transpiration but water doesn't enter the leaves. Leaves have a waxy cuticle on the surface of the leaf which actually prevents water loss and most of the water is lost from the unde-side of the leaf. Leaves have many different sizes and shapes. The shapes of the leaves can help water to run off the leaves and fall directly or near to the base- thus providing water that can be absorbed into the soil then taken up by the roots into the plant/ tree. *Tillandsia* plant species (epiphytes or air plants), which do not require soil to grow. Water and nutrients are absorbed through their leaves and roots are used to anchor the plants. You can grow plants in clear containers in order for children to see the roots. Sometimes as the grow under/ within the soil it can be difficult for children to visualise and therefore identify that they are an essential part of the plant.
Plants breathe in Carbon Dioxide and breathe out oxygen	This is a popular misconception as pupils are sometimes taught that humans breathe oxygen and plants carbon dioxide. Teachers should avoid the word breathing at all times when discussing plants and need to be careful when comparing plants and animals in that way. Plants do not have lungs and therefore do not breathe. Humans and other animals breath to get oxygen into their body for respiration. In a plant this enters through the leaves, they do not need lungs and therefore do not breathe.
Plants are not alive	Pupils often think of animals only as living organisms rather than plants and animals. This knowledge can be strengthened when teaching about the 7 life processes.
Plants take everything they need in from the roots	Plants can in water and mineral ions from the roots, but photosynthesis releases glucose for the plant- This glucose is required to make up lots of more complex molecules as well as being required for respiration. Without respiration the plants can not release energy in order to carry out the 7 processes (and would die!)
Plants get their energy from the soil	See above note
Sunlight helps plants grow by keeping them warm	Plants do not need excessive warmth in order to grow. Some plants are well adapted to hot conditions but these plants usually have smaller leaves/ spikes to help reduce water loss. In warm conditions plants lose water. In a plant enzymes responsible for photosynthesis would denature at a high temperature and the reaction would not occur. All plants

ASSESSMENT

Assessment is 'embedded' within the design

Opportunities to know where pupils are with their learning and to identify and address any gaps.

- Teachers and pupils are clear on the purpose of assessment. There is clarity about what is being assessed.
- Assessment is not overly burdensome on teachers' time in relation to marking, recording or feedback.
- Feedback is focused on the science content and not on generic features. Teachers have sufficient subject knowledge to be able to do this.
- Pupils regularly retrieve knowledge from memory to help them remember and organise their knowledge. This is coupled with feedback. Teachers think carefully about what pupils are being asked to retrieve and whether this prioritises the most important content.

DfE Science Subject Review, 2021

End of unit quiz

Plants: Unit 3 Subject knowledge quiz

Name: **Date:**

Information Retrieval- What can you remember from **Plants Unit 1**?

Question	Answer
1. What is the name of this plant? 	
2. This plant can sting. What is it? 	
3. The parts of the plant in the picture are green. What are they called? 	
4. This tree has no leaves in winter. How do we know it's not dead? 	
5. Conifer trees have pine needles. What part of a plant are pine needles? 	

Information Retrieval- What can you remember from **Plants**

6. Helen is growing a pepper plant. She is growing it in a greenhouse. Why does it grow well in a greenhouse? 	
7. What season do plants grow quickest? 	
8. What do seeds need to start growing? 	
9. It is wintertime. These roses have died. What has killed the roses? 	
10. Plants need a source of glucose to grow. When will the plant make this? 	

What do you know from **Plants Unit 3**?

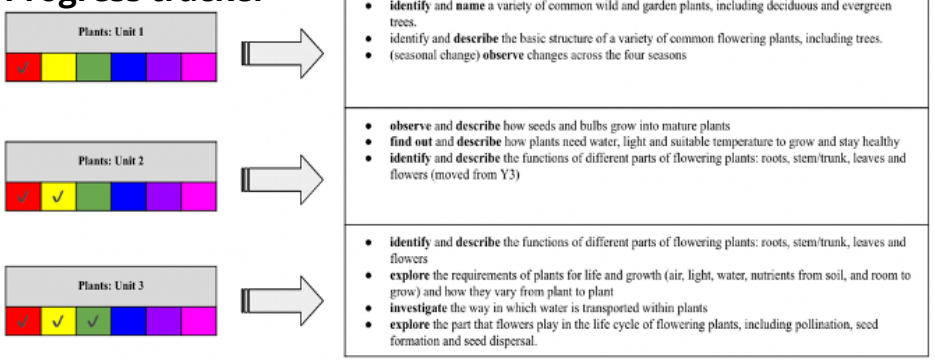
11. What is dispersal?	
12. Which part of a flowering plant is male?	
13. What do seeds need in order to germinate?	
14. Why do plants need sunlight?	
15. Which part of a flowering plant grows into a fruit?	
16. Which word describes the moment a seed begins to grow?	
17. What happens if seeds are planted too closely together?	
18. Some flowers are pollinated by insects. What so other types of flowers use to pollinate them?	
19. After a flower is fertilised it dies, but its ovary grows into what?	
20. Give two methods of seed dispersal	
21. Pollen must be transferred to which part of the flower for pollination to occur?	
22. Describe what happens during plant fertilisation	

Cumulative knowledge over time with knowledge retrieval from previous years)

Assessment Quiz
Summary session - what have we found out?
The children could complete a little quiz to assess their learning.

Garden Explorer!
Use various garden scenes to stimulate discussion. Following a Tell me! or Teach it! model to challenge pupils to explain their garden scenes to others. Alternatively, pupils produce a short film tour of a garden area with accompanying narration.

Progress tracker



The teaching toolkit includes a range of materials to support with assessment. A progress tracker is used to assess pupils starting points and progress. Ending each unit there is the opportunity to assess through a subject knowledge quiz and an end of unit task. Throughout, the aim is to assess pupils ability to think like a scientist by choosing, building and linking knowledge as they work through a unit, complete a unit and progress on to other units.