



Gosberton Academy

Science Portfolio



Science at Gosberton Academy

We offer a science curriculum that evokes curiosity, excitement and understanding about the world around them through the specific disciplines of biology, chemistry and physics whilst supporting the Fundamental British Values.

Working Scientifically is at the heart of our curriculum approach, enabling the children to develop the necessary knowledge and skills to be innovators, problem solvers and critical thinkers. The curriculum also ensures progression of skills and cumulative learning, building on and supporting the children's metacognitive learning strategies through effective pedagogical and vocabulary rich teaching. Subject specific vocabulary is taught and built upon as topics are revisited to ensure conceptual understanding in order to be used accurately and precisely.

As our children are taught through enquiry, science at Gosberton Academy has been structured to ensure that our children have practical science experiences from the beginning of their learning journey. This allows for independent exploration and investigation leading to progression of communication, developing learners with a natural curiosity and respect for our planet's future.

The love of science is further nurtured through science themed days, science clubs and, due to our strong partnerships within our locality, collaborative events. These experiences, along with our progressive, creative curriculum, will enable our children to thrive as educated citizens of the future and through a growth mind-set approach, know that their learning has no limits.

We ensure that high quality teaching drives high quality learning through regular assessment for learning which ensures no child is left behind.



Teaching Mixed-Age Classes

Our teachers recognise that mixed aged teaching can be a challenge and they constantly adapt their approach to teaching and learning. They demonstrate a high level of flexibility and organisation to ensure that their provision caters for both age groups and includes all learners.

Mixed Aged classes generate a family of learners who support and care for each other. Older children have the opportunity to help others and be a leader, supporting younger learners to play and learn. At the same time, the older child is increasing an independence and competence.

At Gosberton Academy, we recognise learning happens individually, in small groups and as a whole class. Keeping children engaged, motivated and focused ensures they will learn regardless of the class they are in.

We have in place robust transition procedures which starts at the planning process, where teachers work collaboratively in Science. Good communication across classes fosters curriculum continuity. Teachers share information to ensure learners start confidently in their new class.



Our Vision, Values and Aims

Gosberton Academy aims to provide a high-quality, **exceptional** education with first-hand learning experiences that are able to motivate and stimulate all learners. All learners will recognise the importance of the community in which they are educated and understand that the Academy is based at the heart of the community, bringing a **togetherness** of all stakeholders.

- All pupils and families will feel supported and integrated into the school life.
- Every pupil, regardless of their life experiences, can reach their full potential, growing in confidence and being **honest** to themselves.



H

Honesty – Honest to each other but also, honest to themselves.



A

Aspirational- Aspirational staff, children, parents and families



T

Togetherness- Friendships, support, stakeholders, community, parents and staff



E

Exceptional- Exceptional behaviour, effort, attitude, progress and opportunities



R

Resilient- Never giving up, always wanting to succeed.



Gosberton Goals



Science Long Term Plan

SCIENCE CYCLE A 2023 - 24

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS + Y1	Animals including humans	Seasonal Change	Materials		Planting and growing	Animals including Humans
Y1 + Y2	Living things and their habitats	Forces	Materials	Electricity	Plants	Animals including humans
Y3 + Y4	Light	Animals including humans	Rocks and Soils	States of Matter	Plants	Forces/ Magnets
Y4 + Y5	Properties of Materials		Sound	Living things and their habitats	Animals including humans	Earth and Space
Y6	Evolution and Inheritance	Animals including humans	Light	Living things and their habitats	Forces	Transition Unit

SCIENCE CYCLE B 2022 - 23

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS/Y1	Animals including Humans	Seasonal Changes	Materials		Planting and Growing	Animals including Humans
Y1 + Y2	Animals including humans	Forces	Materials	Electricity	Plants	Living things and habitats
Y3 + Y4	Light	States of Matter	Rocks and Soils	Forces	Plants	Animals including humans
Y4 + Y5	Properties and Material	States of Matter	Living things and habitats	Animals including Humans	Forces	Light
Y6	Evolution and Inheritance	Animals including humans	Light	Living things and their habitats	Forces	Transition Unit

Science Progression- Biology

Foundation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p><u>Us, our bodies and senses</u> Make simple observations about parts of the body</p> <p><u>Pets & Other Animals:</u> To observe closely and present results</p> <p>Can comment on how two, e.g. animals, are similar or different from each other; notice and describe how they change as they grow</p> <p>Sort e.g. living things, into two simple groups, using given criteria Communicate what they have learned through drawing.</p> <p><u>Habitats around us – who lives here?</u> To ask and answer science questions</p> <p>Ask and answer questions about what they have observed, e.g. Who lives where? Why do some animals live in dark places and some do not?</p> <p>Select equipment and materials to use to create e.g. a nest, or animal habitat (bug hotel, hedgehog home)</p> <p><u>Planting & Growing:</u> To observe closely and record results Make simple observations of e.g. size, shape,</p> <p>Comment on what they see as they investigate and on how things change over time</p> <p>Participate in class data collection.</p> <p><u>Farming:</u> To interpret results Communicate orally, in simple descriptions and explanations, e.g. talk about a farm, which animals live there / plants grow there and the job of the farmer.</p>	<p><u>Animals Inc. Humans:</u> Identify & name a variety of common animals including fish, amphibians, reptiles, birds and mammals Identify & name a variety of common animals that are carnivores, herbivores and omnivores Describe & compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). Identify, name, draw & label the basic parts of the human body and say which part of the body is associated with each sense</p> <p><u>Seasonal Changes:</u> Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies</p> <p><u>Plants:</u> Identify & name a variety of common wild and garden plants, including deciduous & evergreen trees Identify and describe the basic structure of a variety of common flowering plants, including trees, (roots, leaves, flowers, stem)</p>	<p><u>Animals inc. Humans:</u> Find out about and describe the basic needs of animals, including humans, for survival (water, food, air)</p> <p>Describe the importance for humans of exercise, eating the right amounts of different food types, and hygiene</p> <p>All animals (inc humans) grow and change as they become older</p> <p><u>Living Things & Their Habitats:</u> Explore & compare the differences between things that are living, dead and things that have never been alive</p> <p>Identify that most living things live in habitats to which they are suited and describes how they are suited to that habitat</p> <p>Identify & name a variety of plants & animals in their habitats, including microhabitats</p> <p>Identify animals from a range of animal groups and describe their observable features</p> <p>Describe how animals obtain their food from plants and other animals, using the idea of simple food chains and identify & name different sources of food</p> <p><u>Plants:</u> Observe & describe how seeds and bulbs grow into mature plants</p> <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</p> <p>To know what a seed needs in order to germinate</p> <p>That seeds produce new plants</p> <p>That flowering plants produce seeds</p>	<p><u>Animals inc. Humans:</u> Identify that animals, including humans, need the right amount and types of nutrition. Animals and humans cannot make their own food; they get nutrition from what they eat Identify the different types of teeth in humans and their simple functions</p> <p><u>Plants:</u> Identify & 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, water, light, nutrients from the soil, room to grow) and how they vary from plant to plant Investigate the way water is transported within plants Explore the part that flowers play in the lifecycle of flowering plants, including pollination, seed formation and seed dispersal</p>	<p><u>Animals inc. Humans:</u> Identify that humans and some animals have skeletons and muscles for support, protection and movement</p> <p>Describe the basic parts of the digestive system in humans</p> <p>Construct and interpret a variety of food chains, identifying producers, predator, prey</p> <p><u>Living Things & Their Habitats:</u> Recognise that living things can be grouped in a variety of ways</p> <p>Explore & use classification keys to help group, identify and name a variety of living things in their local and wider environment</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things</p> <p>Identify & name a variety of common animals that are birds, fish, amphibians, reptiles, mammals, carnivores, herbivores, omnivores and invertebrates</p>	<p><u>Animals inc. Humans:</u> Describe the changes as humans develop to old age</p> <p>Compare reproduction in plants with reproduction in animals</p> <p><u>Living Things & Their Habitats:</u> Describe the differences in the lifecycles of a mammal, an amphibian, an insect and a bird</p> <p>Describe the life processes of reproduction in some plants and animals (e.g. To know the life cycle of a flowering plant; how seeds are formed (pollen from male organ fertilises the ovum).</p> <p>Identify the main parts on a flowering plant, including those involved in the reproductive process</p>	<p><u>Animals inc. Humans:</u> Identify & name the main parts of the human circulatory system</p> <p>Describe the functions of the heart, blood vessels and blood</p> <p>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>Describe the ways in which nutrients and water are transported within animals, including humans</p> <p><u>Living Things & Their Habitats:</u> Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals</p> <p>Give reasons for classifying plants and animals based on specific characteristics</p> <p><u>Evolution & Inheritance:</u> Recognise that living things have changed over time & that fossils provide information about living things that inhabited the Earth millions of years ago</p> <p>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <p>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution</p>

Progression Documents- Chemistry

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p><u>Cooking & Baking:</u> Make observations, comment on how things change, e.g. before and after, chopping, cooking, baking</p>	<p><u>Materials:</u> Distinguish between an object and the material from which it is made</p> <p>Identify & name a variety of everyday materials, including wood, plastic, glass, metal, water, rock</p> <p>Describe simple physical properties of a variety of everyday materials</p> <p>Compare & group together a variety of everyday materials on the basis of their simple physical properties</p>	<p><u>Materials:</u> Identify & compare the suitability of a variety of different materials, including wood, metal, plastic, glass, brick, paper, rock and cardboard for particular uses</p> <p>Find out how the shapes of solid objects made from materials can be changed by squashing, bending, stretching and twisting</p> <p>Some materials occur naturally and others don't</p>	<p><u>Materials:</u> To compare materials in terms of hardness/strength/flexibility etc.</p> <p>That the same material can be used to make different objects</p> <p>That materials often change when they're cooled and heated</p> <p>Know that some materials are electrical and thermal insulators</p> <p>Know that some materials are electrical and thermal conductors</p> <p><u>Rocks:</u> Compare & group together different kinds of rocks on the basis of their appearance and simple physical properties</p> <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock</p> <p>Recognise that soils are made from rocks and organic matter</p>	<p><u>States of Matter:</u> Describe, compare and group materials together, according to whether they are solids, liquids or gases</p> <p>Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</p>	<p><u>Materials:</u> Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets</p> <p>Know that some materials will dissolve in liquid to form a solution</p> <p>Describe how to recover a substance from a solution</p> <p>Use knowledge of solids, liquids & gases to decide how mixtures might be separated, including through sieving, filtering and evaporating</p> <p>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes</p> <p>Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda</p>	

Progression Documents- Physics

Foundation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p><u>Light and Materials:</u> Be able to ask and answer questions (with support) in familiar contexts, e.g. What happens at night? What can we see when it's dark?</p> <p><u>Transport, Movement & Forces:</u> To interpret results Communicate orally, in simple descriptions and explanations, e.g. how do we travel? How do things move?</p>	<p><u>Forces:</u> That pushing or pulling things can make objects start or stop moving To observe and describe different ways of moving To know that things can be made to move by others means than ourselves (wind/water etc)</p> <p><u>Light:</u> Shiny objects need a light source to shine. They ARE NOT sources of light Light is needed in order to see things and darkness is the absence of light Find patterns in the way that the size of shadows change</p>	<p><u>Forces:</u> That pushes & pulls can change the shape of an object That pushes & pulls can make things speed up, slow down and change direction That pushes & pulls are an example of a force</p> <p><u>Electricity:</u> Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</p> <p>Identify common appliances that run on electricity</p> <p>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</p> <p>Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery</p>	<p><u>Magnets:</u> Notice that magnetic forces can act at a distance</p> <p>Observe how magnets attract or repel each other and attract some materials and not others</p> <p>Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials</p> <p>Describe magnets as having two poles</p> <p>Predict whether two magnets will attract or repel each other, depending on which poles are facing</p> <p><u>Light:</u> Recognise that shadows are formed when the light from a light source is blocked by an opaque object</p> <p>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes</p> <p>Notice that light is reflected from surfaces</p>	<p><u>Forces:</u> Compare how different things move on different To know that friction is a force that slow moving objects and may prevent objects from starting to move</p> <p>To know when objects are pushed or pulled, an opposing pull or push can be felt</p> <p>To know how to measure forces and identify the direction in which they act</p> <p><u>Electricity:</u> Recognise some common conductors and insulators, and associate metals with being good conductors</p> <p>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</p> <p>Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches</p> <p>Use recognised symbols when representing a simple circuit diagram</p>	<p><u>Earth & Space:</u> Describe the movement of the Earth and other planets, relative to the Sun in the solar system <i>It takes the Earth 1 year to orbit the Sun once</i> <i>The Moon takes 28 days to orbit the Earth once</i></p> <p>Describe the movement of the Moon relative to the Earth <i>The different appearances of the Moon over 28 days provides evidence for a 28 day cycle</i></p> <p>Describe the Sun, Earth and Moon as approximately spherical bodies and know their relative sizes</p> <p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky</p> <p><u>Sound:</u> Identify how sounds are made, associating some of them with something vibrating</p> <p>Recognise that vibrations from sounds travel through a medium to the ear</p> <p>Find patterns between the pitch of a sound and features of the objects that produced it</p> <p>Find patterns between the volume of a sound and the strength of the vibrations that produced it</p> <p>Recognise that sounds get fainter as the distance from the sound source increases</p>	<p><u>Forces:</u> Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p> <p>Identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect</p> <p>That forces are measured in Newtons (N)</p> <p>Recognise that there are a variety of forces</p> <p>Recognise that forces act in particular directions and can affect direction/speed etc.</p> <p><u>Light:</u> Recognise that light appears to travel in straight lines</p> <p>Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye</p> <p>Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes</p> <p>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them</p>

Science Progression- Working Scientifically Enquiry Types

Foundation	Year 1	Year 2	Year 3	Year 4	Year 5
<u>Animals inc. Humans:</u> Research from Secondary Sources Pattern Seeking Grouping & Classifying <u>Seasonal Changes:</u> Observing changes over time Pattern Seeking/Noticing patterns <u>Plants:</u> Grouping & Classifying Research from Secondary Sources Pattern Seeking <u>Materials:</u> Comparative Testing Grouping & Classifying <u>Forces:</u> Comparative Testing Grouping & Classifying <u>Light:</u> Pattern seeking/Noticing patterns Grouping & Classifying	<u>Animals inc. Humans:</u> Research from Secondary Sources (Observing changes over time) Pattern Seeking/Noticing patterns (Grouping & Classifying) <u>Living Things & Their Habitats:</u> Grouping & Classifying Research from Secondary Sources <u>Materials:</u> Grouping & Classifying Comparative Testing <u>Plants:</u> Observing changes over time Comparative Testing Noticing Patterns/Pattern Seeking <u>Electricity:</u> Grouping & Classifying Comparative Testing <u>Forces:</u> Grouping & Classifying Comparative Testing (Research from Secondary Sources)	<u>Animals inc. Humans:</u> Grouping & Classifying (Research from Secondary Sources) Pattern Seeking/Noticing Patterns <u>Plants:</u> Grouping & Classifying (Comparative Testing) Observing Changes Over Time Research from Secondary Sources <u>Rocks & Soils:</u> Grouping & Classifying Comparative Testing Research from Secondary Sources <u>Light:</u> (Grouping & Classifying) Pattern Seeking/Noticing patterns Comparative Testing <u>Magnets:</u> Grouping & Classifying Comparative & Fair Testing <u>Materials:</u> Grouping & Classifying Comparative Testing	<u>Animals inc. Humans:</u> Grouping & Classifying Research from secondary sources <u>States of Matter:</u> Grouping & Classifying Observing Changes Over Time Carrying out comparative & fair testing Research from secondary sources <u>Electricity:</u> Carrying out comparative & fair testing Research from secondary sources <u>Living Things & Their Habitats:</u> Grouping & Classifying (Pattern Seeking/Noticing patterns) Research from secondary sources <u>Forces:</u> Pattern seeking/Noticing patterns Comparative & Fair Testing	<u>Animals inc. Humans:</u> Grouping & Classifying Research from Secondary Sources <u>Living Things & Their Habitats:</u> Research from Secondary Sources Grouping & Classifying <u>Sound:</u> Carrying out comparative & fair testing Pattern Seeking/Noticing patterns <u>Earth & Space:</u> Research from Secondary Sources Pattern Seeking/Noticing patterns <u>Properties of Materials:</u> Grouping & Classifying Carrying out Comparative & Fair Testing Observing Changes Over Time Research from Secondary Sources	<u>Animals inc. Humans:</u> Research from Secondary Sources Pattern Seeking Carrying out comparative & fair testing <u>Living Things & Their Habitats:</u> Grouping & Classifying Research from Secondary Sources <u>Light:</u> Noticing Patterns/Pattern Seeking Carrying out comparative & Fair Tests <u>Evolution & Inheritance:</u> Grouping & Classifying Research From Secondary Sources <u>Forces:</u> Carrying out Comparative & Fair Testing Noticing Patterns/Pattern Seeking

Science Progression- Working Scientifically Skills

Foundation	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<u>Animals inc. Humans:</u> Observations Gathering, Recording, Communicating <u>Seasonal Changes:</u> Observations Gathering, recording and communicating <u>Plants:</u> Observations Gathering, Recording, Communicating <u>Materials:</u> Planning & Carrying Out Gathering, Recording, Communicating <u>Forces:</u> Planning and carrying out Gathering, recording and communicating <u>Light:</u> Planning & Carrying Out Gathering, Recording, Communicating Observations Concluding & Evaluating <i>*Asking & Answering questions on-going through all topics</i>	<u>Animals inc. Humans:</u> Planning and carrying out Concluding and evaluating <u>Living Things & Their Habitats:</u> Observations Planning and carrying out Gathering, recording and communicating <u>Materials:</u> Observations Planning and carrying out Gathering, recording and communicating <u>Plants:</u> Asking and answering questions Gathering, Recording, Communicating <u>Electricity:</u> Planning and carrying out Gathering, recording and communicating <u>Forces:</u> Observations Planning and carrying out Gathering, recording and communicating <i>*Asking & Answering questions on-going through all topics</i>	<u>Animals inc. Humans:</u> Observations Gathering, recording and communicating Asking and answering questions Planning and carrying out <u>Plants:</u> Asking and answering questions Observations Planning and carrying out Gathering, recording and communicating <u>Rocks & Soils:</u> Asking and answering questions Observations Gathering, recording and communicating Planning and carrying out <u>Light:</u> Asking and answering questions Planning and carrying out <u>Magnets:</u> Asking and answering questions Observations Gathering, recording and communicating Planning and carrying out Concluding and evaluating <u>Materials:</u> Asking and answering questions Observations Gathering, recording and communicating Planning & Carrying Out	<u>Animals inc. Humans:</u> Asking and answering questions Observations Gathering, recording and communicating <u>States of Matter:</u> Asking and answering questions Observations Gathering, recording and communicating Planning and carrying out Concluding & Evaluating <u>Electricity:</u> Asking and answering questions Planning and carrying out Gathering, recording and communicating Concluding and evaluating <u>Living Things & Their Habitats:</u> Asking and answering questions Planning and carrying out Concluding and evaluating Gathering, recording and communicating Concluding and evaluating <u>Forces:</u> Asking and answering questions Planning and carrying out Gathering, recording and communicating Concluding and evaluating	<u>Animals inc. Humans:</u> Asking and answering questions Planning and carrying out Concluding and evaluating <u>Living Things & Their Habitats:</u> Asking and answering questions Planning and carrying out Concluding and evaluating <u>Sound:</u> Asking and answering questions Planning and carrying out Concluding and evaluating Observations Gathering, recording and communicating <u>Earth & Space:</u> Asking and answering questions Planning and carrying out Concluding and evaluating Gathering, recording and communicating <u>Properties of Materials:</u> Asking and answering questions Planning and carrying out Observations Gathering, recording and communicating Concluding and evaluating	<u>Animals inc. Humans:</u> Asking and answering questions Planning and carrying out Concluding and evaluating Observations Gathering, recording and communicating <u>Living Things & Their Habitats:</u> Asking & answering question Planning & Carrying out Concluding & Evaluating <u>Light:</u> Asking and answering questions Planning and carrying out Gathering, recording and communicating Concluding and evaluating Observations <u>Evolution & Inheritance:</u> Asking and answering questions Planning and carrying out Concluding and evaluating <u>Forces:</u> Asking and answering questions Planning and carrying out Observations Gathering, recording and communicating Concluding and evaluating

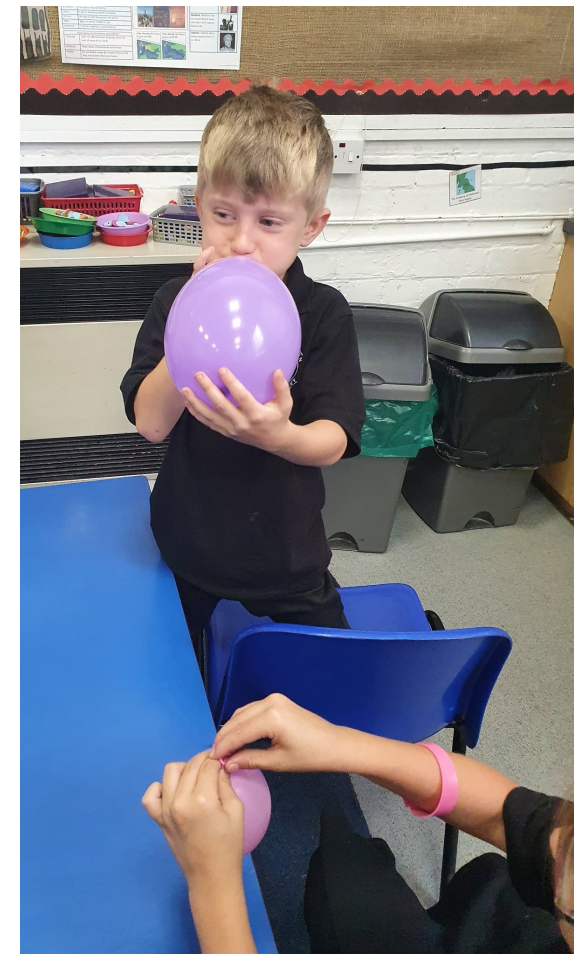
Science SMSC Links

We promote <u>Spiritual</u> development	We promote <u>moral</u> development	We promote <u>social</u> development	We promote <u>cultural</u> development
<p>Science is using evidence to make sense of the world. It has the ability to make us feel both enormously insignificant (compared to the scale of the visible universe) and enormously significant (we are genetically unique). It helps us understand our relationship with the world around us (how the physical world behaves, the interdependence of all living things). Making new discoveries increases our sense of awe and wonder at the complexities and elegance of the natural world. For scientists, this is a spiritual experience and drives us onwards in our search for understanding.</p>	<p>Whether it's the ethics behind certain medical treatments, the environmental impact of industry, or how government funding is allocated to scientific projects; moral decisions are an important aspect of Science. Scientific discoveries and inventions need to be used responsibly, and decisions made based on evidence (not prejudice). As teachers, we encourage pupils to be both open minded (generating a hypothesis) and critical (demanding evidence) and to use their understanding of the world around them in a positive manner.</p>	<p>Scientists are collaborators. Sharing ideas, data, and results (for further testing and development by others) is a key principle of the scientific method. We encourage pupils to work together on scientific investigations and to share results (to improve reliability). Science has a major impact on the quality of our lives. In Science lessons, pupils consider the social impact (both positive and negative) of science and technology.</p>	<p>Science permeates modern culture, and has played a key part in developing it. It is (both currently and historically) an international activity. In Science lessons, we explore and celebrate research and developments that take place in many different cultures, both past and present. We explore how scientific discoveries have shaped the, beliefs, cultures and politics of the modern world.</p>

British Values: At Gosberton Academy, we use strategies within the national curriculum and beyond to secure an understanding of British Values for learning. We weave the British Values throughout all of our lessons. A high proportion of class based work sees the value of mutual respect woven throughout the lessons. From sharing ideas, celebrating good work, valuing others contributions, or discussions and debates – mutual respect is key. Teachers and staff aspire to create classroom environments where respect and tolerance are highly prioritised.



Science at Gosberton



"I love going outside and exploring
the world around me. Like looking
for different plants or rocks."
Year 3

"Scientists change the World. I want
to do that when I'm older, I want to
change the World."

Year 5

"I like using what I've learnt in the
past in Science to help me with new
learning."
Year 5

What do we love about Science at Gosberton?

"I like conducting experiments to
answer questions. We wanted to find
out if plants could survive without
their leaves so we created our own
experiment to find out."

Year 4

"In every Science lesson, I'm just like
wow. Science is amazing."
Year 2

"I enjoy using different equipment
in Science. We use data loggers,
weather machines and computers
to record data."
Year 6

**Exciting
Entry & Exit Points**

Local Environment:

Outdoor learning, visits to the school and walks around the village

Practical lessons using various equipment

Home learning projects &

Engagement

Trips-

Magna, Baytree, Farm, the beach and the space centre

Use of Technology-

Learning by Questions, Data loggers, iPads and the weather machine

First Hand experiences

Investigations and explorations.

Theme Days & Workshops
e.g. Science Roadshow and Mad Science

Clubs

Cross curricular links: Reading, Writing, Maths & Geography



Progressive
Curriculum building on

Enquiry based
lessons

Quizzes, Questioning
and Quick fire

Retrieval based
activities

Capturing Our Knowledge

Application of knowledge
through cross curricular

Learning by Questions

Knowledge Organisers

Transition preparation for
Secondary School

Use of technology to
record learning

