Science: A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils at Edmund De Moundeford Primary school are taught essential aspects of the knowledge, methods, processes and uses of science.

EYFS

Understanding the world	Explore the natural world around them. Describe what they see, hear and feel while they are outside. Recognise some environments that are different to the one in which they live. Understand the effect of changing season on the natural world around the,
Personal, Social and Emotional Development	Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.
Communication and language	Make comments about what they have heard and ask questions to clarify understanding. Learn new vocabulary and use it in different contexts.

Year 1 – Science aims

Plants	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.
Animals, including humans:	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals Identify and name a variety of common animals that are carnivores, herbivores and omnivores Describe and compare the structure of a variety of common animals Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense
Everyday Materials	Compare and group together a variety of everyday materials on the basis of their simple physical properties Distinguish between an object and the materials from which it is made Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock. Describe the simple physical properties of a variety of everyday materials.
Season Changes	Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies

Year 2 – Science aims

Plants	Observe and describe how seeds and bulbs grow into mature plants Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy
Animal, including humans	Notice that animals, including humans, have offspring which grow into adults Find out about and describe the basic needs of animals, including humans for survival Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.
Use of everyday materials	Identify and compare the suitability of a variety of everyday materials Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching
Living things and their habitats	Explore and compare the differences between things that are living, dead and things that have never been alive Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. Identify and name a variety of plants and animals in their habitats, including micro-habitats Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different food sources.

Year 3 – Science aims

Plants	Identify and describe the functions of different parts of flowering plants Explore the requirements of plants for life and growth 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.
Animals, including humans	Identify that animals, including humans, need the right types and amount of nutrition, and they cannot make their own food; they get nutrition from what they eat Identify that humans and some other animals have skeletons and muscles for support, protection and movement.
Rocks	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. Describe in simple terms how fossils are formed when things that have lived are trapped within rock Recognise that soils are made from rocks and organic matter
Light	Recognise that they need light in order to see things and that dark is the absence of light Notice that light is reflected from surfaces Recognise that light from the sun can be dangerous and that there are ways to protect their eyes Recognise that shadows are formed when the light from a light source is blocked by a solid object. Find patterns in the way that the size of shadows change
Forces and magnets	Compare how things move on different surfaces Notice that some forces need contact between two objects, but magnetic forces can act at a distance Observe how magnets attract or repel each other ad attract some materials and not others 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. Describe magnets as having two poles Predict whether two magnets will attract or repel each other, depending on which poles are facing

Year 4 – Science aims

Living things and their habitats	Recognise that living things can be grouped in a variety of ways Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. Recognise that environments can change and that this can sometimes pose dangers to living things.
Animals including humans	Describe the simple functions of the basic parts of the digestive system in humans Identify the different types of teeth in humans and their simple functions Construct and interpret a variety of food chains, identifying producers, predators and prey
States of matter	Compare and group materials together, according to whether they are solids, liquids or gases 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 (°C) Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature
Sound	Identify how sounds are made, associating some of them with something vibrating Recognise that vibrations from sounds travel through a medium to the ear Find patterns between the pitch of a sound and features of the object that produced it Find patterns between the volume of a sound and the strength of the vibrations that produced it Recognise that sounds get fainter as the distance from the sound source increases
Electricity	Identify common appliances that run on electricity. Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers 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 Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit Recognise some common conductors and insulators, and associate metals with being good conductors

Year 5 – Science aims

Living things and their habitats	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird Describe the life process of reproduction in some plants and animals
Animals including humans	Describe the changes as humans develop to old age
Properties and changes of materials	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 Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic Demonstrate that dissolving, mixing and changes of state are reversible changes 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
Earth and Space	Describe the movement of the Earth and other planets relative to the sun in the solar system Describe the movement of the moon relative to the Earth Describe the sun, Earth and moon as approximately spherical bodies Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky
Forces	Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object Identify the effects of air resistance, water resistance and friction, that act between moving surfaces Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect

Year 6 – Science aims

Living things and their habitats	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 Give reasons for classifying plants and animals based on specific characteristics
Animals including humans	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function Describe the ways in which nutrients and water are transported within animals, including humans
Evolution and inheritance	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution
Light	Recognise that light appears to travel in straight lines 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 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 Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them
Electricity	Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit 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 Use recognised symbols when representing a simple circuit in a diagram

Working scientifically – Taught throughout units	
Years 1 and 2	Asking simple questions and recognising that they can be answered in different ways Observing closely, using simple equipment Performing simple tests Identifying and classifying Using their observations and ideas to suggest answers to questions Gathering and recording data to help in answering questions
Years 3 and 4	Asking relevant questions and using different types of scientific enquiries to answer them Setting up simple practical enquiries, comparative and fair tests Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Identifying differences, similarities or changes related to simple scientific ideas and processes.
Years 5 and 6	planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations identifying scientific evidence that has been used to support or refute ideas or arguments

THESE ARE THE AREAS OF LEARNING FOR 2025/2026 AND UNITS THAT ARE NOT TAUGHT WILL BE TAUGHT IN FOLLOWING YEARS

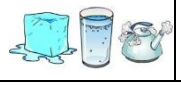
Nightingales – EYFS/Year 1

Autumn Term 1	Autumn Term 2	Spring 1	Spring 2	Summer 1	Summer 2
Seasons focus to occur across the year with one week focus per season focusing on the changes/weather					
Animals including humans Life processes and living things 		Everyday materials 		Plants & Nature protectors 	
Key scientists will be looked at throughout the teaching and learning of science					

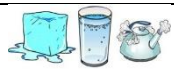
Penguins – Year 1/2/3

Autumn Term 1	Autumn Term 2	Spring 1	Spring 2	Summer 1	Summer 2
Season focus to occur across the year with one week focus per season focusing on the changes/weather including working scientifically: gathering and recording data to help answer questions, using observations and ideas to suggest answers to questions, observing closely, using simple equipment					
Animals including humans 	Environment: Nature Protectors & Rocks 	Everyday materials/Use of everyday materials 		Plants  Living things and their habitats 	
Key scientists will be looked at throughout the teaching and learning of science					

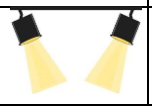
Flamingos – Year 3/4

Autumn Term 1	Autumn Term 2	Spring 1	Spring 2	Summer 1	Summer 2
Sound 	States of matter 	Rocks 	Plants 	Animals including humans/Living things and their habitats 	
Key scientists will be looked at throughout the teaching and learning of science					

Goldfinches – Year 4/5

Autumn Term 1	Autumn Term 2	Spring 1	Spring 2	Summer 1	Summer 2
Living things and their habitats 		Earth and Space 	Properties of Materials 	States of matter 	Changing Oceans 
Key scientists will be looked at throughout the teaching and learning of science					

Hummingbirds – Year 6

Autumn Term 1	Autumn Term 2	Spring 1	Spring 2	Summer 1	Summer 2
Evolution and Inheritance 	Earth and Space 	Living things and their habitats 	Electricity 	Light 	Animals including humans 
Key scientists will be looked at throughout the teaching and learning of science					