Middlewich Primary School Curriculum
Science

Our Science curriculum follows the guidelines and aims of development matters for EYFS and the National curriculum in England for Key Stages 1 and 2.

These ensure that all pupils:

- develop scientific knowledge of biology, chemistry and physics
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future

EYFS

<u>Seasonal changes</u> Learn about the four seasons.	<u>Animals including Humans</u> Different animals. Human body parts. How humans change as they grow. Keeping healthy.	<u>Materials</u> Name different materials. <u>Changes of state.</u> Ice melting	<u>Earth and Space</u> The 8 planets and the sun.	<u>Forces</u> Effects of gravity, friction and magnetic forces.
<u>Plants</u> Identity plants	<u>Living things and their habitats</u> Where animals live and what they eat.	<u>Fossils</u> Dinosaurs and fossils.	<u>Sound</u> Ears can hear sounds. Loud and quiet, high and low. Vibrations	<u>Electricity</u> Things that use electricity.

Curriculum Overview Key Stage 1

Working Scientifically

Pupils in Years 1 and 2 will use the following practical scientific methods, processes and skills:

- 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

Pupils will work scientifically to learn about:

Year 1	Plants Identify and name some common plants and their basic structure.	Animals including humans Identify and name a variety of animals including humans.	Everyday materials Identify and describe the properties of some materials.	Seasonal changes Learn about the four seasons.
Year 2	Plants The things plants need to survive.	Animals including humans How animals including humans survive and stay healthy.	Everyday materials Materials and their uses. Look at how a material's shape can be changed.	Living things and their habitats Habitats and food.

Curriculum Overview Lower Key Stage 2

Working Scientifically

Pupils in Years 3 and 4 will use the following practical scientific methods, processes and skills:

- 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
- using straightforward scientific evidence to answer questions or to support their findings.

Pupils will work scientifically to learn about:

Year 3	Plants Functions of the parts of a plant.	Animals including humans Nutrition, skeletons and muscles.	Rocks Rocks, soils and fossils	Forces and Magnets How things move on different surfaces and magnets.	Light Light and shadows.
Year 4	Living things and their habitats Classification. Impact of changes in the environment.	Animals including humans Digestive system and food chains.	States of matter Solids, liquids and gases.	Sound Sound including volume and pitch.	Electricity Simple circuits. Conductors and insulators.

Curriculum Overview Upper Key Stage 2

Working Scientifically

Pupils in Years 3 and 4 will use the following practical scientific methods, processes and skills:

- 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

Pupils will work scientifically to learn about:

Year 5	All living things and their habitats Life cycles of animals and plants.	Animals including humans Changes as humans develop to old age.	Properties and changes to materials Materials and their properties. Reversible and irreversible changes.	Earth and space Movement of the sun, earth and moon.	Forces Effects of different forces on moving surfaces and mechanisms.
Year 6	Living things and their habitats Classification	Animals, including humans Circulatory system, digestive system. Impact of lifestyle.	Evolution and inheritance Changes over time. Offspring and adaptations.	Light How we see. Shadows.	Electricity Voltage and output in circuits.