

# Great Orton Primary School



## Science Policy

| Issue number | Author / Owner | Date Written | Approved by<br>Governors |
|--------------|----------------|--------------|--------------------------|
| 1            | Matthew Walker | January 2023 |                          |
|              |                |              |                          |
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## **Intent**

At Great Orton Primary School, it is our intention to provide a high quality science education that provides children with the foundations they need to recognise the importance of Science in every aspect of daily life. We give the teaching and learning of Science high prominence.

Our curriculum will enable children to become enquiry-based learners collaborating through researching, investigating and evaluating experiences. It will encourage respect for living organisms and for the physical environment.

Teachers will ensure that all children are exposed to high quality teaching and learning experiences. These will hook the children's interest, enabling them to develop a sense of excitement and curiosity about natural phenomena. They will be encouraged to ask questions about the world around them and work scientifically to further their conceptual understanding and scientific knowledge.

Children will be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes. It will provide opportunities for the critical evaluation of evidence and rational explanation of scientific phenomena as well as opportunity to apply their mathematical knowledge to their understanding of science, including collecting, presenting and analysing data. Children will be immersed in key scientific vocabulary, which supports in the acquisition of scientific knowledge and understanding.

All children will be provided with a broad and balanced science curriculum which reflects the equality and diversity policies and practice in school.

## **Implementation**

Great Orton Primary School use 'Snap Science' resources for science. This scheme, developed by Collins Education and refined by staff, provides full coverage of the National Curriculum, following the programmes of study for each year group carefully. It provides the right balance between working scientifically and learning scientific facts.

The Snap Science curriculum links directly to scientific knowledge, skills and understanding to ensure that learning is progressive and continuous.

Our four year cycle curriculum is built around the principle of greater learner involvement in their work. It requires deep thinking and encourages learners to work using a question as the starting point, considering different avenues for further research. They do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair

tests and finding things out using secondary sources of information. They draw simple conclusions and use scientific language to talk and write about what they have found out.

### Impact

The successful approach to the teaching of science at Great Orton Primary School will result in a fun, engaging, high quality science education, that provides children with the foundations for understanding the world that they can take with them once they complete their primary education.

Assessment at is teacher based and formed using formal strategies (e.g. periodic year group assessment tasks, quizzes) and informal strategies (Use of concept maps, verbal/written outcomes, reflection tasks/presentations).

Children at Great Orton Primary School will:

- demonstrate a love of science work and an interest in further study and work in this field
- retain knowledge that is pertinent to Science with a real life context.
- be able to question ideas and reflect on knowledge.
- be able to articulate their understanding of scientific concepts and be able to reason scientifically using rich language linked to science.
- demonstrate a high love of mathematical skills through their work, organising, recording and interpreting results.
- work collaboratively and practically to investigate and experiment.
- achieve age related expectations in Science at the end of their cohort year.

KS1/EY 3 year rolling cycle

| A 2022-2023                                    | B 2023-2024   | C 2024-2025  |
|--|---|--|
| The local environment (seasons) EYFS           | Changing world: sensing seasons (weather) Y1          | Objects and materials (materials) EYFS                   |
| Looking at animals Y1                          | Growing up (children growing) Y2                      | Using our senses (senses) Y1                             |
| Taking care (food and healthy living) Y2       | Light, space, electricity and movement EYFS           | Animals and plants (types of animals and plants) EYFS    |
| Everyday materials (materials) Y1              | Materials: shaping up materials that change shape) Y2 | Materials: good choices Y2                               |
| Plant detectives (plants around school) Y1     | What is in your habitat? (habitats) Y2                | Our changing world: Plants (leaves, growing) Y1          |
| The apprentice gardener (growing from seed) Y2 | Our changing world (habitats) Y2                      | Changing world: animal antics (animals around school) Y1 |

KS2 4 year rolling cycle

| A 2022-2023  | B 2023-2024   | C 2024-2025  | D 2025-2026                                     |
|--|---|--|---|
| Feel the force Y5<br>(forces)                              | Where does all that food go? (teeth and digestion)Y4  | Everyday materials (properties, insulation) Y5         | Body pump (blood and the circulatory system) Y6 |
| Rock detectives Y3<br>(rocks)                              | Switched on (Electricity) Y4                          | In a state (solids, liquids, gases) Y4                 | Who am I? (identification keys) Y4              |
| Amazing bodies Y3<br>(skeletons, muscles, staying healthy) | Can you see me? (light) Y3                            | Earth and beyond (space) Y5                            | The power of forces (forces)Y3                  |
| Good vibrations (Sound) Y4                                 | Marvellous mixtures (separating liquids and solids)Y5 | Everything changes (genetics and natural selection) Y6 | Danger low voltage (electricity) Y6             |
| Our changing world (adaptations) Y6                        | Our changing world (plants) Y3                        | All change (reversible and irreversible changes) Y5    | Light up your world (light) Y6                  |
| Human impact (environment) Y4                              | The nature library (classifying animals) Y6           | Body health (heart rate, food groups) Y6               | How does your garden grow (plants) Y3           |