## **Science Curriculum**

# Intent, Implementation, Impact



With our children at the heart of our school we aim to provide:

- An inclusive environment where all children thrive and feel safe
- · A broad and rich curriculum where our children can explore their thoughts, feelings and ideas.
- · A curriculum which provides the breadth and depth for our children to develop as a whole child.
- · A curriculum which is enhanced by other experiences to widen our children's knowledge

#### **Curriculum Intent**

At Reigate Park we recognise the importance of Science in every aspect of daily life. As one of the core subjects taught in Primary Schools, we give the teaching and learning of Science the prominence it requires.

Through our science curriculum we aim to create successful scientists – children who want to explore and investigate their own and each other's questions.

The National Curriculum will provide a structure and skill development for the science curriculum being taught throughout the school, which is now linked, where possible to the theme topics to provide a creative scheme of work, which reflects a balanced programme of study

Through the National Curriculum we aim to:

- develop scientific knowledge and conceptual understanding through the specific disciplines 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

### **Curriculum Implementation**

At Reigate Park Primary Academy, Science is taught as discrete lessons within the Curriculum Maestro Project for that half term.

The teaching of Science can take place in any of the four phases within each project:

#### Engage

Engage is a short stage in which children take part in a memorable experience to stimulate their curiosity, ask questions and talk about their prior learning. They are introduced to the required baseline knowledge to support future learning.

#### Develop

Develop is a longer stage, where children delve more deeply into the theme, explore and acquire new skills and knowledge, revisit previously acquired skills and knowledge, make links between subjects, explore, make, read and write for a variety of purposes across the curriculum.

#### Innovate

Innovate is a crucial opportunity for children to return to previous skills and knowledge and apply them in new contexts.

The Innovate stage poses a thematic problem, challenge, provocation or scenario that requires children to think creatively whilst applying, reflecting and revisiting what they have learnt in previous stages, in a real-life or imaginary

## **Curriculum Impact**

Our children are able to articulate what a scientist 'does'

Our children are able to explain key concepts from their science curriculum

Our children are developing the skills of planning, carrying out and evaluating an investigation to answer a key question.

Our children use appropriate vocabulary to interpret and convey their understanding of the subject. They are able to record data in a variety of ways and can prove or disprove a hypothesis in a fair and safe manner.

Our children talk enthusiastically about their Science lessons and show a genuine curiosity and interest in the areas they have explored.

Most children **will** achieve age related expectations in Science at the end of their cohort year.

Children will retain knowledge that is pertinent to Science with a real life context.

Children will be able to question ideas and reflect on knowledge.

Children will work collaboratively and practically to investigate and experiment.

Children will be able to explain the process they have taken and be able to reason scientifically.

context. Each provocation has a learning pathway which is laid out in the style of a board game in the projects. Sometimes, the Innovate stage introduces the children to a new skill or requires further research. **Express** Express gives children a structured opportunity to reflect on their learning, test their knowledge and celebrate their achievements. Cross-curricular outcomes in Science are planned for, with strong links made between Science and Lliteracy lessons. Love To Investigate units of work are in place to ensure consistent and progressive investigations are planned across the school. Children know when they are being a scientist – pupils have lanyards / template plans to follow for each investigation.