

## Subject Philosophy: Science

### Philosophy- Intent

Science is a continual process by which individuals develop an understanding of the physical and biological aspects of the world. Within school we believe that every child should be encouraged to develop their natural curiosity, awareness and understanding of the world around them.

The subject of science seeks to engage and challenge learners at many levels, linking direct practical experience with scientific ideas. Experimentation and modelling are used to develop and evaluate explanations, encouraging critical and creative thought. Opportunities are planned for pupils to:

- Enquire, explore and observe so that they can ask questions about themselves and their environment.
- Stimulate their curiosity in finding out why things happen in the way they do.
- Appreciate the way science will affect their future on a personal, national and global level.

### Broad Goals -Implementation

The broad goals of science relate to three key areas:

#### Standards of Achievement.

- To promote learning through a wide variety of teaching and learning styles.
- To foster investigational skills through acquiring and developing relevant practical tasks.
- To promote positive attitudes to the learning of science, to our world and to each other.

#### Quality of Learning.

- Develop curiosity, enjoyment, skills and a growing understanding of science through an approach in which pupils raise questions and investigate the world in which they live.
- Students can make progress regardless of their ability.

#### Quality of Teaching.

- To offer students a broad and balanced curriculum that students will experience through high quality teaching in areas of Science.
- Effective learning in Science will occur as a result of creative, challenging and inclusive teaching that supports the learning needs of all individuals in the class.
- Planning by the class teacher will address the fact that students respond most effectively to those activities that appeal to their preferred learning style(s).
- Class teachers facilitate ICT opportunities so that value will be added to teaching and learning.

### Student Outcomes and Interventions- Impact

We will know we are operating successfully when it becomes apparent that:

All students are engaged in scientific learning regardless of age or ability. However, their difficulty and the amount of time allocated to completing them will be modified according to the needs of different students, including students may be offered additional support, modified tasks or resources or extra times in school with adult support to complete set tasks.

## Development Strategies

In order to achieve our goals and bring about these outcomes we will endeavour to:

- Deploy a variety of assessment strategies to ascertain the student's skills, development and knowledge and understanding.
- Work collaboratively to carry out a subject audit based on collected evidence, such as planning, teaching, Student's work, learning walks through the school, liaison with colleagues, feedback and impact of areas needing developed are identified and addressed through written or oral feedback.

In order to achieve our goals, we will:

- Ensure all SoW are engaging and interesting and meet the needs of our students across the school.
- Ensure all staff have a good understanding and up to date understanding of teaching pedagogy.
- Ensure data and marking is coherent and pupil friendly
- Monitor resources and identify new and UpToDate resources to inspire teaching and learning.
- Provide CPD where applicable to allow teachers to feel confident when delivering Science lessons.
- To provide students the opportunity to learn outside the classroom through trips.
- Give students the opportunity to express their opinions and feelings.
- To promote Science through specific learning days and assemblies.
- To set clear and appropriate expectations of students and staff.