

## Science at Frettenham Primary school

At Frettenham given our mixed-age classes and Inquiry-based approach, children will be taught scientific content at times both out of Key-Stage and out English National Curriculum specified year. In order to meet the needs of all pupils and ensure progression in skills and knowledge we use '*Working Scientifically*' to provide considerable differentiation in class. The carefully planned units have the additional objective of deepening the children's skills and understanding and draw upon cross-curricular skills from other subject areas and vice versa. When teaching a topic such as sound which is a Yr4 topic to the yr5s and yr6s we provide clear links with other curriculum areas such as maths, computing and D&T, in order to provide suitable challenge. e.g. pie charts for results.

Through our science we embrace and develop what we believe are the essential characteristics of a scientist.

These are that pupils:

- Think independently and raise questions about working scientifically and the knowledge and skills that it brings.
- Are confident and competent in the full range of practical skills, taking the initiative in, for example, planning and carrying out scientific investigations.
- Demonstrate excellent scientific knowledge and understanding in written and verbal explanations, solving challenging problems and reporting scientific findings.
- Show high levels of originality, imagination or innovation in the application of skills.
- Undertake practical work in a variety of contexts, including fieldwork.
- Passionate about science and its application in past, present and future technologies.

To plan for progress within a unit, deeper questioning is carefully considered and PoP tasks (Proof of Progress tasks) are created that prove to the teacher that pupils are gaining a deeper understanding of the content. These tasks are designed to enable children to move from a basic to an advancing and then a deep understanding of an aspect of the science curriculum. These tasks also focus on developing the working scientifically objectives of the English National Curriculum.