

Science Policy for Deal Parochial School

a. Rationale

Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods and uses of science. Through building up a body of key foundational knowledge and concepts, they should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how key foundational knowledge and concepts can be used for explanation of what is occurring, prediction of how things will behave, and analysis of causes. This foundational understanding should be consolidated through appreciation of specific applications in society and the economy.

b. Aims

1. To develop pupils' **enjoyment and interest** in science
2. To develop pupils' understanding of key **scientific concepts** and **scientific skills**.
3. To ensure that children understand the **relevance** of what it is that they are learning.
4. To build pupils' specialist **vocabulary**, which they can use with precision as they progress.

c. Principles of pedagogy

1. To ensure that children learn through a range of **engaging activities**; including a variety of practical approaches, drama, singing and ICT.
2. To encourage **collaborative learning** amongst the children.
3. To encourage **independent learning**. Children will be encouraged to explore, perform investigative practical work and solve problems.
4. Careful **planning and assessment** will enable children to progress **without repetition** of activities or content.
5. **Differentiation**, where appropriate, will allow all children to progress in their learning.
6. Children will be encouraged to **record** in a range of ways. Teachers will carefully identify the reasons for a particular method of recording. Children will record independently when appropriate.

d. Coverage of the National Curriculum for Science

- Each year group will cover units of work as shown in our **Science Long Term Plan**.
- Each of these units will be supported by the **Kent Scheme of Work for Science (2014)**, as well as ideas and activities from a range of other sources.
- **Teachers' planning** will identify the intended learning (both skills and knowledge). They will also take into account: how to engage the children in the lesson, resources required, how children will be organised, how the children will record (if appropriate), differentiation (if appropriate), use of ICT to support learning (if appropriate), and particular vocabulary (if appropriate), and use of other adults.
- **Working scientifically skills** will be explicitly taught and practical tasks will be planned to focus on specific skills. At regular periods (eg 3 times a year), a full

experiment write up will be completed by pupils. This may require 'blocking' a whole day for the task. This will help form assessment judgements.

e. Monitoring children's achievements and attainments

- Every teacher is encouraged to develop a **breadth of evidence** relating to children's achievements. These could include: the children's science book, big books used by groups or the class, models, notes and assessment sheets used by the teacher, and electronic examples of children's learning (e.g. video, graphs, their own concept cartoons, etc).
- Once a year all teaching staff will meet in order to perform some **moderation**. Teachers will use their breadth of evidence to discuss reasons for awarding particular levels to children.
- Each season (i.e. 3 times a year), all teachers will update records to show the level at which the children are working. This **summative assessment** will enable the science leader to track children's attainment over time. Children who appear not be making the expected progress will be highlighted, and actions will be taking to support them with developing the aspect of the learning with which they are struggling with.

f. Monitoring provision for science in the school

- Each year the science leader will **observe science lessons** being taught across the school. These observations will be used to identify areas of strength and where learning can be better developed in the future.
- Each year the science leader will check that every class has covered the aspects of science as indicated in the **long term plan**.
- The science leader will monitor the use of **science resources** (thing, people, places and spaces) throughout the year.
- The science leader will maintain a record of **wider opportunities** that have been provided for the children.

g. Supporting the development of the learning and teaching of science

- The science leader will identify aspects of teachers' practice that require developing. He/she will help to provide the necessary support this to happen.
- The science leader, with support from all other staff, will ensure that there are adequate amounts of resources, and that all of these are stored in a manner that makes them easily accessible to all.
- The science leader will support colleagues with identifying ways to enrich the coverage of the science learning. This could include visits, visitors and competitions.

h. Health and Safety

- The safe use of equipment, materials, places and spaces is promoted at all times. The Association for Science Education (ASE) document '**Be Safe**' has been adopted by the school as a guide to health and safety in science.
- All offsite activities will require the class teacher to perform a **risk assessment**.
- **CLEAPSS** will be contacted by teachers should they have a query concerning health and safety.