

Dimple Well Infant School and Nursery



Science Policy

Approved by Governors

October 2020

Rationale

Science is a systematic investigation of the physical, chemical and biological aspects of the world which relies on first hand experiences and on other sources of information. The scientific process and pupils' problem-solving activities will be used to deepen their understanding of the concepts involved. The main aspects of science to be studied will be determined by the programmes of study of the Early Years Foundation Stage Curriculum and the National Curriculum.

Through Science pupils at Dimple Well Infant School and Nursery will continue to deepen their respect, care and appreciation for the natural world and all its phenomena.

Aims

- to build on pupils' curiosity and sense of awe of the natural world.
- to promote the use of scientific questioning by staff and children.
- to use experiments and practical activities to give pupils a greater understanding of the concepts and knowledge of science.
- to introduce pupils to the language and vocabulary of science.
- to develop pupils' basic practical skills and their ability to make accurate and appropriate measurements.
- to extend the learning environment for our pupils by making use of our school grounds.
- to promote a healthy lifestyle.

Foundation Stage Curriculum

Science at Foundation Stage is introduced indirectly through activities that encourage children to explore, problem solve, observe, predict, think, make decisions and talk about the world around them. The Foundation Stage Curriculum is divided into different areas of learning. Lower and Upper Foundation Stage teachers use the statements in the 'Understanding of the world' area to plan specific science activities.

Key Stage 1 National Curriculum

'Working scientifically' is described separately in the programme of study and incorporates the following:

- asking questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions

These practical science methods, processes and skills are taught through science lessons that focus on knowledge and understanding objectives in the following areas:

Year 1	Year 2
Plants	Living things and their habitats
Animals including humans	Plants
Everyday materials	Animals, including humans
Seasonal changes	Uses of everyday materials

Planning for these units is supported by the ASE planning matrices which are available for each topic. Each matrix provides:

- the key learning and vocabulary that the children need to have acquired
- examples of possible activities that enable pupils to learn or apply the knowledge
- examples of possible evidence that would indicate that children are secure in the learning and vocabulary.

Assessment

Ongoing assessments of scientific enquiry and subject knowledge happen weekly, considering the specific lesson objectives. An assessment grid for Year 1 and Year 2 is updated half termly and these results are passed on through to the next teacher as the child moves through school. At the end of Year 2 children are identified as working at a level towards the expected standard, working at a level in line with the expected standard or working at a level exceeding the expected standard based on the ongoing weekly and half termly assessments. (See Appendix 1 for a copy of the assessment grid).

Differentiation

Science lessons give children a suitable range of differentiated activities appropriate to their age and ability. Tasks challenge all pupils, including the more able. The grouping of pupils for practical activities takes into account their strengths and areas for development and ensures that they all take an active part in the task and gain in confidence. For pupils with special educational needs, tasks are adjusted or pupils given extra support.

Equal opportunities

All children irrespective of race, gender or ability, have access to the Science curriculum and are expected to work and achieve to the best of their individual potential. We recognise the particular importance of first-hand experience for motivating children with learning difficulties. It is acknowledged that science may strongly engage our gifted and talented children and we aim to challenge and extend them. Contexts used in teaching will be sensitive to different ethnic backgrounds and both gender and cultural differences will be reflected positively in the teaching materials used.

Health and safety

For all practical activities due care and attention is paid to health and safety issues. The ASE book 'Be Safe' is used as a model risk assessment and should be consulted when necessary.

Science Leader

It is the role of the Subject Leader to ensure that the subject is managed and organised so that it meets the aims and objectives of the school. The science coordinator will monitor teaching and learning within the subject and coordinate planning to track breadth of coverage and progression. Relevant courses linked to primary science will be attended by the coordinator and teaching staff as appropriate. The coordinator offers an after-school science club which provides time for the children to become engaged and enthused by science based activities, promoting fun and excitement in this subject.

Marking

Teachers give verbal feedback or write down comments to acknowledge a pupil's strengths and how their learning could be further developed. This is in line with the school's 'Yippee Yellow' and 'Growing Green' system and outlined in the marking policy.

Monitoring and evaluating

The Subject Leader will have oversight into monitoring and when possible conduct science lesson observations in the different classes. Samples of planning and children's work and photographs of lessons and activities will be gathered and used to help assess standards across the school.

Resources

Science equipment is stored centrally in the resource room and labelled accordingly. (See Appendix 2).