Non-Statutory - 3 years

FURZEDOWN

Science policy

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Next Review: Autumn 2021

INTENT:

- Encourage the development of positive attitudes to science.
- Deliver the Science Curriculum in ways that are imaginative, purposeful, well controlled and enjoyable.
- Children develop their Science Capital through experiential learning and begin to understand how social class affects people's aspirations and involvement in science.
- Help in developing and extending the children's scientific concepts of their world and encouraging them to ask deeper questions about the world around them.
- Deliver clear and accurate teacher explanations and skilful questioning, providing guidance but at the same time allowing children the freedom to explore as independently as possible.
- Make strong, purposeful links between science and other subjects including environmental awareness.
- Use ICT in a meaningful way to extend their learning (Data Loggers, video, photography, microscopes, iPads).
- Develop the use of scientific language, recording and techniques.
- Enable children to become effective communicators of scientific ideas, facts and data whilst becoming experts at analysing the data they collect.
- Develop the following skills of investigation – observation, measuring, predicting, hypothesising, experimenting, communicating and interpreting.

IMPLEMENTATION

Teaching and Learning of Science

Science is important because: -

- It is a body of knowledge essential to our understanding of the world around us.
- The process of scientific investigation forms the basis of most intellectual enquiry.
- The skills and knowledge of science have a wide application in everyday life.

The school will continue to promote the importance of science by holding an annual Science Fair that will include investigations, presentations and performances. Assemblies focusing on current science issues are discussed each week.
Science displays around the school include vocabulary and questions.
The school will also continue their work with the Science Learning Network.

Planning and delivery

- KS2, KS1 and EYFS teachers should be teaching science for a minimum of two hours each week, or equivalent pro rata.
- Teachers plan in year groups to ensure parity and progression
- Teachers should try to make cross-curricular links wherever possible.
- A minimum of 50% of lessons should include practical Scientific Investigation.

The science curriculum is delivered through co-operative group work, individual work, and whole class teaching. Within this structure there will be: -

- Whole class and group discussions and presentations.
- Demonstrations, explanations and instruction by teachers to groups, individuals and the whole class as well as child-led when possible.
- Practical activities to advance and consolidate knowledge and skills.
- Problem solving and investigation tasks.

ICT in Science

- The children are given the opportunity to research, plan, predict, test and improve their ideas using relevant ICT resources to improve understanding, aid communication and enhance presentation. .
- I.C.T provides various opportunities to investigate (e.g. virtual experiments, Concept Cartoons, Digital microscope, the Internet, etc)

Assessment and monitoring

- Science moderation involves analysis of children's work in relation to the National Curriculum content across the school. It also involves analysis of Class Floor Books and Book Creator.
- Monitoring of science teaching is carried out through study lessons focusing primarily on the effective communication of scientific knowledge and the quality of investigative work.
- Key objective are highlighted half termly to ensure coverage and progression.

IMPACT

- Improved percentage of children working at EXS across all year groups.
- Pupils have positive attitudes to science and are motivated learners who have improved aspirations and involvement in science.
- Children ask deeper questions about the world around them using their understanding of scientific concepts and knowledge.
- Clear and accurate explanations and skilful questioning, equip pupils the confidence to plan and explore/ investigate as independently as possible.
- Pupils are able to make purposeful links between science and other subjects and understand how they support each other.
- ICT is used in a meaningful way to extend their learning (Data Loggers, video, photography, microscopes, iPads).
- Children confidently use scientific language to make predictions, explain findings/ results and make reasoned conclusions.
- Pupils use a range of recording and techniques eg. tables, line and bar graphs, pie charts, scatter graphs and know how to interpret the data.
- Children are effective communicators of scientific ideas and facts.
- Pupils confidently use skills of investigation – observation, measuring, predicting, hypothesising, experimenting, communicating and interpreting.