Groveside School

Secondary Science

Curriculum Statement

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Science at Groveside School offers pupils a broad and purposeful curriculum that will show the relevance of Science in the wider world. Through the delivery of Science, we introduce our pupils to the wonders of science that are so vital for our survival. Pupils learn by hands-on experimentation, questioning and research to ensure every pupil learns transferable skills and develops a love of science.

All pupils will leave the school with an understanding of the breadth of science. They will develop an appreciation of how integrated the natural systems of this world are and how important it is for us to care for our world.

Pupils are helped at every stage to reach their full potential. We use a range of technologies to aid their learning, from electrical circuits to microscopes. These are combined with focussed teaching, clear individual objectives with regular feedback and guided practical experimentation where the pupils work in small groups. We also use our outdoor learning area as much as possible to benefit from learning through nature.

Science is a cross curricular subject, particularly in the areas of Maths, PSHE, Humanities, Food Studies and Computing. We link with these areas where there is a merging of content, such as renewable energy – Humanities; counting and drawing bar charts – Maths; the adverse effects of drinking/smoking - PSHE. Thus, demonstrating that science is not a 'stand-alone' subject: it is all encompassing and affects every aspect of our lives.

Throughout Key Stage 3 pupils learn about key science topics, such as light and sound, electricity, metals and their uses, plants and animals. We explore how they work, their importance to us and how everything in the natural world is interlinked.

We work towards these aims using hands-on experimentation, questioning and research. Then through discussion of what was discovered and using facts from their experiments, pupils learn to deliver and support their conclusion. Real life situations are woven into topics to link these skills into all aspects of pupils' everyday life.

All topics are repeated and broadened across Key Stage 4. We continue to build on the experience and knowledge the pupils have gained throughout Key Stage 3, encouraging pupils to pursue their own area of interest. Pupils' achievements and attainment are recognised through the qualifications we offer from AQA unit awards to eduqas Science Today pathway and Entry Level Science through to GCSE.

Our aim is for all pupils to discover a love of science, appreciate its usefulness and leave school as confident and resilient young adults.

How is the Science taught at Key Stage 4 ?

The aspirational goal is for all pupils is that they leave with the best result they can achieve and to give them the best start in their next step, be it work or further education. For those with a real interest this could mean a GCSE in their chosen specialism, single, double or triple science. Each pupil is taken as an individual with individual needs and interests, and so we aim to fit them with the best qualification to suit what they want to do.

How is reading promoted in Science?

All teachers are expected to be aware of each pupil's current reading age, this will allow staff to differentiate all learning resources so independent reading can be encouraged every lesson and appropriate questioning of knowledge is utilised so each learner is more able to build upon their scientific knowledge.

Measuring impact in Science

At Groveside School, staff use an online platform called Evidence for Learning to record pupil attainment in Science. This system uses the **Groveside Progress Steps** Assessment Framework.

At Key Stage 3 and 4 the **Groveside Progress Steps** cover a broad range of ability, from the 'Foundation Learning Skills' that cover Early Years education, through to the main Key Stage 3 and 4 curriculum that takes pupils from year 7 through to year 11. This helps to provide staff with additional guidance on the sequence and progression of knowledge and skills within the Science curriculum helping to ensure that learning builds upon prior attainment.

All the knowledge and skills that we would like our leaners to achieve by the end of year 11 are set out in sequential order on Evidence for Learning. It is our intention to ensure that all pupils progress at an expected rate, so they are able to achieve their personal best.

At all Key Stages, pupils will be assessed against the criteria each term. Each set of criteria will have 4 aspects.

1 - Fully Supported

2 - Partially Supported

3 - Independence

4 - Wow (transferrable skills /Application)