

SANDFIELD SCIENCE CURRICULUM STATEMENT

INTENT:

What is the curriculum aim / vision for this subject?

To prepare pupils to take their place in a technological society and to develop those scientific skills, an understanding of science knowledge, concepts and attitudes that will be useful to them in later life, by encouraging pupils to raise questions and investigate their world.

We aim to support children to develop an understanding of the process and methods of Science by providing a range of scientific enquiries, investigations and questions to help them explore the world around them. We hope to develop and nurture our children's curiosity by not only following the National Curriculum, but also following their questions and interests to hopefully develop a love, passion and appreciation for Science.

We are committed to raising standards of achievement and promoting a lifelong culture of learning through an education in science.

We aim to do this:

- To impart a body of factual and conceptual knowledge, (Science programmes of Study of the National Curriculum), that will help pupils to develop a better understanding of themselves and the world around them.
- To develop basic scientific investigational skills of observing, comparing, classifying, predicting, estimating, measuring, testing, questioning and communicating.
- To encourage the development of positive attitudes such as co-operation, curiosity, perseverance, open mindedness, responsibility, self-discipline and independent thinking.
- To use science as a vehicle for language (correct use of scientific vocabulary, numeracy and Computing development e.g science at Sandfield Park School actively promotes reading, writing, speaking and listening, measurement, data collection and analysis, research and recording using Computing tools etc.
- Develop an awareness of the social, economic and environmental implications of science that will enable pupils to contribute positively to society and become good citizens i.e cultural capital
- Providing the best possible standard of formal and informal teaching and opportunities for learning.

What do we expect students to get from this subject?

- Students become increasingly independent, building confidence in practical, and in some cases, data handling skills and greater depth of understanding in each topic.
- Students develop an understanding of and their responsibility for their health and also risk factors associated with unhealthy choices, drink and drugs.
- Students make a positive contribution to the learning of others through the development of their team-working and practical skills.
- Engaging and stimulating lessons lead to students enjoying lessons and making good progress.

How is our Curriculum Planned?

- To provide high quality pupil centred teaching using a range of teaching and learning styles, with individual attention to the pupils needs whenever possible.
- To be flexible enough to modify as new ideas emerge and as a New Science Curriculum is introduced.
- Provides Long term planning based on a modified National Curriculum using the science programmes of study for MLD pupils and a Topic/Sensory curriculum for our SLD and ASD pupils at KS3 and KS4. This shows the scientific topics studied in each term at each key stage.
- Provide Medium term planning which takes place every half term showing details of each unit, complete with differentiated activities and levelling.
- Provide Short term daily lessons which show learning objectives and expected outcomes

IMPLEMENTATION:

How does learning develop over the five years?

- At Sandfield, science is to follow a two year rolling programme from year 7-9 to ensure all pupils have full coverage of the national curriculum as groups change.
- High and Mid Attainers follow a suitable Entry Level syllabus e.g AQA or Edexcel up to Entry Level 3.
- Low Attainers will work alongside the Entry Level group whilst following an appropriate and linked AQA Unit of Accreditation.
- Science will be taught in an atmosphere in which pupils can explore, discover and investigate the world in which they live in and at a level that is appropriate to their stage of cognitive development, using a variety of teaching and learning styles e.g individual, paired or group work with support from class LSA's.
- Pupils will experience the wonder and enjoyment of science through first-hand experience using resources of different complexity, whenever possible and second hand experience when appropriate.
- Science at Sandfield is developed to foster those skills and attitudes which may be useful for future work, leisure and independent living. Reading is a high focus such as:-Reading instructions, labelling, research etc. Reading targets are referred to demonstrate that reading is involved in all subjects.

What principles have guided our decision making in developing this curriculum? What is distinctive about our curriculum?

The curriculum is developed to:-

- Show relevance by cross-curricular (PSHE, R.E, Humanities, P.E etc) and commercial links(How Science Works)
- To provide high quality pupil centred teaching using a range of teaching and learning styles, with individual attention to the pupils needs whenever possible.
- To be flexible enough to modify as new ideas emerge and as a New Science Curriculum is introduced.
- Provide Long term planning based on a modified National Curriculum using the science programmes of study for MLD pupils and a Topic/Sensory curriculum for our SLD and ASC pupils at KS3 and KS4. This shows the scientific topics studied in each term at each key stage.
- Provide Medium term planning which takes place every half term showing details of each unit, complete with adaptive learning activities and levelling.

In what ways does your curriculum help to develop...?

- Cultural diversity and identity: Ethical debates cover a range of issues
- Physically and mentally healthy lifestyles: Healthy eating, drugs, diet and healthy relationships all feature in the curriculum.
- Careers and enterprise: Science Skills relevant to the world of work are highlighted in lessons and linked to the Gatsby Bench Mark.
- Creativity and critical thinking: Critical thinking is developed through questioning and the scientific method.

IMPACT:

What forms do assessments take? What is the purpose of assessment?

Assessment is used as a diagnostic tool to inform future planning an intervention. Assessment takes many forms to cover the assessment objectives of the followed syllabi. Peer and self-assessment is encouraged in the form of quizzes, concept maps and interactive electronic games.

Years 7 to 9: Regular assessments helps us to identify areas of weakness to act on. It involves ongoing formative assessment of scientific skills and required subject knowledge.

Years 10 to 11: End of topic or half term tests which will not only test recent learning but will check on prior learning from previous topics.

How do we know if we have a successful curriculum?

Success is measured by improvement in student outcomes in science. Scrutiny of pupil work, and pupil and parent voice has shown that pupils enjoy and look forward to their Science lessons.

By the end of Year 11 most pupils, who are able, will have some form of accreditation such as AQA Units or Entry Level Certificates in science.