

## 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 following also pupils 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 by:

- 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 ICT development e.g science at Sandfield School actively promotes reading, writing, speaking and listening, measurement, data collection and analysis, research and recording using ICT 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 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, such as around 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 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 being planned for.
- To be flexible enough to modify as new ideas emerge and as a New Science Curriculum is introduced.
- Long term planning is 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. There could be cross curricular links evident especially to humanities, PE and PSHE.
- Provide Short term daily lesson plans which show learning objectives and expected outcomes via WALT and WILF:- We are learning Today and What I'm looking for.

- Show pupil progress via teacher assessments and test results which are then recorded on Evidence for learning.

## **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.
- From the end of year 7 pupils are streamed to follow an accredited pathway suited to their cognitive level.
- High and Mid Attainers follow a suitable Entry Level syllabus e.g AQA or Edexcel upto Entry Level 3.
- High attainers with Entry level 2/3 will then follow a Foundation GCSE course.
- 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 School is developed to foster those skills and attitudes which may be useful for future work, leisure and independent living.

### **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 Benchmarks.
- 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 and 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 involve the formative assessment of scientific skills and required subject knowledge at the end of each topic. This helps us to identify areas of development to act on.

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 a 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.
- Teacher evaluation of curriculum to check it meets the needs of our students.

- Pupil voice informs any barriers to learning and changes can then be made to meet all learning needs.
- Evidence of learning, progress and a balanced curriculum from learning walks, scrutiny of student work, and lesson observations.
- Overall success is achieved once pupils leave the school either by being employed or on route to doing this