

SCIENCE POLICY

Approved by: Board of Directors on 10th February 2016

Effective From: December 2015

Review Date: December 2017

Next Review Date : December 2019



What is our philosophy in Science?

In the Heathland Whitefriars Federation, we aim to develop all children's knowledge and understanding of scientific principles. We believe that all pupils should have an understanding of these scientific principles and we aim to enable pupils to become exploratory learners through enquiry based learning which focuses on excitement and curiosity about natural phenomena.



Article 28: Your right to learn and go to school

What is our aim?

We aim to develop the children's body of key scientific knowledge and concepts and to provide first hand experiences that engage and develop a deeper understanding of the world. Pupils will develop an understanding of the nature of processes and methods of Science through a variety of scientific enquiry based learning. We aim to equip our pupils with knowledge and understanding of the uses and implications of science now and in the future. In addition, pupils will learn about the social and economic implication of science and how it affects their lives and the lives of others. Furthermore, pupils learn a range of scientific subjects, for example living things, materials and physical processes.



Article 13: Your right to information

We aim to develop the children's investigation and research skills. The Heathland Whitefriars Federation aim to support pupils in their understanding of concepts and to promote progression through the next steps in their learning. Pupils will learn a range of scientific vocabulary and how to apply this and their mathematical knowledge to their understanding of concepts. Pupils will learn to collect, present and analyse data. We encourage pupils to investigate, question and discuss in order to acquire scientific knowledge, understanding and skills.



Article 3: Everyone who works with children should always do what is best for each child

To ensure the safety of all pupils, we reinforce and develop children's understanding of potential risks when investigating materials and living things. Pupils are taught how to conduct scientific investigations safely and it is emphasised that these rules must be followed when conducting experiments to prevent them from injury or harm.



Article 19: You have the right not be harmed and should be looked after and kept safe



What is our approach to Teaching and Learning?

At the Heathland Whitefriars Federation we base our teaching and learning in Science on topics and where necessary standalone lessons are taught to ensure coverage. Through teaching topic based Science, cross curricular links can be made that allow pupils to see Science within a situation e.g. weight and measuring and using literacy skills when recording scientific learning. Pupils learn in the stimulating environments around the schools and have many opportunities to investigate living things and life processes through observations and enquiry based learning. We aim to develop pupil's investigatory skills and understanding through questioning and provide real life experiences in which to develop their learning.

What does our Science curriculum offer?

Science is taught through topic based learning, however coverage of the New National curriculum areas is ensured through regular analysis by the science faculty leaders to ensure coverage and progression of skills over the course of each key stage. We aim to meet and exceed the objectives outlined in the New National Curriculum for Science (2014). We offer opportunities for children to develop their skills and knowledge throughout each topic and plan lessons based on progression and learning opportunities that challenge and encourage pupils to use skills in enquiry.

We believe that Science in the Early Years Foundation stage is an essential part of their learning. The Early Years Curriculum encourages pupils to learn through exploration. It characterises effective learning as '*Play and Exploration; Active Learning; Creating and Thinking Critically*' (Development Matters, 2012). Throughout their daily learning pupils in the Early Years are encouraged to investigate to further develop their understanding. All children are taught as equals regardless of gender, ethnicity, background and special education needs. Through effective differentiation each activity is adapted, either by task or outcome in order to ensure that all pupils can access the learning and make progress throughout the sessions.



Article 29: Your right to become the best that you can be

How do we assess pupils?

We aim that by the end of each Key Stage, pupils will be able to apply and understand the content, skills and processes specified in the Science Programmes of study. By the end of Key Stage One and Two pupils are required to be 'working at' national standards in Key Stage one and Key Stage Two as per the New National Curriculum. In addition we aim to support the most able pupils to develop their science skills in order to achieve the 'Mastery standard' level in Science. This will encourage them to explore the curriculum in greater depth and build on the breadth of their knowledge and scientific skills. Pupils are assessed through observation and AfL (Assessment for Learning). Teachers provide pupils with opportunities to peer and self assess their progress throughout a topic.



Through next stepped learning, pupils are provided with opportunities to improve their knowledge, understanding and skills in Science. In assessing their learning pupils are encouraged to make evaluations and to apply skills learnt.

Resources

At the Heathland Whitefrars Federation we use a wide variety of resources to teach Science and aim to develop skills through appropriate resourcing. The majority of resources are labelled and stored in an accessible area in the delegated Science areas across the Federation. Practical experiments take place in suitable learning arrangements that enhance the learning of the pupils. Within the federation, we take full advantage of our outdoor learning classroom and science laboratory to enhance the teaching of pupils and help place Science within a real context.

Signed _____

(Maths Faculty Leader)

Date _____

Signed _____

(Executive Head Teacher)

Date _____

Signed _____

(Chair of Directors)

Date _____