



Primary Phase Science Curriculum Policy

Intent

"The innermost value of life is deep silence. From it arise the various areas of activity, tiny to tremendous activity. All these areas of life are integrated and perfectly coherent when the inner depth of consciousness, which is pure consciousness, shakes hands with the outer dynamism of great activity. This is brought about by Transcendental Meditation." Maharishi Mahesh Yogi

"The reservoir of energy and intelligence is at the source of thought. It's obvious that whatever energy and intelligence is displayed through our action, it all comes through our thinking - thinking is the basis of action - and whatever energy and intelligence is displayed in thinking originates from the source of thought. The secret of success is in handling the source of all energy." Maharishi Mahesh Yogi

At Maharishi School we strive for each child to reach the full potential of their creativity and their intelligence. We do this by practising Transcendental Meditation and Word of Wisdom and by following the path of Consciousness-based Education, applying Maharishi's principles of teaching.

Intelligence can be enlivened and applied through these principles:-

- link inner values with outer values in the pursuit of knowledge for a purpose
- develop each student's ability to discern finer and finer parts in the context of bigger and bigger wholes
- help pupils to look for and recognise universal patterns
- adapt teaching to take account of the individual character of each pupil's own intelligence.

Knowledge can be enlivened, structured and organised through these principles:-

- teach knowledge in the context of human purpose

- develop knowledge holistically by connecting everything that is taught to the Self of each pupil

Experience can be enlivened, extended and deepened through these principles:-

- integrate knowledge with experience in the development of Complete Knowledge
- extend each pupil's own experience in relation to knowledge taught and in conformity with their own nature through appropriate applications and practical work
- involve all the senses and organs of action in constructing learning experiences – where safe and practical.

Expression can be enlivened and enhanced through these principles:-

- encourage pupil expression at the start of each learning cycle to stimulate the desire for growth
- consolidate learning through the expression of knowledge and skill encourage the expression of fullness of life, through a wide range of expressive modes.

Aims

"Our teaching should aim at enlivening in the children the understanding that there is something deep within the surface of everything. This will make them grow in inquisitiveness and awareness of the most basic values of life, eventually leading them to the laws of nature in all the different fields of knowledge. They grow in awareness that the deeper the level from which they function, the greater the field of influence they command through their action. We help them grow into catching the more fundamental values of life from where their whole life can be organised and made fulfilled."

Science teaching at Maharishi School aspires to give all children a strong understanding of the world around them whilst acquiring specific skills and knowledge to help them to think scientifically, to gain an understanding of scientific processes and also an understanding of the uses of science, today and for the future. We aim:

- To encourage and develop children's curiosity and fascination with their world.
- To deliver lessons that engage and motivate children to encourage children to enjoy and show an interest in the subject.
- To teach children to embrace challenges by using scientific enquiry to find answers to their own and others' questions.
- To give children a wide variety of science vocabulary so that they are able to articulate their learning using this bank of words.

- To enable children to develop positive attitudes which encourage collaborative learning and perseverance.
- To encourage children to develop an understanding of how science influences and affects our everyday lives.

The content of the science curriculum is not the only value to be learnt. The process of undertaking these investigations also develops intrinsic skills necessary for scientific modes of thinking. 'Working scientifically' specifies the understanding of the nature, processes and methods of science for each year group and this is embedded within lessons and focuses on the key features of scientific inquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions. These types of scientific enquiry include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing; and researching using secondary sources. Pupils are given the opportunity to seek answers to questions through collecting, analysing and presenting data.

Both science coordinators at Maharishi School (primary and secondary) collaboratively created 4 key ideas that they thought were most important when teaching science and demonstrated 'when science looks good'. These key ideas are at the forefront when planning and delivering the science curriculum.

1. Investigating science questions. ***CbE - Life is found in layers.***
2. To use scientific vocabulary. ***CbE - Order (is present everywhere).***
3. Children are inspired to do and know more, they are able to transfer knowledge and make real life links. ***CbE - The whole is more than the sum of the parts.***
4. Children are engaged, excited and involved. ***CbE - We're here to enjoy.***

Implementation

As part of the planning process, teachers need to plan for and use the following:

1. Science Curriculum Map is used in order to sequence topics.
2. A series of 2 hour weekly lessons, which carefully plans for progression and depth.
3. National Curriculum objectives are used to inform planning and the main resource used is Hamilton Trust Science Scheme.
4. ASC exemplar materials are used to help with lesson planning and for moderation purposes.
5. Working Scientifically experiences are to be embedded into the teaching of all science lessons.

6. 'Working scientifically' posters are displayed in the EYFS classroom and in KS1 and KS2 children's books and should be referred to weekly. See Appendix 1
7. The 5 enquiry types are displayed in all classrooms. See Appendix 2
8. Opportunities are created for pupils to ask their own questions about scientific phenomena.
9. Children are to experience engaging and exciting lessons.
10. Vocabulary is built upon as children move to their next year group. This is to provide children with a rich array of vocabulary that they understand in relation to primary science.
11. Progression of knowledge and skills documents are used to support teachers' planning and to ensure they are built upon throughout each year group so that learning develops and skills and knowledge become embedded.
12. Children's scientific discoveries are celebrated in class and around the school using displays.

In ensuring high standards of teaching and learning in science, we implement a curriculum that is progressive throughout the whole school.

EYFS

Children in Reception are provided with many opportunities to explore science within their immediate environments through both adult-led and child-initiated activities. Our Early Years science curriculum is tailored to prepare children for KS1 by ensuring that they have the learning tools they need to achieve their Early Learning Goals. Children in the Early Years are provided with opportunities to explore the similarities and differences that they observe within their natural world. Children in the Early Years are provided with hands-on experiences with plants, insects and animals to allow them to develop their knowledge and understanding of the world around them.

Key Stage 1 and 2

Our science curriculum map indicates where and when science topics are taught across the key stages. Our science curriculum includes all areas of the Science National Curriculum with ample opportunities for pupils to work scientifically. Learning builds upon prior knowledge to ensure sequenced learning that results in pupils being confident primary scientists at the end of key stage 2.

Our 2hr weekly science lessons have an emphasis on real life and practical learning. Our aim is to provide our learners with a vast array of opportunities to work as scientists through a range of scientific enquiry. We ensure that our learners have opportunities to be curious scientists by asking and searching for answers to their own questions.

Inclusion and Equal Opportunities

At Maharishi School we are committed to providing all children with an equal entitlement to our history lessons, activities and opportunities regardless of race, gender, culture or class. [Equality Information & Objectives Statement](#)

Science is for all abilities

At Maharishi School we recognise that in all classes, children have a wide range of scientific abilities. The study of science is planned and adapted to provide pupils with a suitable range of activities and support appropriate to their abilities and needs. Curriculum planning ensures that all pupils have an equal opportunity to take part in every aspect of the science curriculum. In the planning and organisation of enrichment activities, specific needs of individuals are taken into consideration to ensure that all pupils benefit from science enrichment.

Health and Safety

It is the responsibility of the class teacher to ensure that risks are assessed prior to, and during, science lessons. Prior to a science lesson, the class teacher is to inform any additional support staff of any potential risks or hazards to be aware of. Pupils are also to be made aware of potential risks and hazards.

Impact

Our Science Curriculum is high quality, well-thought out and is planned to demonstrate progression. If children are keeping up with the curriculum, they are deemed to be making good progress, otherwise they are working towards age-related expectations. In addition, we measure the impact of our curriculum through the following methods: A reflection on standards achieved against the planned outcomes KLIPs; using a range of assessment for learning tools throughout lessons and at the end of topics and listening to children's discussions about their learning. Teachers' best practice is shared at designated staff meetings and books are monitored annually.

Assessment

In science, teachers make judgments based on children's work in the lesson, matched against the learning objectives for that lesson. At the end of each unit, children are assessed at either working towards age-related expectation or working at age-related expectation. This assessment is determined based on KLIPs and whether children have met the year group objectives for a specific area of science. Assessments are collated at the end of each term on our internal tracking sheets and at the end of the school year these are fed back to parents to inform them of their child's progress in science throughout the academic year.

Monitoring and review

The coordination and planning of the science curriculum are the responsibility of the subject leader, who also:

- provides leadership in science to secure high quality teaching and learning,
- undertakes monitoring of standards in science and uses this to inform the science action plan,
- plays a key role in motivation, supporting and modelling good practice for all staff, including the organisation and presentation of staff meetings,
- takes a lead in policy development and review,
- liaises with outside agencies and attends subject specific courses and,
- reports to the Senior Leadership team on science achievement and provision.