Junior School Science Policy

'We strive to offer a rich, inclusive and accessible education where our pupils feel supported and enjoy learning.'

Policy Statement

The aim of this document is to provide a clear statement of the principle and practice of Science at My Online Schooling Junior School. It provides a framework which allows all staff to be confident in developing their own practice in Science and ensures that we are consistent in the way we work with our pupils.

Aims

We aim to ensure that all pupils at MOS:

- are nurtured and developed into confident and inquisitive scientists, who are ready for the 21st century.
- develop understanding of the nature, processes, and methods of Science through different types of scientific enquiries that help them to answer scientific questions about the world around them.
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

In order to do this, we will:

- Promote enjoyment and enthusiasm for learning through practical activities and opportunities for exploration and discussion.
- Enable pupils to develop science skills and knowledge in line with the National Curriculum recommendations.
- Enable pupils to develop the skills required to question scientific theories.
- Enable pupils to develop the ability to solve scientific problems.
- Enable pupils to develop a practical understanding of the ways in which information is gathered, presented, and interpreted.
- Promote the importance of science and STEM in everyday life.
- Promote equality and inclusion of all within science and STEM.

Science Curriculum Planning

- The Science curriculum has been designed to support the aims and objectives of the National Curriculum and offers a range of active, stimulating, and creative teaching and learning experiences.
- The learning opportunities offered provide opportunities for pupils to acquire the knowledge, skills and understanding of scientific concepts.
- The learning experiences are purposeful and based around real-life contexts. They involve working scientifically and aim to explore and develop scientific concepts through a variety of practical based activities.

- Pupils are challenged and encouraged to observe, ask questions, make scientific predictions, and provide explanations for their thinking consistently throughout their learning.
- To support our progressive curriculum, we also offer a range of engaging STEM projects (Science, Technology, Engineering and Mathematics) throughout the academic year, including a whole school cross curricular STEM week in celebration of the annual British Science Week.
- In addition to this, Year 6 pupils are provided with the exciting opportunity to obtain the Young STEM Leaders Award prior to their transition to secondary education. A number of Junior Teachers at MOS have been STEM Assessor trained to support this.

Teaching

- In lessons, pupils will all have access to an age-related curriculum. Differentiation will be addressed through the level of depth the tasks are pitched at.
- The large majority of pupils progress through the curriculum content at broadly the same rate. Pupils who grasp concepts more rapidly will have their learning extended by going into greater depth in the age-related objectives. Pupils who find specific concepts more challenging to grasp will be provided with direct teacher support during lessons and support through additional home learning activities.
- To ensure no pupil is left behind in their learning and pupils develop a genuine conceptual understanding of the topics covered, we teach in small steps to ensure all pupils understand the content thoroughly before moving on. Pupils are encouraged to take part in 'mini-plenaries' throughout the lessons to assess their own learning.

Structure of KS2 Delivery

- Starter
- Teaching of scientific knowledge and skills
- Assessment for Learning strategies
- Application of scientific knowledge and skills
- Plenary and self-reflection

Expectations of Presentation of Science

- All teachers have high expectations of their pupils.
- Pupils are encouraged to use graph paper if/when required. They should familiarise themselves with laying out graphs and tables correctly with the aim of developing pride in the presentation of their work.
- Pupils are encouraged to use correct scientific equipment whilst presenting their work. For example, the use of rulers for tables.
- Pupils are also encouraged to submit Independent Learning Assignments neatly with clear layout of data, methods and scientific reports.

Assessment and Monitoring

- Pupils are given both oral and written feedback about their Science learning. This includes positive and relevant feedback and areas of development and next steps in learning.
- Pupils are given time for self-reflection and to respond to feedback throughout and at the end of each lesson to use mini- plenaries and the Sticky Note reflection strategy tool.
- Pupils are also encouraged to respond to feedback on Canvas and are given further opportunities to reflect on their termly learning linked to reporting to parents at Consultations and on iSAMS.
- **Formative assessment –** on a weekly basis, based on a range of evidence, teachers input formative assessment on the NC 'I Can" assessment grids, highlighting gaps in learning and ensuring next steps are taking place to address these gaps.
- **Summative assessment –** teachers use formative assessments gathered through a range of evidence over time to inform their summative judgements on a termly basis.

Reporting to Parents/Carers

- A progress overview is given at parent/carer-teacher consultations during Term 1 and Term 2.
- An end of academic year written report is provided to parents/carers at the end of Term 3 which includes summative judgements and information about pupil progress and attitudes towards learning.

Home Learning Support

- A variety of Independent Learning Assignments are issued linked to the objectives taught across the term in order to embed learning at home and demonstrate independent understanding. Pupils receive an effort grade and next step feedback on work submitted.
- Additional home learning consolidation activities are also available for pupils to access on the Science Subject Hub.
- Curriculum events are held to support parental understanding of the concepts and strategies taught in Science.

Identification of Pupils Not Making Progress

- Progress concerns are recorded by the class teacher and / or the Science Subject Leader and are monitored through continuous progress evaluations through:
    - Daily teaching and learning activities
    - ILAs
    - Formative and summative assessment data
    - Pupil progress meetings
- Next step interventions are then determined and monitored for impact.

Monitoring and Review

- The Leader of Teaching and Learning and the Science Subject Leader will review evidence of the progressive and challenging teaching of Science and how this is impacting pupil progress, through:
    - Lesson observations
    - ILAs
    - Canvas
    - Short term planning resources against MTP
    - Formative and summative assessment data
    - Pupil progress meeting discussions
    - Pupil voice
    - Staff evaluations and feedback

This policy will be reviewed annually.