Science at The Milestone School

My life, my learning, my future

INTENT:

All pupils at The Milestone School are on a pathway to study science at the National Curriculum level. It forms part of our enrichment offer. Science at The Milestone School is taught to encourage and enhance pupils' interest in, excitement about and engagement with the world around them. Science also provides a context for applying skills learned in core subjects and allows pupils to demonstrate transference of skills.

IMPLEMENTATION (Pathways – EYFS – PMLD – COMPLEX NEEDS - SEMI-FORMAL & FORMAL):

How and when pupils access Science will be dependent on their age and ability to understand key concepts and demonstrate the skills necessary to make progress within the subject. This will be determined through individual baselining on the Milestone School Progression Pathways (MSPP).
Pupils in Purple class (EYFS) will access a range of carefully planned activities through continuous and enhanced provision in the areas of Understanding the World (Birth to 5).
Pupils working on The Milestone Progression Pathways Levels 1-6 are working significantly below Age Related Expectations and will therefore not formally access lessons through The Milestone Science Subject offer. Pupils working on MSPP Levels 1 and 2 are strictly EHCP led and will experience Science as appropriate to their individual outcomes. Pupils working at Levels 3-6 are also EHCP led, however we recognise that Science offers immersive and exciting experiences which build pupils' knowledge and understanding of the world around them and will enable them to make the progress needed to move on to our subject-specific rolling programmes. Therefore, pupils working at Levels 3-6 will experience 1 focused session each week related to the areas of Understanding the World (Birth to 5).
When pupils reach Level 7 on the Milestone Progression Pathways, they will begin accessing Science taught discretely through a sequential rolling programme which spans each department within the school. The rolling programmes of study aim to give pupils exposure to the breadth and depth of the National Curriculum at a level appropriate for their needs and abilities while also providing them with a broad knowledge base and the opportunity to acquire skills needed as pupils prepare for adulthood. Instruction will begin broadly in line with Year 1 on the National Curriculum with consideration given to bridging the gap between EYFS and Year 1 skills, knowledge and expectations.

Content and skills for science span topics and skills covered in the mainstream Key Stage 1 and Key Stage 2 curriculum and, in the Senior Department, include in some cases elements of the KS3 curriculum. This has been done to ensure that pupils are challenged appropriately and given the opportunity to progress as they are able to. Skills and knowledge are embedded through planned repetition and revisiting of the different scientific strands.

Curriculum Phases

EYFS (YR-Y1)	PMLD	Complex Needs/ASD	Semi-formal	Formal
The study of science is achieved through Understanding the World; this offer enables pupils to begin their Science learning by developing their skills to show curiosity in the world around them.	The Science offer within our PMLD classes enables pupils to develop their pre-requisite skills of Science by securing the fundamental foundations to enable pupils to work scientifically.	Pupils in our CN cohort study Science as part of their curriculum offer. This strand of learning encourages pupils to secure Understanding the World outcomes and/or progress through the National Curriculum as appropriate.	The intent of Science within our semi-formal curriculum pathway encourages all pupils to progress through National Curriculum units of study.	The intent of Science within our formal curriculum pathway encourages all pupils to progress through National Curriculum units of study.
IMPLEMENTATION	**IMPLEMENTATION**	**IMPLEMENTATION**	**IMPLEMENTATION**	**IMPLEMENTATION**
Topic themes Continuous provision Understanding the World Outdoor learning & exploration	Cross-curricular opportunities Understanding the World (Birth to 5) Topic themes Sensory opportunities Engagement Model focus	Understanding the World Topic themes Cross-curricula opportunities Sensory & practical opportunities Outdoor Learning (OPAL)	Topic themes Equals scheme of work Outdoor Learning (OPAL) Discrete teaching of science	Topic themes Equals scheme of work Discrete teaching of science Outdoor Learning (OPAL)
ASSESSMENT FRAMEWORK				
EHCP outcomes Understanding the World (Birth – 5)	EHCP outcomes Engagement Model ASDAN (KS4)	EHCP outcomes Engagement model Understanding the World (Birth to 5) National Curriculum ASDAN (KS4)	EHCP outcomes National Curriculum ASDAN (KS4)	EHCP outcomes National Curriculum ASDAN (KS4)

IMPACT:

Whilst not formally assessed, progression in science is achieved through a range of experiences across academic years and monitored through tracking of carefully broken down and sequenced learning outcomes tracked on SOLAR.
Each term, Curriculum Leads monitor planning and evidence for science. Feedback is given to teachers collectively from all TLRS and followed up according to an agreed time frame.
Evidence is moderated internally and externally to ensure robust judgements are made on pupil progress.
EHCP reviews reflect on the progress made by individual pupils.
Pupil progress meetings will identify pupils who may need additional support in science.
How is evidence collected for Science?
Pupils working at Levels 1-3 will have evidence collected in line with individual EHCP outcomes and uploaded onto Evidence for Learning (EfL). This evidence is very personalised and may show cross-curricular experiences for pupils.
For pupils working on The Milestone Progression Pathways Levels 4-6, evidence will be photographic and observational. It will be collated online using Evidence for Learning (EfL) and will demonstrate pupils' engagement in a variety of activities related to science. The appropriate Birth to 5 outcomes may also be identified or 'tagged' to show breadth of knowledge and experience. Teachers will collect, at a minimum, one piece of evidence per week for Understanding the World.
For pupils working at Level 7 and above on The Milestone Progression Pathways, evidence may be a combination of photographic and observational records as well as more formal work completed by pupils. It will be collated in pupil work files/books or on Evidence for Learning and will demonstrate a variety of tasks, activities and experiences.

- KS4 pupils who are working towards certification through ASDAN, evidence will be collected and moderated in line with unit specifications.