

Sequencing and Progression

Subject: Science

INTENT	<p>At Long Mead we provide a high-quality science education providing the foundations for understanding the world through the specific disciplines of biology, chemistry and physics.</p> <p>The Scientific area of learning is concerned with increasing pupils' knowledge and understanding of our world, and with developing skills associated with Science as a process of enquiry. It will develop the natural curiosity of the child, encourage respect for living organisms and the physical environment and provide opportunities for critical evaluation of evidence.</p> <p>Children are encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.</p>
Scheme/planning used and reason for use:	<p>All teachers (Y1-6) are to follow the Kent scheme of work to base their medium term and weekly plans on. This follows the National Curriculum to ensure coverage, as well as ensuring the children are engaged and enjoying their learning. The scheme clearly indicates the aspects of knowledge that they will be developing, as well as the progression in key scientific concepts. Within EYFS we follow the development matters document and use our skills progression document to ensure the progression of skills are clearly seen. The teachers within EYFS will also follow the children's learning and develop their understanding further through play.</p>
Adaptions made to scheme, including within classrooms and reasons for this:	<p>All children will take part in Science lessons. Adaptations will be made to ensure all children can access the learning within their year group – this is through the pillars of excellence. (Modelling, scaffolding, feedback, questioning and differentiation) Adaptations to the scheme may also be made dependent on the class and their needs/particular learning styles. All KS2 children will be taught in individual year groups. KS1 children will be taught mixed.</p>
Day to day practice: (Frequency, what will be seen within lessons, pillars of excellence)	<p>Science will be taught throughout the school on weekly basis. Scientific skills and knowledge are revisited each lesson based on prior learning and through knowledge mats. These knowledge mats will also be used to support the development of vocabulary and key concepts. Revision lessons also take place at the start of each new topic to revisit concepts from previous years.</p> <p>The use of the science lab/outside area will be used to support the teaching of science and ensure that the children are engaged, enthused and challenged. To ensure this takes place lessons are well planned and teachers are secure in subject knowledge. At the end of each term children are to go back to their knowledge mats/vocabulary sheets and highlight in green the vocabulary they are confident with, teachers can then plan for any vocabulary that is still an issue.</p>

Progression of skills	
How we will be recording progress: (assessment, ARLO's, independent tasks, books)	<p>All classes 1-6 use TAPs assessments at the end of each unit of work to assess the children. This is usually in the form of an independent investigation. From this the teachers are able to assess the children and the knowledge they have learnt over time.</p> <p>ARLOs are created for each unit of work to assess the children and address any gaps. Leaders then use this so they are aware of any children who are below, ARE, above, noting children who are not making any progress. The wider curriculum leader asks all teachers to fill out a tick sheet so there is a whole class overview as to where children are at.</p> <p>Children's learning will be evidenced through; written tasks, photographs, class big books and the use of stickers to note pupil voice.</p>
How we will be developing long term memory within this subject: (Knowledge acquisition and vocabulary)	<p>Within Science all children have a knowledge mat at the front of each unit of work. The first lesson of each topic a vocabulary sheet is filled out where the children are able to tick the vocabulary they already know, this gives the teachers a base to plan their lessons and the vocabulary is then referred to each lesson.</p> <p>A homework 'menu' is also designed linked to the children's topic to consolidate learning and promote this within the family.</p>
How life skills will be developed, including SMSC and British Values.	<p>Social – themed weeks, range of groupings, assemblies linked to class topics, homework menu to encourage collaborative learning, forest school, enrichment opportunities (trips and visits).</p> <p>Moral – 5 R's focus, discussing termly targets within all lessons, monitors for jobs/tasks. High expectations of behaviour. Pupil voice carried out throughout the year by subject leaders.</p> <p>Spiritual – Assemblies weekly focused on significant events – current and past.</p> <p>Cultural – Focus week – based around cultures and countries.</p> <p>Democracy – School council working together to develop focus weeks throughout the school and through pupil voice. Mayor debate about local and national issues.</p> <p>Rule of Law – rules and expectations</p> <p>Individual Liberty – Opportunities to challenge and extend learning, adapting planning to suit the needs of our learners, presentation key across all subjects is key, class assemblies per term, FGF assembly-sharing work, pupil voice. Development of extra-curricular activities throughout the school. Topic work.</p>
	<p>Mutual respect – rules and expectations, clear modelling, group work, time to talk and discuss/share views.</p>

<p>How we will be ensuring and promoting cultural capital</p>	<p>All children are involved within all of aspects of the Science curriculum from EYFS to year 6.</p> <p>Trips and visits are also organised to promote this, as well as having strong links with Hugh Christie School.</p> <p>Through using the progression document, the Kent scheme and the use of our outside environment/local area awe and wonder is also promoted through active and engaging lessons.</p>
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