

Science		
<p>At Dunalley we want our children to be naturally curious about the world around them. Our curriculum has been developed to ensure the full coverage of the National Curriculum and to foster a sense of wonder about natural phenomena. We are committed to providing a stimulating, engaging and challenging learning environment in science.</p>		
Intent	Implementation	Impact
<p>We have planned a curriculum in Science, EYFS – Year 6 which is:</p> <p>Aspirational in terms of instilling in our pupils a desire to achieve the highest levels of success. We do this through providing pupils with the appropriate opportunities to build their substantive and disciplinary knowledge, master and apply subject concepts, skills and techniques and acquire the specialist language and technical terms to communicate their understanding effectively.</p> <p>Coherent, relevant, broad and balanced curriculum that is organised so that pupils’ knowledge is sequenced according to the logical structure of the scientific disciplines.</p> <p>Sequenced to ensure that pupils can build on prior knowledge and understanding as they tackle more complex and demanding enquiries. This sequencing puts careful attention to how to pair substantive with disciplinary knowledge, so that disciplinary knowledge is always learned with the most appropriate contexts.</p> <p>Progressive – science across Dunalley progresses from EYFS to Year 6. This progression allows children to revisit and build upon previous learning in all areas of the science curriculum.</p> <p>Continuity with the provision for science established in the EYFS and in particular that which addresses the knowledge and skills’ expectations of the <i>Understanding the World</i> area of learning and the <i>The Natural World</i> Early Learning Goal;</p> <p>Inclusive – all children receive the same curriculum and scaffolding is provided when necessary. Examples of this are: in class support, providing different learning environments, alternative learning activities and assessment outcomes.</p>	<p>Science is taught each term according to the planned overview which follows the National Curriculum and EYFS educational programmes.</p> <p>All units of work are planned by teachers guided by the planned overview of units of work, progression maps and materials from the ASE which detail:</p> <ul style="list-style-type: none"> • substantive and disciplinary knowledge • key vocabulary • misconceptions • prior learning • future learning <p>Learning and teaching in science is interactive and practical allowing opportunities for pupils to work independently, in pairs and also in groups of various sizes both inside and outside of the classroom.</p> <p>Planning is carefully structured through the use of ASE, to enable pupils to build their knowledge and understanding in incremental steps of increasing complexity</p> <p>Learning activities are very varied to ensure that all pupils have opportunities to demonstrate their strengths.</p> <p>Knowledge organisers Y2 to Y6 – used collaboratively by both teachers and pupils during the course of each unit of work to support knowledge building and the acquisition of increasingly specialised subject vocabulary and technical terms.</p> <p>We ensure that all children can access learning by: explicit instruction, reducing cognitive overload, scaffolding, use of flexible groupings based on AfL,</p>	<p>Assessment</p> <ul style="list-style-type: none"> • The MTPs and schemes of work for each unit of work in science highlight both the objectives and anticipated outcomes – the end points of learning. • teachers complete Insight at the end of each unit of work against agreed criteria for the unit in Y1-6 using the formative assessment gathered over the course of the unit of work <p>Books</p> <ul style="list-style-type: none"> • pupils learning in books will demonstrate that they have made progress to the end points of the unit and will demonstrate that they have engaged with the unit of work, used subject specialist vocabulary and acquired knowledge <p>Pupil voice Children will be able to articulate their learning in science by:</p> <ul style="list-style-type: none"> • discussing their NEW learning using subject vocabulary • discussing scientific enquiries that they have completed and what they have learnt from them. <p>Monitoring The subject leader monitors the subject through:</p> <ul style="list-style-type: none"> • ensuring coverage of the units of work • reviewing books • pupil conferencing to ensure that pupils are able to articulate their learning • lesson observations / learning walks • support to teachers in developing subject knowledge • subject review by link Governor

using technology where appropriate examples include

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- Modelling the task – including using visualisers
- Small group or 1:1 support where and when necessary (guided practice)
- AfL strategies used in the classroom to assess children's learning and adapt teaching or tasks where necessary and use flexible groupings
- Allowing learning to be recorded in different ways, e.g. pictorial, models, diagrams and/or maps. Learning is not necessarily 'written'
- Use of knowledge organisers.

Additional support for SEND or EAL children can be further provided by

- Pre-teaching vocabulary prior to beginning the topic
- Seating children alongside good role models to support one another and using as talk partners
- Providing visual or practical prompts and scaffolding prompts such as writing frames
- Providing resources through the use of widget, learning village