



*Forever Learning: Limitless potential for every child*

## Our Science Curriculum

### Subject Introduction - National Curriculum Programme of Study

#### Purpose of Study

At Victor Semour Infants we recognise the importance of Science in every aspect of daily life. We give the teaching of Science the prominence it requires as one of the subjects taught in Primary Schools. As an area of learning, Science is concerned with increasing all (including SEND) 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.

We ensure that the Working Scientifically skills are developed and extended throughout children's time at the school so that they can apply their knowledge of science when using equipment, conducting experiments, building arguments and confidently explaining scientific concepts.

#### Intent

Skills	Knowledge	Scientific Enquiry
<ul style="list-style-type: none"> <li>● Help the children to acquire practical scientific skills.</li> <li>● Develop children's skills of investigation - including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.</li> <li>● Develop children's use of ICT in investigating and recording.</li> <li>● Children will experience and observe phenomena, looking more closely at the natural and humanly constructed world around them.</li> <li>● Children will be encouraged to ask questions</li> </ul>	<p>In EYFS the children will cover knowledge of:</p> <ul style="list-style-type: none"> <li>● The Natural World (see EYFS statutory curriculum)</li> </ul> <p>In KS1 the children will cover knowledge of:</p> <ul style="list-style-type: none"> <li>● Seasonal Changes (year 1)</li> <li>● Animals including humans</li> <li>● Living things and their habitats</li> <li>● Plants</li> <li>● Materials</li> </ul>	<p>Working scientifically skills in KS1:</p> <ul style="list-style-type: none"> <li>● Ask questions</li> <li>● Plan</li> <li>● Take measurements</li> <li>● Gather, record and classify data</li> <li>● Present findings</li> <li>● Answer questions and make conclusions</li> <li>● Evaluate</li> <li>● Observation over time</li> </ul>

about what they notice.		
<b>Implement</b>		
<b>Quality First Teaching</b>	<b>VSI Pedagogy</b>	<b>Timetabling and Coverage</b>
<ul style="list-style-type: none"> <li>● Classroom tasks are a mixture of practical, recorded and discussion based activities. Most lessons include one practical or active aspect.</li> <li>● Outdoor learning (use of the school environment) is used.</li> <li>● Local outings / trips (where appropriate)</li> <li>● Use of ICT (photographs and videos)</li> <li>● Use of specific Scientific Equipment (such as rain gauges / stop clocks / magnifying glasses etc.)</li> <li>● Linked to the overarching topic or linked to other areas of the curriculum.</li> <li>● There will be suitable learning challenges.</li> <li>● There will be a response to pupils' diverse learning needs.</li> <li>● Potential barriers to learning and assessment for individuals and groups - for e.g. for SEN / LA children who need support in Literacy - have appropriate LITERACY resources to access SCIENCE learning.</li> <li>● Recap quizzes at the beginning of every lesson <ul style="list-style-type: none"> <li>● Teachers will use the White Rose scheme to improve their own subject knowledge as a scaffold to make sure the quality of science teaching covers the teaching standards to a good standard.</li> </ul> </li> </ul>	<p>At VSI we follow the principles of Rosenshine Pedagogy. All lessons have these aspects:</p> <ul style="list-style-type: none"> <li>● Sequencing concepts and modeling</li> <li>● Questioning</li> <li>● Reviewing learning</li> <li>● Practice and apply</li> </ul> <p>Through this, subject specific vocabulary is developed. Each White Rose unit has each technical term defined.</p>	<ul style="list-style-type: none"> <li>● The Science curriculum to be taught for a minimum of 1 hour per week in KS1.</li> <li>● The Science curriculum is embedded throughout the EYFS - and is mostly taught weekly in a carpet session (30 minutes) and within the provision of the enabling environment so children can access the learning independently.</li> </ul>
<b>Opportunities</b>	<b>Subject Leaders</b>	<b>Vocabulary</b>
<ul style="list-style-type: none"> <li>● To develop the children's understanding of the international and collaborative nature of science.</li> <li>● To make links between science and other subjects. <ul style="list-style-type: none"> <li>● National Science Week (In March).</li> <li>● Plants seeds in Nursery.</li> <li>● Plant beans in Reception.</li> <li>● Reception have a trip to Bocketts Farm</li> <li>● Reception has a trip to the Ecology Centre.</li> <li>● Nursery, Reception and Year 2 observe the life cycle of butterflies.</li> </ul> </li> </ul>	<p>The science subject leader is responsible for:</p> <ul style="list-style-type: none"> <li>● Planning the strategic direction and development of Science at VSI.</li> <li>● Leading Teaching and Learning in Science and sharing expertise to support staff.</li> <li>● Guiding and supporting CPD and staff development for specific teachers . TA's or as a whole school.</li> <li>● Managing Science resources.</li> <li>● Being the drive for Science as a subject and promoting and developing the VSI Science</li> </ul>	<ul style="list-style-type: none"> <li>● Develop children's use of scientific specific language, recording and techniques through the units of work covered: Plants, Animals including Humans, Materials, Habitat and Seasonal Change.</li> <li>● As well as building important subject knowledge in Science, this will extend children's familiarity with words that support understanding across different subjects.</li> </ul>

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<b>Impact</b>		
<b>Confidence</b>	<b>Enthusiasm</b>	<b>Reflective application</b>
<ul style="list-style-type: none"> <li>• Build on children's self-confidence to enable them to work independently.</li> <li>• Children will develop positive attitudes to Science.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide the children with an enjoyable experience of Science, so that they will develop a deep and lasting interest and may be motivated to study science further.</li> </ul>	<ul style="list-style-type: none"> <li>• Build on the children's natural curiosity and develop a scientific approach to problems by allowing them to be risk takers.</li> <li>• Develop children's skills of investigation - including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating, that can be applied in other subjects and later life learning.</li> </ul>