


<p style="text-align: center;">Science</p>  <p>Subject Lead: Gwyn Gowing, Jess Batten</p>	<p>At In our rapidly evolving world, science is a vital part of our curriculum intention. Science stimulates and excites pupils’ curiosity about phenomena and events in the world around them. It also satisfies their curiosity with knowledge. Because science links direct practical experience with ideas, it can engage learners at many levels. Scientific method is about developing and evaluating explanations through experimental evidence and modelling. Pupils learn to question and discuss science-based issues that may affect their own lives, the direction of society and the future of the world.</p> <p>We want every child to see themselves as a scientist and never stop being amazed by the wonders our world has to offer; to carry on asking questions and explore the possibilities open to them.</p> <p>We will strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language (EAL), and we take all reasonable steps to achieve this.</p>			<p style="text-align: center;">Covid Catch-Up Plans</p> <p>Link to Key Skills and School Improvement Plan:</p> <ul style="list-style-type: none"> - Opportunities for developing reading for purpose - Transferable writing skills - Oracy: planned opportunities for speaking and listening within groupwork and direct teaching - Cross-curricular use of Maths skills, especially measurement and data handling - Scheduled intervention to ensure science lessons are not missed regularly
<p style="text-align: center;">Teaching</p> <p>Chris Quigley Milestones adapted Subject specific lessons (within a topic-based approach) Key vocabulary prioritised Knowledge Organisers in place (Developing differentiation for SEN and EXS) Sequences of teaching and learning built for each component (built on prior learning and assessed with a POP Task)</p>	<p style="text-align: center;">Personalised Learning</p> <p>Quality First Teaching Differentiated Learning to meet needs of learners Groupings and seating within class Use of resources, models, images and word banks Variety of ways of recording outcomes</p>	<p style="text-align: center;">Resources</p> <p>Audited and reviewed annually Assessment Books – HeadStart Primary Ogden Trust Member of Royal Association of Engineers Science Sparks Primary Science Teaching Trust Classroom Secrets subscription</p>	<p style="text-align: center;">Cultural Capital</p> <p>Investigations and Experiments to develop awe, wonder and critical thinking Wide range of visits and visitors Science Ambassadors STEM Club Science Fair annually</p>	<p style="text-align: center;">Assessment</p> <p>Formative assessments by all adults in all lessons to reframe learning (if required) Marking of learning POP Tasks End of Key Stage TA</p>
<p style="text-align: center;">Inclusion - SEND</p> <p>Quality First Teaching Differentiated learning – scaffolds, vocabulary banks Opportunities for collaborative learning Range of resources Transference of IPM targets Now and next boards Effective and concise pre-teach</p> <p><i>See also ‘Supporting Every Pupil in Science’ document</i></p>	<p style="text-align: center;">Curriculum Scope and Progression</p> <p>Planning using Chris Quigley Milestones Component parts are planned in conceptual blocks across a half term Disciplinary and Substantive knowledge mapped out across the school Reconnect lessons to fill any missed, rusty or lost learning Progression within milestones identified</p>	<p style="text-align: center;">Working as a Scientist</p> <p>Each Milestone has been broken down into ‘Skills as a Scientist’ to demonstrate progression from Milestone 1 through to Milestone 3 Breadth of learning planned encompassing both disciplinary and substantive knowledge Planned opportunities for cross-curricular links as appropriate</p>	<p style="text-align: center;">Monitoring</p> <p>POP Tasks - summative Book Looks Learning Walks Flash Visits Pupil Voice</p>	<p style="text-align: center;">Outcomes</p> <p>Summative assessment is made through end of unit POP tasks by class teachers. Data is used to identify trends in classes, year groups and across the school, and inform future planned learning.</p>
<p style="text-align: center;">Disadvantaged Pupils</p> <p>Quality First Teaching Opportunities for collaborative learning Range of resources Planned visits and visitors for experiential learning – 10% reduction in cost Scheduled intervention to ensure science lessons are not missed regularly</p>	<p style="text-align: center;">Transition</p> <p>Information and data sharing with class teachers Links with secondary school to share information Curriculum sequencing equips children with the substantive and disciplinary knowledge for their next stage as a Scientist</p>	<p style="text-align: center;">CPD</p> <p>Science Leaders – termly meetings with Kernow Learning science leads November 2020 – Science staff meeting April 2021 – Science staff meeting Oct 2021 – Science staff meeting: Ogden Trust Feb 2021 – Science staff meeting</p>	<p style="text-align: center;">Strengths</p> <p>Well-resourced Standard of learning in books Development of children’s knowledge of both disciplinary and substantive Science Working walls support learning Development of Vocabulary</p>	<p style="text-align: center;">Next Steps</p> <p>Disseminate and Embed the recommendations from the Ofsted Research Review into Science. Monitor teaching and learning of Thinking Scientifically – Is this purposeful? Is this progressive? Does this develop the disciplinary knowledge of being a Scientist?</p> <p>Whole school Science fair in the summer term – link in with Kernow Learning</p>