

# Roseworth Operation Plan

2012 - 2013

Science					
Outcomes	Strategies	Resources	Monitoring	Who	When
<p><b>Science Inquiry Skills (SIS)</b> (<i>formally Investigating</i>) Students investigate to answer questions about the natural and technological world, using reflection and analysis to prepare a plan; to collect, process and interpret data to communicate conclusions and to evaluate their plan, procedures and findings.</p>	<p>Implement a whole school approach to Investigating. Trial a range of science inquiry proformas to assist students in understanding the scientific inquiry process and the individual skills of investigating (that are developmentally specific). Focus areas for investigating for:</p> <ul style="list-style-type: none"> <li>F - Observing data</li> <li>Years 1 to 2 - Recording data</li> <li>Years 3 to 6 – Recording and processing data.</li> <li>Years 7 – Recording, processing and evaluating data.</li> </ul>	<ul style="list-style-type: none"> <li>Science Inquiry Proformas to be provided to all teachers in the school through initial PL session on investigating.</li> <li>Proformas to be place on school intranet.</li> <li>Specific examples of ways to record and process data, which are developmentally specific to be provided to teachers.</li> </ul> <p>(Anna Keunen-Science Coordinator to provide to other teachers)</p>	<p>Analysis of WAMSE data for Year 5s and 7s for 2012. Also longitudinal comparison of Year 5 data for 2010with Year 7 data for 2012 (same cohort). To identify key areas of strengths and areas to improve.</p>	<p>Anna Keunen (Science Coordinator) and Deputies</p>	<p>Term 4 2011.</p>
	<p>Science Support Teacher/EA for Years 3 to 5s.</p>	<p>Science Support Teacher position for 2010 &amp; 2011 for Years 3 to 5s. (Norm Tame – Science Support Teacher)-High Achievers Initiative Science Teacher position (Sandra Notman)</p>			
	<p>Science Support Teacher to support and mentor teachers in junior primary in SIS. Science Coordinator to support and mentor Science Support teacher and all staff.</p>	<p>Collaborative planning sessions and assistance provided on a needs basis to Teachers. Encourage integration of Science into other learning areas.</p> <p>(Anna Keunen-Science Coordinator to coordinate and Science Support Teachers/EA and to provide to other teachers)</p>			
<p><b>Earth and Space Sciences</b> (<i>formally Earth and Beyond</i>) Students understand how physical environment on earth and its position in the universe impact on the way we live. They explore the changes on Earth and investigate the processes that result in the change to Earth's surface and the influence and impact of Humans.</p>	<p>Targeted professional learning for all staff on:</p> <ul style="list-style-type: none"> <li>Science and the Australian Curriculum                             <ul style="list-style-type: none"> <li>Structure of Subject</li> <li>Content</li> <li>Integration</li> </ul> </li> <li>Science Inquiry Skills                             <ul style="list-style-type: none"> <li>Classroom Modelling by SciTech</li> <li>Modelling through Primary connections</li> </ul> </li> <li>Assessment and Moderation</li> <li>Safety in Science</li> </ul>	<ul style="list-style-type: none"> <li>Australian Curriculum PDs (<i>delivered by Anna Keunen and Kyle Doughty</i>)                             <ul style="list-style-type: none"> <li>24<sup>th</sup> April</li> <li>29<sup>th</sup> May</li> <li>more TBA</li> </ul> </li> <li>Science Inquiry                             <ul style="list-style-type: none"> <li>Classroom Modelling by SciTech – Term 3</li> <li>Modelling through Primary Connections - ongoing</li> </ul> </li> <li>Assessment and Moderation PL –Term 4                             <ul style="list-style-type: none"> <li>Work samples and collaborative pairs moderate for reports (<i>delivered by Anna Keunen and other learning area coordinators</i>)</li> </ul> </li> <li>Developing Science Understandings in particular in Biological Sciences and Earth and Space Sciences                             <ul style="list-style-type: none"> <li>Science Alive show Term 2 (Organised by Anna Keunen –Science Coordinator)</li> </ul> </li> </ul>	<p>Teacher surveys to be done Term 3 to see where staff needs further development in Science.</p>	<p>Anna Keunen, Kyle Doughty and representatives from phases of learning and/ or Deputies</p>	<p>Term 2, 3 and 4 2012</p>
	<p><b>Biological Sciences</b> (<i>formally Life and Living</i>) Students understand their own biology and that of other living things and the</p>	<p>Collection from each teacher work samples that are believed to represent an A, B, C and D grade for Investigating for moderation purposes.</p>			<p>Science Specialist and/or Deputies to coordinate with all teachers.</p>

<p>interdependence, interactions within ecosystems.</p> <p><b>Chemical Sciences</b> (formally Natural and Processed Materials)</p> <p>Students understand composition, properties and behaviour of substances, how they interact and change.</p>		<ul style="list-style-type: none"> <li>Science Week Discovery Day in Term 3 (Organised by Anna Keunen and Science Committee)</li> <li>Safety in Science <ul style="list-style-type: none"> <li>24<sup>th</sup> April</li> </ul> </li> </ul> <p>(Anna Keunen - Science Coordinator to present PL sessions)</p>			
<p><b>Physical Sciences</b> (formally Energy and Change)</p> <p>Students understand the nature of forces and motion, and matter and energy. Students develop an understanding of energy concepts and transfer of energy in our universe.</p> <p><b>Science as a Human Endeavour</b> Students understand the advances through the contributions of many different people from different cultures and that there are many rewarding science based career paths.</p>	<p>Science equipment to be organised and kits to be created to match Primary Connection books.</p> <p>New Science equipment to be purchased and catalogued</p>	<ul style="list-style-type: none"> <li>Science Specialist to coordinate the revamping of science storeroom with other teachers ideas and support.</li> <li>Utilise Regional Technician for the South Metropolitan region to assist in determining the best way to organise the science resources for easy and safe access for all teachers in the school.</li> <li>Identify resources that need to be purchased that support Primary Connections, the K-10 Syllabus and the move to the Australian Curriculum Science.</li> </ul> <p>Ongoing funding needed \$2000 Anna Keunen and Nicki Miller</p>		<p>Anna Keunen (Science Coordinator) Nicki Miller (EA)</p>	<p>Term 2, 2012</p>
	<p>Development of possible extension programs for students in science.</p>	<p>Explore possible extension programs for students in science such as the after school extension programs that Scitech offer or explore developing a lunchtime science program. (Anna Keunen-Science Coordinator to look into this)</p>	<p>Review of student work samples and grades for possible student representatives.</p>	<p>Anna Keunen (Science Coordinator) and deputies</p>	<p>Term 3, 2012 for implementation in 2013</p>
	<p>Development of a Science Week program to involve whole school community in science. Science week is from the 13<sup>th</sup> to 17<sup>th</sup> August.</p>	<p>Apply for grant through the Science Teachers Association of WA (STAWA) to assist with development and running of a Science Week program. <b>Grant accepted (\$500)</b></p> <p>Establish a small committee of interested students to develop and run a program for science week – Science Discovery Day</p> <p>(Anna Keunen-Science Coordinator to coordinate, Science Committee to assist)</p>	<p>Science Engagement Survey during Science Week.</p>	<p>Anna Keunen (Science Coordinator), Year 6/7 Helpers and classroom teachers</p>	<p>Term 3, 2012</p>
	<p>Where possible utilise integrate areas of the Vegetable Garden into the science curriculum i.e. growing, recycling and harvesting. Further development of 'Vegetable Patches'.</p>	<ul style="list-style-type: none"> <li>Science Coordinator to continue further development of the area and write documentation of integration with Australian Curriculum.</li> <li>Develop ideas to put on schools' intranet that demonstrate ways of integrating gardening into science in the classroom and at home.</li> </ul> <p>(Anna Keunen-Science Coordinator, Science Committee and Norm to assist)</p>	<p>Use of Vegetable Patches and their produce</p>	<p>Anna Keunen (Science Coordinator) Science Committee and Norm to assist</p>	<p>Term 3, 2012</p>
	<p>Establish end of year Awards to promote science.</p>	<p>Access the <b>free</b> Woodside SciTech Science Awards, which are 2 book prizes that are offered to schools every year. Identify what these awards will recognise. Two students will be able to receive these awards.</p>		<p>Classroom Teachers, Deputies and Anna Keunen</p>	<p>Term 4, 2012</p>