eortific of	Portfields Primary School Medium Term Plan					
A MARY SCHOOL	Year Group – <b>4</b>	Subject – Working Scientifically	Strand -	Topic - Term –	Spring 2	And Any School
National Curriculum (Statutory)		Key Questions		Substantive Knowledge	Key Vocabulary	Real-Life Links
<ul> <li>asking relevant questions and using different types of scientific enquiries to answer them</li> <li>setting up simple practical enquiries, comparative and fair tests</li> <li>making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</li> <li>gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</li> <li>recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</li> <li>reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li> <li>using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> <li>identifying differences, similarities or changes related to simple scientific ideas and processes</li> <li>using straightforward scientific evidence to answer questions or to support their findings</li> </ul>	<ul> <li>What is an investigation?</li> <li>What could we investigate?</li> <li>What would we need to decide?</li> <li>What would we need to decide?</li> <li>What will be our big questions in the past?</li> <li>What will our hypothesis be?</li> <li>Is the experiment a fair test?</li> </ul> Technical Questions <ul> <li>What is a variable?</li> <li>A variable is any characteristic, number, or quantity that can be measured or counted.</li> <li>What is a Hypothesis?</li> <li>A hypothesis is an educated guess about what will happen in your experiment. It is NOT just a random guess!</li> <li>What is the scientific method?</li> <li>The scientific method is the process of objectively establishing facts through testing and experimentation. The basic process involves making an observation, forming a hypothesis, making a prediction, conducting an experiment and finally analyzing the results.</li></ul>		Disciplinary Knowledge         Learning Objective         LO: To observe and record how         light effects plant growth.         Success Criteria         Star Skills         To set up and complete         investigation ensuring accuracy         of recording and observing.	Technical Vocabulary       investigation, experiment, method, variables, equipment, practical enquiry, fair test, comparative test equipment       Technical Vocabulary	Inventors and Makers	
Lesson Breakdown						
Lesson 1		Lesson 2	Lesson 3		Lesson 4	
Learning Objective LO: To understand the importance of completing a fair t	est. <u>Learning Objec</u> LO: To plan an effects the gro	tive investigation to observe and compare how light wth of different plant seeds.	Learning Objective LO: To investigate how light effects the growth of different plant seeds.		Learning Objective LO: To present results and compare findings flowing an investigation	
To consider all the different aspects of scientific investig To be able to compare and contract dependent and indevariables. To explain the scientific method.	on.       Success Criteria       I can complete a fair test         andent       I can plan an investigation using variables       I can compare observations of I can make and record observations to Star Knowledge         Star Knowledge       I can use the investigations to I can use the investigation use I can use the investigation use I can		each seed type ations mplate	<u>Success Criteria</u> I can report and present findings in written form, or through displays and presentation <u>Star Knowledge</u>		
Star KnowledgeFair TestA Fair Test is based on just one difference or change (the Independent variable).	A hypothesis is your experiment	an educated guess about what will happen in nt.	e difference or change (the	To report and present findings in written form using displays To present findings orally to a class.		

