


People and Plants KS3 & 4 RHS Wisley lesson plan QCA: ‘How science works’ – selecting equipment and methods, controlling variable, recording, concluding and evaluating. Every Child Matters: main areas covered: Stay safe 2.3 Enjoy & achieve 3.6 Make a positive contribution 4.2; 4.3; 4.4		
Learning Objectives	Structure	Plenary
<p>Students should learn:</p> <ul style="list-style-type: none"> • That plants are fundamental to our lives. • That food choices depend of a variety of criteria both objective and subjective. • To differentiate between objective and subjective opinions • To know which fruit and vegetables grow in the UK. • To know the origins of some food plants. 	<p>Welcome and Health & Safety talk</p> <p>Introduction</p> <p>Discover how important plants are in our lives – match products to the plants they came from and /or find out where food plant originate.</p> <p>Activities</p> <p>Using several varieties of one food plant eg apples, take the role of the supermarket manager and decide which you would stock. Decide the criteria eg appearance, taste, nutritional value, shelf life and transport.</p> <p>Test the product using both objective and subjective tests. Discuss the value of both tests.</p> <p>Visit the food producing areas of the garden and discover what is grown at Wisley. (This may be self-guided).</p> <p>An optional seed planting activity is available.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Key Vocabulary: objective, subjective, scientific method, developing a technique, controlling variables, fair testing, evaluation, reliability of data, validity of conclusions, bias.</p> </div>	<div style="border: 1px solid black; padding: 10px;"> <p>Resources:</p> <p>Plant products and the plants they came from. Maps showing where foods originated. A selection of one food product. Suitable equipment chemicals for testing fruit/ vegetables. Optional sheets from the vegetable and fruit gardens. Optional vegetable seeds, pots and compost.</p> </div>

Assessment Questions		
<ul style="list-style-type: none"> • How important are scientific tests when choosing food for a supermarket? • Are subjective tests reliable? 	<p>Differentiation:</p> <p>All students select suitable equipment, decide on and use methods that are adequate for the task. Make observations and measurements which are recorded in tables. Relate their conclusions to their observations and to scientific knowledge and understanding. (Level 4)</p> <p>Most students identify an appropriate approach to the investigations selecting and using sources of information provided. Select and use methods adequate to the task. Identify the need to repeat measurements and observations. Record their data effectively. Analyse findings to draw conclusions consistent with the evidence and use scientific knowledge and understanding to explain them and account for any inconsistencies in the evidence. They communicate qualitative and quantitative evidence effectively. They evaluate evidence, making reasoned suggestions about how their working methods could be improved. (Level 6)</p> <p>Some students recognise that different strategies are required to investigate different kind of scientific questions and select an appropriate strategy. Record data with the precision and reliability needed. Analyse data and begin to explain and allow for anomalies. Communicate findings and arguments showing awareness of a range of views. Evaluate evidence critically and suggest how inadequacies can be remedied. (Level 8)</p>	