

## The Great Bean Race Project Rubric

<b>Content Standards</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<p><b>Understand Plant Growth</b></p> <ul style="list-style-type: none"> <li>Understand the features and processes of plant growth</li> </ul>	<p>I accurately identify and explain in detail all of the necessary conditions for plant growth.</p> <p>I describe the complete life cycle of plants in detail.</p> <p>I make many informed inferences about the role of plants in the environment.</p>	<p>I identify and explain the necessary conditions for plant growth.</p> <p>I describe the life cycle of plants.</p> <p>I make some informed inferences about the role of plants in the environment.</p>	<p>I explain the necessary conditions for plant growth with some errors.</p> <p>I describe the life cycle of plants but leave out some important information.</p> <p>I make some informed inferences and some incorrect inferences about the role of plants in the environment.</p>	<p>I explain the necessary conditions for plant growth with many errors.</p> <p>I describe the life cycle of plants inaccurately, leaving out important information.</p> <p>I make only incorrect inferences about the role of plants in the environment.</p>
<p><b>Design and Conduct an Experiment</b></p> <ul style="list-style-type: none"> <li>Hypothesize, plan, and carry out experiments</li> <li>Organize evidence of change over time</li> </ul>	<p>I develop a testable hypothesis.</p> <p>I plan an experiment that can prove or disprove the hypothesis.</p> <p>I successfully carry out an experiment that controls all variables.</p> <p>I always observe, measure, and record change over time with</p>	<p>I develop a hypothesis.</p> <p>I plan an experiment that tests the hypothesis.</p> <p>I carry out an experiment that controls some variables.</p> <p>I usually observe, measure, and record change over time with accuracy.</p>	<p>I develop a hypothesis with some assistance.</p> <p>I plan an experiment that tests the hypothesis with some assistance.</p> <p>I carry out an experiment that controls variables with some assistance.</p> <p>I observe, measure, and record change over time with some errors.</p>	<p>I develop a hypothesis with a great deal of assistance.</p> <p>I plan an experiment that tests the hypothesis with a great deal of assistance.</p> <p>I carry out an experiment that controls variables with a great deal of assistance.</p> <p>I observe, measure, and record change over time with lots of errors.</p>

	accuracy.			
<p><b>Analyze Results and Draw Conclusions</b></p> <ul style="list-style-type: none"> <li>Analyze and report conclusions of experiments</li> <li>Compare prior knowledge to the results of a scientific investigation</li> <li>Develop models (illustrations and charts) to explain how objects, events, and/or processes work</li> </ul>	<p>I successfully draw several conclusions based on evidence.</p> <p>I communicate ideas clearly and concisely.</p> <p>I consider additional variables when comparing findings with others to determine the best conditions for growing plants.</p> <p>I compare what I learned about plants to the results of the experiment and describe new learning in detail.</p> <p>I develop detailed models (illustrations and charts) with correct labeling to explain how plants grow.</p>	<p>I draw some conclusions based on evidence.</p> <p>I communicate ideas clearly.</p> <p>I compare findings with others to determine the best conditions for growing plants.</p> <p>I compare what I learned about plants to the results of the experiment and describe new learning.</p> <p>I develop models (illustrations and charts) with correct labeling to explain how plants grow.</p>	<p>I draw some conclusions that are not based on evidence.</p> <p>I communicate ideas but some ideas may be unclear.</p> <p>I compare findings with others but have difficulty determining the best conditions for growing plants.</p> <p>I compare what I learned about plants to the results of the experiment, but the comparison is confusing or inaccurate.</p> <p>I develop models (illustrations and charts) with labeling to explain how plants grow, but some elements are missing or incorrect.</p>	<p>I do not draw conclusions.</p> <p>I do not communicate ideas clearly.</p> <p>I do not compare findings or cannot determine the best conditions for growing plants.</p> <p>I do not compare what I learned about plants to the results of the experiment.</p> <p>I develop models (illustrations and charts) with labeling to explain how plants grow, but most elements are missing or incorrect.</p>

<p><b>Manage a Project</b></p> <ul style="list-style-type: none"> <li>• Complete all components of the project</li> <li>• Choose effective processes that lead to the successful completion of a project</li> <li>• Work cooperatively with others in a group</li> </ul>	<p>I independently and successfully complete all parts of the project.</p> <p>I choose helpful processes. I use timelines, ask for feedback, develop and follow a plan, and monitor and adjust as needed.</p> <p>I work cooperatively and provide leadership in a group.</p>	<p>I independently complete all parts of the project.</p> <p>I choose some helpful processes. I use timelines, ask for feedback, develop and follow a plan, and monitor and adjust as needed.</p> <p>I work cooperatively in a group.</p>	<p>I complete all parts of the project with assistance, or independently complete some of the project.</p> <p>I choose some helpful processes with assistance. I use timelines, ask for feedback, develop and follow a plan, and monitor and adjust as needed.</p> <p>I work cooperatively in a group some of the time.</p>	<p>I complete only part of the project and require a great deal of assistance.</p> <p>I do not choose helpful processes.</p> <p>I fail to work cooperatively in a group.</p>
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