

## Designing Effective Projects: Examining Rubrics Analytic Rubric Example

### Sample Analytic Rubric

This sample analytic rubric is from the Unit Plan, [The Great Bean Race](#).

#### Analytic Rubric from The Great Bean Race

Arizona Grade 3 Content Standards	4	3	2	1
<b>Understand Process of Plant Growth</b> <ul style="list-style-type: none"> <li>▪ Understand the features and processes of plant growth</li> </ul>	<ul style="list-style-type: none"> <li>▪ Accurately identifies and explains in detail all necessary conditions for plant growth</li> <li>▪ Describes the complete life cycle of plants</li> <li>▪ Makes several informed inferences about the role of plants in the environment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Identifies and explains the necessary conditions for plant growth</li> <li>▪ Describes the life cycle of plants</li> <li>▪ Makes informed inferences about the role of plants in the environment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Explains the necessary conditions for plant growth with some errors</li> <li>▪ Describes the life cycle of plants but leaves out some important information</li> <li>▪ Makes some informed inferences and some incorrect ones about the role of plants in the environment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Explains the necessary conditions for plant growth with many errors</li> <li>▪ Describes the life cycle of plants inaccurately, leaving out important information</li> <li>▪ Makes incorrect inferences about the role of plants in the environment</li> </ul>
<b>Design and Conduct an Experiment</b> <ul style="list-style-type: none"> <li>▪ Hypothesize, plan, and carry out experiments</li> <li>▪ Organize evidence of change over time</li> </ul>	<ul style="list-style-type: none"> <li>▪ Develops a testable hypothesis</li> <li>▪ Plans an experiment that can prove or disprove the hypothesis</li> <li>▪ Successfully carries out an experiment that controls all variables</li> <li>▪ Always observes, measures, and records change over time with accuracy</li> </ul>	<ul style="list-style-type: none"> <li>▪ Develops a hypothesis</li> <li>▪ Plans an experiment that tests the hypothesis</li> <li>▪ Carries out an experiment that controls some variables</li> <li>▪ Usually observes, measures, and records change over time with accuracy</li> </ul>	<ul style="list-style-type: none"> <li>▪ Develops a hypothesis with some assistance</li> <li>▪ Plans an experiment that tests the hypothesis with some assistance</li> <li>▪ Carries out an experiment that controls variables with some assistance</li> <li>▪ Observes, measures, and records change over time with some errors</li> </ul>	<ul style="list-style-type: none"> <li>▪ Develops a hypothesis with a great deal of assistance</li> <li>▪ Plans an experiment that tests the hypothesis with a great deal of assistance</li> <li>▪ Carries out an experiment that controls variables with a great deal of assistance</li> <li>▪ Observes, measures, and records change over time with lots of errors</li> </ul>

<p><b>Analyze Results and Draw Conclusion</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>	<ul style="list-style-type: none"> <li>▪ Successfully draws several conclusions based on evidence</li> <li>▪ Communicates ideas clearly and concisely</li> <li>▪ Considers additional variables when comparing findings with others to determine the best conditions for growing plants</li> <li>▪ Compares previous knowledge about plants to the results of the experiment and describes new learning in detail</li> <li>▪ Develops detailed models (illustrations and charts) with correct labeling to explain how plants grow.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Draws some conclusions based on evidence</li> <li>▪ Communicates ideas clearly</li> <li>▪ Compares findings with those of others to determine the best conditions for growing plants</li> <li>▪ Compares previous knowledge about plants to the results of the experiment and describes new learning</li> <li>▪ Develops models (illustrations and charts) with correct labeling to explain how plants grow</li> </ul>	<ul style="list-style-type: none"> <li>▪ Draws some conclusions that are not based on evidence</li> <li>▪ Communicates ideas but may be unclear</li> <li>▪ Compares findings with those of others but has difficulty determining the best conditions for growing plants</li> <li>▪ Compares previous knowledge about plants to the results of the experiment , but the comparison is confusing or inaccurate</li> <li>▪ Develops models (illustrations and charts) with labeling to explain how plants grow, but some elements are missing or incorrect</li> </ul>	<ul style="list-style-type: none"> <li>▪ Does not draw conclusions</li> <li>▪ Does not communicate ideas clearly</li> <li>▪ Does not compare findings or cannot determine the best conditions for growing plants</li> <li>▪ Does not compare previous knowledge about plants to the results of the experiment</li> <li>▪ Develops models (illustrations and charts) with labeling to explain how plants grow, but most elements are missing or incorrect</li> </ul>
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<p><b>Manage 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>	<ul style="list-style-type: none"> <li>▪ Independently and successfully completes all parts of the project</li> <li>▪ Chooses helpful processes: uses timelines, asks for feedback, develops and follows a plan, monitors and adjusts as needed</li> <li>▪ Works cooperatively and provides leadership in a group</li> </ul>	<ul style="list-style-type: none"> <li>▪ Independently completes all parts of the project</li> <li>▪ Chooses some helpful processes: uses timelines, asks for feedback, develops and follows a plan, monitors and adjusts as needed</li> <li>▪ Works cooperatively in a group</li> </ul>	<ul style="list-style-type: none"> <li>▪ Completes all of the parts of the project with assistance or independently completes some of the project</li> <li>▪ Chooses some helpful processes with assistance: uses timelines, asks for feedback, develops and follows a plan, monitors and adjusts as needed</li> <li>▪ Works cooperatively in a group some of the time</li> </ul>	<ul style="list-style-type: none"> <li>▪ Completes some of the parts of the project with assistance</li> <li>▪ Does not choose helpful processes</li> <li>▪ Fails to work cooperatively in a group</li> </ul>
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