

# Water Wise Challenge Scoring Rubric

Category	4 - Exemplary	3 - Proficient	2 - Developing	1 - Beginning
<b>Understanding of Gravity and Irrigation</b>	Clearly explains how gravitational force affects water flow on sloped farmland and how this connects to real-world irrigation. Shows deep understanding of both science and agriculture.	Explains gravitational force and its connection to water flow with relevant agricultural application.	Shows partial understanding of gravity or irrigation, with a few inaccuracies or unclear connections.	Provides a minimal or inaccurate explanation with limited real-world relevance.
<b>Prototype or Simulation Design</b>	Model or simulation is thoughtful, well-constructed, and clearly represents gravitational influence on water movement. Creative or efficient use of materials.	Model or simulation represents gravity's effect on water, with mostly accurate components and structure.	Model or simulation is incomplete or contains unclear or misleading representations.	Model or simulation is missing or not functional.
<b>Data Collection and Analysis</b>	Multiple trials recorded in a clear well-organized format. Graphs or tables are accurate, labeled, and clearly show trends or patterns.	Data is recorded and includes some visual representation (graph or table) with mostly accurate observations.	Limited data collected or visual tools are incomplete or hard to read.	Minimal or no data collected; no visual representation included.
<b>Scientific Explanation</b>	Explanation uses clear evidence. Connects observations to scientific principles and real-world agriculture with depth.	Explanation includes all components and is mostly accurate and connected to observations.	Explanation is incomplete or lacks clear evidence and connection to observations.	Explanation lacks scientific reasoning.
<b>Iteration and Improvement</b>	Demonstrates clear testing and revision process. Changes are based on results and thoughtfully explained.	Model or plan is revised at least once with some explanation based on testing.	Model revised with unclear reasoning or minimal connection to test results.	No revisions made or revisions were not explained.
<b>Application to Agriculture</b>	Provides a specific, thoughtful recommendation for how a farmer might use the design. Shows awareness of sustainability and water use.	Connects findings to agricultural practices with a clear recommendation.	Vague or general agricultural connection; recommendation is unclear or unrealistic.	No connection to agriculture or real-world application.
<b>Water Wise Challenge Overall Score</b>				

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