



Science Standards Rubric – 4th Grade

Note: All Science Standards feed into one line on the report card that reads: “Understands science processes, skills and content as appropriate for the grade level.” (Science is also integrated into English Language Arts Standards)

These rubrics are to help score students' performance based on New AZ Science Standards.

Physical Science					
Standard	Trimester Reported*	1 Minimal	2 Developing	3 Proficient	4 Advanced
4.P4U1.1	1	Describes a type of energy transfer.	Use a model or diagrams to describe how a system transfers energy from objects even when objects are not touching.	Develop and use a model to demonstrate how a system transfers energy from one object to another even when the objects are not touching	Work independently to apply content knowledge or skills to a greater depth than expected by the standard.
4.P4U1.2	1	Describes electric currents.	Use models or diagrams that demonstrate energy transfer through electric currents.	Develop and use a model that explains how energy is moved from place to place through electric currents.	Work independently to apply content knowledge or skills to a greater depth than expected by the standard.
4.P2U1.3	1	Identifies magnetic forces.	Describes magnetic forces in a diagram.	Develop and use a model to demonstrate magnetic forces.	Work independently to apply content knowledge or skills to a greater depth than expected by the standard.
4.P4U3.4	1	Identifies renewable or nonrenewable resources that generate electricity.	Collects appropriate evidence on the use and impact of renewable and nonrenewable resources to generate electricity.	Engage in argument from evidence on the use and impact of renewable and nonrenewable resources to generate electricity.	Work independently to apply content knowledge or skills to a greater depth than expected by the standard.



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Earth & Space Science					
Standard	Trimester Reported*	1 Minimal	2 Developing	3 Proficient	4 Advanced
4.E1U1.5	2	Identifies where seismic waves can be found on Earth. (Ex: earthquakes)	Describe seismic waves and begins to explain their effect on Earth.	Use models to explain seismic waves and their effect on the Earth.	Work independently to apply content knowledge or skills to a greater depth than expected by the standard.
4.E1U1.6	2	Identifies Earth’s major systems. (Ex: Geosphere, hydrosphere, atmosphere or biosphere)	Explains how Earth’s major systems interact and impact Earth.	Plan and carry out an investigation to explore and explain the interactions between Earth’s major systems and the impact on Earth’s surface materials and processes.	Work independently to apply content knowledge or skills to a greater depth than expected by the standard.
4.E1U1.7	2	Identifies features on Earth (such as rock types, fossil locations or landforms) that can be used as evidence for Earth’s surface changing over time.	Describes how features of Earth have changed over time.	Develop and/or revise a model using various rock types, fossil location, and landforms to show evidence that Earth’s surface has changed over time.	Work independently to apply content knowledge or skills to a greater depth than expected by the standard.
4.E1U1.8	2	Defines weather and climate.	Collects appropriate evidence on weather and climate patterns.	Collect, analyze, and interpret data to explain weather and climate patterns.	Work independently to apply content knowledge or skills to a greater depth than expected by the standard.
4.E1U3.9	3	Describes availability of water on Earth.	Collects appropriate evidence about the availability of water and its impact on life.	Construct and support an evidence-based argument about the availability of water and its impact on life.	Work independently to apply content knowledge or skills to a greater depth than expected by the standard.



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4.E1U2.10	3	Identifies and describes natural hazards.	Describes the effects of natural hazards.	Define problem(s) and design solution(s) to minimize the effects of natural hazards.	Work independently to apply content knowledge or skills to a greater depth than expected by the standard.
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Life Science					
Standard	Trimester Reported*	1 Minimal	2 Developing	3 Proficient	4 Advanced
4.L4U1.11	3	Defines adaptation and extinction.	Identifies appropriate environmental data about species adapting and surviving or going extinct. (Ex: fossils or environmental changes).	Analyze and interpret environmental data to demonstrate that species either adapt and survive or go extinct over time.	Work independently to apply content knowledge or skills to a greater depth than expected by the standard.