



Claim, Measurement Target, and PE Bundle

Grade 5 Overall Claim

The student has demonstrated proficiency in integrating Scientific and Engineering Practices with important Disciplinary Core Ideas and Crosscutting Concepts to scientifically investigate and understand natural phenomena and solve important science and engineering design problems.

Unit 3 Measurement Target: Students are able to apply Scientific and Engineering Practices with an emphasis on **using mathematical and computational thinking** to draw or support conclusions about the **interactions of the geosphere, biosphere, hydrosphere, and/or atmosphere** to **address, obtain, and evaluate information on issues** related to the **distribution of water on Earth and protecting Earth's resources and environment** and to **design solutions to a problem with consideration of criteria, constraints, and resources**.

Unit 3 PE Topic Bundle:

- 5-ESS2-1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. [Clarification Statement: Examples could include the influence of the ocean on ecosystems, landform shape, and climate; the influence of the atmosphere on landforms and ecosystems through weather and climate; and the influence of mountain ranges on winds and clouds in the atmosphere. The geosphere, hydrosphere, atmosphere, and biosphere are each a system.] [Assessment Boundary: Assessment is limited to the interactions of two systems at a time.]
- 5-ESS2-2. Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. [Assessment Boundary: Assessment is limited to oceans, lakes, rivers, glaciers, groundwater, and polar ice caps, and does not include the atmosphere.]
- 5-ESS3-1. Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.
- 3-5-ETS1-1. Define a simple design problem that can be solved through the development of an object, tool, process, or system and includes several criteria for success and constraints on materials, time, or cost.
- 3-5-ETS1-2. Generate and compare multiple solutions to a problem based on how well they meet the criteria and constraints of the design problem.
- 3-5-ETS1-3. Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence, using fair tests in which variables are controlled and the number of trials considered.

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