

Educational Resources from *Phenomenon Science Education*

Student Proficiency Goals for **NGSS K-ESS2-1**



Information about K-ESS2-1

NGSS Performance Expectation K-ESS2-1.

Use and share observations of local weather conditions to describe patterns over time.

Clarification Statement.

Examples of qualitative observations could include descriptions of the weather (such as sunny, cloudy, rainy, and warm); examples of quantitative observations could include numbers of sunny, windy, and rainy days in a month. Examples of patterns could include that it is usually cooler in the morning than in the afternoon and the number of sunny days versus cloudy days in different months.

Assessment Limits.

Assessment of quantitative observations limited to whole numbers and relative measures such as warmer/cooler.

Science and Engineering Practice (Analyzing and Interpreting Data)

- Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions.

Disciplinary Core Idea (ESS2.D: Weather and Climate)

- Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time.

Crosscutting Concept (Patterns)

- Patterns in the natural world can be observed, used to describe phenomena, and used as evidence.

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Student Proficiency Goals

SEP (Analyzing and Interpreting Data):

- Students observe weather conditions, such as sunny, cloudy, rainy, windy, warm, and cool, either firsthand or from grade-level appropriate media.
- Students share their observations of weather conditions.
- Students organize their observations of weather conditions into graphical displays.
- Students use their organized observations of weather conditions to identify patterns.
- Students use identified patterns in weather conditions to answer scientific questions.

DCI (ESS2.D Weather and Climate):

- Students know that weather is the combination of sunlight, wind, precipitation, and temperature in a particular place or region at a particular time.
- Students know that people describe and measure things about sunlight, wind, precipitation, and temperature in a place or region to record the weather.
- Students know that people notice patterns in the weather over time.

CCC (Patterns):

- Students notice patterns in weather conditions at places or in regions, such as temperature changes during the day, the number of sunny or cloudy days in a month or in different months, or the temperature at a specific time during different months.