Science A–Z

CLOUDS, WIND, AND STORMS (3–4)

Correlation of Resources to National Science Standards

Use the chart below to discover how selected Science A–Z resources in the Clouds, Wind, and Storms unit support certain Next Generation Science Standards (NGSS). While a single reading resource, science activity, comprehension support, or lesson cannot satisfy an entire Performance Expectation, using these resources together can help students develop the understandings and abilities they will need in order to satisfy each standard listed below. Most standards cited align with the grade level of this Science A–Z unit. For a reverse correlation tool that connects the standards to resources, visit our NGSS correlations page: www.sciencea-z.com/main/NextGenerationScienceStandards.*

Check the Performance Expectations Key below this chart for the complete text of the standards cited for each resource.

Resource Type	Resource Title	Performance Expectations
Unit Nonfiction Book	*Clouds, Wind, and Storms* (3 reading levels)	**2-ESS2-3; 3-ESS2-2; 3-ESS3-1**
Interactive Science Lesson	*Weather and Climate* Part 1: Weather	**K-ESS2-1**
Interactive Science Lesson	*Weather and Climate* Part 2: Seasons	**K-ESS2-1; 1-ESS1-2; 3-ESS2-1**
Interactive Science Lesson	*Weather and Climate* Part 3: Weather or Climate?	**K-ESS2-1; 3-ESS2-1; 3-ESS2-2**
Interactive Science Lesson	*Weather and Climate* Part 4: Weather and Climate Data	**K-ESS2-1; 3-ESS2-1; 3-ESS2-2**
Process Activity	*Comparing Evaporation Rates*	**5-ESS2-1**
Process Activity	*Making a Cloud*	**5-ESS2-1; 3-5-ETS1-3**
Process Activity	*Soda Bottle Waterspout Model*	**3-5-ETS1-3**
FOCUS Book	*Fog*	**3-ESS2-1**
FOCUS Book	*Ice Storms*	**3-ESS2-1; 3-ESS3-1; 5-ESS2-1; 3-5-ETS1-2; 3-5-ETS1-3**
FOCUS Book	*Mountain Winds*	**5-ESS2-1**
FOCUS Book	*Storm Chasers*	**3-ESS2-1; 3-ESS3-1;3-5-ETS1-2; 3-5-ETS1-3**
FOCUS Book	*Thunderstorms*	**3-ESS2-1; 3-ESS3-1; 3-5-ETS1-2**
Investigation Pack	Topic: Weather Instruments I. Files: *Anemometer; Barometer; Weather Radar; Weather; Satellite* Mystery File: *Balloon*	**3-ESS2-1; 4-PS3-2; 4-PS4-1**

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Resource Type	Resource Title	Performance Expectations
Debate	*Tornado Sirens*	**3-ESS3-1**
Science Video	*From Space to You*	**3-ESS2-1; 3-ESS3-1**
Science Video	*Hearing Hurricanes*	**3-ESS3-1**
Science Video	*Hurricane Survival*	**3-ESS3-1**
Science Video	*Jet Stream Shifting*	**3-ESS2-1; 3-ESS2-2**
Science Video	*Rainy Days and Weekdays*	**3-ESS2-1**
Science Video	*Water, Water, Everywhere!*	**5-ESS2-2**
Career Files	*Storm Chaser; NASA Weather Officer; Fire Spotter*	**3-ESS3-1**
Quick Read	*Barometer* (3 reading levels)	**3-ESS2-1**
Quick Read	*Listen to Weather Warnings* (3 reading levels)	**3-ESS3-1; 4-ESS3-2**
Quick Read	*The Jet Stream* (3 reading levels)	**3-ESS2-1; 3-ESS2-2**
Quick Read	*Weather Records* (3 reading levels)	**3-ESS2-1; 3-ESS3-1**
Quick Read	*Weather Sayings* (3 reading levels)	**3-ESS3-1**
Science Diagram	*Air Pressure and Altitude*	**MS-ESS2-5**
Science Diagram	*Annual Precipitation Map*	**3-ESS2-1**
Science Diagram	*Cloud Types*	**5-ESS2-1**
Science Diagram	*Common Types of Precipitation*	**3-ESS2-1**
Science Diagram	*Earth's Seasons*	**3-ESS2-1**
Science Diagram	*Five Climate Zones*	**3-ESS2-2**
Science Diagram	*How Rainbows Form*	**4-PS3-3**
Science Diagram	*The Water Cycle*	**5-ESS2-2**
Science Diagram	*Three Major Climate Zones*	**3-ESS2-2**
Science Diagram	*Water Moves on Earth*	**3-ESS2-1; 5-ESS2-2**

Performance Expectations Key

K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.

1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.

2-ESS2-3. Obtain information to identify where water is found on Earth and that it can be solid or liquid.

3-ESS2-1. Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.

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3-ESS2-2. Obtain and combine information to describe climates in different regions of the world.

3-ESS3-1. Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.

4-PS3-2. Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.

4-PS4-1. Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.

4-PS3-3. Ask questions and predict outcomes about the changes in energy that occur when objects collide.

4-ESS3-2. Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.

5-ESS2-1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.

5-ESS2-2. Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.

3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

MS-ESS2-5. Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.