

3: Weather

Content Area: **Science**
Course(s):
Time Period: **Full Year**
Length: **1 trimester**
Status: **Published**

General Overview, Course Description or Course Philosophy

OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS

How does our weather change over the month?

Is there a pattern in the number of cooler or hotter days during the year?

How do weather forecasters help us prepare for severe weather (hurricanes/storms)?

How can human beings help the earth conserve resources? (Reduce, Reuse, Recycle)

CONTENT AREA STANDARDS

SCI.K-2-ETS1-1	Ask questions, make observations, and gather information about a situation people want to change (e.g., climate change) to define a simple problem that can be solved through the development of a new or improved object or tool.
SCI.K-2-ETS1-3	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.
SCI.K-PS3-1	Make observations to determine the effect of sunlight on Earth's surface.
SCI.K-PS3-2	Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.
SCI.K-ESS2-1	Use and share observations of local weather conditions to describe patterns over time.
SCI.K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
SCI.K-ESS3-2	Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.

RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)

MA.K.CC	Counting and Cardinality
MA.K.CC.A	Know number names and the count sequence.

MA.K-12.2	Reason abstractly and quantitatively.
MA.K-12.4	Model with mathematics.
LA.RI.K.1	With prompting and support, ask and answer questions about key details in a text.
MA.K.MD.A.1	Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
MA.K.MD.B.3	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
LA.W.K.2	Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
LA.W.K.7	Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them).
LA.SL.K.3	Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
TECH.9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).
TECH.9.4.2.CI.2	Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
TECH.9.4.2.CT.1	Gather information about an issue, such as climate change, and collaboratively brainstorm ways to solve the problem (e.g., K-2-ETS1-1, 6.3.2.GeoGI.2).

STUDENT LEARNING TARGETS

Refer to the 'Declarative Knowledge' and 'Procedural Knowledge' sections.

Declarative Knowledge

Students will understand that:

- 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.
- Some kinds of severe weather are more likely than others in a given region.
- Weather scientists forecast severe weather so that the communities can prepare for and respond to these events.
- Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things.
- Asking questions, making observations, and gathering information are helpful in thinking about problems.
- Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people.
- Patterns in the natural world can be observed, used to describe phenomena, and used as evidence.
- Events have causes that generate observable patterns.

Procedural Knowledge

Students will be able to:

- Use and share observations of local weather conditions to describe patterns over time.
- Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.
- Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

EVIDENCE OF LEARNING

Refer to the 'Formative Assessments' and 'Summative Assessments' sections.

Formative Assessments

Calendar Math Activities

Science notebook/workbook

Verbal responses

exit & entrance tickets

Summative Assessments

Benchmark Assessments

- Multiple Choice Assessment administered at the end of each trimester (T1, T2, T3)

Alternative Assessments

- Questions for Comprehension
- Performance Tasks
- Scientific Journals/Notebooks

- Self-Assessment

RESOURCES (Instructional, Supplemental, Intervention Materials)

Calendar Math Activities

BrainPopJr

BrainPop

Mystery Science

<https://mysteryscience.com/docs/new-jersey>

INTERDISCIPLINARY CONNECTIONS

Math

ELA-communicating ideas

ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS

See link to Accommodations & Modifications document in course folder.