Unit 4: Earth's Systems- Weather

Content Area: Course(s):

Science

Time Period: **Generic Time Period**

Length: **4 weeks** Status: **Published**

Disciplinary Core Ideas

- 1. 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 A. 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.
- 2. Plants and animals can change their environment.
- 3. 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.

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

MA.K.K.MD.B.3 Classify objects into given categories; count the numbers of objects in each

category and sort the categories by count.

SCI.K-ESS2 Earth's Systems

LA.K.W.K.1 Use a combination of drawing, dictating, and writing to compose opinion pieces in

which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g., My favorite book

is...).

LA.K.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.

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.

LA.K.RL.K.1 With prompting and support, ask and answer questions about key details in a text

(e.g., who, what, where, when, why, how).

LA.K.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).

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

MA.K.K.MD.A.1 Describe measurable attributes of objects, such as length or weight. Describe

several measurable attributes of a single object.

Essential Questions

Weather Watching-Weather Conditions, Instruments, & Seasons

- 1. Have you ever watched a storm? (Weather Conditions & Tracking) (Week 1)
- 2. What will the weather be like on your birthday? (Seasons & Patterns) (Week 3)

Extension Questions:

- 3. How can we observe weather patterns?
- 4. How can we measure weather?
- 5. What are kinds of severe weather?
- 6. How can forecasts help us?

Activity

Mystery 1: Weather Watching- Weather Conditions & Tracking

Exploration Video (15 Minutes)

Activity: Be a Weather Watcher (20 min):

• In this activity, your students will observe and draw a picture of today's weather. If possible, take your students for a walk and let them draw while they are outside. If that's not possible, you'll need a window that lets them observe the weather while drawing. When students are drawing, you may need to remind them to pay attention the four aspects of the weather that are discussed in this mystery. We've included icons in

the corner of the drawing sheet as a reminder.

Step 2: Get supplies.

Each student will need:

A drawing worksheet

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- Crayons or colored pencils
- o A clipboard if they will be drawing outside

Step 3: Optional follow up

Consider having students repeat this activity when the weather changes. Drawing gives them a tool that will help them pay attention to changes in the weather that they may otherwise overlook.

<u>Extras</u>: Students can make a "Weather Window" that they use to record the weather each day for four days.

Read-aloud Mystery: Come On, Rain by Karen Hesse or The Snowy Day by Ezra Jack Keats

Mystery 2: Weather Watching- Seasons & Patterns

Exploration Video (10 Minutes)

Activity: Circle of Seasons (30 min):

• This mystery introduces the students to the four classic seasons of the temperate zone: snowy winter, warm spring, hot summer, and cool autumn with colorful leaves. Give each student the Seasons sorthing cards. To make students aware of seasonal changes, Have students keep a weather journal for a few days in fall, winter, spring, and summer. (Use the Weather Window) When students have completed all four seasons, compare the results in a class discussion. Look for patterns or trends in the weather where you

live.

Extras: Use Vocabulary cards.

Read-aloud Mystery: Snow Rabbit, Spring Rabbit, Ready for Pumpkins

Extension Activities Student Notebook:

- Weather pattern vocabulary
- · Weather tools
- Seasons spin and tell
- Weather Investigation (10 days)
- Record temperature for a day- find temperature changes
- Weather pattern question activity
- Meterologist lesson

Enduring Understanding

Understand change and observable patterns of weather that occur from day to day and throughout the year.

Assessment

- 2. Writing prompts
- 3. Partcipation in Activities
- 4. Teacher Observation

Materials & Resources

https://mysteryscience.com

- 1. Student Notebook
- 2. Thermometers
- 3. Read Alouds: <u>Snow Rabbit, Spring Rabbit</u>, <u>Ready for Pumpkins</u>, <u>Come On, Rain</u> by Karen Hesse, *The Snowy Day* by Ezra Jack Keats
- 4. tape or pushpins so you can hang the Circle of Seasons Wall Display
- 5. colored pencils or crayons (if you want students to color their Season Sorting Cards)
- 6. Season Sorting Cards from Mystery Science
- 7. Drawing Worksheet from Mystery Science
- 8. Clipboards

Accommodations and Modifications

- Large print textbooks
- Additional time for assignments

- Review of directions
- Have student restate information
- Provision of notes or outlines
- Concrete examples
- Adaptive writing utensils
- Support auditory presentations with visuals
- Weekly home-school communication tools (notebook, daily log, phone calls or email messages)
- Space for movement or breaks
- Extra visual and verbal cues and prompts
- Books on tape
- Graphic organizers
- Quiet corner or room to calm down and relax when anxious
- Preferential seating
- Alteration of the classroom arrangement
- Reduction of distractions
- Answers to be dictated
- Hands-on activities
- Use of Manipulatives
- Follow a routine/schedule
- Alternate quiet and active time
- Teach time management skills
- Rest breaks

- Verbal and visual cues regarding directions and staying on task
- Daily check-in special education teacher
- Visual daily schedule
- Varied reinforcement procedures
- Immediate feedback
- Personalized examples