GLOBE Nature Notes Grades 3-5

Learners will practice scientific observation in the field, keep good records, bring back their observations to the classroom to create a Nature Note, and ask questions based on their observations.

Lesson objectives: Students will be able to…

- Make scientific observations in the field and generate new questions or ideas from those observations.
- Explain how previous knowledge of a topic relates to what they observe and notice in the field.
- Accurately record data from the field.

Standard Alignment

Common Core ELA Standards
CCSS.ELA-LITERACY.W.3.8
Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

CCSS.ELA-Literacy.W.4.8
Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information and provide a list of sources.

CCSS.ELA-LITERACY.W.5.4
Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.

3-ESS2-2
Obtain and combine information from books and other reliable media to explain phenomena.

4-PS3-2
Make observations to produce data to serve as the basis for evidence for an explanation of a phenomenon or test a design solution.

5-PS1-3
Make observations and measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon.

Prerequisite

We encourage you to use the Elementary GLOBE modules prior to this activity to equip students with background knowledge. There are several Elementary GLOBE modules related to

different Earth science topics, including air quality, climate, clouds, seasons, soils, and water. Each module includes an engaging storybook. To illustrate the GLOBE Nature Notes Grades 3-5 activity, we are focusing on clouds. Therefore, for this activity, we recommend a guided reading of the storybook "Do You Know That Clouds Have Names?". Additionally, you can have students complete one or more of the activities suggested on the Elementary GLOBE Clouds module. You can use a different Elementary GLOBE module and its corresponding storybook to focus on a different topic.

Materials

- Pens/pencils for each learner
- A copy of the GLOBE Nature Note 3-5 Form for each learner (a few extra copies may be useful)
- Smartphone or tablet with GLOBE Observer app installed

Activity 1: GLOBE Nature Note

1. Provide each learner with a copy of the GLOBE Nature Note 3-5 Form (below) and ensure everyone has a pen or pencil.
2. Explain that today you will be going to the field to make scientific observations.
3. Review the GLOBE Nature Note 3-5 Form as a class and explain that each section has an example (shaded in light blue) to help guide everyone, and that each learner will fill out each blank section with their own observations. Add that prompts are available on their form as aids they can use to get started, but that other words/phrases can be used as well.
4. Before going outside, encourage learners to pay special attention to the Earth science phenomena you are focusing on (E.g. clouds).
5. Ask each student to make a prediction about what they might observe in the field. Take a couple of minutes to pair and share what they think they will see.
6. Go outside and have learners fill out their GLOBE Nature Note 3-5 Form.

Activity 2: GLOBE Nature Note + GLOBE Observer

You are encouraged to use the GLOBE Observer app to submit an observation that corresponds to the date/time that your learners are writing their Nature Note. For example, if learners are writing a Nature Note about clouds, then you can submit a GLOBE Clouds observation with the GLOBE Observer app, on behalf of the class, at the same time.

A quick tutorial on how to use the GLOBE Observer app to submit a clouds observation can be found on the following link: GLOBE Observer Clouds: Getting Started.

GLOBE Nature Note 3-5 Form

Name: Date:

Use the writing frame below to help you get started. In each section, choose one or two sentences to complete and then add more information where needed.

What? Where? When?

EXAMPLE: *I went out to conduct fieldwork on* **May 2, 2024**, *at* **1pm**, *at* **Forest Hills Park**.

YOUR TURN: *I went out to conduct fieldwork on* _____*at* _____ *at* _____.

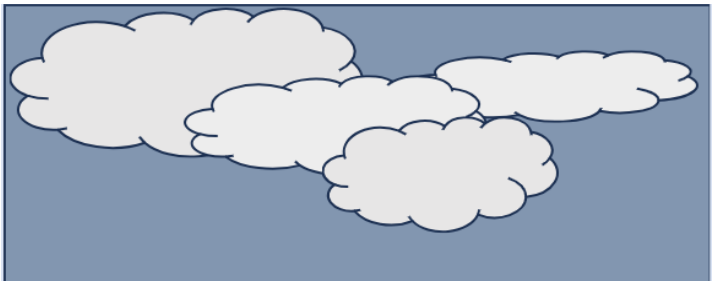
My observation

Prompts	Vocabulary
I felt…	Cumulus clouds (puffy, fluffy, thick)
I heard…	Stratus clouds (stretchy, layers)
I smelled…	Cirrus clouds (feathery, wispy, thin, wavy)
I observed…	Overcast (almost all sky covered with clouds)
I was excited to see…	Broken (half or more of the sky covered with clouds)
I noticed…	Scattered (some clouds)
I was surprised to find…	Isolated (very few clouds)

EXAMPLE:

I felt a cool, pleasant breeze. I heard some birds chirping. I observed many puffy clouds, also known as cumulus clouds. The sky was overcast. I could only see a little bit of blue because the cumulus clouds were covering most of the sky.

Sketch:



YOUR TURN:

Sketch:

Connections to what I already knew…

Prompts:

- My observation was interesting because I had learned that…
- I was not expecting this because I already knew that…
- This connects to what I already knew because….

EXAMPLE:

My observation connects to what I already knew because cumulus cloud provide shade and cool the Earth.

Source: Elementary GLOBE Storybook "Do You Know That Clouds Have Names?"

YOUR TURN:

Claim or question I have…

Prompts:

- My observation makes me wonder if…
- Perhaps I could do research about…
- I am curious to learn if…

EXAMPLE:

My observation makes me wonder if the temperature decreases more if there are more cumulus clouds. Perhaps I could do more research about how much the temperature decreases depending on cloud cover. I am also curious to learn if birds chirp less when it is hot. Maybe they get tired like observation makes me wonder if the temperature decreases more if there are more cumulus clouds.

YOUR TURN:

_____

_____

Putting my notes together…

EXAMPLE:

I went out to conduct fieldwork on May 2, 2024, at 1pm, at Forest Hills Park.I felt a cool, pleasant breeze. I heard some birds chirping. I observed many puffy clouds, also known as cumulus clouds. The sky was overcast. I could only see a little bit of blue because the cumulus clouds were covering most of the sky.

My observation connects to what I already knew because cumulus clouds provide shade and cool the Earth.

My observation makes me wonder if the temperature decreases more if there are more cumulus clouds. Perhaps I could do more research about how much the temperature decreases depending on cloud cover. I am also curious to learn if birds chirp less when it is hot. Maybe they get tired like observation makes me wonder if the temperature decreases more if there are more cumulus clouds.

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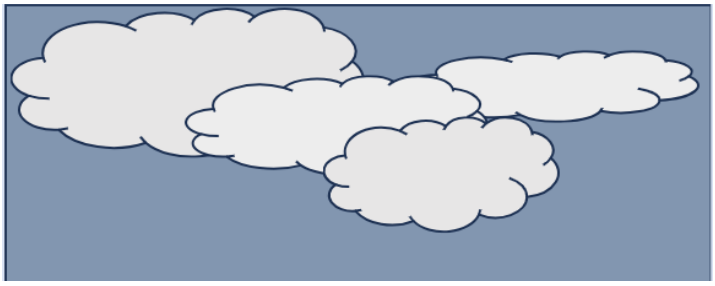

Picture of my class's GLOBE observation:

YOUR TURN:

_____

_____

_____

_____

_____

_____

_____

Sketch:

Picture of my class's GLOBE observation: