

ENGAGE (10 min.)

- Remind students of outdoor learning expectations.
- Connect to prior knowledge about how weather is measured; depending on experience, you may need to model how to record temperature.
- Question about the importance of measuring and recording weather.

EXPLORE (10 min.)

- Students will be asked to spread out and take air temperature readings from different areas. Next they return to the graph to calculate the difference between the recorded temperature and the monthly average.
- Students who finish early can find a second place to take a reading in which they predict there would be a different temperature.
- Students may need support with subtraction, lining up numbers.

EXPLAIN (15 min.)

- Students will return to the group to share their readings.
- Ask student(s) to model the taking of a temperature reading.
- Students model finding the difference between the average temperature and their own reading on the white board.

ELABORATE (10 min.)

- Deeper questions used: “Why do you think there is a difference between the normal high temperature and the readings we took?” and “What do you think the temperature would be later today?”
- Students independently are asked to calculate the difference in temperatures between the hottest and coldest months on the graph.
- Students should be instructed that they can track the weather of time to create their own graphs.

EVALUATE (5 min.)

- Students are asked to explain the steps that are required to compare the temperature readings to the numbers on the graph.

EXTENSION

- Students should begin to regularly track temperatures in order to construct their own graphs.
- Students can research other graphed information such as inches of precipitation.
- Students can research average temperatures from other regions and compare them to the DC area.

Grade

3

Timeframe

50 minutes

Materials

- Thermometers*
- [Weather Data Handout](#)
- Average weather graphs*

- This lesson can connect to lessons about the Earth’s relationship to the sun to understand why the temperatures fluctuate throughout the year.

NGSS Standard:

3-ESS2-1 Represent data in tables to represent weather.