Grade 4	Lesson: 1–6 Interpreting Weather Data		Reference to English
Standard(s): 1.0A.1	Domain:		
Content Objective(s):		Language Objective(s):	
Graph recorded data to show daily and seasonal patterns in weather.		Predict weather and justify prediction with observable evidence.	
Essential Understanding:		Academic Vocabulary for Word Wall: Listen: Read: Write: Speak:	
Materials: • "My Weather Book" (1 per student)		Additional Lesson V Sentence Frames:	ocabulary:
Lesson: Interpreting Weather Data		Instructional Time:	

## Opening: (10 minutes)

 At the end of one month of weather observation, have the students refer back to the charts and graphs they have kept.

T: We've talked about the weather each day and used our knowledge and observations to make predictions about the weather. Now let's look at the entire month's worth of data and see what it can tell us.

## Introduction to New Material (Direct Instruction): (7 minutes)

Teacher Background:

When we compare graphs we begin to see the relationship one weather factor has with the others. When we see freezing temperatures, the precipitation will be in the form of snow. Often when a storm is approaching from the north, the barometer will drop, there will be a strong south wind, many clouds will begin to form, and the temperature will rise. After a storm, the barometer will rise, the winds will be gentle, most of the clouds will be gone, and the temperature will be colder.

However, the weather patterns in the summer are different from those of winter. When summer data is recorded, the data can be compared with the winter data. In the summer, there are still strong winds preceding a storm, but the storms blow in from the south. The barometer doesn't change much. After a summer storm the temperature may drop a few degrees but not drastically like it does in the winter. We see more cumulus clouds in the summer, and we see thunder, lightning, and hail during all seasons but winter.

## Guided Practice: (10 minutes)

Interpret that Data:

T: Let's look at our data and see if we can find any patterns.

Record what you learn in their "My Weather Book."

Air Temperature:

T: Compare the air temperature and precipitation graphs. What affect does air temperature have on precipitation?

T: Identify a storm day. Compare the air temperature before, during, and after a storm. What was the temperature after the storm?

Wind:

T: Compare the wind graph with the air temperature and air pressure graphs. What happened when an east wind, west wind, north wind, or south wind was present?

T: Compare the wind and the precipitation graph. What did you observe about the wind and the precipitation depth?

Clouds:

T: Look at the cloud type and cloud cover recorded on your chart. How did the type of cloud affect the next day's weather? What happens after cirrus, cumulus, or stratus clouds were seen?

Air Pressure:

T: Compare the air pressure and wind graphs. What did you observe about the wind when the barometer was high? When it was low?

T: Compare the air pressure and air temperature graphs. What did you observe about the precipitation depth when the barometer was high? When it was low?

Seasons:

T: What season were we experiencing during the month we collected data? How do you know? What was the weather like?

T: Did the season change during the month? How can you tell?

• Note: the first day of each season is usually...

Summer:June 21stFall:September 21stWinter:December 21stSpring:March 21st

Independent Practice: (6 minutes)

Closing: (4 minutes)

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