

Activity Pages Answer Key: Weather Patterns

This answer key offers guidance to help you assess your students' learning progress. Here you will find descriptions of the expected key understandings, correct answers, and desired observations for each Activity Page of this unit. At this grade level, students' written responses are not expected to reflect the specificity shown here, and students should not be evaluated on refined drawing ability. Use the answers below, not as direct models for ideal student responses, but as keys to what to look for in evidence of student learning.

Taking an Umbrella on a Sunny Day (AP UO.1) (page 177)

Student drawings should include an umbrella and a person.

Weather Observation Chart (UO.2) (page 178)

Answers will vary based on conditions in your area.

Our Investigation Plan (AP 1.1.1) (page 180)

Student drawings should show equal volumes of the materials in each cup, sunlight shining on the first three cups, and some sunlight being blocked over the second three cups.

How Does Sunlight Affect Sand, Soil, and Water? (AP 1.2.1) (page 181)

Students should circle "warmer" for each material in the sun and "cooler" for the same material in the shade.

Sheep and Shade (AP 2.1.1) (page 183)

- Students should add arrows and labels to show the sheep, the tree, shade from the tree, and how the sheep sit in the shade to stay cool.
- Students should add arrows and labels to show the sheep, the cave, shade from the cave, and how the sheep sit in the shade to stay cool.
- Students should add arrows and labels to show the sheep, the building, shade from the building wall, and how the sheep sit in the shade to stay cool.

Saving Our Ice Cube (AP 2.1.2) (page 184)

Students should write in their teacher's name; structure/covering/shade; ice cube. Students should then check the tools and materials they will use.

Testing Our Structure (AP 2.3.1) (page 185)

Picture A should show more warming and melt.

Picture B should show the structure, shade, and less melt.

Engineering Fair Visitor Card (AP 2.4.2) (page 187)

Students should fill out the card with each team name and the level of understanding of each team's solution.

How Does Air Temperature Change over a Day? (AP 3.1.2) (page 189)

Students should note that it is cooler in the morning and warmer in the afternoon.

How Many Days of Each Kind of Weather? (AP 3.2.1) (page 190)

Student data should accurately reflect the local weather.

Rainy or Snowy Days (AP 3.3.1) (page 191)

Students should note:
March had the most rainy/snowy days.
September and October had the fewest rainy/snowy days.

September and October would be the best choices for an outdoor party.

**Sunny Days in _____ (AP 3.3.2)
(page 192)**

Student answers will vary but should match the data.

**What Should I Wear Today? (AP 3.4.1)
(page 193)**

Student answers will vary depending on region but should reflect proper seasonal clothing.

**Comparing Severe Weather (AP 4.1.1)
(page 195)**

Student charts should match the weather event to these weather conditions:

Heat Wave: sunny, clear; no snow or rain; hot; no wind

Hurricane: very cloudy; raining; warm; very windy

Tornado: very cloudy; no rain or snow; any temperature; very windy

Blizzard: very cloudy; snowing; cold; very windy

**Are Hurricanes Likely Where We Live? (AP 4.2.1)
(page 196)**

Students should circle “Yes” if their state is shaded or “No” if their state is not shaded.

**Are Tornadoes Likely Where We Live? (AP 4.2.2)
(page 197)**

Students should circle “Yes” if their state has 10 or more tornadoes and “No” if it has less than 10.

**Are Blizzards Possible Where We Live? (AP 4.2.3)
(page 198)**

Students should circle “Yes” if a blizzard is likely to happen in their state or “No” if not.

**Where Can We Use Severe Weather Warning Tools? (AP 4.3.1)
(page 199)**

Students should mark the check box to indicate that the siren, radio, and weather app can be used outdoors. The radio, TV, and app can be used indoors.

**Plan a Go Bag (AP 4.4.1)
(page 200)**

Students should leave out items that are less useful, such as the blow dryer, flowerpot, or umbrella.

**Safety in Severe Weather (AP 4.4.3)
(page 202)**

Students should check all boxes.

**Weather and People (AP UC.1)
(page 203)**

Kind of Weather	Take an Umbrella	School Is Canceled
Sunny, Warm	yes	no
Rainy, Warm	yes	no
Snowy, Cold	maybe	maybe
Rainy, Very Windy	no	no
Hurricane	no	yes
Tornado	no	maybe
Heat Wave	yes	maybe

**Tomorrow’s Weather (AP US.1)
(page 204)**

Students should check each box as appropriate to the weather.