

Pennsylvania Grade 3 Earth and Space Science Summer Review

Earth and Space Science: Review and Readiness

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Welcome to Grade 3

Earth & Space Summer Review



A calm 8-week review of Grade 3 weather, climate, and weather-safety ideas.

This book helps students return to the Earth and space science ideas they studied during Grade 3. Each day reviews one idea, gives a picture, data display, or short example to study, and then asks focused practice questions. The goal is to read weather evidence, notice patterns, and explain how people reduce harm from weather hazards.

What students review

- temperature, rain, wind, clouds, and weather tools
- tables, pictographs, and bar graphs
- seasonal weather patterns and predictions
- weather compared with climate
- floods, storms, droughts, and other weather hazards

What students practice

- reading data before choosing an answer
- describing typical weather from evidence
- combining facts from maps, graphs, and short texts
- explaining how a safety design helps
- correcting answers with the science explanation

A simple weekly rhythm

Use Days 1–4 for one focused review page each day. Use Day 5 as a weekly quiz. If a question is missed, read the explanation and ask, “What weather, climate, or hazard idea did I need?” That short question turns checking into learning.

How to Use Grade 3 Earth & Space Summer Review



Use one page a day to keep Earth science ideas fresh.

This review book returns to Grade 3 Earth and space science: measuring weather, using graphs, comparing climates, and thinking about weather hazards. Most days have a short review followed by practice. Day 5 brings the week together with a quiz.

Days 1–4 Read the review first. Notice the weather words, the graph or map, and the example. Then answer the practice questions without using the answer key.

Day 5 Complete the weekly quiz. It mixes the week's ideas so students can see what they remember and what needs another look.

Best pace Plan for about 15–20 minutes. Short, focused review works better than rushing through many pages.

After checking Fix missed answers in pencil and reread the explanation. The correction is the learning step.

Read

Ask, "What Earth science idea is this page reviewing?" Look for the words and examples that explain it.

Use data

Read the picture, table, graph, map, or model before choosing an answer. The clue is often in the data.

Check

Check the answer, then read the explanation. It should show why the answer matches the evidence.

For students

Try every question before checking. Circle one graph bar, map color, picture clue, or science word that helped. If you miss one, write the useful clue nearby.

For parents and teachers

Ask the student to explain the visual first. Help with reading, but let the student choose. Use missed items to reteach one weather, climate, or hazard idea.



Science Summer Progress Tracker

Check off each short review day and the Friday quiz as you finish.

8 weeks

32 review days

8 Friday quizzes

This grade 3 science summer review belongs to:

Week	Focus	Mon	Tue	Wed	Thu	Fri Quiz
1	Weather Patterns and Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Climates Around the World and Weather Hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Weather Hazards and Weather Patterns and Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Weather Patterns and Data and Climates Around the World	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Climates Around the World and Weather Hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Weather Patterns and Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Climates Around the World and Weather Hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Weather Hazards and Weather Patterns and Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reflection Notes

A weather or climate idea that feels strong: _____

An Earth science idea to revisit: _____



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Here's what we'll explore together!

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Let's learn and have fun!



WEEK

1

Weather Patterns and Data

Practice this week's science ideas.

This Week's Days

- Day 1 Observing and Measuring Weather*
- Day 2 Recording Weather Data*
- Day 3 Seasonal Patterns*
- Day 4 Graphing a Season's Story*
- Day 5 Week 1 Quiz*

Week 1 Day 1 **Observing and Measuring Weather**

Big idea: Weather is what the air and sky are like at one place and time. Careful observations use names, tools, and numbers so people can compare weather from day to day.

- **Weather parts:** Temperature tells how warm or cold the air is. Precipitation tells what water falls from clouds. Wind tells how air moves. Cloud cover tells how much sky is covered.
- **Helpful tools:** A thermometer measures temperature, a rain gauge measures rain or snow, a wind vane shows direction, and an anemometer measures wind speed.
- **Clear reports:** A report like 12 degrees C, cloudy, and light rain gives stronger evidence than saying the weather is bad.
- **Place and time:** Weather can change quickly, so scientists record where and when they observed it.
- **Picture clues:** Photos, tool readings, and written notes can all be weather evidence when they describe the air or sky.



Observing and measuring weather



Daily Practice

1 Which tool measures air temperature? _____

- A rain gauge C wind vane
 B thermometer D ruler

2 Which observation names precipitation? _____

- A north wind C light rain
 B 18 degrees C D mostly cloudy

3 Weather describes the air and sky at one place and time. _____

True False

4 What weather detail tells how much rain or snow fell? _____

5 What tool points toward the direction wind comes from? _____

6 A report says 20 degrees C and clear sky. Is it measured or vague? _____



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Answer Key & Explanations

Check the answer first, then read the explanation to see the evidence or reasoning.

Week 1 Day 1: Observing and Measuring Weather

Answers

1

B

2

C

3

True

4

precipitation

5

wind vane

6

measured

Explanations

1

A thermometer measures how warm or cold the air is, which is temperature.

2

Rain is water falling from clouds, so it is precipitation.

3

Weather is local and current, such as today's wind, clouds, or temperature.

4

Precipitation is water from clouds, including rain or snow that can be measured.

5

A wind vane turns with the wind and shows wind direction.

6

The report includes a number and a named sky condition, so it uses evidence.

Week 1 Day 2: Recording Weather Data

Answers

1

A

2

A

3

True

4

degrees C

5

rain column

6

strong west wind

Explanations

1

A table lines up observations in rows and columns for easy comparison.

2

One row often lists all the recorded weather details for one day.

3

Repeated records let you compare days and notice what happens again.

4

Temperature numbers need a unit such as degrees C.



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5 A rain or precipitation column lists that one detail for several days.

6 It gives both speed and direction, so the record is more specific.

Week 1 Day 3: Seasonal Patterns

Answers

1 B

2 A

3 False

4 summer

5 pattern

6 winter

Explanations

1 A seasonal pattern repeats during seasons, such as warmer summers.

2 One day is only one observation, and patterns need repeated data.

3 Patterns describe what usually happens, not what happens every single day.

4 Summer is one season; spring, fall, and winter are also seasons.

5 A pattern repeats, so it can help describe seasons.

6 In many places, winter is usually colder than summer.

Week 1 Day 4: Graphing a Season's Story

Answers

1 A

2 A

3 True

4 labels

5 least

6 pattern

Explanations

1 The title names the graph topic so readers know what data are shown.

2 A taller rainfall bar means a greater amount of rain.

3 Labels name the categories and measurements shown in the graph.



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- 4 Labels tell what each axis or category means.
- 5 The shortest bar represents the smallest rainfall amount.
- 6 A graph can make repeated weather changes easier to see.

Week 1 Day 5: Quiz

Answers

- 1 A 2 A 3 A 4 A 5 True 6 False 7 precipitation 8 title
- 9 data

Explanations

- 1 A thermometer measures temperature, or how warm or cold the air is.
- 2 Rows and columns are parts of a table.
- 3 A seasonal pattern describes usual weather during seasons.
- 4 A taller rainfall bar represents a greater amount.
- 5 Many records let you compare what happens again and again.
- 6 A pattern tells what usually happens, not every single day.
- 7 Precipitation is water from clouds, such as rain or snow.
- 8 The title names the data shown in the graph.
- 9 Data are observations or measurements written down.

Week 2 Day 1: Weather or Climate?

Answers



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