

Pennsylvania Grade 3 to Grade 4 Earth and Space Science Summer Bridge Workbook

Earth and Space Science: Review, Readiness, and Practice

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More written practice for Grade 3 Earth science and a gentle start on Grade 4.

This workbook gives students space to practice, mark evidence, write short explanations, and correct their work. The first part strengthens Grade 3 weather, climate, and hazard ideas. The final part introduces Grade 4 Earth topics with simple visuals and low-pressure readiness practice.

Practice deeply

- write science words, not long paragraphs
- label weather tools, graphs, maps, and hazard designs
- compare two climates before answering
- correct missed answers in pencil
- use Friday mixed review to connect the week

Build readiness

- review weather data, climate, and hazards
- preview rock layers and past landscapes
- notice weathering, erosion, and deposition
- read maps of land and water features
- think about how people use Earth's resources

Why this book has more writing

Students often understand an Earth science idea better after they explain a clue, draw an arrow, label a map, or fix a missed answer. This bridge workbook turns readiness into active work instead of passive reading.

How to Use Earth & Space Summer Bridge Workbook 3 → 4



Use the workbook to practice the path from Grade 3 to Grade 4.

This book has more room to work than the bridge review book. Students should write on the page, mark evidence, and correct missed questions. The goal is steady readiness: keep Grade 3 Earth science ideas strong while building comfort with Grade 4 Earth language.

- Practice days** Read the review or readiness note, study the visual, and complete the workbook questions before checking.
- Writing work** Use short labels, arrows, words, and one-sentence explanations when a question asks for thinking.
- Friday review** Complete the mixed review to bring the week's ideas together. Use the score as information, not pressure.
- Corrections** Fix missed answers and write the science word, map clue, graph clue, or picture clue that would have helped.

Write

Use the page as a workspace: labels, arrows, short answers, and quick corrections.

Link

Connect old weather and climate ideas to new rock, landform, map, and resource examples.

Review

Use Friday mixed review to see which ideas need another look.

For students

Put a small star by new Grade 4 words. Underline the clue before choosing an answer. Keep written answers short and specific.

For adults

Ask students to point to the clue they used. Read hard questions aloud if needed. Keep Grade 4 preview pages exploratory.



My Bridge Workbook Progress

Track review lessons, readiness lessons, and each Friday mixed-review score.

5 review weeks

3 readiness weeks

8 Friday reviews

This grade 3 to grade 4 science summer bridge workbook belongs to:

Week	Focus	Mon	Tue	Wed	Thu	Friday Review
1	Weather Patterns and Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> / 10
2	Climates Around the World and Weather Hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> / 10
3	Weather Hazards and Weather Patterns and Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> / 10
4	Weather Patterns and Data and Climates Around the World	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> / 10
5	Climates Around the World and Weather Hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> / 10
6	Grade 3 Review and Grade 4 Preview	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> / 10
7	Grade 4 Preview: Wearing Down, Carrying Away and Mapping Earth's Features	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> / 10
8	Grade 4 Preview: Mapping Earth's Features and Energy from Earth's Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> / 10

 **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 Mixed Review*

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

B

4

True

5

False

6

True

7

thermometer

8

rain gauge

9

wind

10

data

11

See Explanation

12

See Explanation

Explanations

1

A thermometer is the tool used to measure how warm or cool the air is.

2

The report gives a number and precipitation, so it uses measurable weather evidence.

3

A rain gauge collects precipitation so people can measure how much rain fell.

4

Wind and cloud cover are both parts of daily weather observations.

5

A thermometer measures temperature; a rain gauge measures rainfall.

6

Measurements can be checked and compared, so they support weather claims better than guesses.

7

The question asks for the tool for temperature, and that tool is a thermometer.

8

Rainfall is precipitation, and a rain gauge is made to collect and measure it.

9

Wind describes moving air, so it is the weather part that tells how air moves.

10

Numbers recorded from observations are data, and data supports weather explanations.

11

A scientific report should replace vague words with evidence, such as temperature, rainfall, wind, and cloud observations.

12

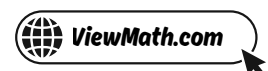
Using the same tools each day makes the observations easier to compare and turns daily weather into useful data.



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Week 1 Day 2: Recording Weather Data

Answers

- 1 A 2 B 3 B 4 True 5 False 6 True 7 bar graph
 8 pictograph 9 table 10 data 11 See Explanation 12 See Explanation

Explanations

- 1 Recording at the same time keeps the routine consistent, so the data is fairer to compare.
- 2 A bar graph uses bar lengths to compare amounts such as rainfall or temperature.
- 3 Daily temperatures are weather observations, so they belong in a weather data table.
- 4 Tables put observations in rows and columns, which makes the records easier to read.
- 5 A pictograph can use symbols to show sunny, rainy, snowy, or cloudy days.
- 6 Graphs make repeated amounts easier to compare, so patterns can stand out.
- 7 The display that compares amounts with bars is called a bar graph.
- 8 A pictograph uses repeated pictures or symbols to show data.
- 9 A table organizes data in rows and columns.
- 10 Recorded observations and measurements are data, and scientists use them to support conclusions.
- 11 Each bar would show one week's rainfall, so the longest bar would show the week with the most rain.
- 12 A table keeps the notes organized by date, which makes it easier to compare days and find patterns.

Week 1 Day 3: Seasonal Patterns

Answers

- 1 B 2 B 3 A 4 False 5 True 6 True 7 winter 8 pattern



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9 predictions

10 seasonal

11 See Explanation

12 See Explanation

Explanations

1 Many years of data show what usually happens in a season, so they support a seasonal pattern.

2 A likely prediction follows the usual cold and snowy winter pattern shown by the data.

3 The word usually points to a repeated pattern across a season.

4 One day is weather, but a seasonal pattern is based on many observations over time.

5 People use typical seasonal weather to plan clothing, travel, planting, and safety.

6 A pattern gives a likely expectation, but it does not tell every exact daily condition.

7 In many places, winter is the season with the coldest usual temperatures.

8 A repeated trend in data is called a pattern.

9 Patterns can be used to make reasonable predictions about likely weather.

10 Data from many days in a season is seasonal data.

11 One day is only weather; a seasonal claim needs data from many days or many years.

12 The repeated cold winter data supports predicting that next winter will probably be cold too.

Week 1 Day 4: Graphing a Season's Story**Answers**

1 A

2 B

3 A

4 True

5 False

6 True

7 bar graph

8 table

9 typical

10 pictograph

11 See Explanation

12 See Explanation

Explanations

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