

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

*Earth and Space Science: Review and Readiness*

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## A summer path from Grade 3 weather and climate into Grade 4 Earthreadiness.

This book begins with the weather, climate, and hazard ideas students learned in Grade 3, then gently introduces Grade 4 Earth ideas they will meet next. The early weeks protect what students already know. The later weeks preview rock layers, changing landscapes, maps, and Earth's resources with clear pictures and short practice.

### Keep strong

- measuring and recording weather
- reading pictographs and bar graphs
- using seasons to describe typical weather
- comparing weather with climate
- explaining designs that reduce weather-hazard harm

### Get ready

- rock layers can tell about past environments
- weathering breaks rocks into smaller pieces
- erosion moves soil, sand, and rock
- maps show patterns in land and water
- people use Earth materials and energy resources

#### How the Grade 3 to Grade 4 path works

Weeks 1–5 are mostly Grade 3 review. Weeks 6–8 preview Grade 4 Earth science in a gentle way. Students do not need to master every Grade 4 idea now; they only need enough background to feel familiar with the new words and examples.

# How to Use

## Earth & Space Summer Bridge

3 → 4



### Use the page order as the readiness plan.

This book is not just a repeat of Grade 3. It starts with review so students feel steady, then introduces a few Grade 4 Earth science ideas before school begins. Move one page at a time and let the new ideas feel familiar before expecting perfect answers.

- Review weeks** Use the early weeks to check weather tools, weather data, seasons, climates, hazards, evidence, and safety designs from Grade 3.
- Readiness weeks** In later weeks, notice new Grade 4 words: layer, fossil, weathering, erosion, map, resource, and energy.
- Friday quiz** Treat the quiz as a checkup. It shows what is remembered and what should be reread before moving on.
- After checking** For missed answers, ask whether the question used a Grade 3 review idea or a Grade 4 preview idea.

#### Anchor

Start with the Earth science idea students already know from Grade 3.

#### Connect

Link that idea to a new Grade 4 word, picture, map, or example.

#### Check

Use the answer explanation to see which clue mattered most.

#### For students

Say whether the page is review or readiness. Use the picture or map before reading the choices. Keep short answers simple and science-based.

#### For adults

Do not overteach the preview weeks. Ask how the new idea connects to Grade 3 science. Use missed answers to name one idea to reread.



# My Science Bridge Progress

Check off Grade 3 review days, Grade 4 readiness days, and Friday quizzes.

5 review weeks

3 readiness weeks

8 Friday quizzes

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

Week	Focus	Mon	Tue	Wed	Thu	Friday Quiz
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

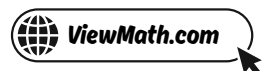
 **Reflection Notes**

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 Quiz*

# 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 Precise weather observation: temperature, precipitation, wind, and cloud cover, each described with specific evidence rather than vague words.
- 2 Accept two accurate review details, such as one fact about weather and one example, model, or evidence source from the lesson.
- 3 weather
- 4 Use a picture, table, graph, model, observation, or source fact from the lesson.
- 5 It helps explain Weather Patterns and Data.
- 6 a fact, observation, data point, or model from the lesson

### Explanations

- 1 Start with the lesson's core idea. The review explains that Precise weather observation: temperature, precipitation, wind, and cloud cover, each described with specific evidence rather than vague words.
- 2 Good details come straight from the review bullets, not from a guess. Use two facts that help explain the lesson idea.
- 3 The word weather names one of the important science ideas in this lesson. Use it when you explain your answer.
- 4 Evidence can be an observation, a table, a graph, a model, or a source fact. It must connect directly to the claim.
- 5 The topic is one part of the larger chapter idea, Weather Patterns and Data. Connecting the day to the chapter helps you see the pattern across lessons.
- 6 Science answers are stronger when they name the evidence. The evidence shows why the claim should be trusted.

## Week 1 Day 2: Recording Weather Data

### Answers

- 1 Turn daily observations into organized data.
- 2 Accept two accurate review details, such as one fact about weather and one example, model, or evidence source from the lesson.



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3 weather

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### Week 1 Day 3: Seasonal Patterns

#### Answers

1 Look for patterns across seasons: warmer and cooler months, rainy and dry stretches, snow in winter, storm seasons, longer and shorter days.

2 Accept two accurate review details, such as one fact about weather and one example, model, or evidence source from the lesson.

3 weather

4 Use a picture, table, graph, model, observation, or source fact from the lesson.

5 It helps explain Weather Patterns and Data.

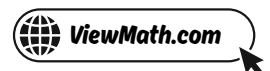
6 a fact, observation, data point, or model from the lesson

### Explanations

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- 2 Good details come straight from the review bullets, not from a guess. Use two facts that help explain the lesson idea.
- 3 The word weather names one of the important science ideas in this lesson. Use it when you explain your answer.
- 4 Evidence can be an observation, a table, a graph, a model, or a source fact. It must connect directly to the claim.
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### Week 1 Day 4: Graphing a Season's Story

#### Answers

- 1 Represent weather data in tables and graphical displays to describe a season's typical conditions.
- 2 Accept two accurate review details, such as one fact about weather and one example, model, or evidence source from the lesson.
- 3 weather
- 4 Use a picture, table, graph, model, observation, or source fact from the lesson.
- 5 It helps explain Weather Patterns and Data.
- 6 a fact, observation, data point, or model from the lesson

#### Explanations

- 1 Start with the lesson's core idea. The review explains that Represent weather data in tables and graphical displays to describe a season's typical conditions.
- 2 Good details come straight from the review bullets, not from a guess. Use two facts that help explain the lesson idea.
- 3 The word weather names one of the important science ideas in this lesson. Use it when you explain your answer.
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