PART 1 • 10–15 MINUTES

Earth's Systems and Water Distribution

Name: _____ Date: _____

Your mission

You are an Earth systems scientist! Create a diagram, graph the evidence, and write a short explanation to help your classmates understand how Earth's systems work together and why water matters.

Draw the connections

Choose one scene: a water cycle OR a rainstorm affecting plants, soil, and rivers. **Draw and label all four Earth systems**. Use an arrow and a short label to explain at least one interaction.

Geosphere	Biosphere	Hydrosphere	Atmosphere
Land, rocks, and soil	Living things	Earth's water	Air around Earth

My scene: _____

PART 2 • 15 MINUTES

Graph Earth's Water

Name: _____

Where is Earth's water found? Use the classroom data below to create a bar graph **or** pie chart. Include a title, all four category labels, and the percentages.

Water location	Percent of Earth's water
Oceans	97%
Glaciers and ice caps	2%
Groundwater	0.6%
Freshwater lakes and rivers	0.4%

These simplified classroom values add to 100%.

Graphing tip: For a bar graph, label both axes and use an even scale. For a pie chart, label each slice or use a key. Add labels with arrows for tiny bars or slices.

Graph title: _____

PART 3 • 10–15 MINUTES

Explain Your Discoveries

Name: _____

Write 3–4 complete sentences total. Use your diagram and graph as evidence. **Answer all three prompts below**; you do not need to fill every line.

1. What does your diagram show about how Earth's systems interact?
2. What does your graph show about where Earth's water is found? Why is freshwater important?
3. What is one way people can use water wisely?

Need a starting point? "My diagram shows…" • "The data show…" • "People can…"

Checklist and Scoring Rubric

Name: _____ Date: _____

Check your work

Before turning in your packet, check each box as you review your work.

Done	I checked that…
☐	My name is on my work.
☐	My drawing labels all four Earth systems and explains an interaction.
☐	My graph has a title, accurate data, and clear labels.
☐	My reflection has 3–4 complete sentences and answers all three prompts.
☐	My work is clear, neat, and organized.

How to earn 16 points

Each item below shows what earns points. Check your work against the rubric.

Category	What earns points	Score
Diagram 5 points	Correctly label the geosphere, biosphere, hydrosphere, and atmosphere: 1 point each (4). Clearly show and explain one interaction (1).	____ / 5
Graph 5 points	Accurately represent all four percentages (2; 0.5 each). Include a title (1). Label all four categories (1; 0.25 each). Make the graph neat and easy to read (1).	____ / 5
Written reflection 5 points	Write 3–4 complete sentences (1). Explain an interaction in your diagram (1). Explain what the graph shows about water distribution (1). Explain why freshwater matters (1). Give one practical water conservation idea (1).	____ / 5
Neatness 1 point	Keep the whole packet clear and organized (1).	____ / 1
TOTAL	Diagram + Graph + Written reflection + Neatness	____ / 16