

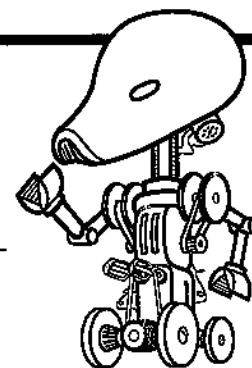
Graphing Earth's Water

Date: _____

Team of Scientists: _____

A) _____ **B)** _____

Equipment: 1 protractor 1 set of colored pencils



A. Predict

Read over the directions. What do you think you will learn about Earth's water in this activity?

I think _____

because _____

B. Calculate

Of all the water on Earth, only about 3 percent is fresh water.

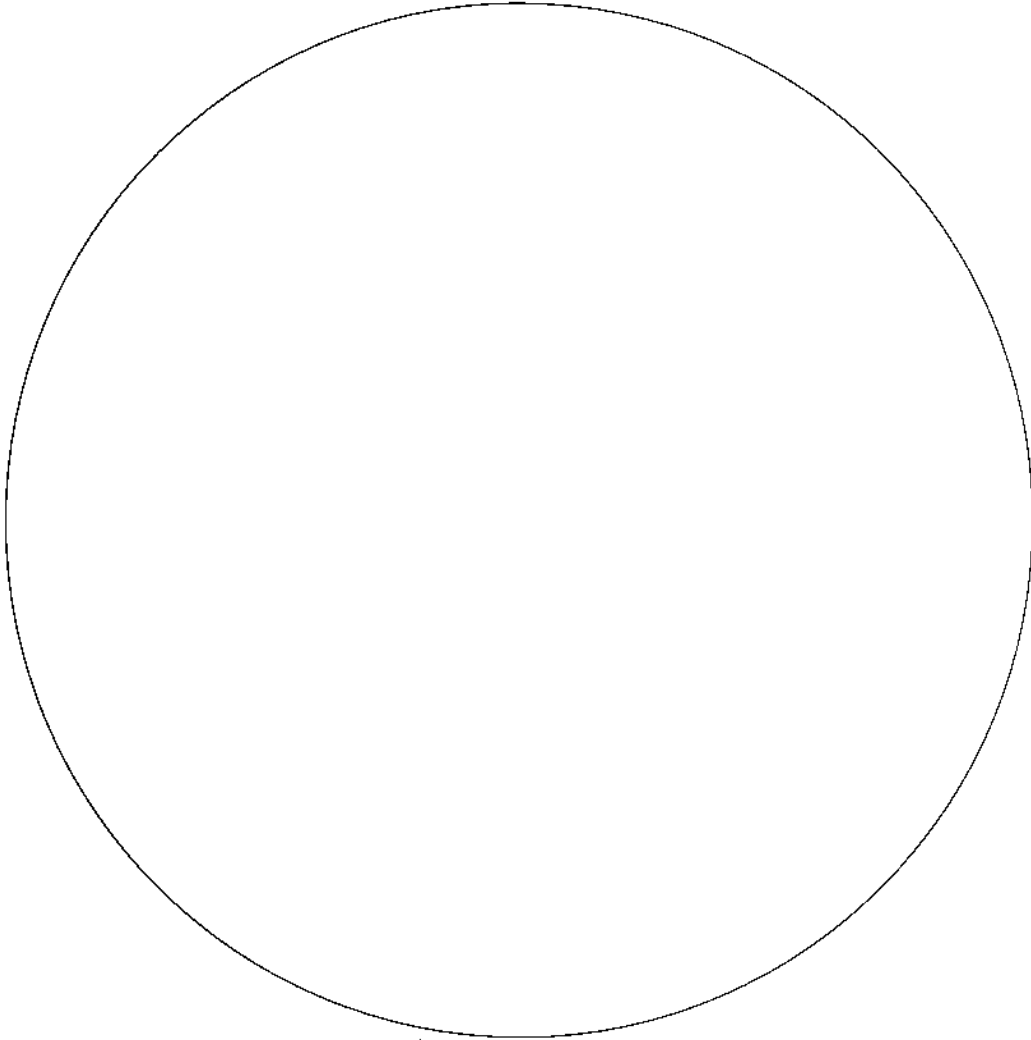
About what percentage of Earth's water is salt water? _____

What is the ratio of Earth's fresh water to salt water? _____

C. Graph: Circle Graph

Use the data and calculations from Part B to complete the circle graph below. Make each section of the graph a different color. Label each section of the graph. Give the graph a title.

Title: _____

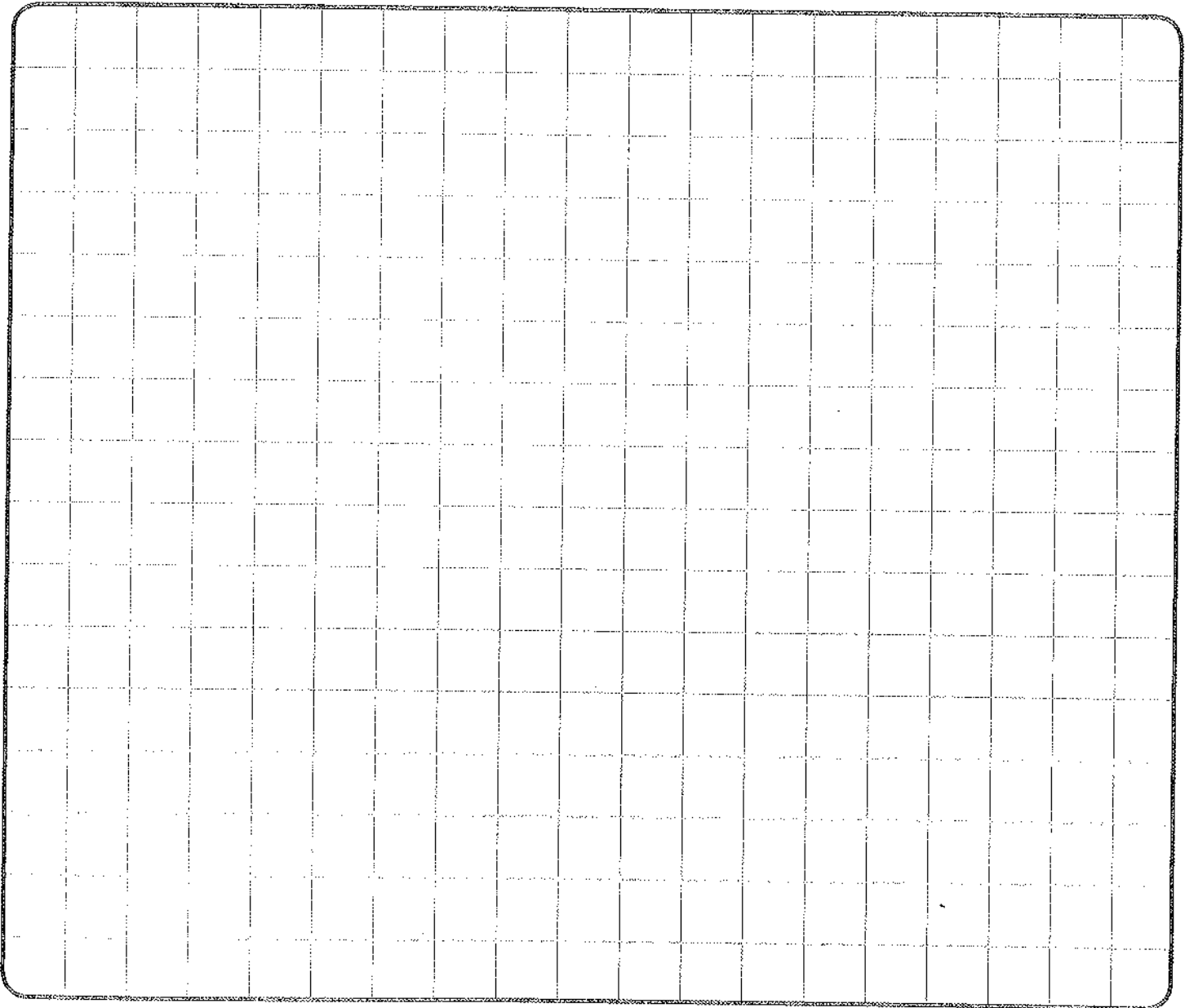


D. Graph: Bar Graph

Look at the data table. Use the data to make a bar graph on the grid below. Make each bar of the graph a different color. Label the horizontal and vertical axes of the graph. Give the graph a title.

Earth's Fresh Water

Source	Percentage of Total Fresh Water
Glaciers	68.7
Groundwater	30.1
Other (lakes, rivers, atmosphere)	0.3



E. Conclude

1. Write a statement summarizing the distribution of water on Earth. Provide data as evidence to support your statement. _____

2. What was the most difficult part of this activity? Explain your answer. _____

3. Write two questions you have about Earth's water. _____



Student Activity Sheet 5A: Teacher's Version

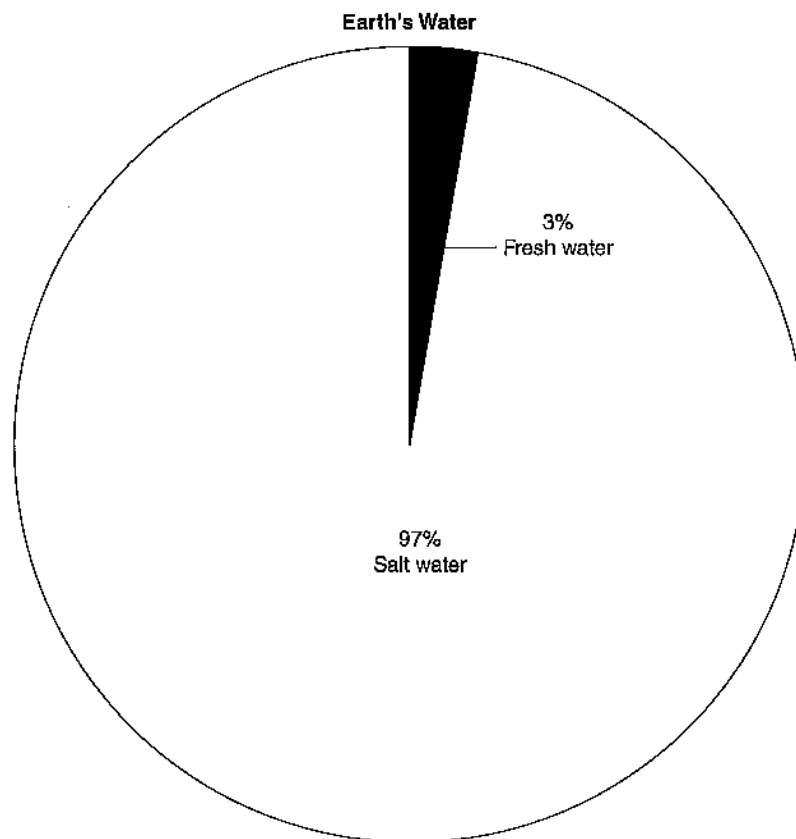
Graphing Earth's Water

B. Calculate

About what percentage of Earth's water is salt water? (97 percent)

What is the ratio of Earth's fresh water to salt water? (3:97 or 3/97 or 3 to 97)

C. Graph: Circle Graph



Student Activity Sheet 5B

Name _____

Modeling the Water Cycle

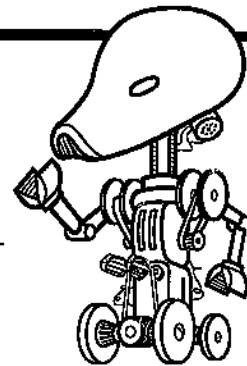
Date: _____

Team of Scientists: _____

A) _____ **B)** _____

Equipment: 1 prepared clear plastic soda bottle
(2 L) with cap
1 lump of clay

1 plastic cup, 10 oz
10 oz very warm water
8-10 ice cubes



A. Think

Look at the diagram of the water cycle. Then answer the questions about the processes shown.

Evaporation: Heating by the Sun causes water vapor to form.

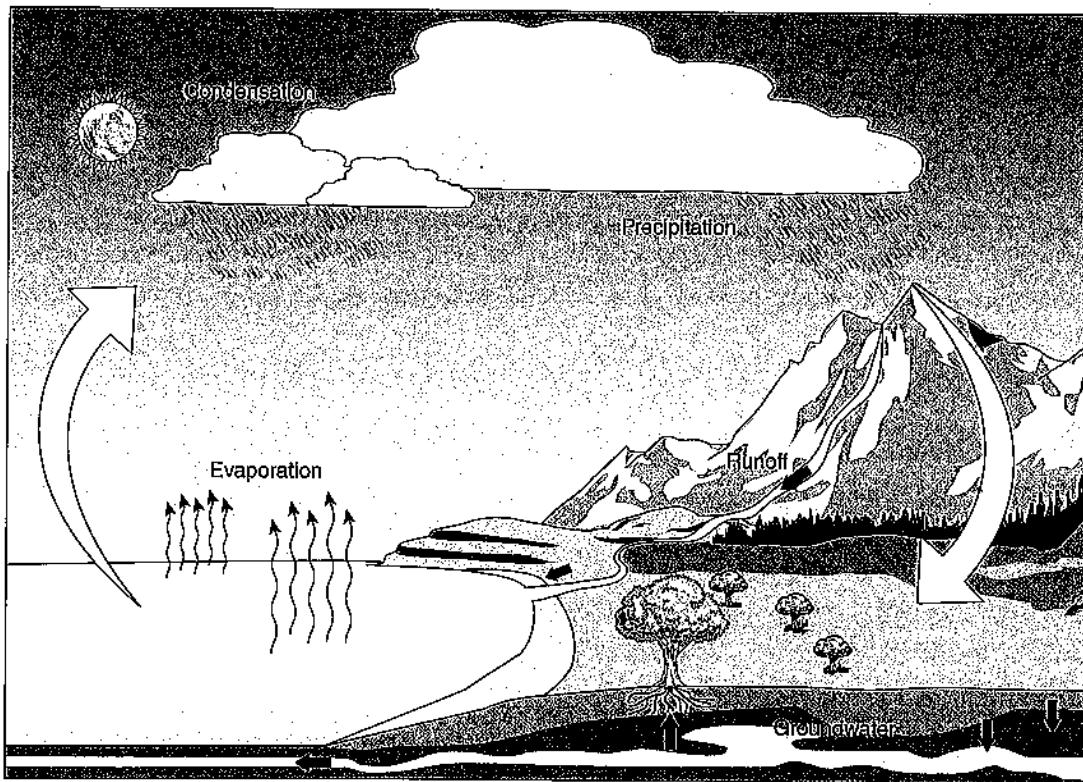
Condensation: Water vapor rises and cools, forming droplets and clouds.

Precipitation: Water falls to Earth's surface.

Groundwater: Water sinks in and flows underground.

Runoff and Rivers: Water flows downhill over Earth's surface.

The Water Cycle



1. How does water move from the atmosphere to Earth's surface? _____

2. How does water move from Earth's surface to the atmosphere? _____

3. How does water move across and under Earth's surface? _____

B. Predict

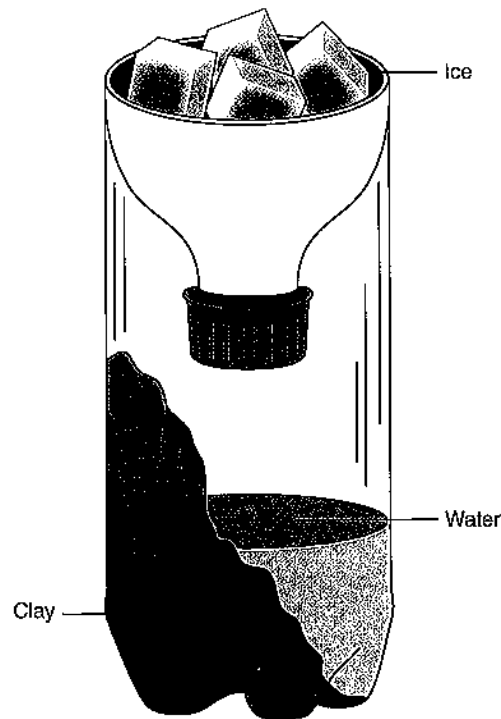
Read over the directions for the rest of the investigation. How will you model processes of the water cycle?

I think _____

because _____

C. Model

1. At the bottom of the bottle, use clay to form a tall mountain, island, or steep slope. Be sure that the clay covers no more than half of the bottom of the bottle, but that the landform you create will stick out of the water you will add in Step 2.
2. Use the cup to obtain about 10 oz of very warm tap water, and pour the water into the bottle.
3. Make sure the cap is tight on the top of the bottle. Turn the bottle top upside down. Position it in the bottom of the bottle as shown below.



4. Place 8–10 ice cubes in the bottle top.

D. Observe and Record

1. Observe the inside of your model. Draw and label what you see in the space below.

A large grid for drawing and labeling observations. The grid consists of 10 columns and 20 rows of squares. The grid is intended for students to draw and label what they observe inside their model.

2. Observe your model several times during the next hour. Label on your drawing any changes you observe.

E. Conclude

1. What do the clay and warm water you added to the bottle represent in your model? _____

2. What does the ice represent in your model? _____

3. What processes in the water cycle did your model represent? _____

4. How do you think your results would change if you used cold water instead of warm water? Explain.

5. How do you think your results would change if you did not add ice to the top of the bottle? Explain.

6. What are two questions you have about the water cycle? _____
