

Lab 62: Traveling on the Water Cycle

Key Words: No new key words.

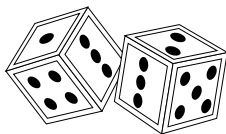
Getting Started:

- 1. Look at Student Sheet 62.1, "Anticipation Guide: Traveling on the Water Cycle," which is attached to this packet. Label all of the places that you think contain water. Draw arrows showing the water's possible movements.
- 2. What are the different forms of water found on earth?

- 3. Read the introduction and Challenge to Activity 62, "Traveling on the Water Cycle," in your Student Book. In this activity, you will take an imaginary journey with water molecules that are traveling on the water cycle.

Procedure:

- 1. Get out a number cube from any board game. You will use this throughout the activity to roll different numbers.



- 2. Review at the six Water Cycle cards attached to this packet.
- 3. Decide where your water adventure begins by selecting one of the Water Cycle cards as a starting place that fits the location of your town. This is the card you will start with.
- 4. Record the title of the Water Cycle card on Student Sheet 62.2, "My Water Cycle Story," attached to this packet.
- 5. Look at the Water Cycle card to see where your water molecules can be. Make a choice and record it on Student Sheet 62.2. In the third column, identify the state of your water (solid, liquid, or water vapor). An example is shown below.

My Water Cycle Story

Card Title	My water molecules are part of:	This water is in what state (solid, liquid, or gas)	Describe how your water could have changed and/or moved from the previous row to this one:
1. Precipitation	Rain	liquid	

Name _____ Date _____ Block _____

6. Roll the number cube. Look for the number you rolled on the Water Cycle card to find out where your water will go next. For instance, if you are on the Precipitation card and you roll a 4, then the Precipitation card says to go to the Ocean next. So you will write "Ocean" in the next row of Student Sheet 62.2 and then repeat the same process that you did above.

Note: Water can cycle back to the same place, so you may not use all six cards. When you get to one you have had before, choose a different *form* for your water.

7. Repeat Steps 4-6 for all the rows of Student Sheet 62.2. In the third column, identify the state of your water (solid, liquid, or water vapor) at each place in the story.
8. Each row of Student Sheet 62.2 is one part of the story of your water. Think about the following:
- Where in the world are your water molecules in each part of your story? Remember, your water first started in your town. Hint: If you are still having trouble, you may want to consult Student Sheet 62.3, "Story Ideas," which is attached to this packet.
 - Describe what happened to your water molecules from one part of the story to the next. Be sure to explain exactly how your water changed. Hint: Did it move? If so, how? Or did something else happen, like a temperature change?
9. Based on your thoughts, complete the last column of Student Sheet 62.2.

Analysis Questions:

1. On Student Sheet 62.1, you recorded your initial ideas about the water cycle. To complete Student Sheet 62.1:

- a. Use the following words to identify where water can be found in the picture:

atmosphere organisms ocean
land groundwater precipitation

- b. Draw at least six arrows showing the likely movement of water from one place to another.

- c. Label places where each of the following is occurring:

condensation evaporation
freezing melting

- d. What changes did you have to make to your student sheet so that you could complete it?

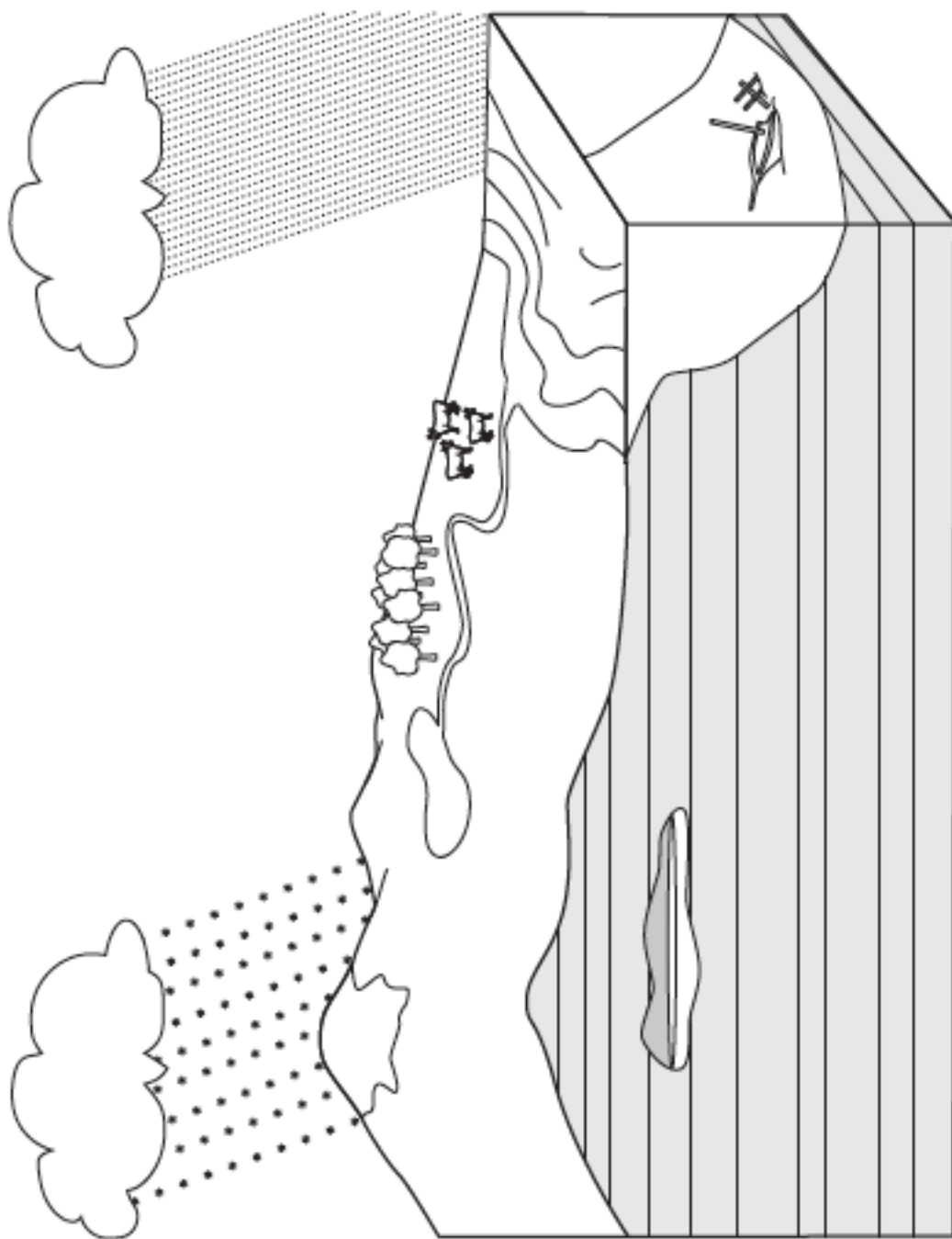
2. The term "water cycle" is used to describe the movement of water on the earth. Do you think that your diagram on Student Sheet 62.1 is a good summary of the water cycle? Why or why not?

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

[illegible]

[illegible]

Anticipation Guide: The Water Cycle



Name _____ Date _____ Block _____

My Water Cycle Story

Card Title	My water molecules are a part of:	This water is in what state (solid, liquid, or gas?)	Describe how your water could have changed and/or moved from the previous row to this one.
1.			
2.			
3.			
4.			
5.			
6.			

Story Ideas

My water molecules are:

- | | |
|----------------------|--|
| Atmosphere | <ul style="list-style-type: none">• part of a dark rain cloud above my town• in the wind blowing over some mountains• rising in warm, wet air over the ocean |
| Groundwater | <ul style="list-style-type: none">• slowly dripping through layers of rock after a flood• frozen in the middle of layers of soil• seeping into the bottom of a deep well in my town |
| Ocean | <ul style="list-style-type: none">• floating in the middle of the ocean• in a gentle wave hitting the beach in my town• flowing in a current from Florida to Georgia |
| Organisms | <ul style="list-style-type: none">• evaporating off of the leaf of a plant• in the exhaled breath of a town resident• on the skin of a sweaty horse |
| Precipitation | <ul style="list-style-type: none">• part of the rain that has been pouring down in my town• in the snow that is falling on mountaintops• forming icicles along the roof edge of a building |
| Land | <ul style="list-style-type: none">• in the river that is flooding my town• floating in the middle of a large lake• forming a small puddle on the sidewalk |

Precipitation

Your water molecules can be part of:

rain

snow

hail (frozen rain)

sleet (mixture of rain and snow)

or any other type of precipitation

Time to move on! Roll the number cube to find out where you go next.

IF YOU ROLL:	GO TO:
1, 2, 3, or 4	Ocean
5	Atmosphere
6	Land

Groundwater

Your water molecules can be found:

in layers of rock

frozen in the soil

in an underground river

at the base of a hot spring

or anywhere else under the earth's surface

Time to move on! Roll the number cube to find out where you go next.

IF YOU ROLL:	GO TO:
1	Groundwater
2	Organisms
3, 4, 5, or 6	Ocean

Land

Your water molecules can be part of:

a river

a lake

a puddle

an ice sheet

or anywhere else on the surface of the earth

Time to move on! Roll the number cube to find out where you go next.

IF YOU ROLL:	GO TO:
1	Groundwater
2	Atmosphere
3	Organisms
4, 5, or 6	Ocean

Atmosphere

Your water molecules can be part of:

- a cloud
- the wind
- moist air
- a fog
- or anywhere else in the atmosphere

Time to move on! Roll the number cube to find out where you go next.

IF YOU ROLL:	GO TO:
1, 2, 3, or 4	Precipitation
5	Organisms
6	Atmosphere

Organisms

Your water molecules can be:

- inside a plant (roots, stems, leaves)
- inside an animal (blood, urine)
- on a tree (leaves, bark)
- on an animal (sweat, tears)
- or a part of any living organism on the earth

Time to move on! Roll the number cube to find out where you go next.

IF YOU ROLL:	GO TO:
1 or 2	Atmosphere
3	Groundwater
4	Ocean
5 or 6	Land

Ocean

Your water molecules can be part of:

- a wave
- an ocean current
- an iceberg
- the deep sea
- or anywhere else in the ocean

Time to move on! Roll the number cube to find out where you go next.

IF YOU ROLL:	GO TO:
1	Organisms
2,3,4 or 5	Atmosphere
6	Ocean