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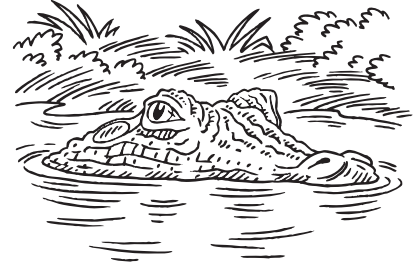
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Classifying Living Things

Brief #3: Animal Classification (cont.)

According to the chart, you are looking for a large reptile that looks like a lizard, has short legs, a long snout, lots of teeth, and lives and hunts in fresh water in the Southeastern United States. Sound familiar? What animal could it be?

Answer: It's the *Alligator mississippiensis*—in other words, the American alligator!



Learning Toolbox

Use this acronym to help you remember the groups of animal classification:

King	Phillip	Can	Only	Find	Green	Slippers
↓	↓	↓	↓	↓	↓	↓
<i>Kingdom</i>	<i>Phylum</i>	<i>Class</i>	<i>Order</i>	<i>Family</i>	<i>Genus</i>	<i>Species</i>



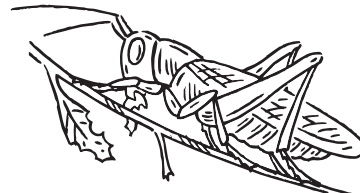
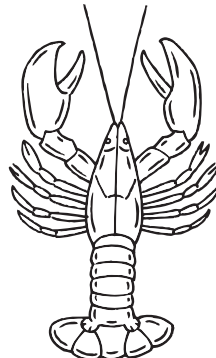
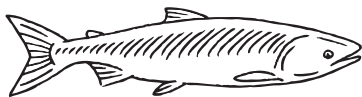
Vertebrates and Invertebrates

The animal kingdom is full of thousands of different kinds of animals. Some are as big as whales, others are as tiny as fleas. But all of these animals can be grouped according to some very simple characteristics.

Two main groups of animals are vertebrates and invertebrates.

Vertebrates are animals that have a spine or a backbone.

For example, snakes, elephants, birds, and fish are all vertebrates. **Invertebrates are animals that don't have a spine or backbone.** For example, worms, insects, jellyfish, lobsters, and spiders are all invertebrates.



Vocabulary

1. species
2. vertebrates
3. invertebrates
4. mammals
5. fish
6. birds
7. amphibians
8. reptiles
9. exoskeleton

Ecosystems

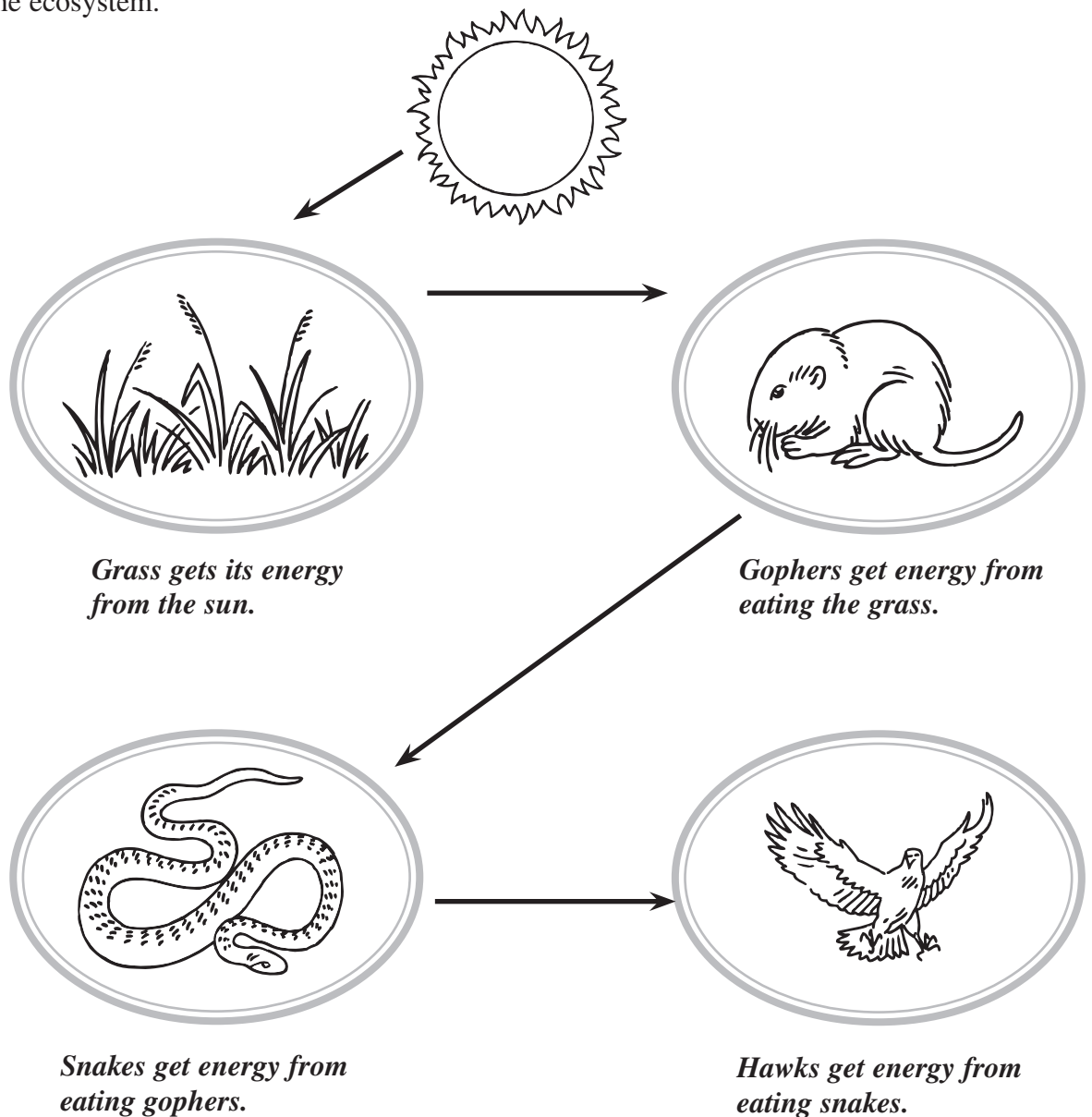
Brief #2: Food Webs and Food Chains (cont.)



Food Chain

Most all living things need energy from the sun to survive. **The path that the sun's energy takes as it passes from producers to consumers is called a food chain.** In a food chain, plants produce energy through photosynthesis, plants are consumed by herbivores, and herbivores are consumed by carnivores. Scavengers and decomposers consume anything that is left over.

The diagram below shows a food chain. Grass gets energy from the sun; gophers get energy from eating the grass; snakes get energy from eating the gophers; and hawks get energy from eating the snakes. The energy from the sun is being passed from one organism to another in the ecosystem.



Water and Weather

Activities (cont.)



Brief #3: Hurricanes and Tornadoes

- **Research and Report:** Have students research the 10 largest hurricanes in recorded United States history. Have them report their findings, deciding for themselves what type of format to use.
- **Create a Tornado in a Bottle:** Take two empty 2-liter soda bottles. Fill one about three-fourths of the way full. Tape the two bottles together at the openings. Use packing tape or another type of strong tape. Turn the bottles so that the one containing the water is on the top. Turn that bottle in a clockwise circle so that you have all of the water spinning in the same direction. As the water empties from the top bottle into the bottom bottle, a vortex will form. Explain that this is what happens in tornado funnels.
- **Make a Chart:** Ask students to research the Fujita scale (tornado-intensity scale). Have them create a chart that shows how different-sized tornadoes are classified.
- **Make a Public-Safety Announcement:** Ask students to write and deliver a public-safety announcement about either hurricane or tornado preparedness. Ask students to record their announcements.
- **Provide Fast Facts:** Have students provide five additional fast facts about hurricanes or tornadoes. Make sure that the information provided is not already covered in the brief.

Key Words: *largest hurricanes, Fujita scale, hurricane and tornado preparedness*



Activity Center

Tracking and Graphing the Weather: Stock an activity center with graphing paper and colored pencils. Assign each pair of students two cities in the United States that have different climates. Using either the Internet or a newspaper, have students track the temperatures in their assigned cities for a one-week period of time. Ask them to create a double-line graph to display the data on their particular cities.



Internet Resources

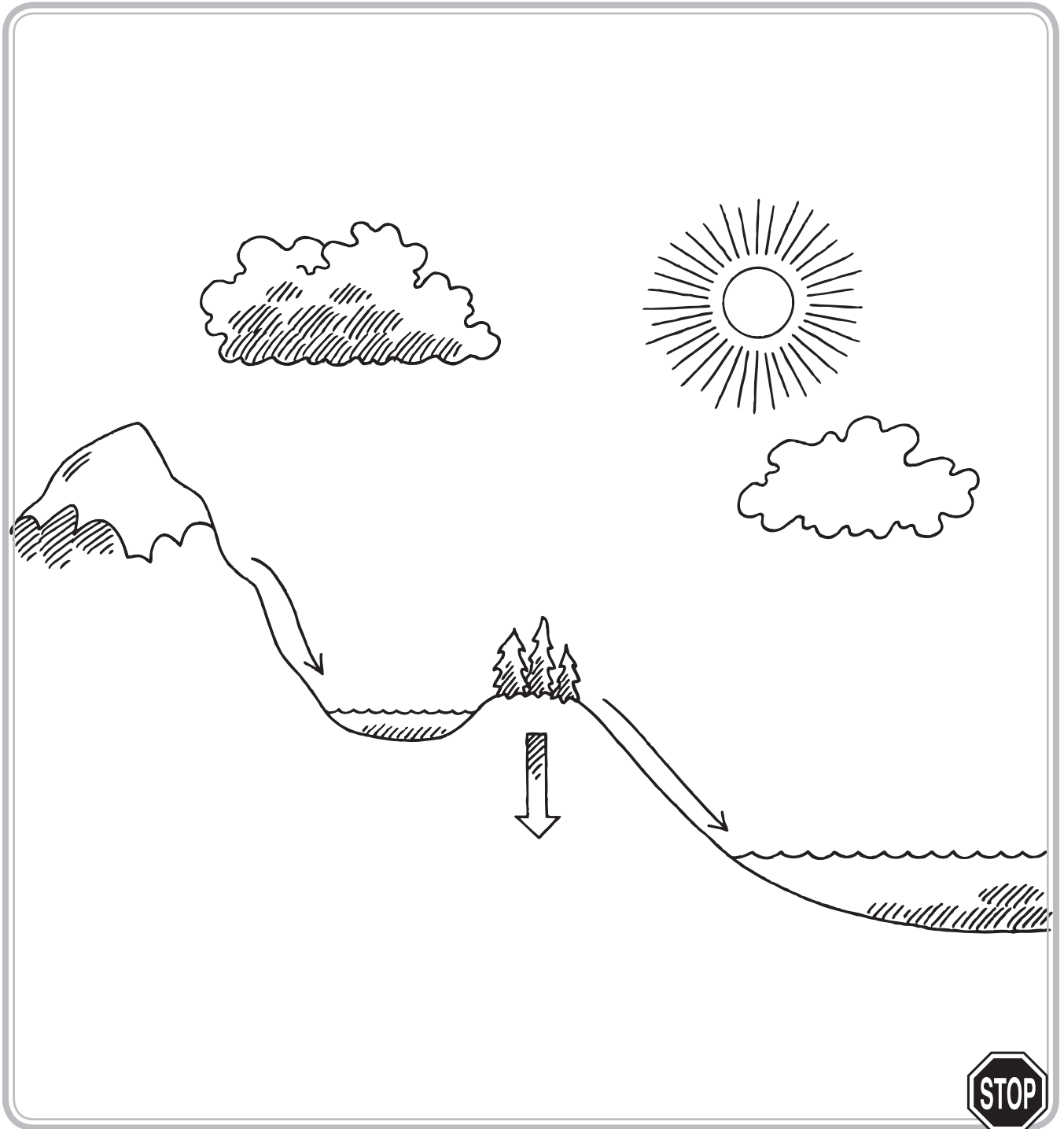
- <http://www.nhc.noaa.gov/> — the website for the National Hurricane Center; includes emergency preparation and up-to-the-minute tracking of tropical storms
- <http://www.nws.noaa.gov/> — the website for the National Weather Service; includes national, state, and county weather forecasts and warnings
- <http://www.fi.edu/learn/learners.php> — information for students from the website for the Franklin Institute
- <http://www.weatherwizkids.com/index.htm> — a site for kids designed by a meteorologist; includes games, experiments, and information about weather conditions

Water and Weather

Graphic Assessment

Name: _____ Date: _____

Directions: In the space provided, draw an illustration that shows how the water cycle works. Make sure to include labels with your illustration. Part of the illustration has been started for you.



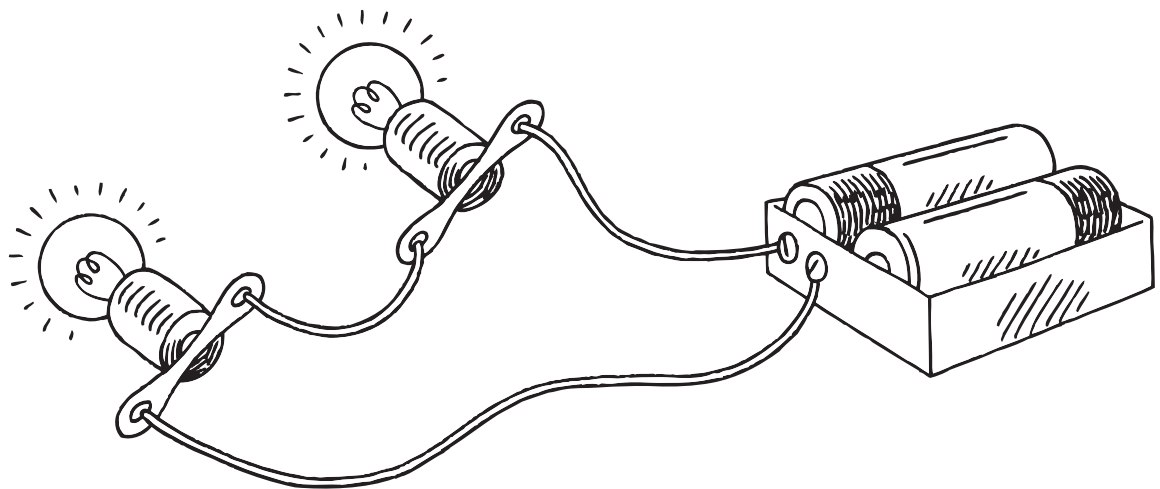
Electricity

Brief #1: Charged Matter and the Flow of Electricity *(cont.)*



Series Circuit

There are different types of closed circuits. One type is called a series circuit. **In a series circuit, electricity can only flow in one direction.** If there are five lights along the loop in a series circuit and one of them blows out, it turns the circuit off and no lights along the loop will light up. You can see this happen often with long strings of holiday lights. There may be 100 bulbs along a series circuit, but if one bulb burns out, none of them will light.



Parallel Circuit

Another type of circuit is called a parallel circuit. **In a parallel circuit, there is more than one path along which the electricity can flow.** If one bulb in a parallel circuit blows out, the electricity can flow on another path so that only that one bulb doesn't light. You can see the importance of parallel circuits in your house or school. Imagine if one blown-out light bulb in your classroom meant that all the lights in the school didn't work!

