Name: _____ Date: _____

Chapter 1 Home Investigation: Forces Around the Home

Directions:

1. Find evidence of three forces around your home.
2. Fill in the table below about the forces.
3. Show someone in your family your work and explain your evidence to him.

Observation (describe what you saw)	**Object 1**	**Object 2**	**What kind of evidence?** (circle one)
			Started moving or Stopped moving
			Started moving or Stopped moving
			Started moving or Stopped moving

Name: _____ Date: _____

Chapter 3 Home Investigation: Forces Quiz

Directions:

1. Create a quiz about forces. Write five statements about forces, magnetic force, or gravity. Some statements should be true, and some statements should be false.
2. Have someone in your family group take the quiz. Have that person read each statement and circle whether they think each one is true or false.
3. Talk about the answers with the person who took the quiz. You might teach them something!

1.	true	false
2.	true	false
3.	true	false
4.	true	false
5.	true	false

Name: _____ Date: _____

Chapter 4 Home Investigation: Floating Paper Clip

Directions:

1. Use the paper clip on a string and the magnet to make the paper clip float at the end of the string.
2. Show a member of your family and explain to them about the forces acting on the paperclip.
3. Draw how you made the paper clip float.
4. Add labels showing the forces acting on the paper clip.
5. Record at least one question your family member has about forces or the floating paper clip.

Diagram of the floating paper clip:

Family member's questions: _____

_____

_____

_____

_____

Name: _____ Date: _____

Chapter 5 Home Investigation: Sharing Your Train Explanation

Directions:

1. Share your explanation of why the train rises, floats, and changes from floating to falling with a member of your family.
2. Use the diagrams you made to help you explain.
3. Have your family member write at least one question they have about the train.
4. Write ideas you have about an answer to their question.

Family member's questions: _____

_____

_____

_____

_____

Your ideas about their questions: _____

_____

_____

_____

_____

_____

Name: _____ Date: _____

Chapter 1 Home Investigation: Observing Similarities and Differences

Directions:

1. With someone from your home, choose and observe two organisms (living things, such as plants or animals) in your home or neighborhood.
2. Discuss the traits that are different and the traits that are similar.
3. In the table below, list the similarities and differences in the traits.
4. Answer the questions at the bottom of the page.

The two organisms I chose are: _____

_____

Similarities	Differences

Do you think these two organisms are closely related? Why or why not?

_____

_____

Name: _____ Date: _____

Chapter 2 Home Investigation: Inherited Traits Quiz

Directions:

1. Create a quiz about what you've learned so far about traits.
2. Record five statements about traits. Some statements should be true, and some statements should be false.
3. Give the quiz to someone at home. Have that person read each statement and circle whether they think it is true or false.
4. Talk about the answers with the person who took the quiz. You might teach them something!

1. Two different organisms can have similar traits, even if they don't have the same parents.	true	false
2.	true	false
3.	true	false
4.	true	false
5.	true	false

Name: _____ Date: _____

Chapter 3 Home Investigation: Can It Be Inherited?

Directions:

1. Think of traits that can be inherited and traits that cannot be inherited.
2. Record the traits in Column 1.
3. Have an adult at home decide whether they think each trait came from inheritance, from interaction with the environment, or from both. Record their answers in Column 2.

Trait	**Where does the trait come from?**
broken arm	the environment

Name: _____ Date: _____

Chapter 4 Home Investigation: How Organisms Could Get Their Traits

Directions:

1. Think of an organism that you would like to learn more about. Record the name of the organism below.
2. Record the environment in which the organism lives.
3. In the "Parents" box, draw two parent organisms in their environment. Label three traits that each parent has.
4. Show your drawing to someone at home. Talk about what traits an offspring of these two parent organisms might have.
5. Based on your discussion, draw a possible offspring in the "Offspring" box on the next page. Label its traits.

Organism: _____

Environment: _____

Parents

Name: _____ Date: _____

Chapter 4 Home Investigation: How Organisms Could Get Their Traits (continued)

Possible Offspring

Name: _____ Date: _____

Chapter 1 Home Investigation: Observing Organisms

Directions:

1. With an adult, look for organisms meeting their needs in their environment. You might try looking for organisms in your neighborhood, in your yard, or even inside your home.
2. For each organism you observe, write the name of the organism in the first column of the table.
3. In the second column, record information about the organism's environment.
4. In the third column, record the need or needs you observed the organism meeting.
5. In the last column, record what made you think the organism was meeting that need.

Organism	**Environment**	**Need that the organism met**	**How do you know?**
Example: Spider	in a web on my kitchen window	getting food	There was a fly in the web. I think the spider would eat it.

Name: _____ Date: _____

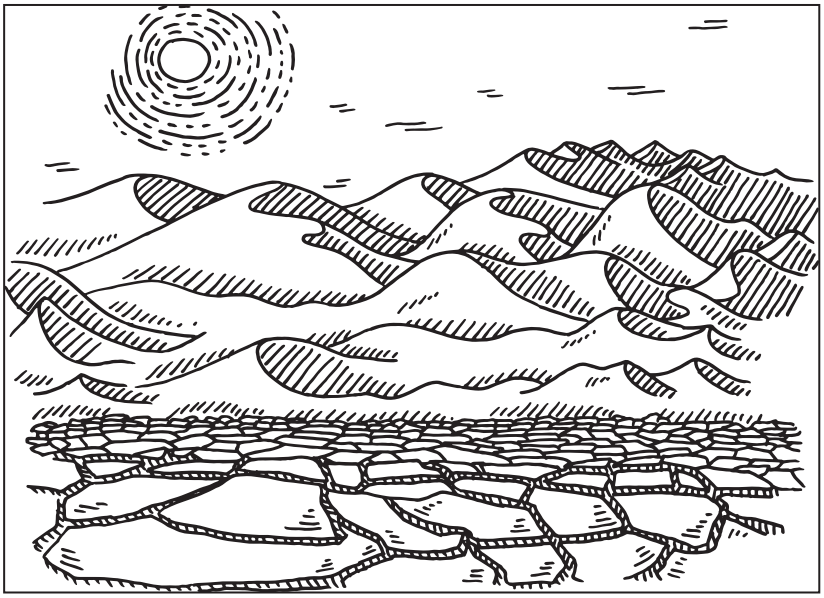
Chapter 2 Home Investigation: Adaptive and Non-Adaptive Traits

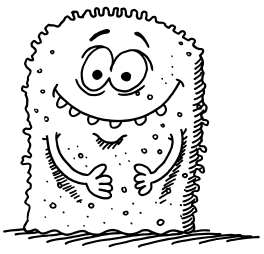
Directions:

1. With an adult, figure out what traits would make it more likely or less likely for a small animal called a meep to survive in the environment described below.
2. In the table on the next page, circle the traits that would make a meep more likely to survive in this environment. Make an X across the traits that would make a meep less likely to survive in this environment.
3. In the box on the next page, draw a meep that is most likely to survive in this environment. Label the adaptive traits (the traits that would make it likely to survive).

Environment

This hot desert environment gets very little rain. The ground is white clay, and the mountains are white sand. The predator (shown below) slides along the clay ground, hunting for meeps with its good eyesight and sharp teeth.





Name: _____ Date: _____

Chapter 2 Home Investigation: Adaptive and Non-Adaptive Traits (continued)

Possible traits of a meep

Scales	Hair	Wings
white scales	thick hair	small wings that allow the meep to fly short distances
light gray scales	thin hair	no wings
dark gray scales	very little hair	large wings that allow the meep to fly long distances

Draw a meep that is most likely to survive in this desert environment. Label the adaptive traits.

Name: _____ Date: _____

Chapter 3 Home Investigation: Traits and Environment Quiz

Directions:

1. Create a quiz about what you've been learning about how organisms with different traits are likely or not likely to survive in an environment.
2. Record four statements about an organism's trait and how that trait would make it easier or harder for the organism to survive in a certain environment. Some statements should be true, and some statements should be false.
3. Give the quiz to an adult in your home. Have that person read each statement and circle whether they think each one is true or false.
4. Talk about the answers with the person who took the quiz. You might teach them something!

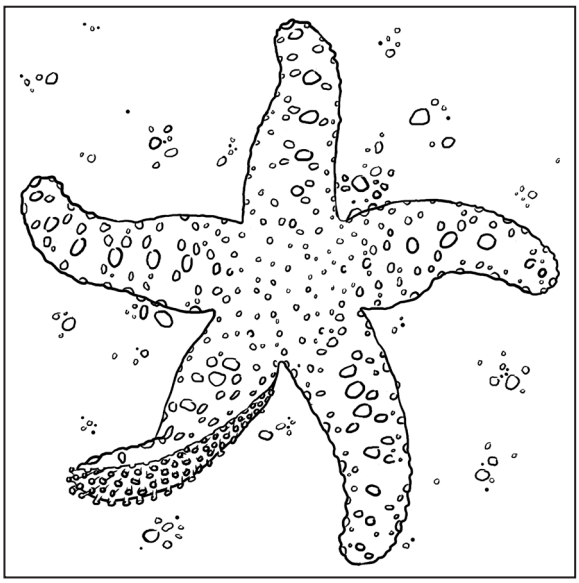
1.	true	false
2.	true	false
3.	true	false
4.	true	false

Name: _____ Date: _____

Chapter 4 Home Investigation: Biomimicry Design Challenge

Directions:

1. With an adult, read the facts about sea stars.
2. Design something new that would be helpful in your everyday life. Your design should be inspired by one or more of the traits of the sea star.
3. On the next page, record the name of your design and draw it in the box. Label the parts of your drawing.
4. Answer the questions on the next page.



Sea stars have these adaptive traits that help them survive in their ocean environment:

- bony skin that protects them from predators
- skin that camouflages with the environment or skin that is brightly colored so the sea star looks poisonous
- hundreds or thousands of tiny tube feet that help the sea star pry open the shells of prey, such as clams or oysters
- sack-like stomachs that they can push out of their bodies and into the shell of a prey, such as a clam, so they can easily digest food that is bigger than their mouths

Name: _____ Date: _____

Chapter 4 Home Investigation: Biomimicry Design Challenge (continued)

Name of my design: _____

What problem does your design solve?

_____

_____

_____

How did the traits of a sea star help you get ideas for your design?

_____

_____

_____

_____

Name: _____ Date: _____

Chapter 1 Home Investigation: Weather Report

Directions:

1. Watch a weather report on television, read a weather report in a newspaper or online, or listen to a weather report on the radio with someone in your family.
2. Discuss the weather report.
3. Repond to the prompts below.

How did the weather report connect to what you have learned about weather in science class?

_____

_____

_____

Make a drawing if it helps you explain. Label your drawing.

Write a question about something from the weather report.

_____

_____

Name: _____ Date: _____

Chapter 2 Home Investigation: Comparing Temperature Ranges

Directions:

1. Explain to an adult what the class worked out about the temperature range near your school during the past 30 days.
2. Choose a faraway place that you want to investigate. It could be a place where a relative lives or somewhere you want to travel.
3. Have the adult help you look up the daily high temperatures in the faraway place for the past 30 days.
4. Discuss the data, and then use it to complete the table and questions below.

Faraway Place Last 30 Days

Highest High Temperature (°F)	Lowest High Temperature (°F)	Temperature Range
		from _____ °F to _____ °F

Predict tomorrow's high temperature in the faraway place.

_____

Why do you think so?

_____

_____

_____

Name: _____ Date: _____

Chapter 3 Home Investigation: Weather Quiz

Directions:

1. Write some true and false statements about weather, seasons, and/or climate.
2. Have an older brother or sister, or another adult take the quiz. They should check the box depending on whether they agree or disagree with the statement.
3. If your relative got anything wrong, explain the correct answer. If your relative got all the questions right, explain something else about weather, seasons, and/or climate.
4. On the back of your paper, have your adult write about what you explained.

	Agree	Disagree
_____ _____	☐	☐
_____ _____	☐	☐
_____ _____	☐	☐
_____ _____	☐	☐

Name: _____ Date: _____

Chapter 4 Home Investigation: Natural Hazards Inverview

Directions:

1. Interview two people at home about natural hazards.
2. Write each person's name and then ask them the two questions.
3. Record each person's responses on the lines below each question.

Name of Person 1: _____

What was a time you observed dangerous weather? What did you see and feel? _____

_____

Did you know this weather was coming? If so, what did you do to prepare?

_____

_____

Name of Person 2: _____

What was a time you observed dangerous weather? What did you see and feel? _____

_____

Did you know this weather was coming? If so, what did you do to prepare?

_____

_____