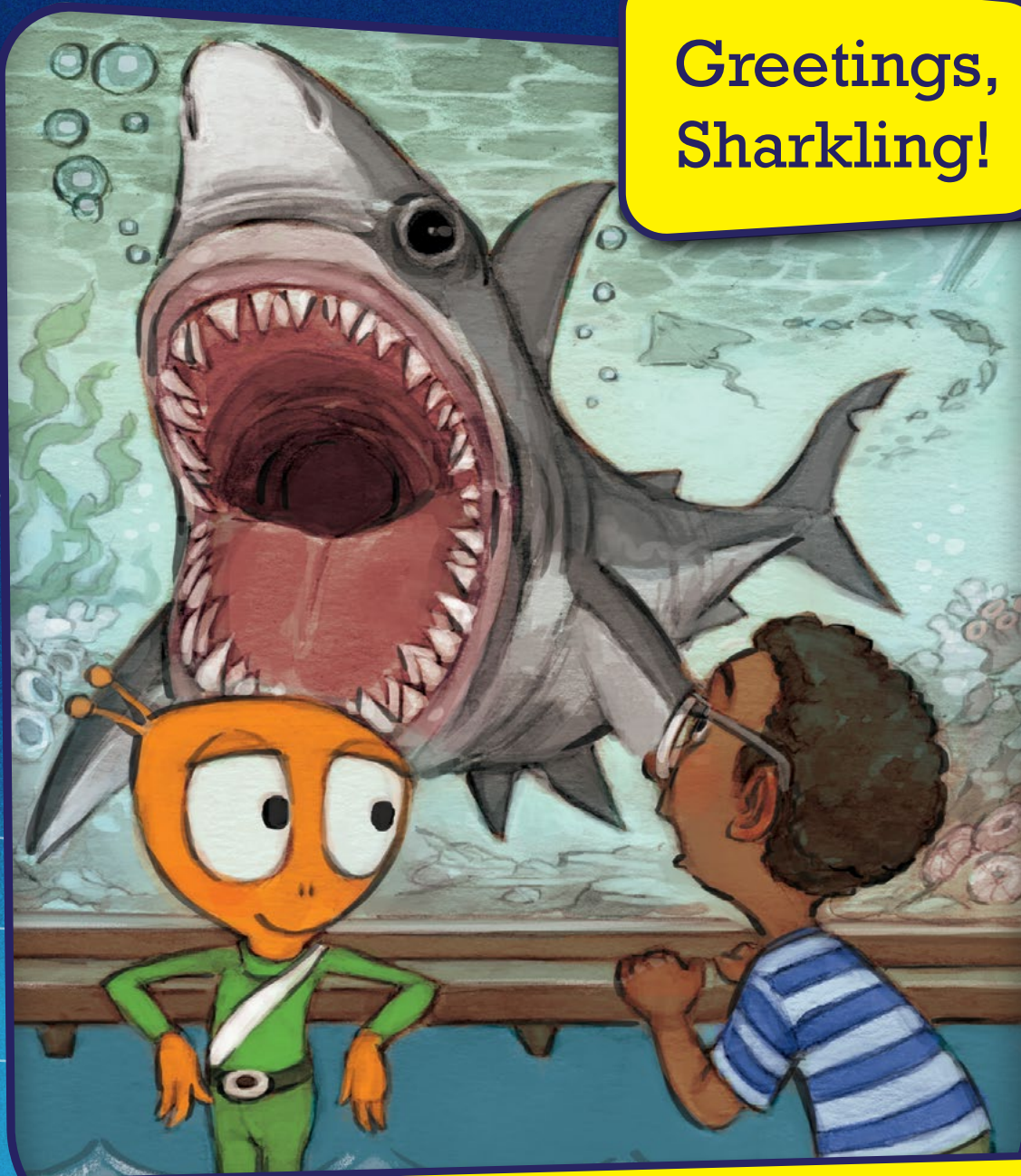


2 How to Be an **EARTHLING**



Greetings,
Sharkling!



★ ★ Mission Guide ★ ★

Greetings, Sharkling!

Mission 1: Plan a Trip to the Aquarium



Dear classmates,

We had so much fun on our trip to the aquarium! Have you ever been to an aquarium? You won't believe some of the incredible sea life you can see there. You should plan a trip to an aquarium near you.

Your friend,
Newton

TASK:

Research a local aquarium. Look at the exhibits they have to offer and the types of sea life they feature. Create a plan for a visit.

FOCUS QUESTIONS:

- 1 What exhibits do you want to make sure you see while you are there? In what order will you visit the exhibits?

- 2 What do you want to learn during your trip to the aquarium? Write at least 3 questions you would ask a tour guide at the aquarium.

SUGGESTED SUPPLIES:

- computer with internet access
- local aquarium brochures or printouts

CCSS.ELA-LITERACY.CCRA.R.7.

Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as with words.

Greetings, Sharkling!

Mission 2: Fish Tank Design



Dear Classmates,

I couldn't believe all of the creatures we saw in the tank at the aquarium. There were yellow fish, manta rays, sea turtles, seahorses, jellyfish, and squid! I have a fish tank at home, but there's no way these fish could fit in there—they are too big and there are too many. If you could choose fish for an aquarium, what would you pick? I know I would definitely include a squid!

Your friend,
Trixie

TASK:

The aquarium tank featured many different kinds of sea life. Your task is to research different types of fish and sea creatures and create an aquarium of your own. Decide which fish you would like to include in your aquarium. Would your aquarium be a small aquarium at home or would you design a large aquarium tank that many people could visit? Draw a picture of your aquarium design, and draw or cut out pictures of the fish you want to include.

FOCUS QUESTIONS:

- 1 What size tank do you want to plan: a small tank for your home or a large tank for an aquarium? What types of fish and about how many of each will you put in it?

- 2 Explain why you chose the types of and numbers of fish you put in your aquarium. (Make sure the fish will get along and that you have enough room in your tank for all of your fish.)

SUGGESTED SUPPLIES:

- computer with printer
- books about fish
- crayons
- markers

2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.

3-LS2-1. Construct an argument that some animals form groups that help members survive.

3-LS4-2. Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

Greetings, Sharkling!

Mission 3: The Weight of Gravity



Dear classmates,

I couldn't believe that Spork could jump all the way into the tank. He said it wasn't hard with Earth's weak gravity. What does he mean by that?

*Your friend,
Jack*

TASK:

Gravity is a force that pulls objects toward each other. On Earth, gravity is what keeps us on the ground, and it's the reason we come back down after we jump. Compare the strength of the gravity on each planet in our solar system by comparing how much Jack would weigh on each planet.

FOCUS QUESTIONS:

- 1 How do we know that Earth has gravity even though we cannot see it?

- 2 If a planet has a higher gravity than Earth, you will weigh more on that planet than you do on Earth.

Jack weighs 50 pounds on Earth. This chart shows how much Jack would weigh on other planets. Use the chart to help you compare the gravity on each planet.

- a. Which two planets have the same gravity as each other?
b. Which four planets have gravity that is similar to Earth's?
c. Which planet has more than twice as much gravity as Earth?

- 3 If Spork's planet were in our solar system, what planet do you think he might have come from if he thought Earth's gravity was weak compared to the gravity on his planet? Explain your thinking.

PLANET	AMOUNT JACK WEIGHS (rounded to the nearest pound)
Mercury	19
Venus	45
Earth	50
Mars	19
Jupiter	118
Saturn	53
Uranus	44
Neptune	56

CCSS.MATH.CONTENT.2.NBTA.4.

Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.

CCSS.MATH.CONTENT.4.NBTA.2.

Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit whole numbers based on the meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.

Greetings, Sharkling!

Mission 4: Honesty Stories



Dear class,

Even though I wasn't happy that my cookies didn't taste good, I was happy that Newton told me the truth about them. It is so important to be honest! When have you had to be honest, even when telling the truth was difficult?

Your teacher,
Mrs. Buckle

TASK:

Think about a time when you have had to be honest, even when it wasn't easy. Create a picture book about that time to help other students learn why being honest is an important character trait.

FOCUS QUESTIONS:

- 1 Write a brief summary of a time you had to be honest.

- 2 Why was honesty the best choice in your situation?

- 3 What do you think other students will learn from your story?

SUGGESTED SUPPLIES:

- paper
- rulers
- markers
- pencils
- crayons
- stapler

CCSS.ELA-LITERACY.W.2.3.

Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal order, and provide a sense of closure.

CCSS.ELA-LITERACY.W.3.3./4.3/5.3

Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.