

# Maple Seed O-W-L Chart

An O-W-L (Observe, Wonder, Learn) chart can help students organize their thinking around a scientific phenomenon or concept. Giving students some experience with maple seeds before reading the book helps them better engage with the text and therefore makes the text more meaningful. You may want to do a whole-class O-W-L chart when teaching very young students.

## Procedure

Give each student a copy of the Maple Seed O-W-L Chart and a handful of maple seeds. If possible, have students collect their own maple seeds outdoors and provide clipboards for the O-W-L charts so that the entire activity can be completed outdoors.

## OBSERVE

Before you ask students to fill out the O-W-L chart, invite them to explore the maple seeds:

- Throw a handful into the air and watch them fall.
- Drop one and count the seconds it takes for one maple seed to hit the ground.
- Pull a maple seed apart to see what is inside.
- Compare the size, shape, and color of several maple seeds.
- Remove the wing from a maple seed and hold it in one hand. Hold a maple seed with a wing in your other hand. Drop the maple seeds and compare how long it takes for each one to hit the ground and how far each goes from where you are standing.
- Observe a maple seed closely with a hand lens.

After students have had time to explore, ask them to choose one maple seed and make a detailed drawing of it, labeling any parts they know. Next, have them record some observations about the maple seeds in the *O* column of the O-W-L chart. Encourage them to record both qualitative observations (e.g., color, texture, smell) and quantitative observations (e.g., length of the wing in centimeters, number of lines on the maple seed, how

## Next Generation Science Standards

### Science and Engineering Practices

**1. Asking questions and defining problems**

**8. Obtaining, evaluating, and communicating information**

### Disciplinary Core Ideas

**K: LS1.C Organization for Matter and Energy Flow in Organisms**

All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. (K-LS-1)

**1: LS1.A Structure and Function**

All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water, and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1)

**2: LS2.A: Interdependent Relationships in Ecosystems**

Plants depend on water and light to grow. (2-LS2-1)

**3:LS1.B Growth and Development of Organisms**

Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles. (3-LS1-1)

**4: LS1.A Structure and Function**

Plants and animals have both internal and external parts that serve various functions in growth, survival, behavior, and reproduction. (4-LS1-1)

**5: LS1.C Organization for Matter and Energy Flow in Organisms**

Plants acquire their material for growth chiefly from air and water. (5-LS1-1)

long it took the maple seed to fall to the ground). Have students share some of their observations.

### WONDER

Next, invite students to share some of their wonderings about the maple seeds and share some of your own wonderings, such as these questions:

- Why do maple seeds have wings?
- What is inside the hard part?
- How many maple seeds does a tree make?
- How does a small seed become a towering tree?
- How do maple seeds fly?

Have students record their wonderings in the *W* column of the O-W-L Chart. Then have them circle their most compelling wondering and share it with the class.

### LEARN

Show students the cover of [\*Next Time You See a Maple Seed\*](#) and tell them that this nonfiction book might help them answer some of their wonderings about maple seeds. Read the book aloud. After reading, have students add any new learnings to the *L* column of the O-W-L chart. Then ask students if any of their most compelling wonderings were answered by the text. Call on students to share, and ask them to refer back to the text for the answer to that specific question. Finally, ask students if they have any new wonderings based on what they learned from the text. Explain that often with science, the more you learn about a topic, the more questions you have. Encourage students to share their new wonderings and refer back to the text for the information that inspired those new questions.

#### ELA Common Core Connections

Reading: Informational Text – Key Ideas and Details

K: RI.K.1. With prompting and support, ask and answer questions about key details in a text.

1: RI.1.1. Ask and answer questions about key details in a text.

2: RI.2.1. Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details in a text.

3: RI.3.1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

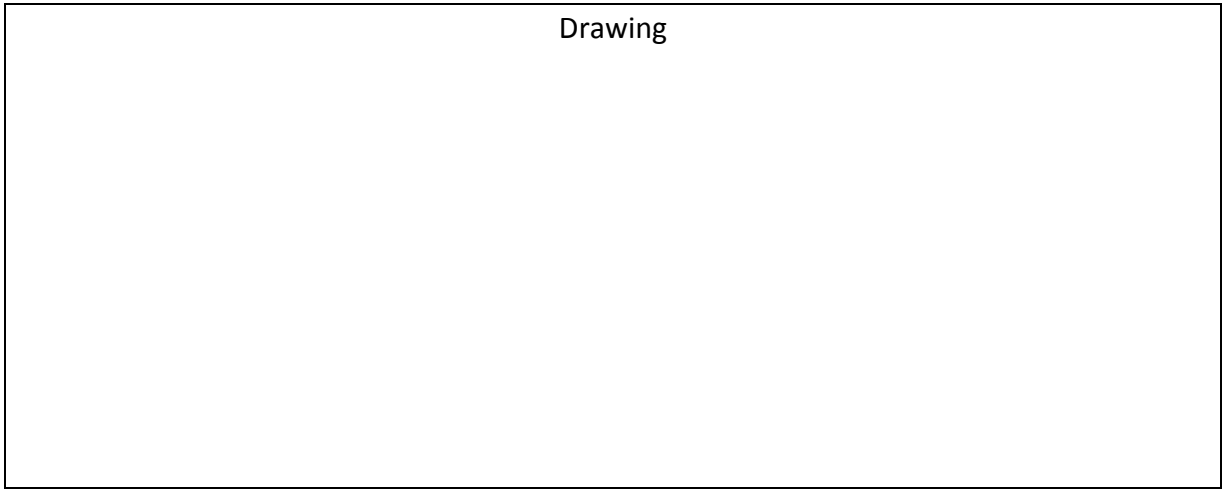
4: RI.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

5: RI.5.1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

Name \_\_\_\_\_

# O-W-L Chart

Drawing



<b>O</b> Observe	<b>W</b> Wonder	<b>L</b> Learn