Choosing Games to Address CCSS: Mathematics
Alignment to CCSS: English Language Arts
Alignment to ISTE Technology Standards: Students
Alignment to ISTE Technology Standards: Teachers

Try Out the Games

Teaching Routines

Preview the Game
- Beaver Dream Homes
- Frogfish Feast
- Freezer Burn Snack Sort

Teaching Tips
- Beaver Dream Homes
- Frogfish Feast
- Freezer Burn Snack Sort

Credits
## Choosing Games to Address CCSS: Mathematics

### Measurement and Data

1. **MD.A.2** Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.

   - **Beaver Homes**: ★
   - **Frogfish Feast**: ★ ★ ★
   - **Freezer Burn**

### Operations and Algebraic Thinking

1. **OA.C.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

   - **Beaver Homes**: ★ ★ ★

1. **OA.D.8** Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = __ – 3, 6 + 6 = __.

   - **Beaver Homes**: ★ ★ ★
## Vocabulary Acquisition and Use

<table>
<thead>
<tr>
<th>Standard</th>
<th>Beaver Homes</th>
<th>Frogfish Feast</th>
<th>Freezer Burn</th>
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<tbody>
<tr>
<td>L.1.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and content, choosing flexibly from an array of strategies.</td>
<td>⭐️</td>
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<tr>
<td>L.1.5 With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.</td>
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<td>L.1.6 Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., because).</td>
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# Alignment to ISTE Technology Standards: Students

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<thead>
<tr>
<th>Alignment to ISTE Technology Standards</th>
<th>Beaver Homes</th>
<th>Frogfish Feast</th>
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<tbody>
<tr>
<td><strong>2. Communication and Collaboration</strong></td>
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<tr>
<td>a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.</td>
<td>★</td>
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<tr>
<td>d. Contribute to project teams to produce original works or solve problems.</td>
<td>★</td>
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<td><strong>4. Critical Thinking, Problem Solving, and Decision Making</strong></td>
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<tr>
<td>b. Plan and manage activities to develop a solution or complete a project.</td>
<td>★</td>
<td>★</td>
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<tr>
<td><strong>5. Digital Citizenship</strong></td>
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<tr>
<td>a. Advocate and practice safe, legal, and responsible use of information and technology.</td>
<td>★</td>
<td>★</td>
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<tr>
<td>b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.</td>
<td>★</td>
<td>★</td>
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<tr>
<td><strong>6. Technology Operations and Concepts</strong></td>
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<tr>
<td>a. Understand and use technology systems.</td>
<td>★</td>
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<tr>
<td>b. Select and use applications effectively and productively.</td>
<td>★</td>
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## Alignment to ISTE Technology Standards: Teachers

### 1. Facilitate and Inspire Student Learning and Creativity

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<tr>
<td>a. Promote, support, and model creative and innovative thinking and inventiveness.</td>
<td>★</td>
<td>★</td>
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<tr>
<td>c. Promote student reflection using collaborative tools to reveal and clarify students’ conceptual understanding and thinking, planning, and creative processes.</td>
<td>★</td>
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<tr>
<td>d. Model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments.</td>
<td>★</td>
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### 2. Design and Develop Digital-Age Learning Experiences and Assessments

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<tbody>
<tr>
<td>a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity.</td>
<td>★</td>
<td>★</td>
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<tr>
<td>b. Develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress.</td>
<td>★</td>
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### 3. Model Digital-Age Work and Learning

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<tbody>
<tr>
<td>a. Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations.</td>
<td>★</td>
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<tr>
<td>b. Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation.</td>
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<tr>
<td>c. Communicate relevant information and ideas effectively to students, parents, and peers using a variety of digital-age media and formats.</td>
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### 4. Promote and Model Digital Citizenship and Responsibility

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<tr>
<td>c. Promote and model digital etiquette and responsible social interactions related to the use of technology and information.</td>
<td>★</td>
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</table>
Try Out the Games

Welcome to Beaver City: Beaver Dream Homes

Frogfish Feast

Freezer Burn Snack Sort

NOTE: These links will take you away from the Teaching Tips. They will open a web browser that lets you play the featured game.
Teaching Routines

Maintain Brisk Pacing
Research demonstrates that “brisk” pacing is related to greater content coverage, increased motivation and engagement, and, in turn, higher levels of student achievement.

• **Note the time allocated to each component of game play** (Build Background, Get Ready to Play, Play the Game).
  Monitor the length of your teaching and children’s turns so that all activities are completed within the allocated time.

• **Establish a predetermined system for calling on children** to work at the whiteboard. For example, write each child’s name on a Popsicle stick and place the sticks in a jar. To call a child to the board, draw a stick from the jar. When a child’s name is selected, set that stick aside, leaving only the sticks of children not yet chosen.

• **Invite all selected children to the whiteboard at once** when more than one child will be playing.

Engage All Children
When children are highly focused and engaged, they attain higher levels of achievement.

• **Position children so they do not block the screen** when they stand at the whiteboard, so that everybody can see the images and game play.

• **Involve all children in thinking about the correct answers** even if it is not their turn at the whiteboard.
  - Use strategies such as “Turn and Talk.” For example, ask all children to tell a partner the answer they would choose, or if they agree/disagree with a stated choice.
  - When the child at the whiteboard gives an answer, invite all the others to show “thumbs up” if they agree with the answer or “thumbs down” if they disagree.

• **Observe children’s understanding of key concepts.** When most children demonstrate understanding by rapidly choosing correct responses, wrap up game play.

Support Independent Learning
When teachers notice and name the learning strategies children use, children are more likely to become strategic and independent learners.
Teaching Routines

Use Key Vocabulary Frequently
When children have many opportunities to hear and use new vocabulary words, they are more likely to acquire and use the words on their own.

• **Repeat key words as often as possible** during game play, as well as during other parts of the school day when use of these words is appropriate.

• **Ask children to use key words** while playing the games.
  - When children are at the whiteboard, encourage them to use key words to describe their actions. For example, “This log is the same size as the outline.”
  - When children are invited to Turn and Talk, encourage them to use key words. For example, “We need to catch a green fish with an antenna.”

Mediate Game Play
When well-developed educational media programs are effectively joined with a sound classroom curriculum, children demonstrate high levels of motivation and engagement as well as notable increases in early literacy and mathematics skills and knowledge.

• **Load the game on the computer and minimize it before you begin the lesson.** This allows you to optimize instructional time by beginning game play as soon as you and the children are ready.

• **Preview the screen to explain what children will do.** Point out game features such as selecting objects, moving objects, and repeating the game instructions.

• **Quickly mute/unmute the sound by using the mute button** on the top row of the computer keyboard. You can also use the volume down/up buttons on the keyboard, or the volume controls on the interactive whiteboard, to adjust the sound.

• **If the touch function doesn’t work, use your computer to click on the item the child touches.**

• **Prepare for the worst!** Have a dry erase board or manipulatives available to carry out activities intended for the interactive whiteboard (such as using non-standard units to measure and compare the length of objects).
**Description**

Players choose from one of seven blueprints for a beaver dream home they want to build. Then they select logs (shown as rectangular wood planks) to fit outlines that may or may not be facing in the same direction as the logs.

When players select the correct log, the beavers complete another section of the home. If players choose the wrong log, it is shown against the outline. Sally and Nick tell players whether the log they selected is too short or too long. Each dream home requires two or three logs to be completed.

After completing the home, players can select another blueprint to build a different dream home.

**Helpful Background**

Although players can estimate which log is the correct size, the Teaching Tips focus on measuring the logs using non-standard units. Using a larger unit (such as a marker) to determine length makes it easier for children to keep track of the measurement and results in fewer gaps and overlaps. Using a smaller unit (such as a paper clip) is less likely to result in a fractional measurement.

When answers are not whole numbers, you can use phrases such as: It’s a little more than four markers long or It’s almost three markers long.
In this lesson, children will:

- use non-standard measurements to determine length
- measure length by moving an item multiple times across an object, placing it end-to-end without gaps or overlaps
- practice sorting
- learn new vocabulary, such as gap, overlap, log, and outline, and use these words in context
- use technology to learn, working individually and in groups
Build Background

Time: 10 minutes

NOTE: Open the SMART Notebook™ file called Sorting–Measuring. Minimize the file to place it on the dock for easy access.

To play this game, children need to iterate units (i.e., move a unit along a length of an object to figure out its length) without gaps or overlaps. To demonstrate measuring without gaps or overlaps:

• Tell children that you are going to measure the length of the interactive whiteboard. Explain that you will measure how many markers long it is.

• Point out that to get an accurate measurement—“the right answer”—it is important to leave no gaps. Explain that a gap is a space between two objects. Show this by lining up two markers with a gap between them.

• Then tell children that it is also important to measure without overlap. Explain that an overlap is when two objects are lined up on top of each other. Demonstrate by overlapping two markers.

• Explain that they can avoid gaps and overlaps by using a finger when they measure. As you measure the whiteboard, put your finger where the marker ends, then move the left edge of the marker to the same point. Invite students to count with you as you move the marker. When finished, say: The interactive whiteboard is [eight] markers long.

• Display the Sorting–Measuring file. Draw children’s attention to the objects on the whiteboard and say: Notice that some objects were measured correctly, some were measured with gaps, and others were measured with overlaps. Point out the headings on the whiteboard and call on various children to sort the measured objects according to the correct heading.

Close the Sorting–Measuring file. Have children practice measuring without gaps or overlaps:

• Choose an object to measure (e.g., desk, rug, bulletin board) and select two children to repeat these steps.

• Ask one child to move a square block (or another non-standard unit, such as a marker, pencil, or crayon) and have another child use a finger to help avoid gaps and overlaps when measuring.

• Invite the rest of the class to count each time the unit is moved so that they will know how many units long the object is.

• Repeat this activity until you observe that children understand how to measure this way without gaps or overlaps.
Get Ready to Play

Time: 5 minutes

For this activity, you will need a square block for measuring.

Launch the suite of games called Welcome to Beaver City and select the sign for Beaver Dream Homes.

1. Point out that children can choose any of these seven homes for the beavers to build.
2. Tell children to listen to the game instructions that they will hear after you pick a home.
3. Select one of the homes.
4. After Sally invites children to pick a log that is the same size as the outline, mute the sound.
5. Point out that a log is usually round, not flat like the one in this game. This one looks more like a wooden board, which is flat.
6. Explain that in this game an outline means the shape made by the dotted line. Trace the outline on the screen with your finger as you explain that this outline shows the size of the log they need to build the beaver home.
7. Tell children that they will figure out which log they need by measuring them with a block, instead of estimating or guessing which one is the right size.

To start the game:
1. Make sure your computer is connected to the whiteboard and the Internet.
2. Find the game on your computer by going to pbskids.org/lab
3. Click on Games on the left.
4. Games are in alphabetical order.
5. When you find the game, select PLAY NOW.
Play the Game

Play this game as a teacher-led, Whole-Class activity if children need guided support:

- using non-standard measurements to figure out length
- laying an object end-to-end to measure length without leaving gaps or creating overlaps
- counting units along the length of an object to get a total
- understanding and using the words gap, overlap, log, and outline
- playing a game collaboratively
- using common game navigation

Play this game as an independent, Small-Group activity if children understand...

- that non-standard measurements can be used to figure out length
- the meaning of gap, overlap, log, and outline
- game navigation

...but need practice:

- laying an object end-to-end to measure length without leaving gaps or creating overlaps
- counting units along the length of an object to get a total
Invite a child to the interactive whiteboard. Have the child move the block along the length of the outline and then each of the logs, placing a finger as a marker above the log (touching the log will select it). When the child is at the whiteboard:

- Ask the class to count along as the child measures to determine the length of the outline and the three logs.
- Notice and name the behaviors you see. For example: I see that [Amanda] measured without leaving gaps, so she got the right length. Or: I noticed that [Carlos] left gaps as he moved the block, so that measurement may not be right.
- Ask the child to say which log is needed to build the beaver’s home and to explain how she figured out the answer.
- Unmute the sound. Have the child at the board select the log.
- If the answer is correct, point out that the child did not leave any gaps or create any overlaps when measuring, so she picked the log that was the same size as the outline.
- If the answer isn’t correct, Nick and Sally will tell children to pick a log that is longer or shorter.
- Ask the class why the child got the wrong answer. Did she measure with gaps or overlaps? Did she count the right length of the outline and the logs? Have the child measure again to find the right answer.

Continue playing, inviting additional children to the whiteboard to build the beaver dream homes.

When most children have mastered the game, stop playing and review key concepts. Ask:

- What did we do to help build the beaver homes? (chose the log that fit the outline)
- What did we do to get the best measurement of the outlines and logs? (measured without gaps or overlaps)

Tell children: This game helps us learn how to measure the length of an object. Practice on your own: Measure your bed or other objects in your home using a shoe or toy. Tell a friend or family member the length you measured.
Teaching Tips: Beaver Dream Homes

Play the Game: Small-Group Activity

Time: 10 minutes

This game must be played on the interactive whiteboard in order for children to determine length using non-standard measurements. If children play in small groups, have them take turns:
- moving the square block along the length of the outline and logs
- counting the length of the outline
- selecting the log to build the beaver home

Observe children as they play, to make sure:
- they are measuring, rather than estimating, to choose the correct log
- they are measuring without leaving gaps or creating overlaps

Prompt children to use key vocabulary by asking questions such as:
- What do you need to do to help build the beaver home?
- What’s the best way to measure to get the right length?
- How did you decide which log to choose?

If children are having difficulty, the activities for whole-class instruction will provide helpful practice.
Description

Players help Martin, and a frogfish he calls “Rocket Jaw,” catch and free fish that are being controlled by an evil inventor named Zach Varmitech. These “robofish” have an antenna on their heads.

Players are told how many of each kind of robofish they should catch in order to free them. Catching “bonus” fish earns additional points. After catching the fish, players sort them into different-sized tanks based on how many of each fish they have.

With each new level, players catch and sort more fish, and the fish swim more quickly.

Level 1: Players catch and sort two types of fish.

Levels 2 and 3: Players catch and sort three types of fish.

Levels 4 and 5: Players catch and sort four types of fish.

Helpful Background

Children playing the game without the Teaching Tips will practice sorting. To address CCSS 1.0A.C.6, these Teaching Tips prompt children to add and subtract numbers within 20 to determine the number of fish they need to catch.

This game requires children to follow directions carefully, selecting only the fish of a certain color that have an antenna.

After children complete Level 3, a message appears asking players if they want to log in to save the creature power suit they earned. Select NO THANKS to continue playing.
In this lesson, children will:

- choose objects by color and type
- add and subtract numbers within 20
- compare the number of objects in up to four groups and sort by quantity
- learn new vocabulary, including frogfish, predator, lure, feast, and antenna, and use these words in context
- learn a new concept: living free and in the wild
- use technology to learn, working individually and in groups
Launch the game to display the opening screen. Point to the title and other features on the screen as you tell children:

- This game is called Frogfish Feast. A **frogfish** is a kind of fish that can quickly catch and eat other fish.
- An animal that captures other animals to eat them is called a **predator**.
- A **frogfish** is a **predator** that catches other fish with a **lure**, which looks like a small fish swimming near its head.
- When a fish tries to eat the **lure**, the **frogfish** quickly captures and eats the fish.
- A **frogfish** that **lures** a lot of fish has a **feast**, a huge, delicious meal.

Tell children that in this game they will need to catch fish that have an **antenna**. Explain that:

- An **antenna** sends or receives information.
- For example, a radio has an **antenna** that makes it possible for you to hear music and other programs.
- Some insects, like ants, have **antennae** that they use to smell.

Tell the class that you are going to show them a short video about the game. Encourage them to listen for the words **frogfish**, **predator**, **lure**, and **antenna** as they watch the video, and to pay attention to the directions for playing Frogfish Feast.
Get Ready to Play

Time: 5 minutes

On the screen, select the LEARN TO PLAY button. As the video plays:
- Point out the lures on the frogfish at the bottom of the screen.
- Point out a robofish and the antenna on its head.
- Select one of the robofish when Martin tells you to “go ahead and grab one.”
- If you can, point out one of the pufferfish that Martin says to avoid (they are small brown fish with black spots on the top). If you touch one, it will get very large.

Ask children to look at all the fish on the screen. Have them turn to their partners and take turns describing the colors and features of all the different fish.
- Invite a few children to share their descriptions. Point out the fish they describe.
- Remind children that the fish pictured on the bottom of the screen are the ones they need to catch. The number next to each fish tells them how many they have caught so far.
- Point out that the bonus fish, on the top corner of the screen, will keep changing as they play.

NOTE: When the game starts, the number of each fish you need to catch is shown very briefly. Be prepared to write this information on a flip chart where all children can see it for each round. In advance, you may want to create a chart for recording this information.

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<th>Level</th>
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Wild Kratts is a Kratt Brothers Company/9 Story Entertainment production. © 2010 1757712 Ontario Inc.
Play the Game

Play this game as a teacher-led, Whole-Class activity if children need guided support:

• selecting and sorting objects by color and type
• adding and subtracting numbers within 20
• comparing the number of objects in up to four groups and sorting by quantity
• understanding and using the words frogfish, predator, lure, feast, and antenna
• playing a game collaboratively
• using common game navigation

Play this game as an independent, Small-Group activity if children understand...

• selecting and sorting objects by color and type
• adding and subtracting numbers within 20
• the meaning of the words frogfish, predator, lure, feast, and antenna
• game navigation

...but need practice:

• comparing the number of objects in up to four groups and sorting by quantity
Teaching Tips: Frogfish Feast

Play the Game: Whole-Class Activity

Time: 10 minutes

Select the JUMP TO GAME button to start the game. On a flip chart, record the number of each fish children need to catch.

• Review the quantities of each fish, then ask: How many fish do we need to catch in total? Write this number on the chart.
• Invite a child to the whiteboard to catch one type of fish. Each time a child catches a fish, ask how many more fish with antennas must be caught to reach the total listed on the chart.
• Invite a different child to the whiteboard to catch another kind of fish.
• Repeat these steps until children have caught the correct number of fish.

Sorting Fish

• Remind children that they need to sort the fish by how many of each fish they caught. The type with the least number of fish will go in the smallest tank, and the type with the most fish will go in the largest tank.
• Have children turn to their partners to decide which fish should go in each tank.
• Invite a pair of children to the whiteboard to explain their answer and take turns moving each group of fish into the tanks.
• Ask comparative questions, such as: How many more/fewer [green] fish than [striped brown] fish did we catch?
• Have a child select the CHECK TANKS button to make sure the fish are sorted correctly. When the tanks are correctly sorted, Martin says, “They’re living free and in the wild.” Have children tell their partners what they think this means.
• Call on a few children to share their answers. If they don’t seem to understand the concept, explain and clarify.

When most children have mastered the game, stop playing and review key concepts. Ask:

• What did we do to catch the fish we needed? (chose the correct type of fish; only caught fish with antennas)
• What did we do to sort the fish correctly? (figured out which group had more or less than the other groups)
• What new words did we learn? (frogfish, predator, lure, feast, antenna)

Tell children: When you have a collection of different objects, try sorting them based on how many you have of each type.
Teaching Tips: Frogfish Feast

Play the Game: Small-Group Activity

Time: 10 minutes

NOTE: Playing this game on a computer requires the ability to use a mouse to click on fish moving quickly across the screen. Make sure children have the computer skills they need to play this game on their own or in small groups.

Before children begin playing, provide them with a chart (or have them create one) for writing down the number and type of fish they need to catch in each level of the game. (See the example in Get Ready to Play.)

Tell children that right after they select the PLAY button, they should notice and write down:
- how many of each type of fish they need to catch
- the total number of fish with antennas they need to catch

As children play the game, encourage them to figure out how many more fish they need to catch to reach the total. Ask questions as you observe them play, such as:
- How many [green] fish have you caught?
- How many more fish with antennas do you need to catch?

When children are sorting the fish, ask questions that will help you notice their problem-solving strategies, such as:
- How many fish have you already sorted into the tanks?
- Without counting, how many more fish do you need to place into the tanks?
- How did you decide which fish to place in which tank?
- How many more/fewer [green] fish than [striped brown] fish did you catch?
Preview the Game: Freezer Burn Snack Sort

**Description**
Players sort a variety of foods in different ways. First they sort one set of foods for the freezer into three drawers according to size, color, and shape. Then they sort another set of foods for the refrigerator by these categories as well as by food group (fruit, vegetables, dairy).

After sorting the foods for the refrigerator in three ways, a message appears asking players if they want to sort another way. Selecting the YES button gives players a fourth way to sort the foods.

This game is one of a suite of games featured in Escape from Greasy World.

**Helpful Background**
When sorting by **size**, children should pay attention to the size of the white square that has the picture of each food item.

When sorting by **shape**, children should pay attention to the general shape of the food item pictured in the square. The grapes, for example, don’t make a perfect triangle. Apples, broccoli, and other items are not perfectly round circles.
In this lesson, children will:

• learn that there is more than one way to sort a group of objects

• compare the number of objects in three groups

• learn new vocabulary, including category, fruit, vegetable, and dairy, and use these words in context

• use technology to learn, working individually and in groups
**Teaching Tips: Freezer Burn Snack Sort**

**Build Background**

*Time: 10 minutes*

**NOTE:** Open the SMART Notebook™ file called Vocab–Food Groups.

Tell children that in this game they will sort foods into different *categories*, or groups that are alike in some way. To play the game, they need to know the meaning of three *categories*, or groups, of foods—fruit, vegetables, and dairy—and which foods belong in each *category*. To help them understand these *categories* of foods, explain that:

- **fruit** is a kind of food that grows from the flowers of a plant, like strawberries, apples, and grapes.
- **a vegetable** is a part of a plant (such as leaves, stems, and roots) that you can eat, like lettuce, broccoli, and onion.
- **dairy** refers to foods that are made from milk, such as cheese, yogurt, and butter.

To make sure children are familiar with the foods in the game, use the Vocab–Food Groups chart, which has four headings: Fruit, Vegetables, Dairy, Other.

- Have children turn to their partners to name fruits they know.
- Call on children to share their answers with the class and describe each fruit they name as you add it to the chart.
- Add any other fruits that are featured in the game, reinforcing the concept that these grow from the flower of a plant.
- Repeat these steps for vegetables and dairy.
- Point out that the game includes a few other items that don’t fall into these categories, such as ice and popsicles.

<table>
<thead>
<tr>
<th><strong>Foods Featured in Freezer Burn Snack Sort</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fruit</strong></td>
</tr>
<tr>
<td><strong>Vegetables</strong></td>
</tr>
<tr>
<td><strong>Dairy</strong></td>
</tr>
<tr>
<td><strong>Other</strong></td>
</tr>
</tbody>
</table>
Teaching Tips: Freezer Burn Snack Sort

Get Ready to Play

Time: 10 minutes

Close the Vocab–Food Groups file. Mute the sound and launch the game. Select the SKIP button on the top right corner to skip the introduction and game practice. Review the food items shown at the top. Some may be hard for children to recognize, such as yogurt, butter, broccoli, and ice.

Remind children that the purpose of the game is to sort the foods into different categories.
- Have children talk with their partners about different ways they can sort these foods.
- Call on children to share their ideas, and list these on a flip chart.
- If children have not suggested color, size, shape, or food group, add these to the flip chart.
- Call children’s attention to the categories listed at bottom of the screen. Sweep your finger under each word and ask the class to read along with you: color, size, shape
- Tell children that they will first sort the foods by these categories, starting with the category that is highlighted.
- Let them know that they will also be sorting by food group. Remind them that the types of food groups include fruit, vegetables, and dairy.

Draw children’s attention to the food items on the screen. Explain that they will sort the foods by selecting each food item and dragging it into one of the three blue drawers.
- They can choose whichever drawer they want for each group of foods.
- Once they finish sorting, they will select the CHECK SORTS button to see if they sorted correctly.
- They can move a food item from one drawer to another to re-sort, or select the RESET button to remove all the items in the drawers.
Play the Game

Play this game as a teacher-led, **Whole-Class** activity if children need guided support:

- sorting a group of objects by attributes
- sorting a group of objects in more than one way
- comparing the number of objects in three groups
- understanding and using the words *category*, *fruit*, *vegetables*, and *dairy*
- playing a game collaboratively
- using common game navigation

Play this game as an independent, **Small-Group** activity if children understand...

- how to sort a group of objects by attributes
- the meaning of the words *category*, *fruit*, *vegetables*, and *dairy*
- game navigation

**...but need practice:**

- sorting a group of objects in more than one way
- comparing the number of objects in three groups
Teaching Tips: Freezer Burn Snack Sort

Play the Game: Whole-Class Activity

Time: 10 minutes

Unmute the sound. Invite two children to the whiteboard to take turns sorting the foods according to the category highlighted at the bottom of the screen.
- Call on children who are seated to suggest a food item to move to one of the drawers.
- As children select items, encourage them to name the item and the type of food it is. For example, when sorting by color: “The lemon belongs in the yellow drawer.” When sorting by food group: “The cabbage should go in the vegetable drawer because it’s the leaves of a plant.”

Before a child selects the CHECK SORTS button, ask the class comparative questions, such as:
- Which drawer has the most? Which has the least?
- How many food items are in each drawer? (children may need to move the items to see them all)
- How many more food items are in this drawer [point to a drawer with many items] than in this drawer [a drawer with fewer items]?

Have a child select CHECK SORTS. If the items are not sorted correctly, ask the class to suggest which ones need to be moved to which drawer and why. Have the children at the board re-sort items and check again. If the items are sorted correctly, invite another pair of children to sort foods according to the next category.

When most children have mastered the game, stop playing and review key concepts. Ask:
- What are the different ways we sorted the food items? (color, size, shape, food group)
- What three types of food did we sort? (fruit, vegetables, dairy)

Tell children: Sorting into groups, or categories, helps us organize and find things we need. At home, notice items that are sorted (such as clothes, eating utensils, toys). Try to think of all the different ways you might sort them.
Teaching Tips: Freezer Burn Snack Sort

Play the Game: Small-Group

Time: 10 minutes

Remind children that in this game they will practice sorting foods in different ways.

As you observe children playing, check if they know the names of the various foods. Prompt them to use the key vocabulary to name the food category (fruit, vegetables, dairy) in which each item belongs.

When they are sorting the foods, observe whether they are sorting correctly for each category. Ask questions such as:

• How are you sorting these food items? (by size, shape, color, or food group)
• How are you deciding which ones belong in the same drawer?

When all the foods are sorted, ask:

• Which drawer has the most food items? Which has the least?
• How many food items are in each drawer? (they may need to move the items to see them all)
• How many more food items are in this drawer [point to a drawer with many items] than in this drawer [a drawer with fewer items]?
These Teaching Tips were developed by PBS in partnership with the Boston University School of Education.

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**Wild Kratts**—a Kratt Brothers Company/9 Story Entertainment production.  
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The contents of these Teaching Tips were developed under a grant from the U.S. Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government. [PR/Award No. U295A100025, CFDA No. 84.295A]

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