

# click®

## Who's Counting?

This month's issue of CLICK magazine combines science and mathematics to explore number concepts and counting strategies. Young readers will discover why a strong number sense is beneficial for all creatures living in our natural world.

### CONVERSATION QUESTION

How can having a strong number sense help us in the real world?

### TEACHING OBJECTIVES

- Students will learn how a recipe can be an essential tool for bakers of all ages.
- Students will learn how counting is useful for critters in the animal kingdom.
- Students will learn about the anatomy of a pumpkin, as well as explore strategies for counting the seeds.
- Students will use information from the article to quantify amounts.
- Students will obtain information from a nonfiction text.
- Students will investigate number patterns through skip-counting.
- Students will examine the attributes of basic shapes (polygons).
- Students will learn how to count to ten in different languages.
- Students will study the life cycle of a pumpkin.



In addition to supplemental materials focused on core STEM skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and cross-curricular activities.

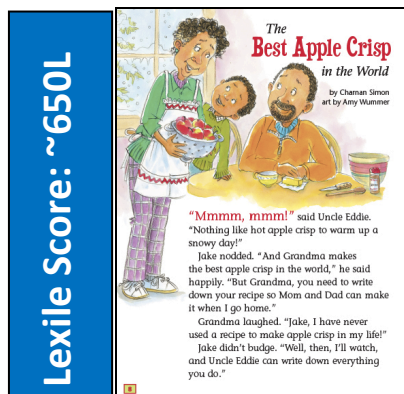
### SELECTIONS

- **The Best Apple Crisp in the World**  
Contemporary Realistic Fiction, ~650L
- **Counting Critters**  
Expository Nonfiction, ~650L
- **How Many Seeds in a Pumpkin?**  
Contemporary Realistic Fiction, ~650L

## The Best Apple Crisp in the World

pp. 10–15, Contemporary Realistic Fiction

Students will learn how baking an apple crisp really can be as “easy as pie.” Join Grandma, Uncle Eddie, and Jake in the kitchen and learn how following a recipe helps a young baker create a tasty treat.



## RESOURCES

- A Is for Apple

## OBJECTIVES

- Students will learn how a recipe can be a useful tool for bakers of all ages.
- Students will use information from the article to quantify amounts.
- Students will examine the attributes of basic shapes (polygons).

## KEY VOCABULARY

- **recipe (p. 10)** a set of instructions for making food
- **preheat (p. 11)** to heat an oven to a particular temperature before putting food to be cooked inside
- **measuring cup (p. 12)** a cup that has markings for measuring ingredients when cooking

## ENGAGE

**Conversation Question:** How does having a strong number sense help us in the real world?

As a motivational activity, bring in some apples for the children to examine. Encourage them to use their senses to describe this popular fruit. Cut the apples open so that students can get a closer look at the inside. Use the correct vocabulary to discuss each part and its purpose: *skin*, *stem*, *pulp*, and *seeds*. If possible, consider an art project incorporating apple printing.

## INTRODUCE VOCABULARY

Discuss the key vocabulary words and definitions with your students. Ask them to identify the category that all of these words belong to, such as *cooking* or *baking*. Have students share experiences they have had cooking with an adult. What other words could fit into this category?

## READ & DISCUSS

Reinforce comprehension of the details in the article by using the following prompts to direct discussion.

1. What treat is Jake making with Grandma?
2. What is his reason for wanting to write down the recipe?
3. What is the shape of the pan that Grandma is using?
4. How many cups of apples does the recipe call for?
5. Why did Jake make Grandma tell him the *actual* amounts instead of using terms like “a pinch” or “a scoop”?

## CONCEPT/SKILL FOCUS: Quantifying Amounts

**INSTRUCT:** Discuss the genre of realistic fiction with students and guide them to verbalize that this is a made-up story that contains factual information. Point out the actual recipe for Grandma’s apple crisp on page 15. State that when cooking, it is important to know the exact amounts of ingredients or the food will not turn out as expected. Distribute the *A Is for Apple* graphic organizer and have pairs of students reread the article to make the conversions from Grandma’s estimated amounts to the actual measurements.

**ASSESS:** Circulate and have mini-conversations with students as they are working. Remedial readers may work with a partner to reread the text. Collect and review their work to further assess understanding.

## EXTEND

**Mathematics** Reread page 11 where Jake takes a ruler to measure the pan that Grandma is using. Since all of the sides measure eight inches, Grandma states that it is a *square* pan. Distribute rulers and have children draw a square, reminding them that all sides must measure the same number of inches (or centimeters). Use this opportunity to discuss the attributes of other shapes (polygons) as well.

## A Is for Apple

Use information from the article to record how Jake was able to write out the real amounts of ingredients by having Grandma measure carefully. The first one is done for you.

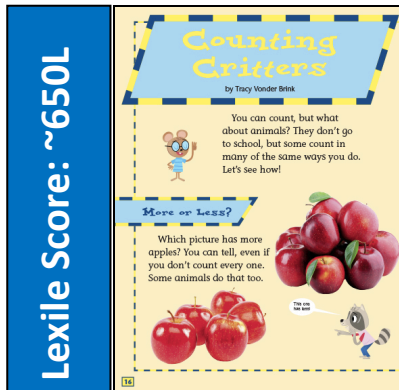
Grandma's Measurements (Estimation)	Jake's Measurements (Actual)
A medium-warm oven	350 degrees
A bunch of apples	
A scoop of sugar and flour	
A big pinch of cinnamon	
A stick of butter	
How long does the Apple Crisp need to bake?	_____ minutes = _____ hour

# Click® Teacher Guide: July/August 2020

## Counting Critters

pp. 18–22, Expository Nonfiction

Young students will enjoy learning that humans aren't the only ones who count! Bright photographs accompany this article that details the many ways that our animal friends use counting to navigate the world.



## RESOURCES

- Simple as 1, 2, 3!

## OBJECTIVES

- Students will learn how counting is useful for critters in the animal kingdom.
- Students will obtain information from a nonfiction text.
- Students will learn to count to ten in different languages.

## KEY VOCABULARY

- **hyena** (p. 20) a wild mammal that looks like a wolf and makes a shrieking howl
- **guppies** (p. 20) small tropical fish
- **coot** (p. 22) a kind of water bird with gray and black feathers

## ENGAGE

**Conversation Question:** How does having a strong number sense help us in the real world?

Review “less than” and “greater than” symbols (< >). Explain to students that we often determine more or less of something without counting or measuring. Demonstrate: *The amount of water in a pool > the amount of water in a drinking glass.* Have students think-pair-share to place the < > signs correctly in the examples below. Discuss.

The number of children in a house \_\_\_\_ the number of children in a school.

The weight of five cats \_\_\_\_ the weight of five ladybugs.

The size of an adult's hand \_\_\_\_ the size of a baby's hand.

The speed of a school bus \_\_\_\_ the speed of a racecar.

## INTRODUCE VOCABULARY

Display and read aloud the key words and definitions, noting that they are all animals. Allow the class to take a picture walk through the article to study photographs of each animal. Provide students with paper and instruct them to fold it into thirds. Have them make a visual representation (picture dictionary) of each animal.

## READ & DISCUSS

Read the article aloud with the class. Have students reread the article in small groups to answer the questions below. Discuss responses.

1. How can you tell which group of objects has *more* without counting?
2. Why do you think the toad pictured on the bottom of page 19 is called a “fire-bellied toad”?
3. How can knowing the size of a group help humans and animals decide what to do?
4. What do honeybees count to remember how far they've flown?

## CONCEPT/SKILL FOCUS: Obtaining Information

**INSTRUCT:** Guide students to obtain information from the text, captions, and photos in the article. Remind them that the article was written to teach readers how counting is important for animals, as well as humans. Introduce the *Simple as 1, 2, 3!* worksheet and instruct students to correctly match the counting behavior on the right with the animal on the left.

**ASSESS:** Collect and review graphic organizers. Arrange peer remediation if necessary.

## EXTEND

**Foreign Language** Use video clips and books to explore how to count to ten in different languages. Challenge students to teach what they have learned to other classes.

## Simple as 1, 2, 3!

Use information from the article to correctly match the animal with its counting behavior.  
Place the letter on the line next to the animal's name.

- |                                    |  |
|------------------------------------|--|
| 1. _____ hyena                     | A. chooses the bowl with more food   |
| 2. _____ golden orb-weaving spider | B. counts landmarks to remember how far they've flown                                  |
| 3. _____ ant                       | C. listens to hear how big the group is so they don't risk a fight with a bigger group |
| 4. _____ dog                       | D. looks to join a big group so it doesn't get eaten                                   |
| 5. _____ honeybee                  | E. wraps and stores food in bundles to keep track                                      |
| 6. _____ guppy                     | F. counts steps as they walk so they know how to get back to their nest                |

How do you use counting during your day?

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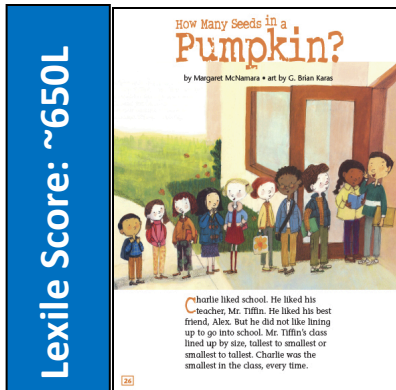
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# Click® Teacher Guide: July/August 2020

## How Many Seeds in a Pumpkin?

pp. 26–33, Contemporary Realistic Fiction

Pumpkin seeds are for growing, eating, and COUNTING! Students will explore scientific and mathematical concepts as they enjoy this article about one of North America's oldest domesticated plants.



## RESOURCES

- Spectacular Seeds

## OBJECTIVES

- Students will learn about the anatomy of a pumpkin, as well as explore strategies for counting the seeds.
- Students will investigate number patterns through skip-counting.
- Students will study the life cycle of a pumpkin.

## KEY VOCABULARY

- **seed (p. 26)** a small part of a plant that can grow in the ground to make a new plant
- **stem (p. 28)** the curved “handle” at the top of the pumpkin that connected the pumpkin to the vine
- **pulp (p. 28)** the inner, juicy part of a fruit or vegetable

## ENGAGE

**Conversation Question:** How does having a strong number sense help us in the real world?

Tell the students that they will be reading about a very interesting fruit. Play 20 questions with the class, allowing them to ask you only “yes” or “no” questions to guess what fruit is the topic of the article. Instruct them to write down their guess once they think they know and refrain from shouting it out loud until all students have asked enough questions to make a reasonable guess. Many students will have thought of a pumpkin as a vegetable and may have guessed incorrectly. Explain the differences between a vegetable and a fruit.

## INTRODUCE VOCABULARY

Display the vocabulary words and review the definitions. Draw a large pumpkin on the board and have volunteers label the pumpkin parts with the correct terms. Introduce and label additional pumpkin parts: *leaves, shell, skin, and ribs.*

## READ & DISCUSS

Post and discuss questions prior to reading. Read the article aloud, pausing when answers to the questions are revealed.

1. Why didn't Charlie like lining up to go into school?
2. What words were used to describe the inside of the pumpkin?
3. Which pumpkin had the most seeds? Was this surprising?
4. What can you learn about the number of seeds inside a pumpkin by studying the outside of this amazing fruit?
5. What information does the shade of orange give us about the pumpkin?

## CONCEPT/SKILL FOCUS: Investigating Patterns

**INSTRUCT:** Direct students to return to page 31 to study the groupings of pumpkin seeds in the pictures. Discuss how skip-counting can be an efficient way to count things in larger groups. Distribute copies of the *Spectacular Seeds* graphic organizer and instruct the students to identify and complete various skip-counting patterns to fill in the missing numbers.

**ASSESS:** Circulate and converse with the students as they are working. Review worksheets to evaluate individual abilities to use skip-counting patterns.

## EXTEND

**Science** Study the life cycle of a pumpkin. Include the following stages: seed, sprout, plant/vine, flower, green pumpkin, and orange pumpkin. Explain the function of each part of the plant. This basic life cycle can be easily drawn by the children. Demonstrate how a circular diagram is helpful for drawing such life cycles. Have students make representations of the complete pumpkin life cycle.

## Spectacular Seeds

Study the number patterns on page 31 of “How Many Seeds in a Pumpkin?” to complete the chart.

0, 2, \_\_\_\_, 6, \_\_\_\_, 10, \_\_\_\_, 14, \_\_\_\_, 18, \_\_\_\_

0, \_\_\_\_, 10, 15, \_\_\_\_, 25, 30, 35, \_\_\_\_, 45, \_\_\_\_

0, 10, 20, \_\_\_\_, \_\_\_\_, 50, \_\_\_\_, 70, 80, \_\_\_\_, \_\_\_\_

*Challenge:*

0, 3, 6, \_\_\_\_, 12, \_\_\_\_, 18, \_\_\_\_, \_\_\_\_, 27, \_\_\_\_