Fractions are everywhere! In this hands-on lesson, your class will work together in groups to find real-world examples of fractions. As they discover more complicated fractions, students will create their own word problems with them.

Learning Objectives

After the lesson, students will understand that fractions are parts of a whole. They will understand the total number of equal parts goes on the bottom of the fraction (the denominator) and the number of parts of the whole being given or kept goes on the top of the fraction (the numerator). Students will be able to demonstrate this knowledge by identifying and writing fractions based on things they observe in everyday life.

Materials and Preparation

- Brownies, fruit, or other dividable food item
- Pencils and pens
- Paper
- (Optional) cameras or other recording devices

Key Terms:

- denominator
- numerator
Lesson

Introduction *(10 minutes)*

1. Begin this lesson by introducing (or reviewing) the concept of fractions with food.
2. Bring out the brownies, fruit or other food items.
3. Explain that you’d like to feed the whole class with this one large brownie (or other food item).
4. Have students provide suggestions for how everyone could get fed.
5. Guide students to agree that the fairest way to feed everyone is to divide it into equal pieces.
6. Show the class that when a whole is divided into equal parts the total number of equal parts goes on the bottom of the fraction (the denominator) and the number of parts of the whole being given or kept goes on the top of the fraction (the numerator).
7. Demonstrate this by writing out the fraction of the brownie each child gets, how many parts 10 children will get, etc.

Explicit Instruction/Teacher Modeling *(10 minutes)*

- Explain that fractions are not limited to food, but can be found in all sorts of everyday objects.
- Tell the class that they will work in groups to find fractions all around them. Give the class a few examples to help them visualize real-world fractions.
- For example, bring a chair to the front of the room. Tell the class that there are 4 legs on the chair. Each leg is 1/4 of the chair’s legs. If 2 legs are silver and 2 legs are black, 2/4 of the chair’s legs are silver and 2/4 of the chair’s legs are black.
Guided Practice/Interactive Modeling *(10 minutes)*

- Ask your students to look around the room and identify more fractions they can find in the classroom. They may notice that their textbook has 100 pages, with 10 pages in chapter one, to make 10/100, or that there are 15 pairs of scissors, and 7 of them are blue, to make 7/15.
- Write out the students’ examples on the board to demonstrate how to write fractions.
- Next, help the class divide into groups to go on a fraction hunt. Before the hunt begins, set clear physical boundaries, behavioral guidelines, and different “categories” (i.e. Silliest Fraction, Most Unusual Fraction, etc.) to encourage fun and friendly competition. Set a time limit and encourage students to get creative!
- If you would like to avoid competition with this activity, the class could set a goal for the number of fractions they would like to find as a group in the set amount of time. This will also help to motivate students.

Independent Working Time *(20 minutes)*

- Start the timer, and allow the students to begin the hunt.
- Have each group record the fractions they find—as well as a short description that explains how they found the fraction—on a piece of paper.
- If cameras or other recording devices are available, have kids take pictures or video of the fractions they find.

Get more lesson plans at [www.education.com/lesson-plans/](http://www.education.com/lesson-plans/)
Extend

Differentiation

- **Enrichment:** Have students who need a greater challenge write stories about the fractions they find. They can also start thinking about addition and subtraction of fractions. For example, a story might talk about how the window has four parts. A baseball broke one part. Now there are three parts left.

  \[
  \text{Ex: } \frac{4}{4} - \frac{1}{4} = \frac{3}{4}
  \]

- **Support:** Pair students who struggle with the concept of fractions with children who understand it better. Alternatively, simplify the activity for students who need extra help by giving them a list of fractions to find and helping them find the first few.

Technology Integration

- Cameras and video cameras add extra excitement to this lesson. Students can take pictures of the objects to share with the class during the review and closing time. They can also later make posters using these pictures as a way to review and display learning.
- Alternatively, students can video each other with the objects explaining the fractions and share these videos with the group during closing time.

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Review

Assessment *(15 minutes)*

- To check for mastery, students can do a fraction hunt at home or in another environment independently.
- If cameras were used in the lesson, students can create posters displaying pictures they took along with the applicable fractions. If video cameras were used, consider having each student speak about something he or she found and the applicable fraction(s) on camera.

Review and Closing *(15 minutes)*

- Call students together as a group to share their findings.
- Students can either appoint a group leader to share for their group or take turns sharing. This is a great opportunity for students to act as teachers. It can also encourage active listening to have everyone to vote for the silliest or most unusual find.
- During this time, students should be reminded:
  1. Endless fractions exist in the world around them.
  2. Fractions occur when a whole is divided into equal parts.
  3. The total number of equal parts goes on the bottom of the fraction (the denominator) and the number of parts of the whole being given or kept goes on the top of the fraction (the numerator).
  4. For students already thinking about adding and subtracting parts to make more interesting fractions/fraction stories, remind them that when they add or take away parts from the same whole, they are adding or subtracting fractions.