This tasty lesson will teach second-graders about fractions using cookies.

**Learning Objectives**

Students will be able to identify and describe fractions.

**Materials and preparation**

- **Cookie Fractions 5**
- **Cookie Fractions 1** (optional)
- Cookies, 2-3 per student, and meeting all of the specific dietary requirements of each student
- **If You Were a Fraction** by Trisha Speed Shaskan
- Paper
- Small cup for each partnership
- Ruler for each partnership

**Key terms**

- fraction
- half
- third
- fourth
- eighth

**Introduction (15 minutes)**

- Introduce the lesson by telling students what a **fraction** is: a numerical quantity that is not a whole number.
- Show some examples on the board.

**EL**

**Beginning:**

- Provide students with examples of fractions using circular pie pieces, rectangular regions, geoboards, or drawings on grids or dot paper.
- Give students a bilingual glossary with corresponding visuals that includes important words from the lesson in English and their home language (L1). Review the glossary with students prior to the lesson.

**Intermediate:**

- Ask students to draw a picture of a fraction on the whiteboard.
- Encourage students to rephrase the definition of fraction in their own words with an elbow partner.
- Provide access to materials such as a bilingual glossary and/or dictionary for students to refer to throughout the lesson.

**Explicit Instruction/Teacher modeling (15 minutes)**

- Pass out 2-3 cookies to each student.
- Draw pictures of the cookies partitioned in halves, thirds, and quarters on the whiteboard for students to refer to throughout the lesson. For example: draw a half circle when you ask the students to show you 1/2 of a cookie.
- Ask the students to break the cookies into halves, quarters, and thirds. Ask them to show you their newly created cookie pieces. Observe students and guide them as necessary.
- Instruct students to eat two-thirds of a cookie, three-fourths of a cookie, and one-half of a cookie.
Beginning:

- Sit students next to peers who speak the same home language (L1) or sympathetic non-EL students.
- Encourage students to say the name of the fractions (e.g. one-third, two-thirds, one half, etc.) that relate to their cookie pieces throughout explicit instruction.

Intermediate:

- Ask students to turn and talk to their partner, explaining how they know their cookie is split in half, in thirds, in fourths, etc.
- Provide sentence stems/frames to support student discussion, such as:
  - I know my cookie is split ___ (in half, in thirds, in fourths) because ____.

Guided Practice (15 minutes)

- Put students in partnerships and pass out paper, coloring materials, rulers, and small cups to each pair. Explain to the students that now they will practice drawing fractions on a piece of paper.
- Write 1/3, 2/3, 1/4, 1/2, 3/4, and 1/8 on the whiteboard.
- Explain to the students that first they should draw a cookie or circle. Model how to trace the cup to create a perfect circle. Next, tell students that they will try to partition the whole circle/cookie into parts depending on what fraction they choose first. Encourage students to discuss their ideas with their partners.
- Model an example or two using the ruler to help students grasp how to create the straight lines to partition their shapes.
- Rotate around the room and observe students as they complete the task.

EL

Beginning:

- Allow students to work in a small, teacher-led group.
- Provide students with index cards that have visuals of each fraction with the fraction and name of the fraction written on the back in English and student’s home language (L1).
- Encourage students to orally label their drawings as they complete them.

Intermediate:

- Encourage students to use sentence stems/frames to detail their process. For example:
  - I split my circle in ___. I know my circle is split into equal shares because ____.

Independent working time (20 minutes)

- Hand out the Cookie Fractions 5 worksheet to the students.
- Allow students to work on the worksheets independently and provide support as needed.

EL

Beginning:

- Keep students in the small, teacher-led group.
- Encourage students to turn-and-check their work with a partner after completing each question. Provide sentence stems/frames as needed to support student discussion.

Intermediate:

- Allow students to check their work with a partner after completing.
- Encourage students to agree/disagree with their partner’s responses using sentence stems/frames.
Related books and/or media

- Find interactive books for each child’s level.

Differentiation

- **Enrichment:** Ask students to draw fractions using other shapes. See how much they understand the concept.
- **Support:** Continue working with the students independently. Ask them to draw fractions of circles. If they are still unsure of the concept, work with them using cookies.

Assessment *(5 minutes)*

- Draw a T-Chart on the whiteboard. In the left column, partition shapes into halves, thirds, and fourths. Provide some non-examples in the mix, too. In the right column, write down the corresponding fractions (e.g. 1/2, 1/3, 1/4, 3/4, 2/4, etc.).
- Ask students to come up to the whiteboard to match the shapes in the left column to the fractions in the right. Provide prompting questions to elicit deep thinking.
- Observe students as they complete the activity and notice students who understand the concept and students who need more support.

**EL**

**Beginning:**

- Have students create and orally label the different fractions on the board using pattern blocks.

**Intermediate:**

- Ask students questions such as:
  - Do you believe this shape is partitioned into equal shares? Why or why not?
  - Which piece would you prefer to get if this were a piece of cake/cookie? Why?
- Provide sentence stems/frames to support students as they share their answers aloud with the rest of the class.

Review and closing *(20 minutes)*

- Review what fractions are: a numerical quantity that is not a whole number.
- Read *If You Were a Fraction* to the class.

**EL**

**Beginning:**

- Allow students to sit near the front of the classroom.
- Encourage students to raise their hands when they hear familiar terms from the lesson and write them down on the whiteboard/say them aloud.

**Intermediate:**

- Stop and check for understanding throughout the story and have students do think-pair-shares to show their understanding of important topics from the lesson.
- Display a word bank of key terms and phrases to support students in their discussion of important topics from the lesson.