Sharing Snacks

Strand: Number and Number Sense

Topic: Sharing equally with two sharers

Primary SOL: K.5 The student will investigate fractions by representing and solving practical problems involving equal sharing with two sharers.

Related SOL: None

Materials

- Snacks to share that represent the area/region model (e.g., a graham cracker, a circle-shaped cookie, a square-shaped brownie, a sandwich)
- Snacks to share that represent the set model (e.g., fish crackers, grapes, fruit snacks, jelly beans)
- Bag of 10 counters (for each pair of students)
- Small plates (2 for each pair of students)
- Sharing Snacks booklet (1 per child - create using attached pages; booklet should have a title page and 5 plate pages)
- Sharing Snacks activity sheet
- Scissors
- Glue

Vocabulary

*equal share, fair share, *half, *halves, part, share, whole*

**Note: It is appropriate for the teacher to use the terms "half" and "halves" to introduce this vocabulary. However, students at this age are not expected to use fraction vocabulary or notation.*

Student/Teacher Actions: What should students be doing? What should teachers be doing?

1. Present a simple sharing task to the class as follows: *Two children want to share one graham cracker (or snack of your choice) with each other. Each child should get a "fair share." How much should each child get?*
2. Engage students in a discussion about how they could divide the graham cracker so each child gets a "fair share." Explore more than one way to divide the graham cracker into two equal parts. Emphasize that if it is a fair share each sharer must get the same (equal) amount. Demonstrate some scenarios that are *not* fair (e.g., give one student a quarter and another student three-quarters). Ask students to explain why this sharing is or is not fair.
3. Once students have decided how to divide the cracker and have explained why this is fair, ask whether anyone can explain how much of the cracker each student has. Be sure to ask whether either student has a whole cracker. Students may say that each child has one out of two parts or may say that each has half. Talk about each piece as *half of the whole* cracker.

4. Present other sharing situations that involve sharing one whole, using different concrete objects to share (e.g., a sandwich, a brownie, a cookie, a piece of paper). Invite children to decide how to share them fairly between two people. Discuss their ideas.
5. Next, present two fish crackers (or pretzels, grapes, or other snack) to represent a set model and ask: *If two children want to share these snacks, what would each person's share look like?* Allow children to discuss their ideas. Focus on the shares being equal. Gently suggest that each child has an equal share or *half of the crackers.* Repeat with sharing four fish crackers with two children and then 10 fish crackers with two children. Let students discuss how to go about sharing (dealing out or separating into two groups by guessing and checking are two possible ways to accomplish the task.) Always ask students to justify how they know the shares are fair. Be sure to demonstrate an unequal sharing and have students explain why it is not fair.
6. Pass out a bag of 10 counters and two small plates to each pair of children. Have them pretend the counters are snacks. Present a situation: *You have six cookies. You want to share them equally. What will the shares look like?* Let students use the counters to solve the problem. As students work, notice how they are finding the equal shares. *Who uses a dealing-out strategy? Who just knows how to form the groups?* Discuss the solution to this situation before repeating with other situations.
7. Have students create a "Sharing Snacks" book. Give each child a prepared six-page booklet including a title page and five sharing plates pages. Students cut the snacks to show fair shares and glue the fair shares on the plates.
8. To conclude the lesson, brings students together and ask: *If you want to share a snack with a friend, how will you know whether you have fair shares?*

Assessment

- **Questions**
  - Using an example of the region/area model and the set model for fractions, demonstrate an unfair sharing situation among two students. "Does each student have a fair share? How do you know?"
  - What does it mean to be "fair" when sharing?

- **Journal/writing prompts**
  - Demonstrate for students what one out of two students' shares looks like (e.g., half a cookie, half of a set of buttons). "Draw what you think the whole looks like."
  - "You and a friend are sharing a pizza. Draw or show how you will share your pizza. How much will each person get?"

- **Other Assessments (include informal assessment ideas)**
  - Have students fold or cut different sizes of paper to show two equal shares. Ask students to justify how they know they have equal shares or halves.
  - Provide a set of objects. Have students share the objects between two sharers.

Extensions and Connections (for all students)

- Give students opportunities to work with many different wholes and sharing situations. Always identify the whole, or show students the shares and ask them to describe what the whole would be.
- Incorporate sharing situations into everyday classroom tasks. For example, if you want to form two teams, you are "sharing" the people between the teams. Share books between two baskets.
- Explore sharing situations where there is a remainder (i.e., sharing three cookies among two people).

Strategies for Differentiation

- For students who are not ready to work with pictures, allow them to use concrete objects and actual plates to demonstrate equal shares.
- Use larger snack pictures and allow students to fold the snacks instead of cutting the snacks.

The following pages are intended for classroom use for students as a visual aid to learning.

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Sharing Snacks

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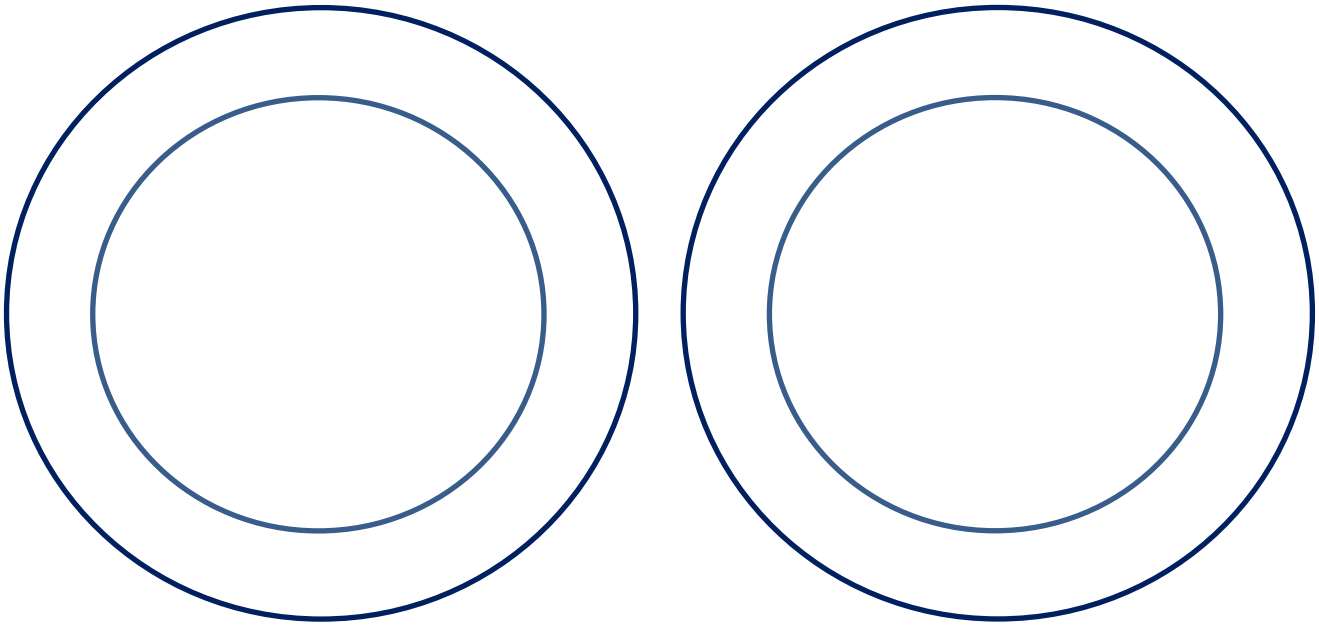

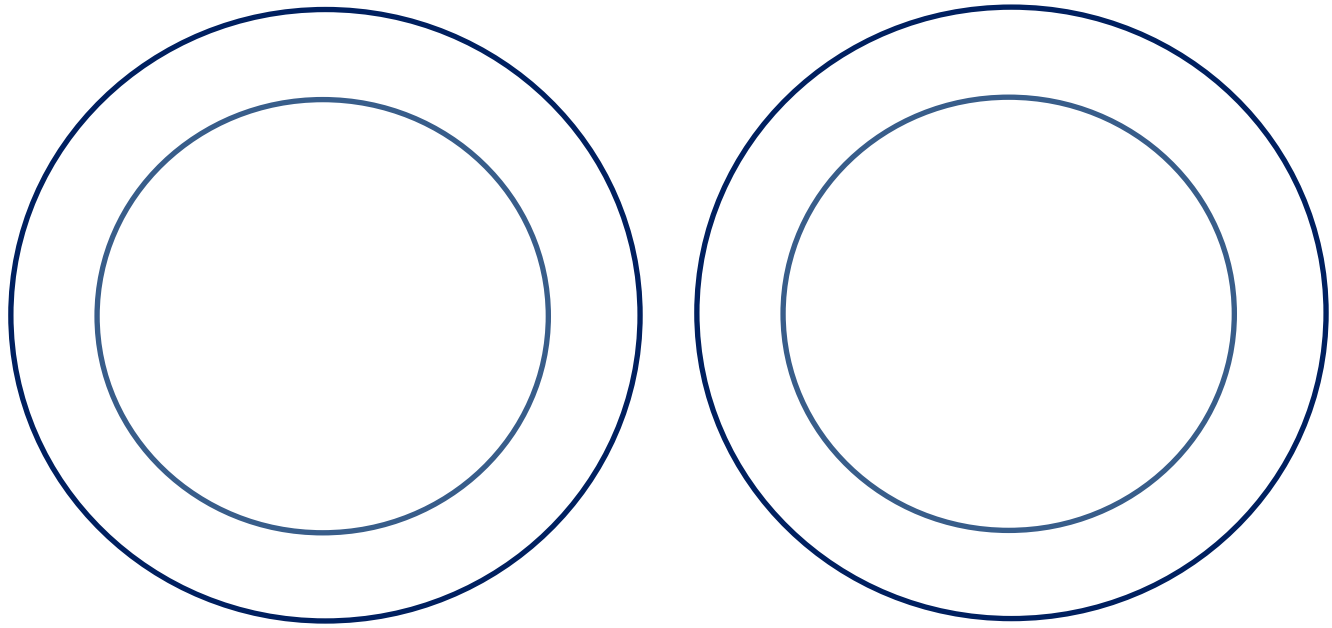
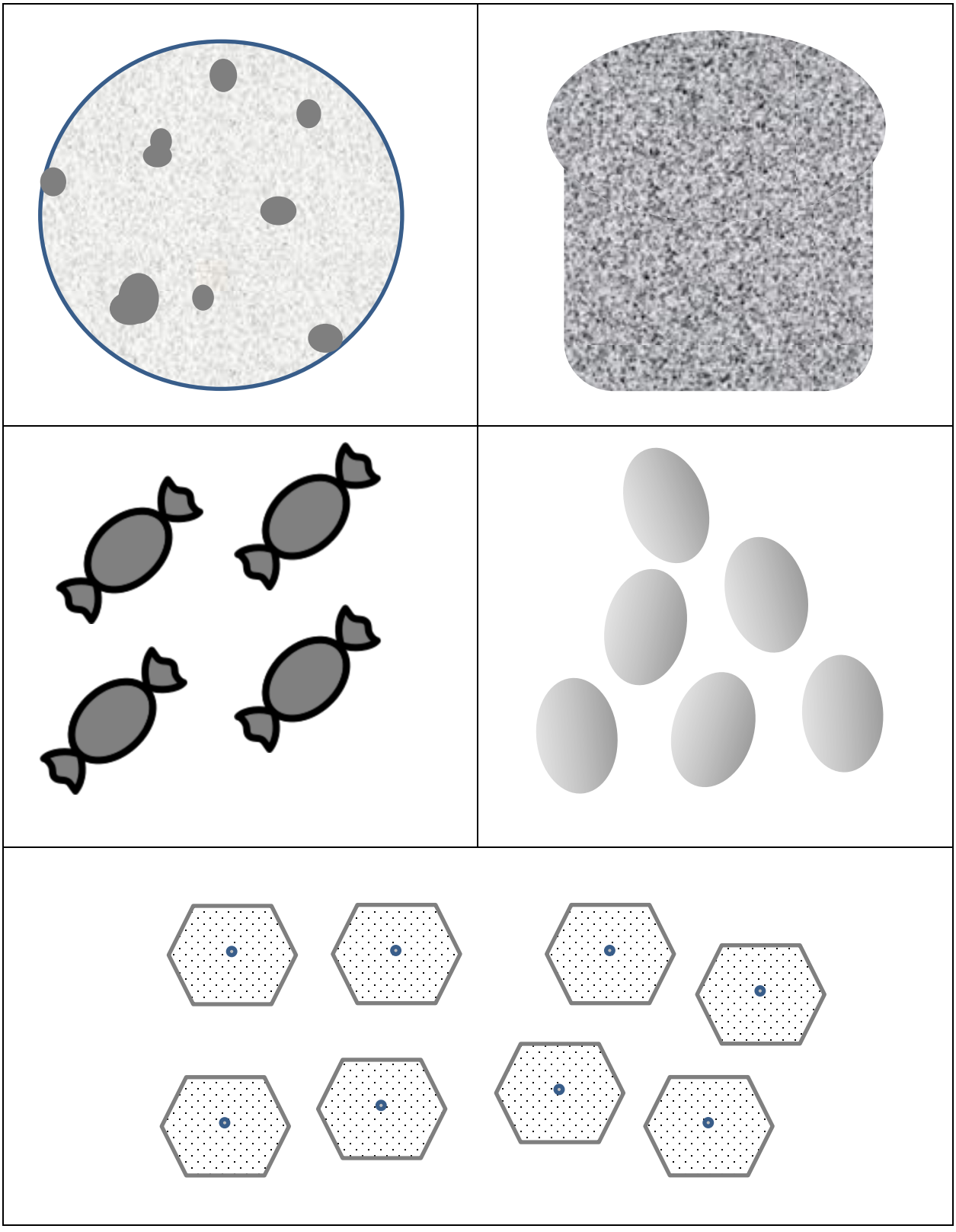
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