

MATHS





Lesson 11

Prep

Topic: Number and place value

Representing sharing

Lesson concepts

-  Number — Quantity
-  Multiplication and division — Sharing
-  Multiplication and division — Part-part-whole (partitioning)
-  Fractional understanding — Equal parts

Today students will:

- ▶ share collections of objects
- ▶ represent the sharing process.

Resources

Find and prepare

Simple grids

Ten frames (drawn or marked on the concrete, electronic or on cards)

Materials such as playdough, beads, blocks and sand play materials

Key terms

For definitions and explanations of terms, please see the [Glossary](#).

Lesson

Introduce the lesson

Note

It is important to highlight and develop the following vocabulary throughout this lesson: equal, parts, shares, total, same, more, less, groups, whole.

Share collections

- Revise student's knowledge of sharing.

Note

Highlight how sharing:

- occurs in many everyday situations
- requires making equal parts
- means that equal parts have the same number in each
- can be described using words such as share, same, give out, parts, groups.

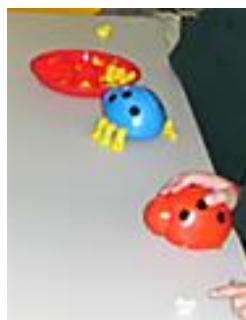
- Discuss everyday situations where sharing can be observed. These may include:
 - arranging groups of students (for example: forming teams, seating arrangements)
 - distributing materials (for example: giving out books, pencils, beads for threading)
 - parties and celebrations (party bags, sharing food, pizza toppings)
 - playing games (for example: board games, beetles — where students have the same number of legs, eyes and body parts, outdoor games such as target games with three balls each)
 - sharing amounts (for example: in craft activities where everyone starts with the same amount of playdough, cutting a piece of ribbon into equal parts for movement games).

Have students:

- select one of the discussed activities
- complete their everyday activity
- describe the activity to another person using the images as a prompt.



We shared the fruit into five bags.



We all got two eyes, six legs and two antennas each.



We shared out the puzzle pieces, so we each got the same number of pieces before we put it together.



We shared out the plastic toys to play with.

Focus questions

Q: *How did you share that collection?*

A: For example: shared out the pieces one at a time

Q: *Did everyone get equal parts? How could you tell?*

A: Answers will vary.

Q: *What could you do to make them equal if they are not equal?*

A: Answers will vary.

Represent sharing experiences

- Demonstrate for students how to represent sharing experiences.
- Ask students to:
 - represent their sharing experiences
 - use drawings, words and numerals.

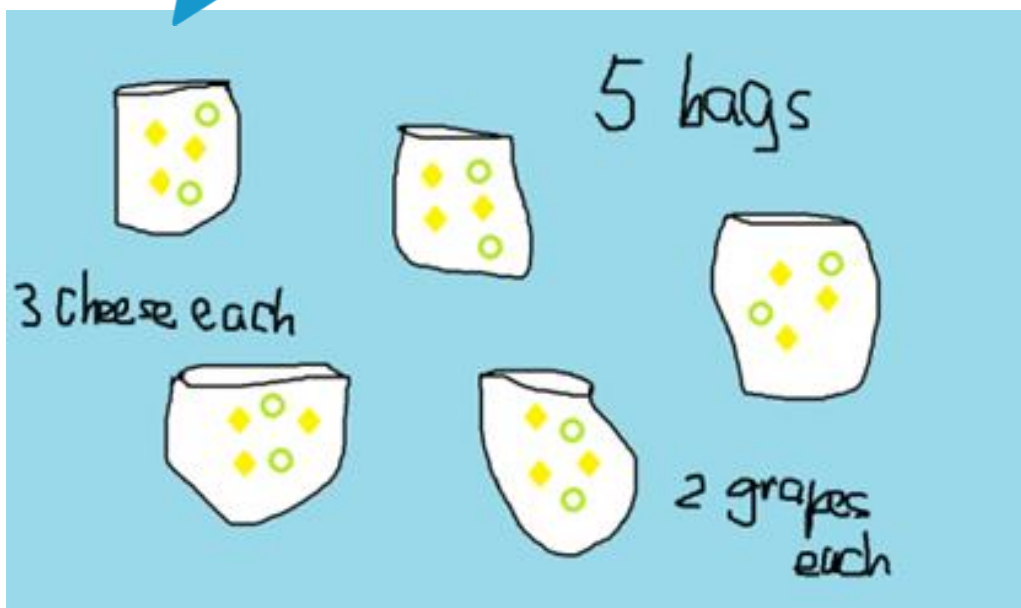
Focus questions

Q: *What is happening in your picture?*

Q: *How is this sharing?*

Q: *What parts can you see?*

We shared the food into five bags because there are five children. We all received 5 pieces of food.



- Demonstrate how students could use simple grids to model their sharing experiences.



I could use this grid to show how I share the toys between 3 people.

- Sharing could be demonstrated on a twenty bead strings (separate the beads into equal parts).



I shared 20 and gave 10 people two beads each.