

Lesson Title: Division: Representation Designer: Jason Lineberger
Discipline: Math Grade Level: 4-5

Activity 1: Everyday Division

(Appropriate for AFTER the Broadcast Lesson)

Activity Goal: Represent division using everyday objects.

Targeted Math Skills: Division

Materials: Common household objects, chips or another snack item (like pretzels or crackers). Have multiple “snack sets” so you can have different items to sort into groups.

Steps:

1. The division problems represented in this lesson can also be duplicated using common household objects. Make the representation of division a hands-on practice by taking any set of objects and dividing that into a number of groups.
2. When preparing a snack, ask the child to divide the 36 chips into three groups. Note: A starting set of 37 chips would create an opportunity to deal with a remainder. Choose any items that could be grouped - pencils, batteries, tissues, silverware, or seeds for planting a garden (all of those could be used to represent division problems in a hands-on, realistic way).

Extension: Use coins to practice representing division using increments larger than one.

Activity 2: Sharing as Division

(Appropriate for AFTER the Broadcast Lesson)

Activity Goal: Representing Division

Targeted Math Skills: Division

Materials: Equal Shares of Candy Handout, and a computer.

Steps:

1. Visit this website from PBS LearningMedia - [Sharing as a Model for Division](#).
2. In this classroom lesson, students watch two videos about division from the PBS KIDS show, Cyberchase. First, the videos represent division using manipulatives. Then, students will practice solving division problems using numbers.

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Additional Resources for Lesson-Related Extension Activities:

- **Student-Facing**
 - Video on representing division in multiple ways (Khan Academy) - <https://www.khanacademy.org/math/arithmetic-home/multiply-divide/division-intro/v/dividing-whole-numbers-and-applications-1>
 - Division games (Splash Learn) - <https://www.splashlearn.com/division-games-for-4th-graders>
- **Teacher-Facing**
 - Lesson plan with video on representing division (LearnZillion) - https://learnzillion.com/lesson_plans/3471-4-practice-representing-division-in-different-ways-fp/
 - Lesson plan: Representing division (BetterLesson) - <https://betterlesson.com/lesson/494109/meanings-for-division>