Lesson 7: Relate Multiplication and Division

Standards Alignments

Addressing 3.NBT.A.3, 3.OA.A.2, 3.OA.A.3, 3.OA.B.6

Teacher-facing Learning Goals

- Represent situations involving equal groups using multiplication and division equations with a symbol for the unknown quantity.
- Use multiplication and division within 100 to solve problems involving equal groups.

Student-facing Learning Goals

- Let's make more connections between multiplication and division.

Lesson Purpose

The purpose of this lesson is for students to use the relationship between multiplication and division to write equations and solve problems.

In previous lessons, students built a foundation of division understanding and connected multiplication and division equations. Here, they use a variety of representations to show how multiplication and division are related and write multiplication or division equations to represent division situations.

Access for:

Students with Disabilities

- Engagement (Activity 1)

English Learners

- MLR8 (Activity 2)

Instructional Routines

How Many Do You See? (Warm-up)

Materials to Copy

- Division Round Table (groups of 1): Activity 1

Lesson Timeline

Warm-up	10 min
Activity 1	20 min

Teacher Reflection Question

Which question did you ask today that best supported students' understanding of how multiplication and division equations are

Activity 2	15 min
Lesson Synthesis	10 min
Cool-down	5 min

related? What did students say or do that showed the question was effective?

Cool-down (to be completed at the end of the lesson)

5 min

Sharing Roses

Standards Alignments

Addressing 3.OA.B.6

Student-facing Task Statement

Clare has 14 roses. She wants to give each of her teachers 2 roses. How many teachers can she give roses to?

Write a multiplication equation and a division equation to represent the situation. Use symbols for the unknown and explain your reasoning.

Student Responses

$? \times 2 = 14$ and $14 \div 2 = ?$

Sample response: I know she has 14 roses and wants to put them in groups of 2. The question is asking me how many groups there will be, which is how many teachers will get roses and is represented by the "?".

Note: It is most important that students accurately explain that the size of the groups is known, but not the number of groups. They may reverse the factors in the multiplication equation.