

# Lesson 4: Does the Number Change?

## Standards Alignments

Addressing K.CC.B, K.CC.B.4, K.CC.B.4.b, K.CC.B.5

### Teacher-facing Learning Goals

- Answer “how many” questions about groups of up to 20 objects
- Know that counting a group of objects will yield the same number, regardless of their arrangement or how they are counted.

### Student-facing Learning Goals

- Let’s figure out how many objects there are when the objects are moved around.

## Lesson Purpose

The purpose of this lesson is for students to count collections of objects and understand that the number of objects in a collection stays the same, regardless of how they are arranged.

Students will count the same collection of objects in different arrangements to build this conservation of number, which develops through experience over time. While developing conservation of number, students may need to recount the objects each time they are rearranged. With repeated practice, some students may know that the number of objects is that same without recounting (MP8). The purpose of the lesson synthesis is to highlight that a collection of objects does not need to be counted when they are rearranged.

This lesson has a Student Section Summary.

### Access for:

#### Students with Disabilities

- Action and Expression (Activity 2)

#### English Learners

- MLR8 (Activity 2)

## Instructional Routines

Notice and Wonder (Warm-up)

### Materials to Gather

- 10-frames: Activity 1
- Collections of objects: Activity 1

### Materials to Copy

- Number Mat 1-10 (groups of 2): Activity 3

- Connecting cubes: Activity 2, Activity 3
- Counting mats: Activity 1
- Materials from a previous activity: Activity 2
- Materials from previous centers: Activity 3

### Lesson Timeline

Warm-up	10 min
Activity 1	10 min
Activity 2	15 min
Activity 3	20 min
Lesson Synthesis	5 min

### Teacher Reflection Question

As students worked together today, where did you see evidence of the mathematical community established over the course of the school year?

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

 0 min

### Unit 6, Section A Checkpoint

#### Standards Alignments

Addressing K.CC.B

#### Student-facing Task Statement

Lesson observations

#### Student Responses

- Say the count sequence to 20.
- Answer how many without counting again.
- Keep track of objects that have been counted.
- After a group of objects that have been counted is rearranged, know that the total number of objects remains the same without recounting.