

# Lesson 12: Hours, Minutes, and Seconds

## Standards Alignments

Addressing 4.MD.A.1, 4.MD.A.2, 4.OA.A.3

### Teacher-facing Learning Goals

- Describe the multiplicative relationships between units of time.
- Express hours in terms of minutes and seconds.

### Student-facing Learning Goals

- Let's explore time in hours, minutes, and seconds.

## Lesson Purpose

The purpose of this lesson is for students to use multiplication to describe the relationship between units of time and to express larger units of time in terms of smaller ones.

In grade 2, students learned to tell time to the nearest five minutes and recognized that there are 60 minutes in 1 hour. In grade 3, they learned to tell time to the nearest minute and to measure intervals of time. Students may also know that there are 60 seconds in a minute. In this lesson, students see the relationship between hours and minutes and between minutes and seconds in multiplicative terms. They then use their new insights to convert hours into minutes and minutes into seconds.

### Access for:

#### Students with Disabilities

- Engagement (Activity 2)

#### English Learners

- MLR8 (Activity 1)

## Instructional Routines

What Do You Know About \_\_\_\_? (Warm-up)

### Lesson Timeline

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

### Teacher Reflection Question

How did previewing the cool-down ahead of time help you synthesize the learning that took place in the lesson?

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

🕒 5 min

## Time on Chores

**Standards Alignments**

Addressing 4.MD.A.1, 4.MD.A.2

**Student-facing Task Statement**

Clare and Andre both do chores on weekends.

1. Each month, Clare spends 6 hours on chores. How many minutes does Clare spend on chores each month?
2. Andre says, "I spend about 400 minutes on chores each month, which is about 8 hours." Do you agree that Andre spends 8 hours on chores? Explain your reasoning.

**Student Responses**

1. 360 minutes.
2. Disagree. Sample reasoning:
  - Eight hours is 480 minutes, because  $8 \times 60 = 480$ , so Andre spends more than an hour less than 8 hours.
  - Four hundred minutes is 40 minutes more than 360 minutes or 40 minutes more than 6 hours, which is much less than 8 hours.