MEASURE ELAPSED TIME

GRADES 3–5

SUMMARY

Students extend previous knowledge of telling time to find elapsed time, start times, and end times.

COMMON CORE STANDARD(S)

3.MD.A.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

DURATION

Two 45-minute classroom periods

Engage and Explore, Explain, Elaborate page 1—one 45-minute classroom period
Elaborate page 2, Evaluate—second 45-minute classroom period

MATERIALS

Analog clock manipulatives (1 per small group)

ENGAGE AND EXPLORE

Engage students by having them tell and show times that Liam performs different activities in the evening. Activate their understanding of telling and writing time to the nearest 5-minutes as they solve these problems.

Have students form small groups to share an analog clock. Present them with this series of scenarios and have them model the times on their analog clocks and write the times on paper.
Liam begins to work on his homework at 4:15 p.m. Model 4:15 on your clock, and then write “Starts homework” on your paper, and the time 4:15 p.m.

Liam eats his dinner two hours after he starts his homework. Move the hour hand on your clock to show what time Liam eats his dinner. Write “Eats dinner” on your paper, and the time Liam eats dinner, 6:15 p.m.

Liam starts to play with his dog Sami 15 minutes before he eats dinner. Move the minute hand on your clock to show the time 6:00. Write “Plays with Sami” and the time Liam starts to play with Sami, 6:00 p.m.

Liam goes to bed 3 hours and 30 minutes after he starts to play with Sami. Move the hands on your clock to the time Liam goes to bed, 9:30. Write “Bed time” on your paper and the time Liam goes to bed, 9:30 p.m.

Ask students what Liam does first and what he does last. Prompt students to discuss the relationship between minutes and hours to compare the times.

**EXPLAIN**

**WATCH THE GENERATION GENIUS MEASURE ELAPSED TIME VIDEO AS A GROUP**
Facilitate a conversation using the Discussion Questions.

**ELABORATE**

Direct students to use their new understanding to complete the practice problem worksheets. Page 1 contains bare mathematical problems to solidify understanding of the process. Page 2 contains application problems for students to apply the process to solve real-world problems.

**EVALUATE**

Have students gather in groups of 2 or 4 to compare and discuss their answers to the problems. Allow students enough time to communicate with their peers about their process and their thinking. Encourage students to use correct mathematical language when discussing their process. Have each group choose two questions they want more information about, or they want to discuss as a class.

When groups are ready, take questions from students. Encourage groups to answer questions brought up by other groups.

Students can play the online Kahoot! quiz game located below the video. It provides downloadable scores at the end of the quiz game. Alternatively, you can use the paper quiz, or the exit ticket questions. All these resources are located below the video in the assessment section.