



Measurement

Time Travels

Grade 3

Rationale

- ✚ Students enjoy using information about themselves in math lessons. Using authentic data to figure out telling time and the duration of activities keeps students motivated to learn. Students will use their knowledge and experiment with time to figure out the duration of daily activities.

Goal

- ✚ To understand concepts of time

Standards

- ✚ **3.MD.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.

Objectives

- ✚ Students will tell time and calculate the duration of school activities.

Materials

- ✚ Time Travels Activity Sheet, 1 per student
- ✚ Pencils
- ✚ Classroom Clock

Procedures

- ✚ Distribute the Time Travels activity sheet to the students.
- ✚ With the students, brainstorm a list of daily activities in which they participate, such as language arts, PE, lunch, math, etc., and have the students write the activities down on the “Activity” section of Time Travels. Ask students to predict and volunteer to share how long they think each activity lasts.
- ✚ Provide the start and end times of each activity and ask students to write them down on their activity sheet.
- ✚ Place students into groups of 2-3 and ask them to figure out the duration of each activity.
- ✚ Once students have finished, have a class discussion about the methods they used to find the duration of each activity. What procedures did they follow to add and subtract time?

Teacher Tips

- ✚ Turn this into a two-day activity by having the students read the clock at the start and end of each activity and record the times on the activity sheet, rather than supplying the information for them. Have students spend one whole day recording the times and then figure out the durations the next day. Have them write down the actual start and end times, rather than the scheduled times. Starting math at 8:02 and ending at 8:58 will make the lesson more challenging than starting and ending on the hour. (Even if you are giving students the starting and ending times, you may choose to use the "real" rather than scheduled start times in order to have more variation in the times with which they are working.)
- ✚ Make sure students are using an analog clock rather than digital.
- ✚ Do not direct students on how to figure out the duration of each activity. Allow them to experiment, make mistakes, and come up with their own solution strategies.
- ✚ If teaching clocks are available which allow students to manipulate the hands, allow students to use these when calculating times. (Clocks could also be made with paper plates and brass fasteners.)

Extensions

- ✚ Create word problems for students to answer based on the data. For example: "How much more time do we spend doing math than we do in music class?"
- ✚ Ask students to figure out how much time they spend on each activity per week and organize the data using a graph.
- ✚ Ask students to keep track of activities performed at home, such as sleeping, eating, or watching TV, and calculate the duration of each activity over a week.

Time Travels

Activity	Start Time	End Time	Duration