Where Did the Time Go?

Reporting Category: Measurement

Topic: Determining elapsed time

Primary SOL: 3.11 The student will
   b) determine elapsed time in one-hour increments over a 12-hour period.

Related SOL: 3.11a, 3.12

Materials
- Analog clock faces with moveable hands
- Where Did the Time Go? Recording Sheet (attached)
- Start and End Time Cards (attached)
- Tic-Tac-Time Game Card (attached)

Vocabulary
half-hour, quarter hour, hours, minutes, hour hand, minute hand, analog clock, digital clock, a.m., p.m., elapsed time

Student/Teacher Actions
1. Using vocabulary cards, discuss equivalent times for minutes-hours and hours-days. Ask students what “happens to the time” from the moment they get to school until they leave for home. Describe “elapsed time” as an amount of time that passes between two given times. Using two demonstration clocks, set one clock to noon and the other clock to three o’clock. Ask students to name some things that often occur at school around noon and some things that occur around three o’clock. Ask what “happens to the time” between noon and three o’clock. Using the first demonstration clock, model how the time passes from noon until three o’clock. Ask students to count the hours that are passing as you turn the hands. Tell students that three hours is the elapsed time between noon and three.

2. Distribute copies of the Where Did the Time Go? Recording Sheet and analog clock faces with moveable hands. Group students into pairs, and give each pair a set of Start and End Time Cards. Have partners use the process modeled in step 1 to determine the elapsed time between the start and end times on each pair of cards. After students set the two times on their clock faces, make sure they are advancing the hands of the start time clock and counting the hours that pass until the clock reaches the time of the end time clock. Direct students to record their work on the recording sheet.

Assessment
- Questions
  o If you eat breakfast at 8:00 a.m. and you eat lunch at 11:00 a.m., what is the elapsed time between the two meals?
  o If a movie starts at 3:00 p.m. and it lasts for two hours, what time will it end?
• **Journal/Writing Prompts**
  - Explain in detail how you count the hours to determine the elapsed time between a start time and an end time.
  - Look at several TV listings in a newspaper, and select a favorite show. Write the start time and end time of the show, and determine the elapsed time between the two.

• **Other**
  - Create an interactive bulletin board in the classroom, as shown on the attached Interactive Bulletin Board sheet. The clock faces will need to be laminated or placed in plastic sleeves so that students will be able to draw hands on them and then erase the hands. In the middle section, the elapsed time will change daily or even during the day. Students will be given a digital start time written on the board. A student will go to the bulletin board and record the digital time on the start time clock face by drawing the hands. The student will then check the elapsed time and determine the end time to draw on the end time clock face. (Note: A geared clock needs to be available for students’ use at this bulletin board. Be careful when giving out start times and elapsed times that the end time does not need to cross over between a.m. and p.m.)

**Extensions and Connections (for all students)**
- Have students play the Tic-Tac-Time Game.
## Where Did the Time Go? Recording Sheet

**Name:** ___________________________  **Date:** ___________________________

<table>
<thead>
<tr>
<th>Clock</th>
<th>Start Time</th>
<th>End Time</th>
<th>Elapsed Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td><img src="image" alt="Clock A Start" /></td>
<td><img src="image" alt="Clock A End" /></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td><img src="image" alt="Clock B Start" /></td>
<td><img src="image" alt="Clock B End" /></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td><img src="image" alt="Clock C Start" /></td>
<td><img src="image" alt="Clock C End" /></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td><img src="image" alt="Clock D Start" /></td>
<td><img src="image" alt="Clock D End" /></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td><img src="image" alt="Clock E Start" /></td>
<td><img src="image" alt="Clock E End" /></td>
<td></td>
</tr>
</tbody>
</table>
Start and End Time Cards

Start Time on Clock A
3:00 p.m.
End Time on Clock A
6:00 p.m.

Start Time on Clock B
1:00 p.m.
End Time on Clock B
3:00 p.m.

Start Time on Clock C
7:30 a.m.
End Time on Clock C
11:30 a.m.

Start Time on Clock D
5:00 p.m.
End Time on Clock D
9:00 p.m.

Start Time on Clock E
2:30 p.m.
End Time on Clock E
4:30 p.m.
## Interactive Bulletin Board

<table>
<thead>
<tr>
<th>Start Time</th>
<th>Elapsed Time</th>
<th>End Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="clock1.png" alt="Clock" /></td>
<td>___ hours</td>
<td><img src="clock2.png" alt="Clock" /></td>
</tr>
<tr>
<td><img src="clock3.png" alt="Clock" /></td>
<td>___ hours</td>
<td><img src="clock4.png" alt="Clock" /></td>
</tr>
<tr>
<td><img src="clock5.png" alt="Clock" /></td>
<td>___ hours</td>
<td><img src="clock6.png" alt="Clock" /></td>
</tr>
</tbody>
</table>

Name: ____________________________ Date: ____________________
### Tic-Tac-Time Game Card

<table>
<thead>
<tr>
<th>Billy had a basketball game that started at 3:30 p.m. The game ended at 6:30 p.m. How long was the game?</th>
<th>Jackson gets to school at 8:05 a.m. The school day ends at 2:05 p.m. How long is Jackson at school?</th>
<th>Mrs. Stone leaves home at 6:45 a.m. and arrives at school by 7:45 a.m. How long did it take her to get to school?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ben began a bike race at 2:17 p.m. He completed the race at 4:17 p.m. How long did it take Ben to bike the race?</td>
<td><strong>FREE SPACE</strong></td>
<td>How long did John nap if he fell asleep at 1:00 p.m. and woke up at 3:00 p.m.?</td>
</tr>
<tr>
<td>An airplane left the Newport News airport at 9:50 a.m. and arrived in New York City at 11:50 a.m. How long was the airplane flight?</td>
<td>Caterra is making brownies. She started baking at 9:30 a.m. She finished baking at 11:30 a.m. How long did Caterra bake brownies?</td>
<td>A race started at 1:16 p.m. The first person to cross the finish line came in at 3:16 p.m. How long did it take the first person to finish the race?</td>
</tr>
</tbody>
</table>