

Time Part 1

STRAND: Measurement and Geometry

STRAND CONCEPT: Time

SOL 5.11 Part 1 of a 2 part lesson

Remediation Plan Summary

Students determine elapsed time at 15-min., 30-min., 45-min., and 1-hour intervals, using a time number line.

Common Errors and Misconceptions

Students have a difficult time reading analog clocks. They confuse the hour and minute hands. They have a difficult time with elapsed time. Students want to line up the time and add or subtract. They do not realize the unit has changed to 60 minutes in an hour even though they can say there are 60 minutes, they do not know how to apply that to elapsed time.

Materials

- “Elapsed Time Warm-up” handouts
- Clock
- Adding machine tape
- Inch rulers
- Markers
- “Elapsed Time Number Line” handouts
- One set of “I Have...” Game Cards

Introductory Activity

Have students answer the questions on the warm-up handout. You will need to display three different times on clock faces on the board or overhead.

Plan for Instruction

1. Ask students to figure out how much time has passed from the time they arrived at school until this class began. Ask them to explain how they figured this out. Use a clock to show how much time has passed. Discuss what “elapsed time” means.
2. Have students create a time number line, using adding machine tape. Create your own time number line as you give the directions. Put a large mark at the left end of the tape to indicate 12 midnight, and label it “12 midnight” Measure 4 inches from this mark, making a small mark for each inch in between, and make and label another large mark to indicate 1:00 a.m. Measure another 4 inches, making a small mark for each inch in between, and make and label another large mark for 2:00 a.m. Continue this process until 12 noon. Finally, label the small marks between hour marks with 15-min. increments (12:15, 12:30, 12:45).

AR Remediation Plan – Time

3. Discuss the time intervals as students are creating their time number line. Assist any students having difficulty.
4. Review how to add minutes and hours. Give examples of how to determine elapsed time between events, using this time-number-line tool.
5. Have students complete the “Elapsed Time Number Line” worksheet. Walk around and observe how students are working. Help any individuals needing assistance. If there is more than one student in need, pull them for a small group reteach.
6. Have students play the "I Have..." game. Directions: Cut the cards out, and randomly give them to students. Students may receive more than one card. The student who has the 9:00 a.m. card starts the game by reading the card. The student who has the 9:15 card then reads his/her card, and the game continues through all 26 cards. The last card will take them back to 9:00 a.m. Redistribute the cards, and play again.

Pulling It All Together (Reflection)

Have students create five "I Have..." cards of their own, using 15-min., 30-min., 45-min., and 1-hour intervals. You could use these as warm-ups for future classes.

Note: The following pages are intended for classroom use for students as a visual aid to learning.

Virginia Department of Education 2018

Name: _____

Elapsed Time Warm-up

1. How many minutes are in an hour? _____
2. How many minutes are in a half hour? _____
3. What times are shown on the three clock faces that are displayed?

4. How many hours and minutes are in 92 minutes? _____

Name: _____

Elapsed Time Number Line

Use your time number line to find the elapsed time.

1. Start time: 8:00 a.m. End time: 10:30 a.m.

Elapsed time: _____

2. Start time: 12:45 p.m. End time: 2:30 p.m.

Elapsed time: _____

3. Start time: 9:15 a.m. End time: 12:30 p.m.

Elapsed time: _____

4. Start time: 11:00 p.m. End time: 2:15 a.m.

Elapsed time: _____

5. Start time: 7:45 p.m. End time: 10:15 p.m.

Elapsed time: _____

“I Have...” Game Cards

| | | |
|--|--|--|
| <i>(start card)</i> | | |
| I have 9:00 a.m. Who has 15 minutes later? | I have 9:15 a.m. Who has 1 hour later? | I have 10:15 a.m. Who has noon? |
| I have noon. Who has ½ hour later? | I have 12:30 p.m. Who has 1 hour and 15 minutes later? | I have 1:45 p.m. Who has 30 minutes later? |
| I have 2:15 p.m. Who has a quarter of an hour later? | I have 2:30 p.m. Who has a quarter ‘til 3:00 p.m.? | I have 2:45 p.m. Who has 30 minutes later? |
| I have 3:15 p.m. Who has 1 hour and 45 minutes later? | I have 5:00 p.m. Who has 1 hour earlier? | I have 4:00 p.m. Who has 1½ hours later? |
| I have 5:30 p.m. Who has 2 hours and 15 minutes later? | I have 7:45 p.m. Who has 30 minutes later? | I have 8:15 p.m. Who has 2 hours later? |
| I have 10:15 p.m. Who has half past 11 p.m.? | I have 11:30 p.m. Who has midnight? | I have 12 midnight Who has 1 hour earlier? |
| I have 11:00 p.m. Who has 2 hours later? | I have 1:00 a.m. Who has 2 hours and 15 minutes later? | I have 3:15 a.m. Who has a quarter of an hour earlier? |
| I have 3:00 a.m. Who has 2 hours and 15 minutes later? | I have 5:15 a.m. Who has 30 minutes earlier? | I have 4:45 a.m. Who has 60 minutes later? |
| I have 5:45 a.m. Who has 15 minutes later? | I have 6:00 a.m. Who has 3 hours later? | |