

# LESSON PLANS: ONTARIO

## Grade 5: Measurement

Time: Reading and Using a 24-Hour Clock

 45 MINS

powered by

 Mathletics

### Overall Curriculum Expectations:

- Estimate, measure and record perimeter, area, temperature, change and elapsed time, using a variety of strategies.

### Specific Curriculum Expectations:

- Estimate, measure and represent time intervals to the nearest second.
- Estimate and determine elapsed time, with and without using a time line, given the durations of events expressed in minutes, hours, days, weeks, months or years.
- Solve problems involving the relationship between a 12-hour clock and a 24-hour clock.



### ITEMS NEEDED

- ✓ Interactive whiteboard
- ✓ Mathletics teacher login
- ✓ Student handouts from eBooks
- ✓ Computers/tablets
- ✓ 12-hour and 24-hour clocks



### ASSESSMENTS

- ✓ Observations
- ✓ Collaborative
- ✓ Group work
- ✓ Collect and assess time wheel.



### ACCOMMODATIONS/ MODIFICATIONS

- ✓ Allow students to make their own clocks with both 24-hour and 12-hour time intervals. Students can use this as a math manipulative.
- ✓ Encourage students to click on "Something Easier" and "Something Harder" within the curriculum activities of Mathletics.



### EXTENSION OF LEARNING

- ✓ Measure time in phys. ed and record with a stopwatch. Students can then determine total elapsed time to complete an activity.
- ✓ Curriculum activities
- ✓ Grade 5 eBook: Time
- ✓ Grade 5, Time section in "Rainforest Maths" for extra practice.

## Introduction to Lesson



10 MINS

### Teacher Background:

Students should be familiar with reading and using a 12-hour clock prior to this lesson.

- Display on interactive whiteboard the word time. Have students write down all of their ideas about time on chart paper. They can draw pictures or write words and numbers to represent what time means to them.

#### Prompt students:

- o How do we measure time?
- o What types of time are there?
- o When/Where do we use time?
- o Discuss a variety of answers.
- o Introduce 24-hour time and when we generally measure time using the 24-hour clock.

- Log in to **Teacher Console > Demonstrations > Concept Search > Concept Search**. Enter time in the search bar. Display the 12-hour clock on the interactive whiteboard and review it with students. Then click on the 24-hour clock, and explain how to convert the time.

#### Ask students questions like,

- o What type of activity would you do at 18:00?
- o What types of activities would you not do at 23:00?
- o What could be done between 9:00 and 13:00?
- o How much time has elapsed?

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### The Lesson

 20 MINS

#### eBook: 24-Hour Time Dominoes Game

- Have students work with partners or play this game as a class.
- Print off the 24-hour dominoes game cards by logging into [Teacher Console > eBooks > Grade 5 > Time](#).
- Click on "Measuring time." Print page 8, "24 hour time dominoes." One partner, or the teacher, can be the caller. The other partner or the class will write down 6 times. They must be hour or half-hour times, not other intervals.
- The caller or teacher then shuffles the cards and calls out the times. The first person to cross out all 6 times wins!
- You could call the times out in 12-hour time and students will need to convert the time to the 24-hour times they have chosen.

#### Collaborative Group Work

##### • Group 1—Live Math

Students should try Level 5/6 of Live Mathletics on a classroom computer under teacher account. One student types while the other group members shout out the answers. These levels include time conversion.

##### • Group 2—Time Activities

Students should work on curriculum activities together at the interactive whiteboard. Have students use the teacher login so data is not skewed. Suggested activities: What Time Will It Be, Elapsed Time, 24 Hour Time.

##### • Group 3—eBook Time Wheel

Students work together on [eBook > Grade 5 > Time](#), Measuring Time, page 5, question 6, printed or on interactive whiteboard.



### Consolidating the lesson

 15 MINS

#### Think, Pair, Share

- Have students reflect on their learning about time with another partner. Give students a few minutes to think, pair up with another partner, and share their learning.
- Prompt question: How did you measure time today? What were your challenges with a 24-hour clock?



For more information contact our friendly team...

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