

Iditarod Elapsed Time Task Cards

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Discipline/Subject: Math

Topic: Elapsed Time; Telling Time

Grade Level: Grades 1-4

Resources/References/Materials Teacher Needs:

- Elapsed Time Task Cards and Recording Sheets
- Access to Race Data for Joar Leifseth Ulsom from the 2018 Iditarod (<https://iditarod.com/race/2018/mushers/395-Joar-Leifseth-Ulsom/>)

Lesson Summary:

For Third and Fourth Grade: Students will use the real times of 2018 Iditarod Champion, Joar Leifseth Ulsom, to calculate elapsed time from checkpoint to checkpoint. Students will calculate elapsed times using one of two methods: hours and minutes, or total minutes. Students will calculate start times and finish times based on the amount of time elapsed.

For Third Grade: Students will use real times from 2018 Iditarod Champion, Joar Leifseth Ulsom, to tell time to the nearest minute.

For First and Second Grade: Students will use rounded times from 2018 Iditarod Champion, Joar Leifseth Ulsom, to tell time to the nearest five minutes.

**This lesson was written with several different options for teachers. This allows teachers options for modifications for specific students or groups of students. Teachers would choose the set of task cards appropriate for their students.

Standards Addressed: (Local, State, or National)

CCSS.MATH.PRACTICE.MP.1

Make sense of problems and persevere in solving them.

CCSS.MATH.PRACTICE.MP.2

Reason abstractly and quantitatively.

CCSS.MATH.PRACTICE.MP.4

Model with mathematics.

CCSS.MATH.PRACTICE.MP.6

Attend to precision.

CCSS.MATH.CONENT.1.MD.3

Tell and write time in hours and half-hours using analog and digital clocks.

CCSS.MATH.CONTENT.2.MD.7

Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

CCSS.MATH.CONTENT.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.

CCSS.MATH.CONTENT.4.MD.2

Use the four operations to solve word problems involving distances, **intervals of time**, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Learning Objectives:

1. Students will calculate the elapsed time using data from the 2018 Iditarod race.
2. Students will calculate the arrival times when elapsed time is given.
3. Students will calculate the departure times when elapsed time is given.
4. Students will tell time to the nearest minute using analog clocks.
5. Students will draw the hands on an analog clock when given the digital time.

Assessment:

Elapsed Time Task Cards:

Students have successfully calculated the elapsed time using the given information of arrival and departure times. Students have successfully calculated the arrival time when elapsed time and departure time were given. Students successfully calculated the departure time when elapsed time and arrival time were given.

Telling Time to the Nearest Minute Task Cards:

Students have successfully calculated time to the nearest minute on an analog clock. Students have successfully drawn the hands on an analog clock when the digital time was given. Students have successfully identified a.m. or p.m. using word clues.

Telling Time to the Nearest Five-Minute Task Cards:

Students have successfully calculated times to the nearest five minutes on an analog

clock. Students have successfully drawn the hands on an analog clock when the digital time was given. Students have successfully identified a.m. or p.m. using word clues.

Procedural Activities:

1. Show the video with highlights from the 2018 Iditarod to get students engaged and curious. (<https://www.youtube.com/watch?v=cWn3MANxmbM>)
2. Review elapsed time with students, ensuring students have strategies for calculating elapsed time.
3. Review how to calculate the arrival time or departure time when elapsed time is already given.
4. Model for students how to calculate one of each of the above times: elapsed time, arrival time, and departure time using a number line.
5. Go over directions for the task cards.
6. Pair students with a partner. This can be done ahead of time or can be done randomly using your desired classroom pairing system.
7. Give each pair of students a set of task cards. They will work together to solve the elapsed time for each task card.
8. Have students complete task card A. Go over the problem when all students are finished to ensure understanding.
9. Students may then complete the rest of the task cards with their partner. Circulate the room to assist students as needed.
10. When all students are finished, go over all or some of the task cards to check for accuracy.

Materials Students Need:

- Copy of Task Cards
- Recording Sheet
- Pencils
- Clipboards (optional)
- Scrap Paper (optional)

Technology Used to Enhance Learning:

- YouTube Highlight Video (<https://www.youtube.com/watch?v=cWn3MAxmbM>)

Other Information:

- This lesson allows students to have a real-life perspective of how long it takes to run the Iditarod. They will see elapsed times for arrivals and departures but will also be able to put into perspective how little rest the mushers get along the trail.
- These task cards could also be done one at a time as a daily morning work activity or a daily problem-solving station.

Modifications for Special Learners/Enrichment Opportunities:

- Third and fourth grade students with math IEPs who may struggle can complete the Telling Time Task Cards as an alternative.
- First grade students who need enrichment can complete the task cards to the nearest five minute or nearest minute to give them an extra challenge. First graders who are gifted may even need to complete the Elapsed Time Task Cards as a more complicated challenge.