4th Grade_Week 1

OVERVIEW

The focus this week is on time is a linear measurement that can be expressed using different units that are related to each other. The duration of an event is called elapsed time and can be measured in different sized intervals.

Target Standard 3.MD.1	(prerequisite) 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.
Skills	❏ Tell and write time to the nearest minute.
Learning Intention	Today I am learning to... ❏ read and write time to the nearest intervals of minutes.
Success Criteria	I know I am successful when I can... ❏ I can skip count using friendly numbers to help tell time accurately to the minute.
Item Specification	*Item Specification DOK1* *Item Specification DOK2*
Vocabulary	A.M., P.M., analog, digital, hour, minute, second, elapsed, interval, nearest, hour, minute, skip count, friendly number, after, before, schedule, start time, end time
Sentence Frames	The time is _ _ _:_ _ _. I know it is A.M./P.M. because _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _. I skip counted by _ _ _ _ _ _ and then counted on by _ _ _ _ _ _ _. The friendly number I counted to is _ _ _ _ _ _ _ _ _ _ _ _. I plotted _ _ _ _ _ _ _on the number line and moved up/down to _ _ _ _ _ _ _. _ _ _ _ _ _ _ _ _ is before _ _ _ _ _ _ _ _ _ _.
Intro (approximately 10 minutes)	*Opening (Week 1 Day 1 Slides)* What do you notice, and what do you wonder? -This is a great opportunity to find students' background on a clock. 

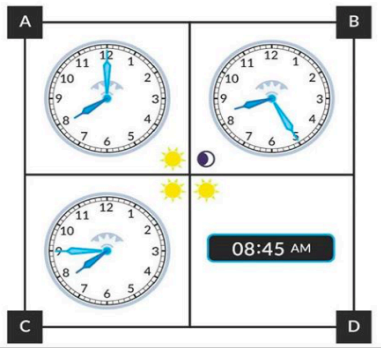
Lesson (approximately 30 minutes)	*Model/Think-Aloud*
	
	• Begin the lesson by reviewing parts of the clock using the digital analog clock.
	  ○ hour hand
	  ○ minute hand
	  ○ second hand
	• Afterwards, model time intervals of 5 and 10. When maneuvering the minute hand, count by 5s while pointing to each of the numbers on the digital analog clock . Explain to students it's important to find a friendly number. Have them skip count to (by 5s) and then count on to the nearest minute.

	• Then, use the digital analog clock to practice telling different times. Roll the die on the digital analog clock to create different times scenarios.
	
	• Prompt the question: Makayla wanted to know what time it was so she looked at the clock in her classroom. She thinks that the clock shows 3:25. Do you agree?
	
	Lead a class discussion. These are some scenarios students might come up with.
	
	• Makayla being incorrect because they counted by 5s to 20 and then 1s to 23.
	• Makayla being incorrect because they counted every minute (tick mark) and counted 23.
	• Makayla being incorrect because they counted by 5s to 25 and then back by 1s to 23.
	• Makayla being correct (It may be helpful to share an incorrect solution to clarify ideas).
	
	Sequence and **connect** these ideas:
	• Makayla being incorrect: Counting by 1s to get to 23.
	  ○ The minute hand goes all the way to 59. Is counting by 1s an efficient strategy?
	• Makayla being incorrect: Counting by 5s to get to 20 and then by 1s to get to 23.
	  ○ What is a friendly number on a clock to count by? Once I can no longer count by that friendly number, how can I still get the exact time?

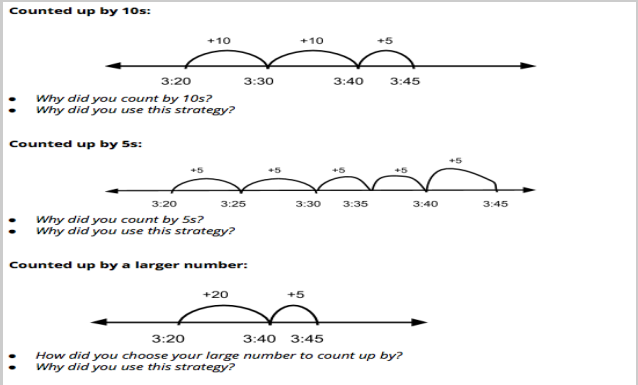
Closing (approximately 10 minutes)	*Check for Understanding:* -Assign students' lessons on Google Classroom. This task is for independent practice.- Tell Me the Time Have an open class discussion to share some of their ideas. **Question:** *What time is it? How do you know? Explain.* 
Resources	Tell Me the Time - make a copy for each student Digital Analog Clock - website *Week 1 Day 1* - teacher slides

Target Standard 3.NBT.1	(prerequisite) 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.
Skills	❏ Tell and write time to the nearest minute.
Learning Intention	*Today I am learning to...* ❏ read and write time by increments of 1s, 5s, or 10s.
Success Criteria	*I know I'm successful when I can...* ❏ use increments of 1s, 5s, and 10s an analog clock.
Vocabulary	A.M., P.M., analog, digital, hour, minute, second, elapsed, interval, nearest, hour, minute, skip count, friendly number, after, before, schedule, start time, end time
Sentence Frames	• The time is _ _ _:_ _ _. • I know it is A.M./P.M. because _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _. • I skip counted by _ _ _ _ _ _ and then counted on by _ _ _ _ _ _ _. • The friendly number I counted to is _ _ _ _ _ _ _ _ _ _ _ _. • I plotted _ _ _ _ _ _ _on the number line and moved up/down to _ _ _ _ _ _ _. • _ _ _ _ _ _ _ _ _ is before _ _ _ _ _ _ _ _ _ _.
Intro	*Opening (Week 1 Day 2)* Building Number Sense: Number Talk : Using mental math, solve this problem. Explain your thinking. (13+47)
Lesson	*Model/Think-Aloud* Lead students to a discussion. *What does it mean for time to elapse?* (you may rephrase this as *go by* or *pass.)* Then, using the interactive analog clock, model what time it would be if 5 minutes were to pass by if the time is 3:32. Time is a linear measurement that can be represented on an analog clock. Explain to students they need to find a friendly number set when finding the elapsed time. Model how to use friendly numbers to estimate elapsed time. Use the interactive analog clock to model. Think Aloud: I started at 3:32 and I used the friendly number of one. I counted all the way to five and I landed on 3:37. Afterwards, practice another time elapsed. For instance, it's 7:57 and 6 minutes have passed by, what time is it now? When practicing this scenario, have a discussion that after the minute hand passes the 60 minute hand, we move on to the next hour. Continue practicing more scenarios, roll the die to create a different time on the interactive analog clock and then state how many minutes have passed by. The teacher makes the decision on how many minutes have passed by.
Closing	*Check for Understanding:* Assign the task to students on Google Classroom- Google Slide- Telling Time? (Student Edition)

	Optional: Ask students why it is important to tell time.
Resources	Telling Time? (Student Edition) - make a copy for each student Number Talk Interactive analog clock - website Week 1 Day 2 - teacher slides

Target Standard 3.MD.1	(prerequisite) 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.
Skills	• Use time is a linear measurement that can be represented on a number line
Learning Intention	*Today I am learning to...* ❏ tell time in minutes by plotting it on a number line diagram.
Success Criteria	*I know I'm successful when I can...* ❏ use a number line to tell time in minutes.
Vocabulary	A.M., P.M., analog, digital, hour, minute, second, elapsed, interval, nearest, hour, minute, skip count, friendly number, after, before, schedule, start time, end time
Sentence Frames	The time is _ _ _:_ _ _. I know it is A.M./P.M. because _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _. I skip counted by _ _ _ _ _ _ and then counted on by _ _ _ _ _ _ _. The friendly number I counted to is _ _ _ _ _ _ _ _ _ _ _ _. I plotted _ _ _ _ _ _ _on the number line and moved up/down to _ _ _ _ _ _ _. _ _ _ _ _ _ _ _ _ is before _ _ _ _ _ _ _ _ _ _.
Intro	Opening (*Week 1 Day 3*) *Which One Doesn't Belong?* 
Lesson	Model/Think-Aloud Lead a discussion: *How is a clock and number line similar?* Have students make connections between an analog clock and number line. Explain to students how a number line is a powerful tool that can be used when solving word problems that deals with time. Today, students will be practicing how to create a number line and plotting time. Placing numbers arbitrarily on the number line between two correct times (so number sense understanding) but not with a sense of strategy; using language like "6:02 is between 6:00 and 6:10 so just put it anywhere between those two numbers." Model to students how to use a number line and plot 6:02. Teachers may use a whiteboard, or a piece of paper to model this scenario or go to the google slide 38, where one can maneuver the items digitally. (Use the blue marks to segment the times in between 2:00 and 3:00. The "type text" is the section where you will type the time. The red arrows will be used to plot the time being asked to be

	placed on the number line.) Think Aloud: The time goes between _ _ _ _ _ _ _ and _ _ _ _ _ _ _ _ _.
Closing	**Check for Understanding:** Assign student independent work on Google Classroom. -Where Does The Time Go? (Student Edition)
Resources	Interactive Number Line - website Where Does The Time Go? (Student Edition)- make a copy for each student google slide 38 Week 1 Day 3 - teacher slides

Target Standard 3.MD.1	(prerequisite) 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.
Skills	• Tell and write time to the nearest minute.
Learning Intention	Today I am learning to... ❑ solve word problems involving addition of time intervals in minutes.
Success Criteria	I know I am successful when I can... ❑ solve problems using a number line diagram.
Vocabulary	*Item Specification DOK1* *Item Specification DOK2*
Sentence Frames	A.M., P.M., analog, digital, hour, minute, second, elapsed, interval, nearest, hour, minute, skip count, friendly number, after, before, schedule, start time, end time
Intro	**Opening** (*Week 1 Day 4*) Complete the *Estimation 180* day 177 activity. About How Long Will It Take to Run Across the Court? Ask students to talk to a partner about an estimate that is way too high and one that is way too low, then have them make an estimate that they think will be close. Have a few students share their estimates. Reveal the answer after the discussion by looking at the video.
Lesson	**Model/Think-Aloud** Remind students of them using number lines in the previous lessons, now they will be using their knowledge of number lines to solve word problems dealing with time. Problem: Naomi started her reading homework at 3:20 P.M. Her teacher told her to read for 25 minutes. What time will Naomi finish her reading homework? Refer back to the strategy of number lines used before. Remember to show your work on the number line. After modeling this problem, have a class discussion on the different possible ways one could use the number line to solve this problem. Here's an example below of different possible ways: 

	Then model and practice the following problems together: Problem 2: Matthew wants to be at his job by 8:35 A.M. It takes him 22 minutes to bike to his work from his house. What time should he leave his house to get to work on time? Problem 3:Kennedy's soccer game bega at 9:05am. The game will last for 52 minutes. What time will Kennedy be done with her game?
Closing	***Check for Understanding:*** Have students complete the task, Elapsed Time- Student Edition Doc add document on google classroom. Elapsed Time Answer Key: A. 1:17 B. Tyler, 5 minutes faster
Resources	Elapsed Time- Student Edition Doc - make a copy for each student Estimation 180- Day 177 Week 1 Day 4 - teacher slides

Target Standard 3.MD.1	(prerequisite) 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.
Skills	❏ Tell and write time to the nearest minute.
Learning Intention	Today I am learning to... ❏ solve word problems involving addition of time intervals in minutes.
Success Criteria	I know I am successful when I can... ❏ Solve problems of time intervals in minutes using multiple strategies.
Item Specification	*Item Specification DOK1* *Item Specification DOK2*
Vocabulary	A.M., P.M., analog, digital, hour, minute, second, elapsed, interval, nearest, hour, minute, skip count, friendly number, after, before, schedule, start time, end time
Sentence Frames	The time is _ _ _:_ _ _. I know it is A.M./P.M. because _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _. I skip counted by _ _ _ _ _ _ and then counted on by _ _ _ _ _ _ _. The friendly number I counted to is _ _ _ _ _ _ _ _ _ _ _ _. I plotted _ _ _ _ _ _ _on the number line and moved up/down to _ _ _ _ _ _ _. _ _ _ _ _ _ _ _ _ is before _ _ _ _ _ _ _ _ _ _.
Intro	***Opening (Week 1 Day 5)*** Complete the 3 Act Task- The Movies. Allow students to use multiple strategies when solving the problem. Show the picture from the task The Movies and ask students to write or tell their partner about what they notice and wonder from the picture. Tell students that the question they will work on today is, How Many Movies Can The Family See In One Day? Ask students to talk to a partner about an estimate that is way too high and one that is way too low, then have them make an estimate that they think will be close. Have a few students share their estimates. Ask students to compare their answers to each other's and to share their estimates. Discuss what might account for different answers. Have a few students share and explain their solutions, highlighting either ideas that will help focus students on the core math of the lesson, or novel ways of solving the problem. Reveal the solution and discuss how close students were and what errors they may have made. Ask students to revise their work as needed.
Lesson	***Model/Think-Aloud*** Go over item specs with students and explain the different strategies used throughout the week can be used to solve the problems. . Then have students complete the task How Long? on google classroom, if time permits.

	Item Specification DOK1 *Item Specification DOK2*
Closing	***Check for Understanding:*** I would go over math behaviors with students before the 3 Act Task. At the end of the lesson, ask students how they behaved like a Mathematician?
Resources	*Item Specification DOK1* *Item Specification DOK2* Week 1 Day 5 - teacher slides How Long? ***- student slides*** 3 Act Task- The Movies