MA.3.M.2.1

Overarching Standard: MA.3.M.2 Tell and write time and solve problems involving time.

Benchmark of Focus

MA.3. M.2.1: Using analog and digital clocks tell and write time to the nearest minute using a.m. and p.m. appropriately.

Benchmark Clarifications:

Clarification 1: Within this benchmark, the expectation is not to understand military time.

Related Benchmark/Horizontal Alignment

• MA.3. M.1.1

Vertical Alignment	
Previous Benchmarks	Next Benchmarks
MA.2. M.2.1	MA.4. M.2.1

Purpose and Instructional Strategies

The purpose of this benchmark is for students to tell time to the nearest minute, using a.m. and p.m. appropriately. In Grade 2, students tell and write time on analog and digital clocks to the nearest five minutes, including using language that expresses fractional parts of an hour (e.g., "half of," "half past," "quarter of," "quarter after," and "quarter till"). Students also bring understanding about a.m. and p.m. from Grade 2, and they also relate partitioned circles to number lines with the purpose of helping them count by 5s.

- Instruction should connect how students can count by fives and ones to identify the exact time on an analog clock. For example, if the time on an analog clock shows 3:19, students should know that they can use the minute hand to count by 5s to land at the 3 on the clock (15 minutes after the hour), and then count ahead 4 more minutes to represent 19 minutes. Students could also count by 5s to get to the 4 on the clock (20 minutes after the hour), and then count back one to get to 3:19. During instruction, allowing students opportunities to use flexible strategies for telling time will build understanding and continue to connect telling time to using number lines (MTR.4.1, MTR.5.1).
- Manipulatives that help students tell and write time are Judy clocks, virtual clocks, and number lines (that can be folded as a circle around a clock and unfolded to show a linear representation) (MTR.2.1). It is important to note that when using number lines during instruction, students should be given the opportunities to determine the intervals and size of jumps on their number line. This approach also connects to measuring lengths (MA.3.M.1.1).

Common Misconceptions or Errors

• Students can misrepresent the location of the hour hand when expressing a given time on an analog clock. For example, when representing the hour hand for 3:19, students can be unsure where the hour hand is located between the 3 and 4. Model reasoning with students that the

hour hand should be less than halfway between 3 and 4 because 3:19 is before 3:30 when the hour hand would be in the middle. Allow for classroom discussions that encourage students to justify the location of hour hands between benchmarks when representing analog time.

Strategies to Support Tiered Instruction

- Instruction includes classroom discussions that encourage students to justify the location of hour hands between benchmarks when representing analog time.
- Instruction includes how the hour hand moves around the clock. Instruction includes using a one-handed (hour hand only) clock. As students receive given times from the teacher, they should reason the location of the hour hand for that given time.
 - For example, the teacher models where the hour hand of the clock should be if the time is 2:37, reasoning for the students so they understand that they should point the hour hand slightly more than halfway between the 2 and the 3 on the clock because 2:37 is just past 2:30.



- Instruction includes understanding that the hour hand moves around the clock. Instruction includes using a geared manipulative clock. This clock will demonstrate the relationship between the minute hand and hour hand moving around the clock.
 - For example, the teacher moves the hands on the clock so the hour hand is slightly more than half-way between the 2 and the 3 asking, "What time do you think it is on the clock?" (The clock reads approximately 2:37.) The teacher allows for classroom discussions that encourage students to justify the location of hour hands between benchmarks when representing analog time.

Questions to ask students:

Have students demonstrate various times on an analog clock. (For example: hour, half-hour, quarterhour, five minutes, and nearest minute).

- *Sample answer that indicates understanding:* student correctly demonstrates given time on the analog clock with precision to where the hour hand is located between hours.
- Sample answer that indicates incomplete understanding or a misconception: the hour hand points to the exact hour when the time given is passed the hour. For example, at 5:30 the hour hand points to the 5 rather than halfway between the 5 and 6.

Ask students to identify multiple ways to say 2:45.

- Sample answers that indicate understanding. 45 minutes past 2, 15 minutes before 3, quarter till 3 Ask students to list tasks they do throughout the day and label them a.m. or p.m.
 - Sample answer that indicates understanding:

a.m.	p.m.	
Wake up	Do homework	
Get dressed	Play outside	
Eat breakfast	Eat dinner	
Ride the bus to	Get ready for bed	
school		

Instructional Tasks

Instructional Task 1



Show the same time represented on the digital clock on the analog clock below.



Instructional Items

Instructional Item 1

Alex goes to the grocery store in the morning at the time shown.



What time does Alex go to the grocery store? Write the time on the line and circle a.m. or p.m.

_____a.m./p.m.

Achievement Level Descriptors

Benc	hmark	Context		Assessment Limits	
MA.3.M.2.1 Using analog	and digital clocks tell and				
write time to the nearest minute using a.m. and					
p.m. appropriately.		Mathematical		N/A	
Clarification 1: Within thi	s benchmark, the				
expectation is not to un	derstand military time.				
ALD 2	ALD 3	ALD 4		ALD 5	
N/A	using analog and digital	using analog and digital		using analog and digital	
	clocks, tells and writes	clocks, tells and writes		clocks, identifies an error	
	time to the nearest	time to the nearest minute		and tells and writes time to	
	minute.	using a.m. and p.m.		the nearest minute using	
		appropriately.		a.m. and p.m.	
				appropriately.	

Additional Resources:

CPALMS Resources

Resources/Tasks to Support Your Child at Home:

Throughout the day, ask your child to use an analog clock to read what time it is. Then have them identify whether it is a.m. or p.m.

Khan Academy: Telling Time to the Nearest Minute

LearnZillion Video: Distinguish Between A.M. and P.M.

LearnZillion Video: Reading the Exact Minute on a Clock

LearnZillion Video: <u>Reading the Exact Time on a Clock</u>