## 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

MA.2. M.2.1

## Next Benchmarks

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 5 s .

- 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 5 s 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 5 s 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 |  |
| school | Get ready for bed |

## 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.
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Achievement Level Descriptors

| Benchmark | Context | Assessment Limits |  |
| :---: | :---: | :---: | :---: |
| MA.3.M.2.1 Using analog and digital clocks tell and <br> write time to the nearest minute using a.m. and <br> p.m. appropriately. | N/A |  |  |
| Clarification 1: Within this benchmark, the <br> expectation is not to understand military time. | Mathematical | ALD 5 |  |
| ALD 2 | ALD 3 | ALD | ALD |
| N/A | using analog and digital <br> clocks, tells and writes <br> time to the nearest <br> minute. | using analog and digital <br> clocks, tells and writes <br> time to the nearest minute <br> using a.m. and p.m. <br> appropriately. | using analog and digital <br> clocks, identifies an error <br> and tells and writes time to <br> the nearest minute using <br> a.m. and p.m. <br> 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: Reading the Exact Time on a Clock

