

Just in Time Quick Check

Standard of Learning 1.MG.3

Strand: Measurement and Geometry

Standard of Learning 1.MG.3

The student will demonstrate an understanding of the concept of passage of time (to the nearest hour and half-hour) and the calendar.

Students will demonstrate the following Knowledge and Skills:

- a) Identify different tools to measure time including clocks (analog and digital) and calendar.
- b) Describe the units of time represented on a clock as minutes and hours.
- c) Tell time to the hour and half-hour, using analog and digital clocks.
- d) Describe the location of the hour hand relative to time to the hour and half-hour on an analog clock.
- e) Describe the location of the minute hand relative to time to the hour and half-hour on an analog clock.
- f) Match the time shown on a digital clock to an analog clock to the hour and half-hour.
- g) Identify specific days/dates on a calendar (e.g., What date is Saturday? How many Fridays are in October?).
- h) Use ordinal numbers first through tenth to describe the relative position of specific days/dates (e.g., What is the first Monday in October? What day of the week is May 6th?).
- i) Determine the day/date before and after a given day/date (e.g., Today is the 8th, so yesterday was the ?), and a date that is a specific number of days/weeks in the past or future (e.g., Tim's birthday is in 10 days, what will be the date of his birthday?).

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting and Prerequisite SOL: K.MG.3

Just in Time Quick Check 1.MG.3

1. Use the pictures below to answer the questions.

a) Circle all the tools that are used to measure time.

b) Put an X on the tool that measures time in hours and minutes.

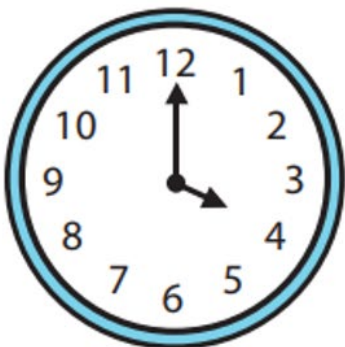


2. Use the clocks below to answer the questions.

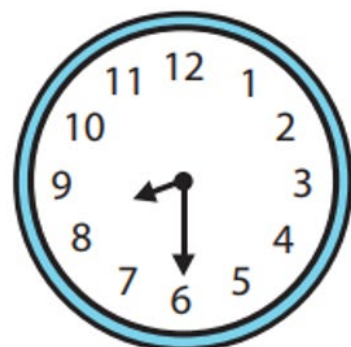
a) Tell the time shown on each clock.

b) Explain how you used the minute hand and the hour hand to tell the time.

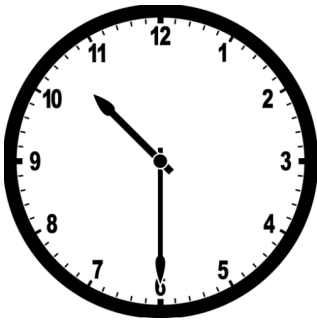
Clock A



Clock B



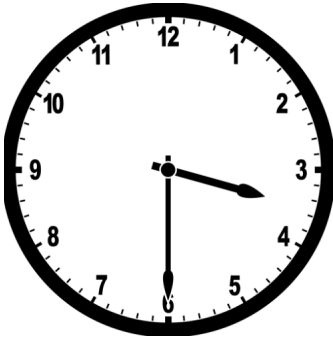
3. Draw a line to match each clock to the correct time shown.



5:00






3:30



10:30

Use the calendar to answer the following questions.

October						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				 1	2	3
4	5	 6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	 24
25	26	27	28	29	30	31

4. What day of the week is October 13? _____

What day of the week is October 28? _____

5. On what date is the star located? _____

On what date is the heart located? _____

6. What is the date of the first Sunday of the month? _____

What is the date of the second Friday of the month? _____

7. If today is October 7, what day is before? What day is after?

Before: _____

After: _____

8. How many Mondays are there in the month of October? _____

How many Thursdays are there in the month of October? _____

1.MG.3 Just in Time Quick Check Teacher Notes

Common Errors/Misconceptions and their Possible Indications

1. Use the pictures below to answer the questions.

a) Circle all the tools that are used to measure time.

b) Put an X on the tool that measures time in hours and minutes.

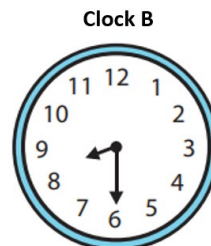
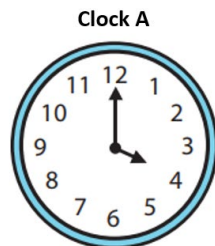


Students may choose tools based on their familiarity or classroom use rather than by what they measure. For example, students may circle the measuring cup because they have used one at home when helping in the kitchen. Some students may circle the clock but neglect to circle the calendar. If students do not circle the calendar, it may be helpful for teachers to prompt them by asking, "How would you measure time in days or weeks?" It may be beneficial to emphasize that different tools measure different things and to encourage students to think about what question the tools help answer (e.g., a digital clock answers the question, "What time is it?").

2. Use the clocks below to answer the questions.

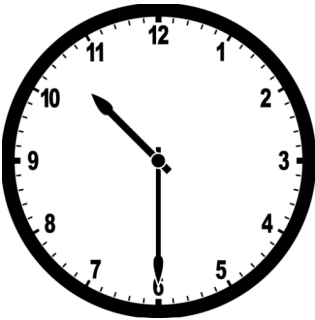
a) Tell the time shown on each clock.

b) Explain how you used the minute hand and the hour hand to tell the time.

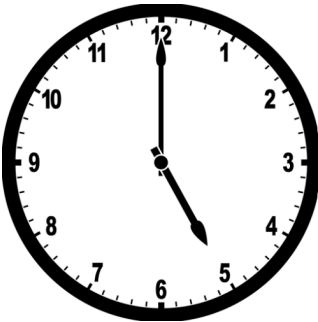


Students may demonstrate several common misconceptions about reading clocks. Some students may only look at the hour hand and ignore the minute hand, leading them say that Clock B shows 8:00 instead of 8:30. Other students may think the number the minute hand points to is the hour, so they may say that Clock A shows 12:00 because the minute hand is on the 12. When telling time to the half hour, students may believe that the hour hand must point directly to a number, so they may be confused when the minute hand is between the 8 and 9 on Clock B. Some students may also mix up the roles of the hands and believe the longer hand tells the hour and the shorter hand tells the minutes. Teachers should reinforce that when the minute hand is on the 6, it means 30 minutes past the hour. Additionally, it is important for teachers to listen to student explanations about how they used the minute hand and the hour hand to tell the time.

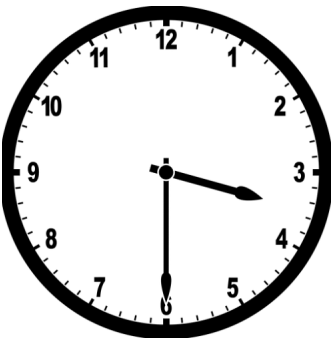
3. Draw a line to match each clock to the correct time shown.



5:00






3:30



10:30

When matching analog clocks to their corresponding times, there are several common errors students may make. Some students may only focus on the hour hand and ignore the minute hand, leading them to match 3:30 or 10:30 to the wrong times. Some students may believe that the hour hand must always point directly to a number so they may not understand that for 3:30 or 10:30, the hour hand should be in the middle of 3 and 4, and 10 and 11, respectively. Students may also confuse the meaning of the minute hand, thinking that when it points to the 6 it represents the hour rather than 30 minutes. Another common error is mixing up the long and short hands, causing students to reverse the time completely. Teachers can support students by reinforcing that the long hand shows minutes, the short hand shows hours, and that a minute hand on the 6 means half past the hour.

Use the calendar to answer the following questions.

October						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				 1	2	3
4	5	 6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	 24
25	26	27	28	29	30	31

4. What day of the week is October 13? _____

What day of the week is October 28? _____

Some students may be unable to name the day of the week for October 13 or October 28. For students who struggle to identify the day of the week for a particular date, provide daily opportunities for students to refer to the classroom calendar and the daily schedule of the class to help students recall the specific day of the week and to be able to use the calendar to name the day of any date.

5. On what date is the star located? _____

On what date is the heart located? _____

On what date is the triangle located? _____

Some students may confuse the day with the date. For example, they may state that the star is located on Saturday, the heart is located on Thursday, and the triangle is located on Tuesday. These students still need to develop their understanding of this terminology. It will be beneficial to include these terms in daily calendar time, and throughout the school day, to develop greater understanding of date versus day. Throughout the week, it can also be helpful to talk with students about activities that occur on certain days of the week. For instance, helping them to see that while music class is always on Wednesday, the date changes, depending on the Wednesday.

Students may try to answer with the number of the day, rather than an ordinal number. For example, students may say, "The triangle is on 6" or "The heart is on 1." Teachers should model appropriate vocabulary, including the use of ordinal numbers, that is used with calendars and encourage students to do the same (e.g., "The triangle is located on the 6th of October" or "The heart is located on October 1st.").

6. What is the date of the first Friday of the month? _____

What is the date of the second Sunday of the month? _____

Students may incorrectly state that the first Sunday of the month is October 1st or the second Friday of the month is October 2nd. This indicates that students focused on the terms "first" and "second" in the questions and did not consider days of the week. Students may also say that the second Sunday is October 4, indicating that they counted the first Sunday box, even though it is blank and does not represent the first Sunday of the month. Teachers can support students' understanding of calendar by modeling how to locate a specific day of the week and then following that column downward to find the first, second, and later occurrences of that day. It may also be helpful to encourage students to share their thinking aloud, which can help reinforce accurate strategies for reading a calendar.

7. If today is October 7, what day is before? What day is after?

Before: _____

After: _____

Some students may be unable to tell the day before and/or the day after. These students will need additional opportunities to participate in calendar activities that engage students in identifying today's date, the day before, and the day after. If students continue to struggle to identify the day of the week that comes before/after, refer to the classroom calendar and have students identify the current day. Then ask questions such as, "What was yesterday (day before)? What will tomorrow (the day after) be?" This may help students better understand and use the vocabulary of "yesterday"

and “tomorrow.” Students will also benefit from daily calendar activities, as well as classroom songs, to develop a better understanding of the order of the days of a week.

8. How many Mondays are there in the month of October? _____

How many Thursdays are there in the month of October? _____

Some students may count the empty boxes on the calendar and respond that there are five Mondays in the month of October. Students will benefit from classroom discussions around why there may be empty boxes represented on a calendar and that they serve as place holders. It may also be helpful to share an electronic calendar with students so that they can visualize that the last month’s days (or next month’s days, if the month does not end on a Saturday) would fill those boxes.