

In One Minute

For Grades K-2



CONTENT AREA

Measurement

MATERIALS

- analog clock with a second hand (on the classroom wall) or a watch with a second hand
- plastic or cardboard analog clock with movable hour and minute hands

TIME

fifteen minutes

Overview

For young children, learning to tell time on an analog clock requires on-going practice. In addition to learning how to read a clock, students need to learn about seconds, minutes, and hours and develop some concept of how long these units are.

In this activity, students first practice telling time to the hour and half hour on an analog clock. Then students develop their sense of one minute when they see how many times they can perform an activity (write letters, write their name, build a tower with cubes, draw stars, etc.) in one minute.

Activity Directions

1. Show students a plastic or cardboard analog clock and ask them what they notice about the clock and what they know.
2. Move the hands to several different hour and half-hour positions and have students identify the time.
3. On the board, write important activities that happen during the day and ask the students at what times they occur. Draw clock faces next to the times and call on volunteers to draw in the hour and minute hands to show the times for each activity.
4. Direct students' attention to the second hand on the wall clock (or a watch). While you time one minute, have students close their eyes and raise their hands when they think one minute has passed.
5. Ask students to estimate how many letters of the alphabet you can write on the board in one minute. Then have them time you as you write the letters of the alphabet. Together with the class, count the letters first by ones and then by twos to find the total amount.
6. Direct students to write as many letters of the alphabet as they can in one minute as you time them. When they are finished, have them count their letters by ones and twos to find the total amount.

Key Questions

- What do you notice and know about the clock?
- What time is it on the clock?
- What time of day does _____ occur?
- How many seconds are there in one minute?
- About how many letters do you think I can write in one minute?
- If we count the letters by twos, will there still be _____? Explain.

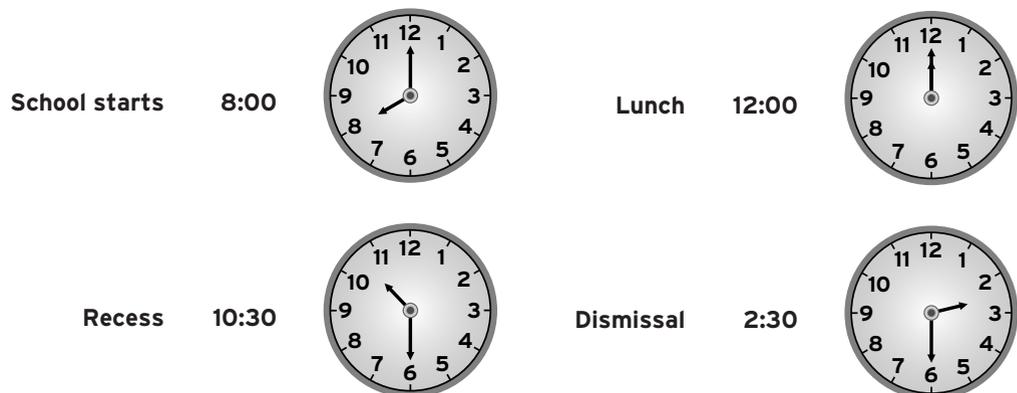
From the Classroom

Although Sharon Fargason’s students had been taught how to tell time earlier in the year, they hadn’t had practice doing so for quite a while. Curious to see what they still remembered, I held up a plastic analog clock and asked the students to turn to a partner and talk about everything they knew about the clock. After a minute or so, I called for the students’ attention.

The students seemed to know quite a bit. They knew about the hour hand and the minute hand. Richard noted that there are sixty minutes in an hour, and Nith commented that there are five minutes between each number on the clock. Jessica said that there are numbers on the clock, starting at 12 and going all the way back to 12 again.

After students had finished sharing what they knew and noticed about the clock, I rotated the hour hand and minute hand on the plastic clock so that it read one o’clock. I directed the students to call out the correct time in unison so that everyone would get practice. I continued to move the hands to different locations, providing students with experience in telling time to the hour and to the half hour. Each time, I directed the class to call out the correct time in a choral voice.

Next, I wrote important activities on the board that happened during the day. I asked the students if anyone knew at what time the activities occurred. If someone knew the correct answer, I wrote in the time; if no one knew, I provided the correct answer. Next to each activity, I quickly drew a clock face and asked for volunteers to come up and draw where the hands belonged.



After we practiced reading the times for each activity during the day, I directed the students' attention to the red second hand that was moving around the clock on the wall. I told them that the red hand was the second hand and measured time in seconds. When I asked the class how many seconds there are in one minute, only Jose knew that there were sixty.

"I want you to get a sense of how long sixty seconds, or one minute, is," I told the class. "When I say 'go,' I want you all to close your eyes and raise your hand when you think one minute has passed. I'll keep track and watch the second hand on the clock and tell you when one minute is up."

"Can we count to sixty when our eyes are closed?" Tracy asked, revealing that she remembered how many seconds there are in one minute.

"Sure," I responded.

There was much excitement in the room as I called out, "Ready, set, go!"

As the seconds ticked off on the wall clock, students raised their hands at different times. Some hands shot up after only ten seconds, while other students came closer to accurately judging the length of time that had passed. When I told them to open their eyes, many students commented on how long a minute seemed to them. When we were finished, I asked the class a question.

"About how many letters of the alphabet do you think I can write on the board in one minute?"

I elicited ideas from the students, and their estimates ranged from "about four" to "about twenty-seven."

I then directed the class to watch the second hand on the clock and time me as I wrote the letters of the alphabet on the board. I reminded them that if I got to the letter Z, I would begin again, writing the letter A, then B, and so forth until one minute had passed.

All students' eyes were glued to the clock as they kept track of the second hand. When one minute was up, they all shouted, "Stop!" I had written quite a few letters on the board and the students were surprised. Together, we counted the letters by ones and I recorded the total of 50 on the board.

"If we count the letters by twos, will there still be fifty?" I asked.

While most of Sharon's first graders thought that no matter how we counted the letters, the amount would stay the same, this idea is not obvious to all young children. To check, we counted by twos as I circled pairs of letters.

Next, I instructed the students on what they were to do at their seats. "Get a piece of paper and a pencil and write your name on your paper. Wait until I say 'go!' before writing letters. When I say 'stop,' count your letters by ones and record how many letters you wrote. Then count again by twos."

When one minute had passed, I signaled the students to stop. Then I circulated through the room to check how accurate they were with their counts and to offer help if needed as students counted by twos. Figures 17-1 and 17-2 show two students' alphabet papers.

Figure 17-1 Deanna wrote fifty letters of the alphabet in one minute.

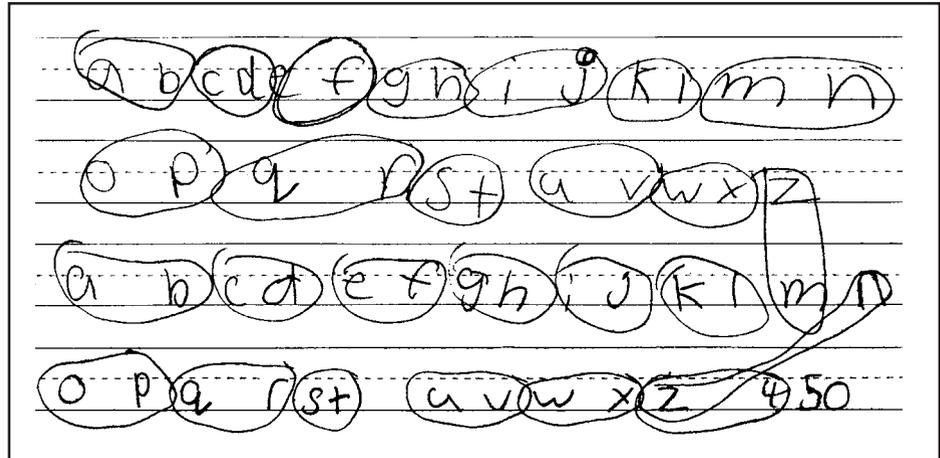
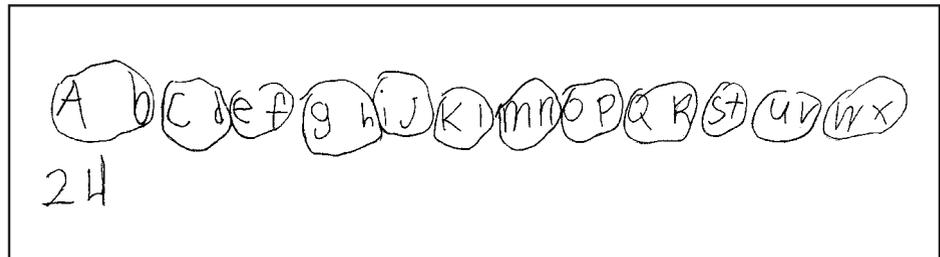


Figure 17-2 Justin counted his letters by twos and got twenty-four.



Extending the Activity

Other activities for students to do in one minute:

- write numbers
- write their first name
- write their last name
- build towers using interlocking cubes
- draw stars