COMMON MISCONCEPTIONS

• The numbers on an analog clock tell the minutes.
  One of the most difficult concepts with initial lessons on teaching time is understanding that the numbered tick marks
do not represent the number of minutes, but intervals of 5 minutes. In this lesson, students do not need to read times
with minutes other than 30, but it can be helpful to explain WHY it is 30 past the hour, by introducing students to the
60-minute hour and 5-minute intervals.

• The day starts at 1 o’clock.
  Until now, students counted starting at 1 or 0; now they are told that the day starts at 12 o’clock, not 0. Telling time also
includes skipping back to 1 after 12, and not going to 13. It can be difficult for some students to understand that the day
start at 12 o’clock, and the next hour is 1 o’clock. Use repetition of “clock counting” (12, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,
12, 1, 2, 3…) to get students accustomed to this type of “counting.” Repeat as often as possible, while students watch
the hands on an analog clock progress through the day.

• The big hand tells the hours.
  Students may think that the big hand is for the hours, since an hour is “bigger” in size than a minute. Showing the hands
moving on a clock and counting each minute (1 – 60) can help students see that the 60 minutes in an hour involve
moving the hand more than going from one hour to the next.
  You can also help them to connect the big hand to the minutes by showing how the minute hand needs to be more
precise with all of the minute notches between the numbers. Model and explain how it is easier to see which minute the

CLOCK NUMBERS

In Kindergarten, students worked on counting to 100. They learned that the numbers each represent a certain quantity.
To tell time they have to grasp that each number represents 5 minutes. This knowledge helps explain why 6 means
“thirty.” This concept should not be covered with more than a brief discussion to explain how 6 represents 30. Students
should focus on how the numbers represent the hours, and that the minutes are either o’clock (on the hour, :00) or thirty
(on the half hour, :30).
WHICH NUMBER IS THE HOUR WHEN THE TIME IS HALF PAST AN HOUR?

Students may struggle to understand which hour to say when reading a time half past an hour. Work with these students with a personal analog clock. Start with a whole hour time and have them watch the hour hand as the minute hand moves to the 6. As the minute hand moves, the hour hand should slowly move toward the next hour. When the minute hand reaches the 6, has the hour changed? Has the minute hand passed the 12 yet? The answer to both questions is no. Point out that the hour hand has yet to pass the next number, so the hour is the lesser number. For example, to show the time 8:30, the minute hand moves from the 12 to the 6, and the hour hand is between the 8 and 9, but not yet past the 9.

A.M. AND P.M.

Students may ask about telling morning time from night time. You can explain that the clock doesn’t change, but we use the naming conventions A.M. and P.M. Have a brief discussion about using A.M. for morning and P.M. for evening. However, students may get confused that A.M. is used when it is still dark.

This could lead to a discussion about how there are 24 hours in a day, the times 12 A.M. and 12 P.M., and the idea that there can be times when it is light or dark outside that do not match what we think is A.M. or P.M. Stress that when the hour hand passes the 12, the time switches from A.M. to P.M. or from P.M to A.M.

TEACHER TIPS

It is a good practice to show both analog and digital clocks from the beginning of the lesson, to let students connect how times are shown on a digital clock with what they see on an analog clock.

As students feel more comfortable with both representations, they should go back and forth fluidly between analog and digital clocks. Although digital clocks are most common in the lives of students, analog clocks are still an important part of society. Students need to be able to read them when they are in situations where a digital clock is not available.