



Core Focus

- Number: Analyzing 100 and writing three-digit numbers to 120
- Subtraction: Reinforcing all strategies
- Time: Half-past the hour

Analyzing 100

- Until now, students have mostly worked with numbers smaller than 100. This module provides them with a variety of experiences to extend their understanding of place value to three-digit numbers.
- To understand the place-value properties of three-digit numbers, students must be able to picture 100. They recognize 100 as a special number they can count to, but they need to understand that the quantity 100 can also be **one group of 100, ten groups of 10, or 100 ones**.

7.1 Number: Analyzing 100

Step In What do you know about one hundred?

There are 100 cents in one dollar.

I have seen 100 miles on signs.

Where have you seen 100 written?

In this lesson, students explore different representations for 100.

- The **numeral expander** helps students think of three-digit numbers as groups of **hundreds, tens, and ones**. This makes it easier to read and talk about three-digit numbers with understanding. **Base-10 blocks** are used in this module to help students visualize groupings by hundreds, tens, and ones.

7.2 Number: Writing three-digit numbers to 120 (without teens)

Step In What number does this picture of blocks show?

How would you write this number on an expander? How do you know?

Look at the number on this expander. What does each digit mean?

How is this number different from the number on the first expander above?

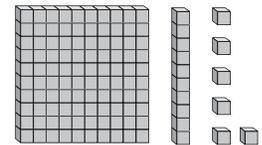
In this lesson, students read and write three-digit numbers, using the blocks to represent the quantity, and the expander to write the number.

Ideas for Home

- By the end of Grade 1, students are expected to fluently add and subtract facts **within 10**. To practice the count-on/back and use-doubles strategies, use flash cards or fact practice on the computer.

Glossary

- ▶ These are **base-10 blocks**. They are used to build numbers showing **hundreds, tens, and ones**.



Helpful videos

View these short one-minute videos to see these ideas in action.

www.bit.ly/OI_33

www.bit.ly/OI_2



Module 7

Subtraction

- Earlier, students learned the count-on and count-back strategies for subtraction, and the think-addition strategy for the count-on subtraction facts. In this module, they learn the think-addition strategy for the doubles and near doubles subtraction facts. For example, to solve $12 - 5$, they think $5 + \underline{\quad} = 12$. Thinking addition is an efficient subtraction strategy and should be encouraged.

7.9 Subtraction: Reinforcing all strategies

Step In Solve each problem.

9 toys are on a shelf. Then 2 toys are sold. How many toys are left?	11 apples are in a bowl. Then some of the apples are eaten. There are 5 apples left. How many apples were eaten?
7 friends are playing at the pool. 5 friends are in the water. The other friends are out of the water. How many friends are out of the water?	15 passengers are on a bus. 8 passengers get off the bus. How many passengers are left on the bus?

Think about the strategy you used to solve each problem.

Write **C** on the problem if you used count-back.
Write **A** on the problem if you used think-addition.
Write **D** on the problem if you used use-doubles.

This lesson reinforces all strategies the students have learned for subtraction.

Ideas for Home

- Experience and opportunity are essential to your child learning to read, write, and make sense of time. Draw attention to times, with an emphasis on relating to the hour and half-hour (e.g. “We’ll leave for the movie at 5:30. When the big hand moves from where it is now down to the 6, it will be 5:30, or half-past 5.” Or, “The bus will come at 2:30. See how my watch says 2:28? So in just 2 more minutes (2:29, 2:30) the bus will be here.”

Time

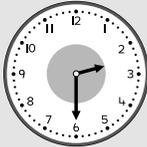
- Learning to tell the time can be challenging for young students. For example, the hour hand on an analog clock does not point directly to any number when the time is half-past, so students must learn that it is always half-past the lesser hour.

Where would the minute hand point if it went halfway around?

When the minute hand is pointing at 6, it is **half-past** an hour.

When the minute hand shows a half-past time, what does the hour hand show?

What time is this clock showing? How do you know?



At half-past 2, the hour hand is between the 2 and the 3.

- Although we rarely use this expression in everyday language, students learn to say half-past when the minute hand points to the 6 on an analog clock. Half-past helps students visualize an hour as one whole (revolution) and 30 minutes as half.

7.12 Time: Relating analog and digital

Step In What different ways can you say the time shown on these clocks?



 Half-past three.

 Three thirty.

In this lesson, students match on-the-hour and half-past times shown on analog and digital clocks.