(I) **Module 2**

Core Focus

- Addition: Counting on (within 20)
- Addition: Using the commutative property
- Addition: Introducing the doubles strategy
- Time: Reading on the hour with analog and digital clocks

Ideas for Home

- Find opportunities to count objects or pennies using the idea of *think big, count small*. E.g. for 5 and 3 more start by saying 5 and count on the rest ("6, 7, 8").

- Use pennies to practice the count-on strategy. Start with a stack of pennies (e.g. 5) and ask the student to count on aloud as they add more coins to make nine.

Counting on

- When asked what comes after a number, students often start at one and count up to the number. They need to "count all" every time. But with experience, they begin to count on or count back from any number.

- Students learn the **count-on strategy**. For example, when combining 5 and 2, they count on from 5 ("5, 6, 7"), or count on from 2 ("2, 3, 4, 5, 6, 7"). The result is the same, but starting with the larger number is quicker and, for some students, easier.

Glossary

▸ The **count-on strategy** is an early mental computation approach to addition.

▸ The **commutative property** describes how the order of addends can change without changing the sum:

$$5 + 2 = 7 \text{ and } 2 + 5 = 7$$

These are called *turnaround facts*.

> 2.2 **Addition: Counting on, rather than counting all**
>
> **Step In** What is a quick way to figure out the total number of fingers raised?
>
> I see 5 and 2. 5 is bigger, so I can count on from 5. That is 5...6...7.
>
> 5
>
> Use your quick way to figure out the total number of cubes.
>
> 5

In this lesson, students start with a quantity of 5 and are encouraged to count on 2 more.

Commutative property

- Counting on is recorded as an addition number sentence (e.g. 5 + 2 = 7). The *turnaround* addition fact is also recorded (e.g. 2 + 5 = 7). Students learn that changing the order of numbers being added does not change the final result.

Helpful videos

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

www.bit.ly/OI_I
www.bit.ly/OI_4

> 2.6 **Addition: Using the commutative property**
>
> **Step In** What do you notice about these pictures?
>
> What addition fact would match each picture?
>
> These facts are called turnaround facts.
>
> What number will you say first?
> What number will you count on?

In this lesson, students complete the addition fact and the turnaround fact.

I Module 2

ORIGO STEPPING STONES 2.0

Doubles strategy

- When the two addends are close to the same size, the **doubles strategy** can be used. Doubles are easily connected to familiar situations, e.g. two hands show that double 5 is 10, and an egg carton shows double 6 is 12.

2.8 Addition: Introducing the doubles strategy

Step In One hand shows one group of five fingers.

When you double five, you get two groups of five.

What addition fact would you write to show the total number of fingers?

☐ + ☐ = ☐

What doubles do these pictures show?

What other doubles have you seen?

In this lesson, students make connections between familiar doubles and number sentences to represent the doubles fact.
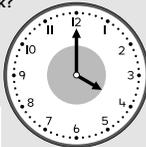
Time

- Although digital clocks are more common and easier for students to read, an analog clock is a visual model that shows the passing of time and parts of an hour, helping students better understand the concept of time.

- Students read and write times that are on-the-hour (when the "big hand" is on the 12) on an analog clock and read on the hour on a digital clock.

2.10 Time: Introducing on the hour (analog)

Step In This type of clock is called an analog clock. Where might you see an analog clock?

What numbers do you see on this clock?
What do you think the numbers are counting?
Which hand is the **hour hand**?

The short hand is the hour hand. It shows the name of the hour and counts the hours.

The long hand is called the **minute hand** because it counts the minutes.
When the minute hand is pointing to 12 it is the **start** of another hour.
This time is **on the hour** and it is an **o'clock** time.

In this lesson, students read analog clocks to tell time on the hour.

Ideas for Home

- Notice doubles in everyday life (e.g. double 2 tires on a car, double 3 cans in a six-pack of soda, and double 9 wheels on an eighteen-wheeler truck).

- Tell stories involving doubling, e.g. find a magic basket that doubles anything put in it. Talk with your child about how they mentally double the number of objects that go into the basket.

- Refer to times naturally and informally during everyday activities. E.g. ask, "What time is it? Let's look at the clock." or "We will leave for the park when it is 4 o'clock."

- Talk about the order of the day's upcoming events with your child and connect these to the hours when they will take place. (E.g. "At 8 o'clock we will go to the store; then at 12 o'clock we will have lunch. We will go to grandma's house at 1 o'clock, and then she will take you to the movies at 2 o'clock.") This supports your child's understanding of time.

Glossary

▸ The **doubles strategy** is a mental computation approach to addition that lays a foundation for multiplication in later years.