COMMON MISCONCEPTIONS

• Students change which number they skip count by.
As they count, students may switch the number they are skip counting by. For example, students who are more familiar with skip counting by 10s than by 2s may count “2, 4, 6, 8, 10, 20, 30, …” They start skip counting by 2s, but as soon as they get to the first multiple of 10, they switch to skip counting by 10s. To avoid this, encourage students to practice skip counting with the numbers they find more challenging, so they become equally comfortable with those numbers. If students make this error, remind them that when we skip count, we skip (or add) the same amount every time. Help them figure out the correct number to say next. Ask them to continue counting and watch out for the same error when they get to the next multiple of the more familiar number; for example, when a student counting by 2s or 5s gets to the next multiple of 10.

• Students don’t know what number to say next when they reach a new ten or hundred.
Students may get stuck after they say the last number in a ten or hundred. For example, they may successfully skip count “30, 32, 34, 36, 38,” but then be unsure what number comes next. These students understand how to skip count within the same ten by changing the number in the ones place, but don’t know what to do when they reach a new ten. Remind these students that the next number they have to say is a new ten. They have just been counting numbers in the 30s. Ask them what ten comes after 30 and help them figure out that the next number to say is 40.
It may also help to provide students with a number line or hundreds chart to look at, especially when skip counting by smaller numbers like 2s and 5s. Students can “skip” by 2s or 5s on the line or chart with their finger or a pencil and then say the number they land on. Then, they can try counting again, this time without the line or chart.

• Students always start skip counting from zero.
Some students may not realize that they don’t always have to start skip counting from zero. Other students may know that they can start at numbers other than zero, but have trouble starting from other numbers. Even when it would be easier to solve a problem by starting from another number, these students start from zero. Remind students that when you count by 1s, you can start from any number, not just zero. For example, you could start counting at 30: 30, 31, 32, 33, 34. Just like when you are counting by 1s, you don’t have to start from zero when you skip count. Demonstrate an example, like skip counting by 2s starting at 30: 30, 32, 34, 36. Then give students some examples to try themselves, like skip counting by 5s starting at 30: 30, 35, 40, 45.
Remind them that a number line is a line that shows numbers in order. You can use a number line to count. You can also use it to skip count.

If students have previously used a number line to add, they may see similarities between skip counting on a number line and adding on a number line. In both cases, you skip or jump along the number line. The number you land on is the next number to say when you are counting or the sum when you are adding. This similarity exists because, as explained below, counting is the same as repeatedly adding.

**COUNTING AS ADDING**

Students may have already encountered the idea that counting is the same as adding 1. When you count 1, 2, 3, 4, ..., you get each new number by adding 1 to the previous number. Students build on this idea in this lesson. When you skip count, you also count by adding the same number each time. Skip counting by 2s is adding 2, skip counting by 5s is adding 5, and so on. When students see a sequence of skip-counted numbers, encourage them to look for a pattern in the numbers and see that each number is X more than the number before it.

**SKIP COUNTING**

Students should already be familiar with counting to 100 by 10s, although they may not have called it skip counting. In this lesson, students learn to skip count by 2s, 5s, 10s, and 100s. It is important that students understand that when you skip count, you have to count equal groups. For example, to skip count by 10s, you have to count groups that all contain 10 items. When they learn about skip counting by 10s and 100s, encourage students to look for patterns in how the tens and hundreds digits change and how the other digits do not.

Understanding skip counting will help students later as they learn about repeated addition and multiplication.

**TEACHER TIPS**

Visual representations can help students as they learn to skip count. Counting physical objects or drawings of objects in groups of 2, 5, 10, or 100 can help students realize why skip counting is important: it can help you count much faster. It also reinforces the concept of equal groups. Also, number lines and hundreds charts can help students who are struggling with skip counting. As students become more confident, they can stop using these tools and count on their own.