

Overview Week 3

Number Lines



Overview:

To explore number to 10 using a number line.

Number Line Features:

Number lines show the sequence of numbers and where they sit in relation to each other. Unlike ten frames, which show the actual number of objects, number lines focus on order.

Number lines help students to find the number before and after easily, and they are an efficient way of teaching the difference between two close numbers as students can easily see the number of hops between the two numbers.

How to use a number line:

- Have your students point to the number on the line as they read out the number. This establishes one to one correspondence.
- Make sure the students are pointing to the actual number marker, not the space.
- Students must hop their finger along the line, not slide it along. It is the act of moving one space that corresponds to the number counted. Seven is 7 hops from zero. It is one hop on from 6 and so on.
- Counting practice should involve starting at points other than zero or 10 (for counting back). Count forward from 2, 6 etc. Count back from 9 and so on.
- Once familiar with counting in ones, try counting in 2s (skip counting). It is easiest to have students say the first number loudly, then the next softly, then the next loudly.

"Six, seven, eight, nine, ten." Once this is well established, then hop 2 spaces in one go.

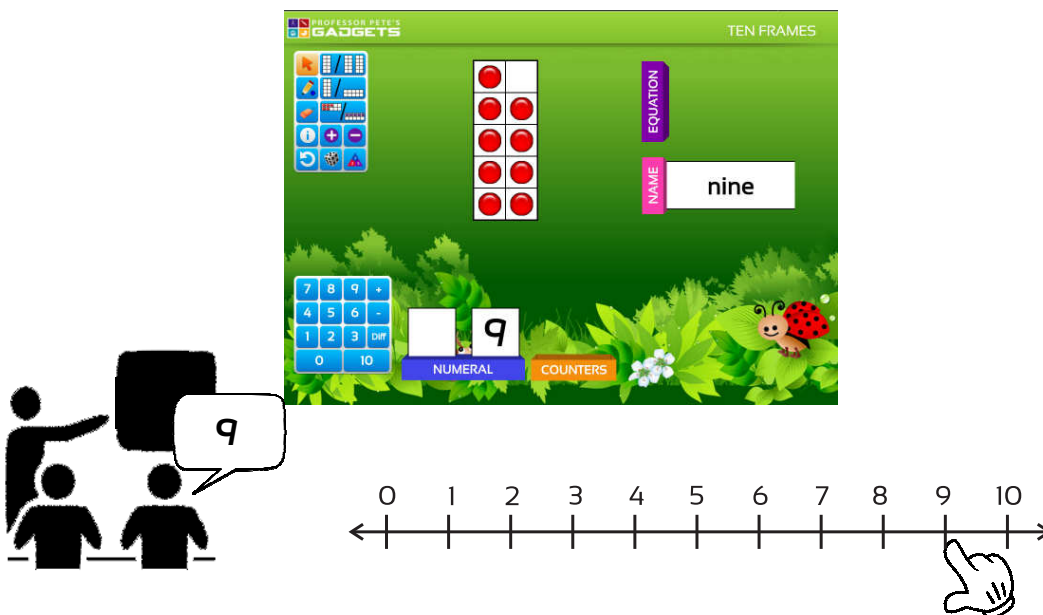
What students should not do:

- Don't let your students point to numbers at a different pace to that being counted. There is no benefit in students reading "six" when they are pointing to 7 or 5. In fact it is counter productive.
- Don't let your students count pointing to the space.
- Don't let your students finger cover the line or the number. This blocks out the very information that you want your students to learn. For this reason the number line used should have the numbers above the line, not beneath it.

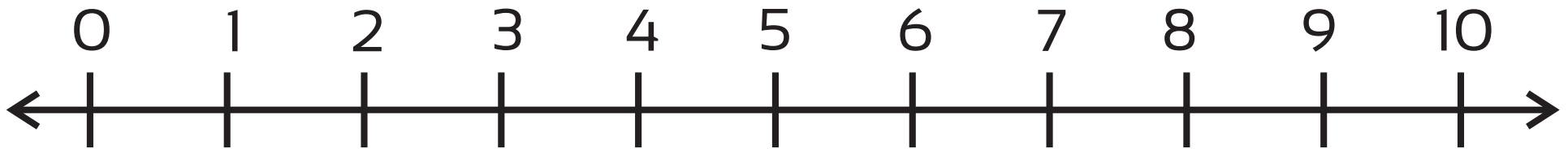
- When counting on a number of hops from 7, make sure the students count “one” only after hopping one space from the 7. Many students want to count “one” as they place their finger on 7. Say to them. “Wait! You haven’t gone anywhere yet. Now point to 7 again. Start on the 7 and hop one... two..”
- Once students are very familiar with counting on a number line with numbers on it, try them counting on a number line with the numbers. This makes the student visualize the numbers counted.

Using a number line with the Ten Frames Gadget:

- As number lines do not show the size of numbers, it is important to always revise the ten frames prior to or along with any number line work.
- Print off the number lines, laminate and give each student their own line to touch and count on along with ten counters that are all the same shade.
- The Ten Frames Gadget should be used regularly throughout this week. Use the Ten Frames Gadget as flash cards would be used. Flash the number, on screen, and have the students say or write the number. This daily recognition is important for students to become fluent in subitizing the numbers.
- Ten frame use reminds students of the size of the numbers that they are seeing on the number line.



Template Instructions: Print and laminate. Practice counting forwards and backwards daily with students making sure they point to each number as they count. Don't let students race ahead. Stop and start at different points on the number line and find the numbers before and after.

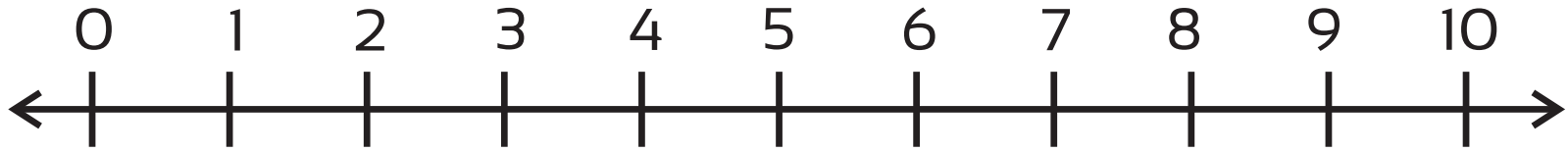


Template Instructions: Print and laminate. Practice counting forwards and backwards. Stop at various points and ask students what the number of that point is. Ask if they can find the number before and after a given number.



Template Instructions: Print and practice counting to and from 10.

Count forward and back on the number line, pointing to each number as you go.



Count on this number line silently, in your head. Stop and ask what number is here?



Template Instructions: Draw or write in a number and have students complete it.

Circle the number after these numbers; draw the arrow to show the hop.

Circle the number _____



Circle the number _____



Circle the number _____



The number 1 after _____ is

The number 2 after _____ is

The number 1 before _____ is

The number 2 before _____ is

Template Instructions: Choose whether to count on or back 1 or 2, then write in a starting number and have students complete it.

Circle the number that is _____ (1 or 2 after or before)

Start at _____



Start at _____



Start at _____



Start at _____



Start at _____



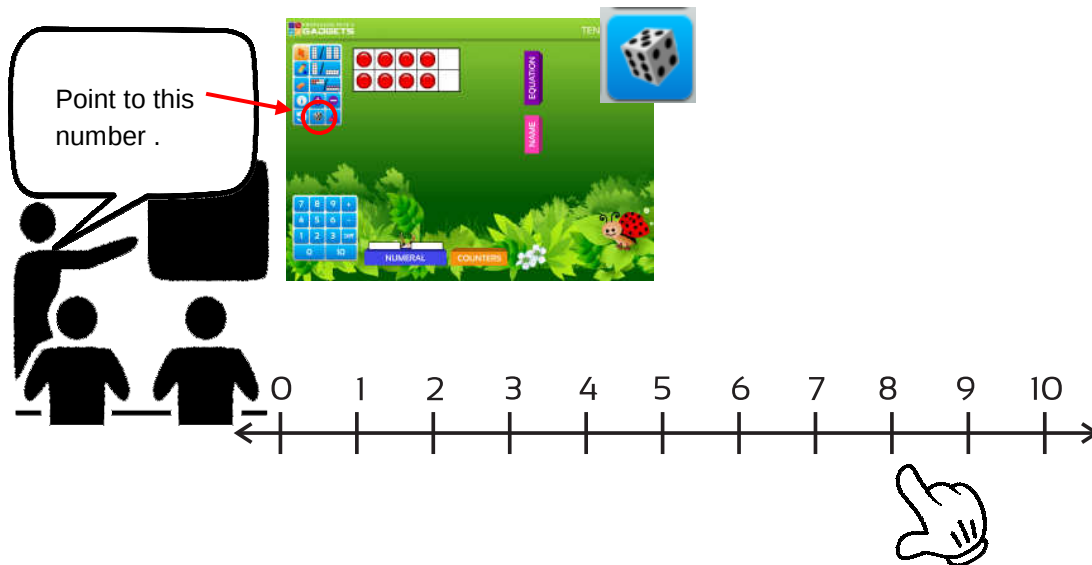
Lesson 3A

Hand out printed and laminated number lines to each student.

Show students how to count correctly on a number line. (Refer to notes at the beginning of this week.)

Once students have been able to count correctly on the number line, then begin identifying individual numbers on the line. Close the NUMERAL, EQUATION and NAME boxes. Ask the students to point to this number on the number line.

Use the random dice button to repeat this activity. Change the arrangement from pairs to rows.



- Complete some of the worksheet activities. Remember you do not need to do all the activities but choose the best ones most suitable for your students. Alternatively you could use the extra worksheets for early finishers.

Count forward and back on the number line, pointing to each number as you go.



Write the numbers on this number line.



Fill in the missing numbers on these number lines.



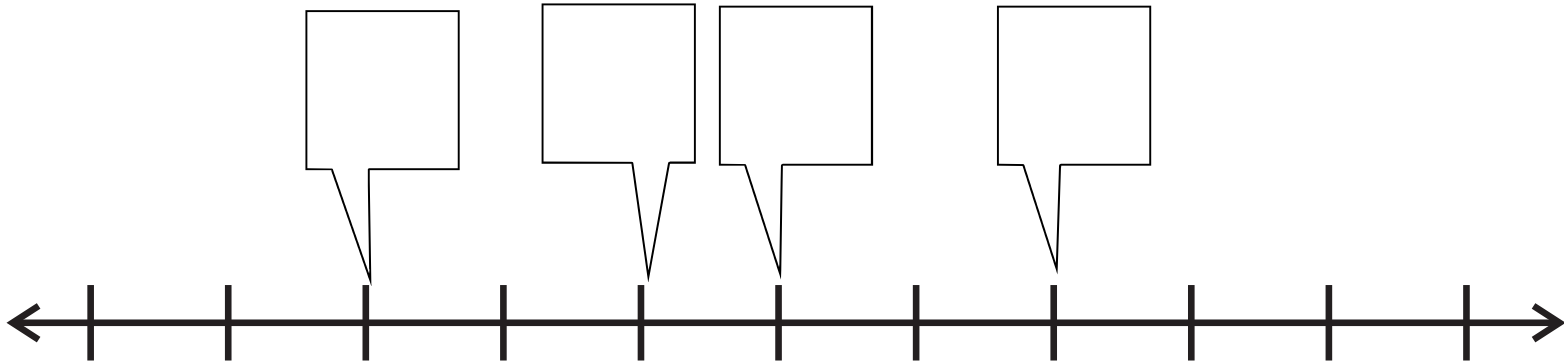
Fill in the numbers in the boxes.



Fill in the missing numbers on these number lines.



Fill in the numbers in the boxes.



Lesson 3B and C

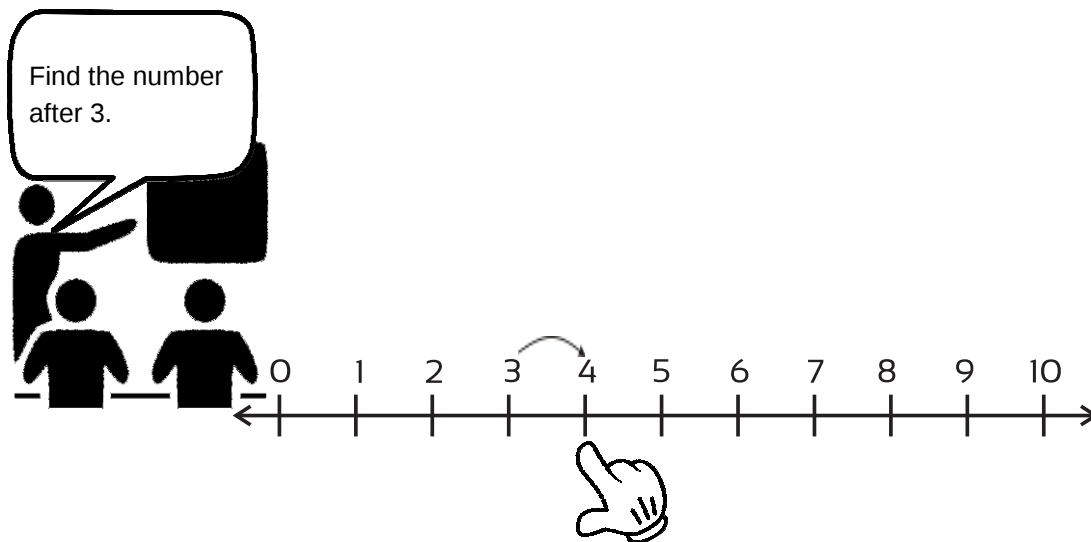
Remember to revise the recognition of the numbers on the ten frame daily before or after using the number lines.

The number after and the number before, are easy to identify on a number line.

Ensure students move their fingers in the correct direction.

Start with number after then switch to numbers before.

Complete a large number of numbers after and numbers before questions before doing any written worksheets.



- **Worksheet activities:** Complete only some of them. Remember you do not need to do all the activities but choose the best ones most suitable for your students. Alternatively you could use the extra worksheets for early finishers.



Circle the number after these numbers; draw the arrow to show the hop.

Circle the number after 7



Circle the number after 5



Circle the number after 8



The number after 4 is

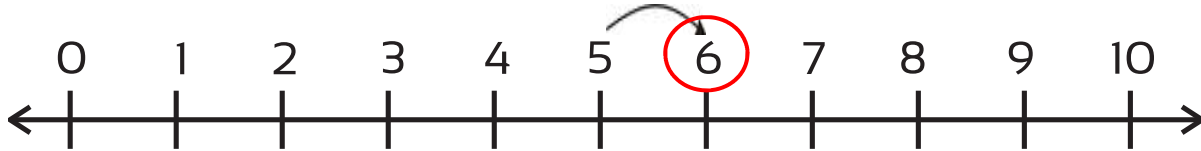
The number after 6 is

The number after 2 is

The number after 3 is

Circle the number after these numbers; draw the arrow to show the hop.

Circle the number after 5



Circle the number after 9



Circle the number after 2



Circle the number after 0



Circle the number after 8





Use the number line to help you find the number after.



The number after 2 is

The number after 9 is

The number after 5 is

The number after 0 is

The number after 7 is

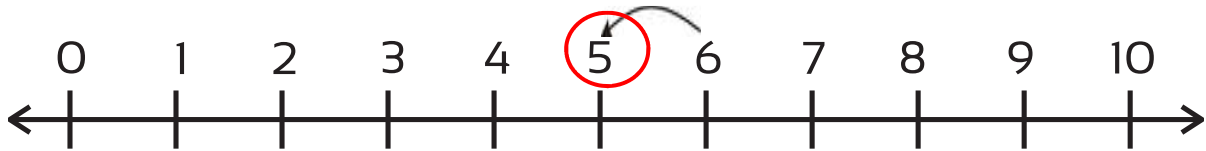
The number after 3 is

The number after 8 is



Circle the number one before these numbers; draw the arrow.

Circle the number one before 6



Circle the number one before 9



Circle the number one before 4



One before 8 is

One before 6 is

One before 2 is

One before 3 is



Use the number line to help you find the number after and the number before.



The number after 9 is

The number after 5 is

The number after 8 is

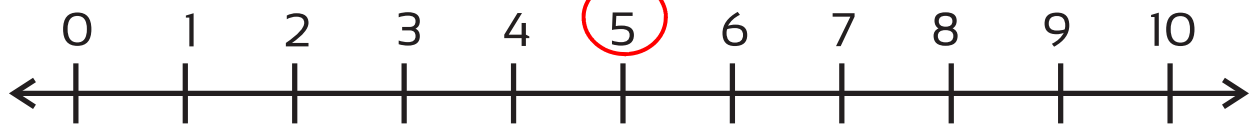
The number after 6 is

is the number before 5

is the number before 8

is the number before 3

Circle the number after 4 Write it



Circle the number after 8 Write it



The number after 5 is

The number after 3 is

Circle the number before 7 Write it



Circle the number before 10 Write it



is the number before 8



Use the number line to help you find the number after and the number before.



The number after 7 is

The number after 4 is

The number after 9 is

The number after 0 is

is the number before 6

is the number before 9

is the number before 1



Use the number line to help you find the number after and the number before.



The number after 9 is

The number after 2 is

The number after 0 is

The number after 5 is

is the number before 1

is the number before 7

is the number before 6



Try these without the number line. Count on 1.

The number after 9 is

The number after 3 is

The number after 10 is

The number after 8 is

Count back 1.

is the number before 7

is the number before 10

is the number before 4

is the number before 2

Lesson 3D and E

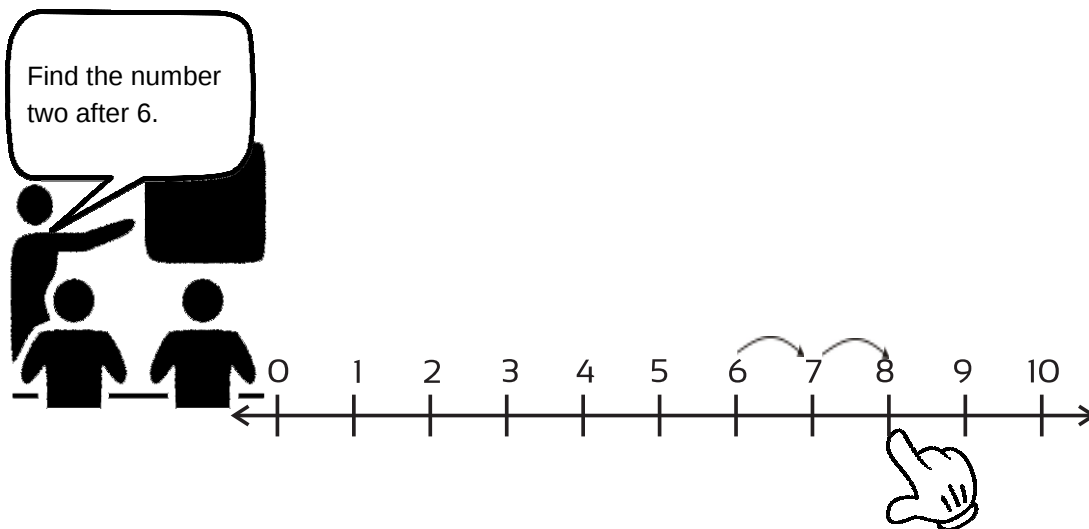
Remember to revise the recognition of the numbers on the ten frame daily before or after using the number lines.

The number 2 after and the number 2 before, require a little more care but is still quite easy on a number line.

Ensure that students do not count back “one” without hopping their finger one space. Remember they are counting the hops, not the lines.

Start with number after then switch to numbers before.

Complete a large number of numbers 2 after and numbers 2 before questions before doing any written worksheets.



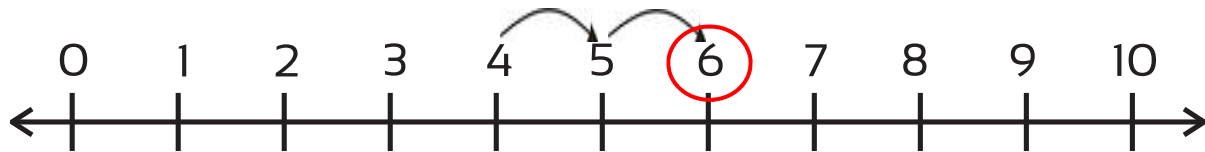
- **Worksheet activities:** Complete only some of them. Remember you do not need to do all the activities but choose the best ones most suitable for your students. Alternatively you could use the extra worksheets for early finishers.



Circle the number 2 after these numbers.

Draw the 2 arrows to skip count.

Start at 4



Start at 6



Start at 8



Start at 5



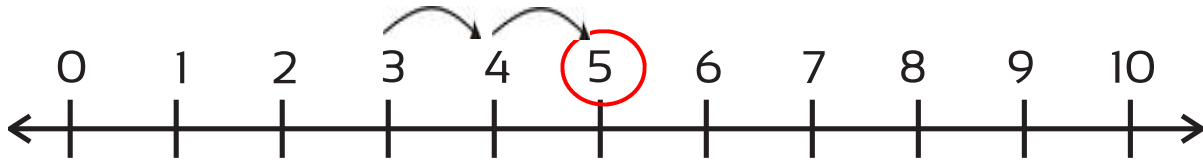
Start at 7





Circle the number 2 after these numbers; draw the arrows to skip count.

Start at 3



Start at 6



Start at 8



Start at 5



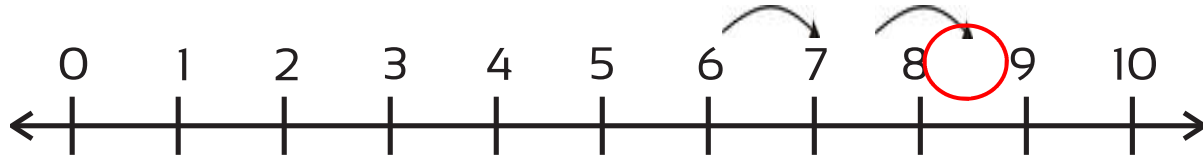
Start at 2





Circle the number 2 after these numbers; draw the arrows to skip count.

Start at 6



Start at 3



Start at 7



Start at 4



Start at 0





Use the number line to help you find the number two hops after.



Two after 4 is

Two after 8 is

Two after 7 is

Two after 5 is

Two after 6 is

Two after 3 is

Two after 1 is



Use the number line to help you find the numbers 2 after and the numbers 2 before. Count on 2 or count back 2.



The number 2 after 7 is

The number 2 after 4 is

The number 2 after 5 is

The number 2 after 0 is

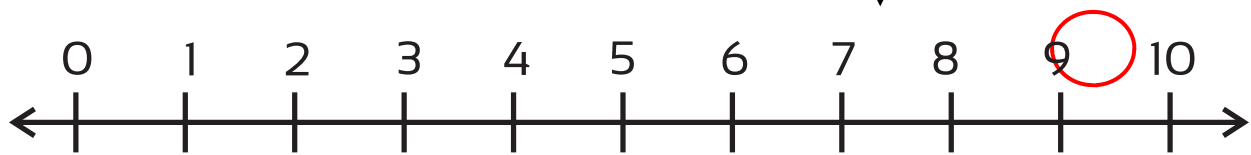
is the number 2 before 10

is the number 2 before 8

is the number 2 before 6



Circle the number that comes 2 after 7



Circle the number that comes 2 after 6



The number 2 after 6 is

The number 2 after 4 is

Circle the that comes 2 before 10



Circle the that comes 2 before 6



is the number 2 before 5



Use the number line to help you find the numbers 2 after and the numbers 2 before.



The number 2 after 3 is

The number 2 after 0 is

The number 2 after 7 is

The number 2 after 4 is

is the number 2 before 8

is the number 2 before 2

is the number 2 before 9



Use the number line to help you find the numbers 2 after and the numbers 2 before.



The number 2 after 2 is

The number 2 after 7 is

The number 2 after 5 is

The number 2 after 8 is

is the number 2 before 7

is the number 2 before 5

is the number 2 before 3