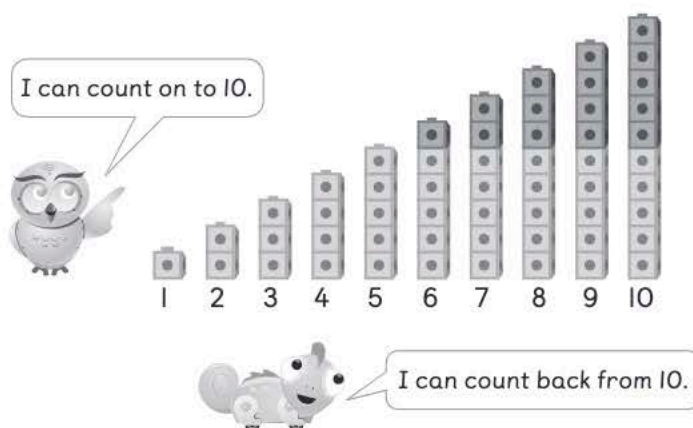


Chapter 1 NUMBERS TO 10

Chapter Overview

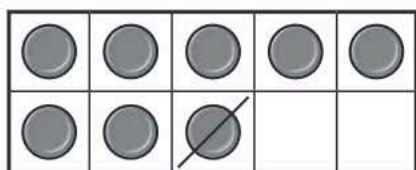
In this chapter, your student's foundational knowledge of counting and ordering numbers to 5 from kindergarten will be extended to understanding numbers up to 10. Your student will:

- learn to **count on to 10 and count back within 10** with the help of manipulatives such as connecting cubes.



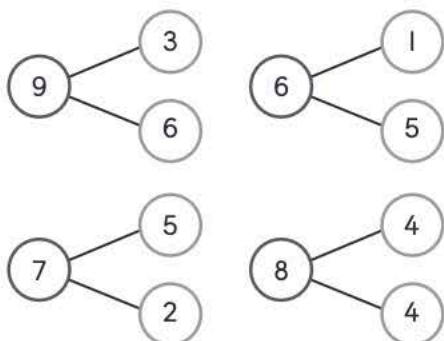
- compare groups of objects** and the numbers that represent those groups by tagging one object to another or by counting the total number of objects in each group.
- find 1 more and 1 less** than a given number with the help of visual models with as counters on ten frames.

What number is 1 less than 8?



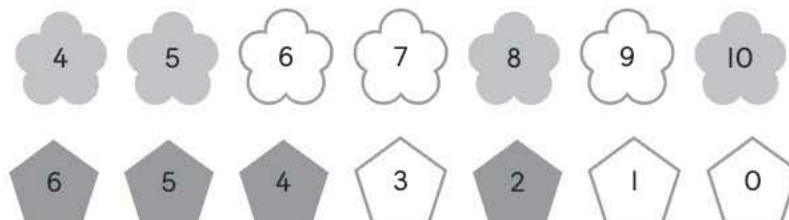
7 is 1 less than 8.

- put pairs of numbers together** to make another number, or **decompose a given number** into two smaller numbers, with the help of concrete manipulatives and visual models such as connecting cubes and number bonds.

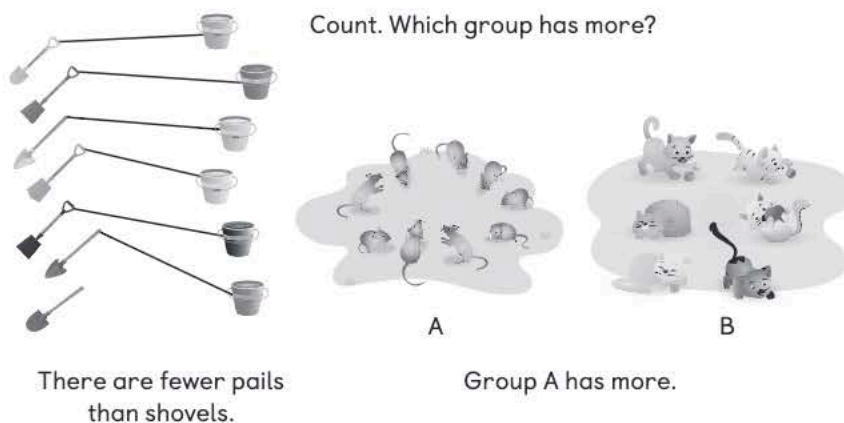


Key Ideas

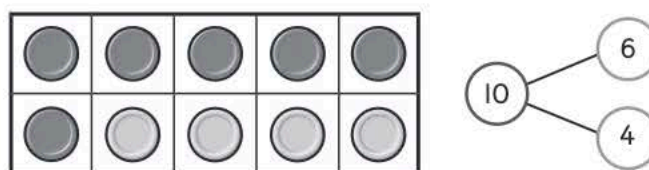
- We can count on to 10 and count back within 10.



- We can compare by matching or by counting objects in each group.



- We can compose numbers into wholes and decompose them into parts.



Materials You Will Need

- 1 set of connecting cubes
- 1 set of counters
- Ten Frame (TR01)
- Number Cards (0 to 10) (TR02)
- Number Tape (1 to 10) (TR03)
- Number Bonds (TR04)

2B Ways to Add (3)

Learning Objective(s)

- Determine if equations involving addition are true or false.

Vocabulary

- true
- false

Material(s)

- 1 set of connecting cubes (two colors) (optional)
- 20 counters (two colors)
- 1 copy of Ten Frame (TR01)
- 1 set of Number Cards (TR02) (optional)
- 1 copy of Number Bonds (TR04)

TRUE OR FALSE EQUATIONS (Student Book, pages 63 to 66)

Lesson Opener

Task (Student Book, page 63)

Show your student the **Lesson Opener** and cover the rest of the page. Discuss the question with your student. Do not show your student how to do the task and allow time for observation.

Refer your student to **Learn** in the Student Book for reflection after your student has explored the concepts. Use questions to build understanding and direct instruction to refine understanding.


Lesson Development

Learn (Student Book, pages 63 and 64)

Show only the first question (Is $5 + 3 = 7$ true?) and read it with your student. Hide the rest of the **Learn** on page 63 of the Student Book.

-  **How can we prove if this is true or not true? What are some ways we know to add?**


Allow your student to use any way he/she has learned so far to add. This might include counting on or modeling with counters on Ten Frame (TR01) or Number Bonds (TR04). You may wish to ask these questions:

-  **How many cats does Joseph say there are? 7 How many do you say there are? 8 Is Joseph's addition equation true? no How do you know? Is 5 plus 3 equal to 7? no**

After your student decides that the addition equation is not true, ask:

-  **What do we say when something is not true?**



Focus Question

-  **How do you know if an addition equation is true or false?**

Invite your student to ponder this question as you go through the lesson. Revisit this question when you reach the end of the lesson to check his/her understanding.

Teaching Tip

Subitization is the visual ability to recognize, at a glance, the number of items in a group. Students have varying levels of ability at subitization. They are usually able to recognize smaller quantities before greater ones. Check your student's ability to subitize by covering the group of cats on the left and asking your student how many cats there are in the group on the right. It is best that your student can instantly recognize that there are 3 cats in that group. Next, cover the group of 3 cats and see if your student can recognize that there are 5 cats in the other group without counting each of them individually. This is why it is important for students to organize the numbers within 10 against a ten frame. Doing so helps students immediately know how many are in the group without counting. The foundation for this was laid in kindergarten with dot patterns. You can extend and deepen this ability by playing games such as dominoes. If your student struggles with subitizing, he/she will benefit from an increased use of the ten frame. You may wish to ask these questions to guide thinking:

-  **Can you tell how many there are just by looking? How do you know?**
-  **Is there an easy way to find out without counting? How might you do that?**

Learn Answers

(Student Book, pages 63 and 64)

6; 6

Rubric

(Student Book, page 70)

Use the scoring guide to help you give feedback on your student’s work.
Use the comments section to provide information about what was done well and what could be improved. Write words of encouragement to let your student know what he/she has done well.

Scoring Rubric		
	Description	Point(s)
(a)	Your student: <ul style="list-style-type: none">correctly shows the addition equation of 4 and 2. ($4 + 2$; $2 + 4$)gives the correct answer. (6)	0.5
		0.5
(b)	Your student: <ul style="list-style-type: none">correctly states that 4 is greater than 2.gives the correct answer. (There are more children.)	0.5
		0.5
(c)	Your student: <ul style="list-style-type: none">finds the number of adults in all by writing an addition equation. ($2 + 2 = 4$)finds the number of children in all by writing an addition equation $4 + 1 = 5$ or its variant.concludes that there are more children than adults by identifying that 5 is greater than 4.	1
		1
		1
(d)	Your student: <ul style="list-style-type: none">correctly draws on the illustration.concludes that everyone cannot take the ride together.	2
		1
	Total	8

Use this table as a guide to help you relate your student’s scores to his/her performance levels.


Level	Score
	7-8
	2.5-6.5
	0-2

Learn Together (Student Book, page 80)


In this section, your student will learn to make a subtraction equation given a story, and tell a subtraction story given an equation. Your student will also learn that subtraction equations can be written with the whole before or after the equals sign.

Allow your student time to observe each picture before proceeding with the problems. Read the instructions to your student and have him/her complete the problems.

- **QUESTION 1** requires your student to complete a subtraction equation for a given subtraction story.

 **What do you notice about this picture? What is happening? How can you make a subtraction equation from the picture that describes what is happening? What does the mascot mean? We start with the whole and take away a part. How do you write an equation that reflects what the mascot is saying? How can you check if your subtraction equation is correct? I can model or draw it to prove my thinking.**

- **QUESTION 2** requires your student to tell a subtraction story for a “take from” situation.

 **What is the boy doing? taking balls from the shelf How many balls are there in all? 6 How many is the boy taking? 2**

You may wish to have your student summarize his/her learning in a math journal. Have your student tell a subtraction story for a “take from” situation and explain everything he/she knows about it using a subtraction equation.

Activity! (Student Book, page 81)

The purpose of this activity is to have your student create scenarios from which he/she can tell subtraction stories.

You are not limited to using connecting cubes for this activity. You may use whatever item that will engage your student and help him/her practice telling and solving subtraction stories.

For Additional Support

To reinforce the concept of telling subtraction stories in the **Activity!**, you may wish to modify the game on page 84:

- Invite your student to make up a number story each time he/she says the number of cubes hidden under the cup correctly. Writing a correct equation earns your student an extra point.
- Invite your student to write the subtraction equation in two different ways. Example: $7 - 2 = 5$; $5 = 7 - 2$
- Do this once a day until your student is fluent in the process. You may wish to add slips of paper with names on them and various favorite objects, so that your student can make funny problems. Example: I had 7 pizzas and gave 2 to the Hulk. Now I have 5 pizzas.

Learn Together Answers


(Student Book, page 80)

1. 3; 3
2. Answers vary. Example:
There are 6 balls. Ayden takes 2 balls from the shelf. There are 4 balls left on the shelf.

Digging Deeper

For the **Activity!**, take turns telling subtraction stories with your student. Help your student practice stating the part being removed before stating the whole, as in the raccoon’s speech bubble on page 79 of the Student Book. For example, say, “I am taking 1 cube from 4 cubes and I have 3 cubes left.” Have your student use Number Cards (TR02) and symbols on a whiteboard to build subtraction equations that match your stories. Then trade places. This will solidify the concept that the whole must come first in a subtraction equation, and give your student ample practice for accomplishing **Practice On Your Own** independently.

You may wish to ask these questions to guide thinking:

 **How can you tell what the whole is? It is the greater number. How can you tell what the part is? It is the lesser number. Can you ever take a whole from a part? no In what ways is subtraction different from addition? The order of the numbers in a subtraction equation matters.**

Practice On Your Own (Student Book, page 86)

- **QUESTION 1** assesses your student's ability to tell a subtraction story and write a subtraction equation.
- **QUESTION 2** assesses your student's ability to complete a subtraction story and write a subtraction equation in two ways.

For Additional Support

If your student needs additional support when attempting the **Practice On Your Own**, he/she should be supported to draw different representations of the numbers used. He/she must be able to identify the whole, whether on a number bond, on a ten frame, or in a problem. Once he/she is able to identify the whole, decomposing it to find the parts becomes a little easier. Here are some questions to ask to help guide thinking:

🗣️ **How can we identify the whole in a problem?** *look for the greater number* **How do we know which number bond for the whole do we use to break apart the whole?** *If we know one of the parts, we can determine the number bond for that number.* **How does drawing the problem help us solve it?** *It helps us see the whole and the parts.*

More Resources

- Refer to **Do More at Home** below and **Reteach 1, Exercise 3A (2)** if your student needs additional support.
- When your student is ready, have him/her work on **Additional Practice 1A, Exercise 3A (2)**.
- To provide your student with a challenge, have him/her work on **Extension 1, Exercise 3A (2)**.
- You may also assign **Mastery and Beyond 1A, Chapter 3, Practice 1** to provide further support and development to sustain learning.

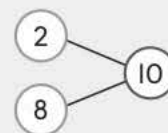
Do More at Home

If your student does not have a strong foundation in writing subtraction stories and representing them with number bonds and subtraction equations, you may wish to use the following activity to help bridge the gap:

- Place a stack of Number Cards (TR02) face down on the table. Choose one card, but don't show it to your student.
- Give clues for the number in the form of a problem, for example:
🗣️ **If you take 3 from me, you are left with 2, but if you take me from 9, you will have 4. What number am I?** 5

Practice On Your Own Answers (Student Book, page 86)

1. 10; 2; $10 - 2 = 8$; 8;



2. (a) 6; 3; 3
(b) $6 - 3 = 3$; $3 = 6 - 3$

Caution

In Question 2(b), reversing the subtraction equation might be difficult for your student. You may wish to prompt self-discovery by pointing to Question 1 of **Practice On Your Own** and asking the following questions:

🗣️ **I see you wrote 10 minus 2 is the same as 8. What is 8 the same as? Can I write the equation in a different way, with the part first? Would it still make sense if I put the 8 first? 8 equals what?**

4B Compare and Order Numbers

Learning Objective(s)

- Compare and order numbers within 20.

Vocabulary

- least
- greatest

Material(s)

- Index cards (optional)
- 1 base-ten set (optional)
- 40 counters
- 1 set of Ten Frame Cards With Numbers (TR11)
- 1 set of Ten Frame Cards (TR12) (optional)
- 1 set of Number Cards (0 to 20) (TR02 and TR13)

COMPARE AND ORDER NUMBERS WITHIN 20

(Student Book, pages 119 to 124)

Lesson Opener

Task (Student Book, page 119)

Show your student the **Lesson Opener** and cover the rest of the page. Discuss the question with your student. Do not show your student how to do the task and allow him/her to explore and discover which box has more fruit tarts.

Refer your student to **Learn** in the Student Book for reflection after your student has explored the concepts. Use questions to build understanding and direct instruction to refine understanding.

Lesson Development

Learn (Student Book, page 119)

Provide your student with Ten Frame Cards With Numbers (TR11) for the numbers 17 and 15. Invite your student to compare the numbers and determine which is greater.

You may wish to ask these questions to help guide thinking:

- **How are these numbers the same?** Both have a 10. **How are they different?** 17 has more counters in the second ten frame. **Is there a way to tell which is the greater number just by looking?** Yes, I can see that 15 has no counters in the bottom row of the second ten frame, so 15 must be less, and 17 must be greater. **Which number is less?** 15 **How do you know that?** 15 has 2 fewer counters than 17 in the second ten frame.

Focus Question

How do you compare numbers within 20?

Invite your student to ponder this question as you go through the lesson. Revisit this question when you reach the end of the lesson to check his/her understanding.