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Chapter

Chapter Overview

Numbers to 10

Math Background

As children begin their formal math education, they use numbers in their cardinal sense to tell how many. In this chapter, children will learn how to count, read, and write within 10. Countable items are used to develop the association between the physical representation of the number, the number symbol, and the number word. As they learn to say each number name, children must also learn to account for each item in a collection.

In learning to represent and use numbers in different contexts, children will encounter number relationships. They are shown different representations of sets with the same number of items while using the word same to describe the sets. These sets are modified using different numbers of items. Children are encouraged to compare and verbally describe the sets using the terms more and fewer. In preparation for skills needed in computation, children will be taught to recognize relationships between numbers, such as 1 more or 1 less, without the concrete representations. Children need to understand the sequential order of the counting numbers and their relative magnitudes. Hence, they will learn to count on and back by ones from any number within 10, using their understanding that each number in a given sequence is 1 more or 1 less than the number before.

Cross-Curricular Connections

Language: Reading Put children in groups of two or three, and assign each group a number 1 through 10. Have groups draw a picture and write a sentence for their number, for example, *The spider has* 8 long legs. After each group presents their work to the class, collect the drawings. Put them together to make a class counting book.

Science and Technology Tell children that scientists have found that many animals can count, including mammals, birds, reptiles, fish, and insects. Some species are quite good at counting; for example, cuttlefish can count to 5, and some frogs can count as high as 10. Bees can even understand the concept of 0. Have children discuss how the ability to count might help animals live and grow.

Indigenous Connections

You can introduce Lesson 1 using **Indigenous Connection: Make a Counting Book** to count and model numbers to 10.

Gather children for a shared reading opportunity. Read a counting book written by an Indigenous author, such as *Learn to Count with Northwest Coast Native Art, Counting Wild Bears of the Native Northwest Coast,* or *Discovering Numbers.* Draw children's attention to the visuals. **Ask:** Why do you think the author used pictures of [animals]? How many [animals] are in this picture? Have children count or subitize to answer. Then **ask:** What number comes next?

Ask if any children can count to 10 in another language. Have a few children share with the class. Then model counting in a local Indigenous language. You might invite an Elder or a Knowledge Keeper to teach children how to count in an Indigenous language. Repeat the numbers until children can say them. Then reread the counting book, this time with children saying the numbers they learned.

Have children create their own counting book using objects they find outdoors in their local environment.

Skills Trace

Grade K	 Use, read, represent, and compare whole numbers to 10.
Grade 1	 Count forward to 100 and backward from 20. Represent and compare whole numbers to 50. Read and print whole numbers to ten in words.
Grade 2	 Count forward to 200 and backward from 50. Represent and compare whole numbers to 100. Read and print whole numbers to twenty in words.

Differentiating Instruction				
	English-Language Learners	Extra Support Reteach 1A	At Level Online Workbook 1A	Extension Enrichment 1A
Lesson 1	p. 5	Worksheet 1	Practice 1	
Lesson 2	p. 14	Worksheet 2	Practice 2	Chapter 1
Lesson 3	p. 28	Worksheet 3	Practice 3	

Additional Support

For English-Language Learners

Select activities that reinforce the chapter vocabulary and the connections among these words, such as having children

- create a Word Wall that includes terms, definitions, and examples
- create and practise with flash cards that have number words on one side and the number on the other
- · draw and label pictures with terms they represent
- discuss the Chapter Wrap Up, encouraging children to use the chapter vocabulary

For Extra Support

Select activities that go back to the appropriate stage of the Concrete–Pictorial–Abstract spectrum, such as having children

- act out number words and comparison terms
- use manipulatives to model counting on and back
- identify and tell about classroom objects that represent and compare numbers
- · draw pictures to illustrate number words

See also page 8–9.

Chapter 1 Assessment

Prior Knowledge			
	Resource	Page Numbers	
Quick Check	Student Book 1A	р. З	
Formative Asses	sment		
Guided Learning	Student Book 1A	pp. 7–9, 15–16, 17–18, 21–22, 23, 24, 25, 26, 27	
Misconceptions	Teacher's Resource 1A	рр. 12, 20, 28	
Math Journal	Student Book 1A	р. 29	
Game	Student Book 1A	p. 11	
Game	Enrichment 1A	Chapter 1	
Summative Asse	essment		
Chapter Review/Test	Online Workbook 1A	Chapter 1	

Additional Assessment Resources

	Math Pre-assessments 1	Math Exit Tickets, Grade 1
Number		
Counting	Counting How Many?	Rote Counting Backward How Many? (Question 1)
Place Value and Representing Numbers	Showing Numbers Number Parts More or Fewer?	Numbers to 10 Number Parts (1) More or Fewer? (Questions 1 and 2) Number 5 and Number 10

Problems with ...

Can be remediated with ...

Remediation Options	Review/Test Questions	Reteach	Student Book
Goal	Online Workbook 1A	Reteach 1A	Student Book 1A
Use chapter vocabulary correctly.	1–9	Worksheet 1	pp. 4, 13, 21
Count from 0 to 10 objects.	5–9	Worksheet 1	Lesson 1
Read and write 0 to 10 in numbers and words.	5–9	Worksheet 1	Lesson 1
Compare the number of objects in 2 sets of objects by using one-to-one correspondence.	7–9	Worksheet 2	Lesson 2
Identify the set that has more, fewer, or the same number of objects.	7–9	Worksheet 2	Lesson 2
Identify the number that is greater than or less than another number.	10–11, 13–14	Worksheet 2	Lesson 2
Count on and count back.	12	Worksheet 3	Lesson 3
Relate numbers to 5 and 10.	13–14	Practice 3	Lesson 3

Chapter Planning Guide

Chapter

Numbers to 10

Lesson	Pacing	Goals	Vocabulary	Resources
Chapter Opener pp. 1–3 Recall Prior Knowledge Quick Check	*1 day	Big Idea Numbers tell how many. Counting is used to find out and compare how many.		Student Book 1A, pp. 1–3
Lesson 1, pp. 4–12 Counting to 10	2 days	 Count from 0 to 10 objects. Read and write 0 to 10 in numbers and words. 	 zero six one seven two eight three nine four ten five 	Student Book 1A, pp. 4–12 Online Workbook 1A, Practice 1 Reteach 1A, Worksheet 1
Lesson 2, pp. 13–20 Comparing Numbers	2 days	 Compare two sets of objects by using one-to-one correspondence. Identify the set that has more, fewer, or the same number of objects. Identify the number that is greater than or less than another number. 	• same • more • fewer • greater than • less than	Student Book 1A, pp. 13–20 Online Workbook 1A, Practice 2 Reteach 1A, Worksheet 2
Lesson 3, pp. 21–28 Counting On and Back	1 day	• Count on and count back. • Relate numbers to 5 and 10.	• more than • less than	Student Book 1A, pp. 21–28 Online Workbook 1A, Practice 3 Reteach 1A, Worksheet 3
Problem Solving p. 29 Put on Your Thinking Cap!	1 day	Math Processes • Reasoning and Proving • Connecting • Problem Solving Problem-Solving Strategies • Make a Table • Look for Patterns		Student Book 1A, p. 29 Online Workbook 1A, Put on Your Thinking Cap! Enrichment 1A, Chapter 1
Chapter Wrap Up p. 30	1 day	• Reinforce and consolidate chapter skills and concepts.		Student Book 1A, p. 30 Online Workbook 1A, Chapter Review/Test

*Assume that 1 day is a 60-minute period.

Materials

- 10 linking cubes per child
- 10 counters per child
- 1 Ten-Frame per child (TRO1)
- 15 linking cubes per child
- 10 counters per child
- 2 Horizontal Ten-Frames per child (TRO1)
- 1 set of Shoes and Socks Cutout per child (TRO2)
- scissors
- paste, glue sticks, or sticky tack
- 10 linking cubes per child
- 10 counters per child
- 1 Ten-Frame per child (TRO1)

Online Teaching Centre

- Selected Student Book pages*
- Teacher's Resource
- Indigenous Connections
- Blackline Masters
- Problem of the Lesson
- Online Workbook and Answers
- Reteach and Answers
- Enrichment and Answers
- Virtual Manipulatives
- Games

*These pages have been identified for projection or reproduction purposes.

Chapter Introduction

Numbers to 10

Lesson 1	Counting to 10		
Lesson 2	Comparing Numbers		
Lesson 3	Counting On and Back		

Vocabulary

Chapter

zero	0	Lesson 1
one	1	Lesson 1
two	2	Lesson 1
three	3	Lesson 1
four	4	Lesson 1
five	5	Lesson 1
six	6	Lesson 1
seven	7	Lesson 1
eight	8	Lesson 1
nine	9	Lesson 1
ten	10	Lesson 1
same	equal to	Lesson 2
more	4 eggs is <i>more</i> than 3 eggs	Lesson 2
fewer	3 eggs is <i>fewer</i> than 4 eggs	Lesson 2
greater than	4 is greater than 3	Lesson 2
less than	3 is less than 4	Lesson 2
more than	4 is 1 more than 3	Lesson 3

As you go through this chapter with children, you may choose to enhance your lesson by using the interactive tools in the Online Teaching Centre.

Chapter Numbers to 10 One, two, three, four, Hear the mighty ocean roar! Five, six, seven, eight, Time to play, so don't be late! What's next? Nine and ten. Let's start all over again! ODS Numbers tell how Lesson 1 Counting to 10 many. Counting is Lesson 2 Comparing Numbers used to find out and Lesson 3 Counting On and Back

Student Book 1A p. 1

compare how many

Big Idea (page 1)

Counting and comparing numbers to 10 are the main focus of this chapter.

- · Children use countable objects to develop the association between the physical representation of the number, the number symbol, and the number word.
- · Besides counting the objects in a set and creating a set with a given number of objects, children also differentiate between numbers of objects in sets, a skill that forms the basis for number comparison.
- They learn to recognize relationships between numbers, such as 1 more than and 1 less than.

Chapter Opener (page 1)

This picture shows 10 children. Children learned to count in Kindergarten. This page provides countable items for children to count. In this chapter, children will count and compare numbers of objects.

- Show children the picture without the poem. Ask: Where is this place? Show the picture with the poem. Read the poem aloud.
- · Reread the poem, asking children to read along with you. Ask: How many children are in the picture? (10) Count aloud and encourage children to count along with you.



• *Ask:* How many of the children are wearing a jacket? (10) Count aloud, and encourage children to count along with you. You may have to help children find the jacket worn by the boy tucked behind his friends. Have children recognize that each child is wearing a jacket.

Recall Prior Knowledge (page 2)

Counting

Children learned in Kindergarten to count objects in a small set.

- Have children count the objects in each set on the left of the page. *Ask:* How many objects are in each set? (1 toy motorcycle, 2 toy buses, 3 rubber ducks)
- Have children find a matching set on the right with the same number of objects.
- Help children to see that the number is the same in both sets in a matched pair.



Quick Check (page 3)

Use this section as a diagnostic tool to assess children's level of prerequisite knowledge before they progress to this chapter. The exercise on this page assesses counting and matching skills. Remind children not to write in the Student Book. You may want to have them match by tracing the lines with their fingers or by drawing lines on a surface where the page is projected.

Chapter 1

1 Counting to 10

LESSON OBJECTIVES

- Count from 0 to 10 objects, with and without the use of concrete materials.
- Demonstrate an understanding of conservation of number.
- Read and write 0 to 10 in numbers and words.
- Represent whole numbers to 10.

Vocabulary

zero	three	six	nine
one	four	seven	ten
two	five	eight	

DAY 1

DAY

9

Student Book 1A, pp. 4–9

MATERIALS

- 10 linking cubes per child
- 10 counters per child
- 1 Ten-Frame per child (TRO1)

Student Book 1A, pp. 10–12 Online Workbook 1A, Practice 1

DIFFERENTIATION RESOURCES

• Reteach 1A, Worksheet 1

5-minute Warm Up

Have children count their fingers on one hand along with you, from O to 5. Begin with a closed fist, and then the thumb. Repeat with the fingers on the other hand. This activity prepares them for counting objects.



Teach

LEARN Point with Your Finger and Count

(pages 4 and 5)

Explain that the index finger is often used to count objects in a set.

- Have children look at the pictures on the page and count the number of objects along with you, beginning from O. *Say:* O, zero things; 1, one bear; 2, two flowers; 3, three apples, ...
- After each count, repeat counting the same number as you place **linking cubes** on the **Ten-Frame** (TRO1) one at a time to model the diagrams on the page. You may also use the virtual ten-frame to represent numbers up to 10.
- Associate each numeral and number word with the actual number of cubes and the number of corresponding objects.
- Say a number from 1 to 10. Have children point to the corresponding number in the Student Book. Ask them to say aloud the number and the name of the object, for example, six paper clips. Then, count the cubes together on the ten-frame: 1, 2, 3, ..., 6.



Problem of the Lesson

Count the number of stars on the flag.



Answer: 6 stars

Differentiating Instruction

English-Language Learners

Children may have difficulty matching the numerals to the number words. Introduce each number with a picture. Count as you point to each object in the picture. Next, write and say the numeral. Finally, write and say the number word. Have children repeat this procedure with you as you point to the objects in the picture, then to the numeral, and finally to the number word.

Best Practices Many of the activities in this lesson and in other lessons in the chapter use counters, such as linking cubes. To minimize preparation time, you may wish to create packages of 10 counters before starting the chapter. Use plastic sandwich bags, and keep the packages in a convenient place. Children can quickly pick up a bag at the beginning of the math lesson.





Hands-On Activity:

Show a Number in a Ten-Frame, and Then

Count (page 6)

This activity helps children practise counting different numbers of linking cubes.

- This activity can be done in pairs. Each child in the pair will need 10 linking cubes and a copy of a Ten-Frame (TR01).
- Have children place the cubes on each picture of cubes on the page in Exercises 1 to 3. Remind children not to write in their books. You may want to have them say the answers out loud or write the answers on the board.
- In Exercises 4 and 5, have each child place 8 or 10 cubes on their ten-frames, count them, and then show their partners the filled ten-frames.

Check for Understanding Guided Learning (page 7)

Have children count the objects in the Example and say the number *two*. Guide them to say *two strawberries*. Ask children to write the number 2 in the air with their fingers.

1 to 4 Repeat the process of counting, saying the number word, and then writing the numeral in the air or on the board.

Best Practices An effective way to use the Guided Learning exercises is to have children work in pairs. Then have pairs share their ideas with the class. Children might also work on the exercises individually and share their work using whiteboards.



How many are there? Count. Write in numbers and in words.



Guided Learning (pages 8 and 9)

5 to **7** Use objects to help children practise counting back to 0. Hold three **linking cubes** in your hand. Ask children to count the number of cubes aloud.

- Remove one cube and have children count the remaining cubes. Repeat this until there are no cubes left. Reinforce the concept of O and the number word *zero*.
- Have children look at the Example on the page. Say: There are three bugs. One bug flies away. Look at Exercise (5). Ask: How many bugs are there now? Have children count and write the numeral 2 and the word *two*. Repeat for Exercises (6) and (7).

8 Have children count each of the items in the picture and write the number and word on the board or on a piece of paper. Check that children are able to count and write to complete the exercise.

For Extra Support Encourage children to count given types of objects around them. For example, have children count the number of chairs in each row in the classroom, or the number of lights in the classroom.





See the Lesson Organizer on page 4 for Day 2 resources.

Let's Explore

Show Numbers in Different Ways Using a Ten-Frame (page 10)

This exploration helps children see and handle different representations of the same number of objects in a set. This helps them understand and demonstrate the concept of the conservation of number—that the number of objects in a set remains the same even when the objects are rearranged. Encourage children to try different ways to show the same number on a ten-frame using different arrangements of the counters.

• Children may work in small groups. Each group will need 10 counters and a blank Ten-Frame (TR01).

Game:

Land on 10! (page 11)

This game provides practice with using fingers to count on from numbers between 1 and 10.

- Arrange children in groups of three. Explain the game to children.
- A child starts counting from 1. This child has to show the corresponding number of fingers while counting. They can only use one to three fingers for each turn. The rest of the children take turns counting on aloud from the number given by the previous child. Likewise they can only use one to three fingers in their turns. The aim is to be the first to reach 10.

Example:

Child A (starts): 1, 2 (using two fingers) Child B (counts on): 3, 4, 5 (using three fingers) Child C (counts on): 6, 7, 8 (using three fingers) Child A (counts on to win): 9, 10 (using two fingers)

• Offer the hint that a good strategy is to change the number of fingers used.



Let's Practise (page 12)

This practice reinforces locating and counting different types of objects within a mixed set. Exercises 1 and 2 require children to count two different types of objects, while Exercise 3 requires children to count three different types of objects. Have children say the number while you write the number on the board.

This Student Book page is available in the Online Teaching Centre for projection or reproduction purposes. This page is provided to help students record their answers more easily and efficiently.

Children can practise counting and reading and writing numbers in Practice 1 of **Online Workbook 1A**. These pages (with the answers) are available online. Misconceptions Children may not understand that the activity calls for counting the number of objects in different groups. In Exercise 1, children may count the pencils and erasers together to get 9. Direct their attention to the pictures on the right and explain that they have to count the pencils, then the erasers, and so on.

Differentiation Options Depending on children's success with the Online Workbook pages, use these materials as needed.

Extra Support: Reteach 1A, Worksheet 1

Chapter 1

Comparing Numbers

LESSON OBJECTIVES

- Compare whole numbers to 10, using concrete materials and pictures.
- Use one-to-one correspondence when counting and to compare sets.
- Compare the number of objects in sets using *more*, *fewer*, or *the same*.
- Model a number greater than, less than, or equal to a given number.

Vocabulary

same	fewer	less than
more	greater than	

Student Book 1A, pp. 13–17

MATERIALS

DAY

- 15 linking cubes per child
- 10 counters per child
- 2 Horizontal Ten-Frames per child (TRO2)
- 1 set of Shoes and Socks Cutouts per child (TRO2)
- scissors
- paste, glue sticks, or sticky tack

DAY 2 Student Book 1A, pp. 17–20 Online Workbook 1A, Practice 2

DIFFERENTIATION RESOURCES

• Reteach 1A, Worksheet 2

5-minute Warm Up

Have children work in pairs. One child draws a set with 1 to 10 objects. The other child draws a set that has a different number of objects. This activity prepares children for comparing sets using *more* or *fewer*.

2 Comparing Numbers

Goals

- Compare the number of objects in 2 sets of objects by using one-to-one correspondence.
- Identify the set that has more, fewer, or the same number of objects.
- fewer greater than less than

same

more

Vocabulary

• Identify the number that is greater than or less than another number.



1 Teach

LEARN Match and Compare (page 13)

Two sets of objects can be compared using one-to-one correspondence.

- Have six children volunteer to stand in front of the class. Hand one **counter** to each child. Have children count the volunteers and the counters. Help children see that each volunteer has a counter because the number of volunteers and the number of counters are the same.
- Have children look at the pictures in the Student Book. Guide children to see that the number of children and the number of apples are the same.
- Collect the counters from the volunteers. Then, have one more volunteer join the original group. Redistribute the counters. There will be one volunteer without a counter.
- Ask children whether every volunteer has a counter. Use the words *more than* and *fewer than* to describe the situation.
- Discuss the next example in the Student Book.



Hands-On Activity: Count and Compare Using Cutouts and

Ten-Frames (page 14)

This activity helps children match and compare the numbers of two different types of objects using the **Shoes and Socks Cutouts** (TRO2) and two **Horizontal Ten-Frames** (TRO2).

• Each child needs a set of Shoes and Socks Cutouts and two ten-frames. Have children cut out all the and solution.

Then guide children to paste all the 2 in one ten-frame

and all the \mathcal{A} in the other. You may wish to use sticky tack instead of glue so that the cutouts can be reused in \mathcal{A} . Alternatively, you can provide each child with another set

of Shoes and Socks Cutouts to cut out.

- Guide them to match and compare the objects one-to-one by placing the ten-frames one above the other.
- Help children recall the concepts of *more* and *fewer* and complete the statements in 3.



Differentiating Instruction

English-Language Learners

Children may need more practice using the comparative language in this lesson. Write the terms *more, fewer, less than*, and *greater than* on index cards. Place the cards face down on a table along with counters. Pick up a card, and model making a comparison statement with numbers or objects through 10. Have children repeat after you. Model several situations, and then have children practise creating their own comparison statements. Reinforce the different usage of the terms: one for sets of objects and the other for numbers.

- Arrange children in pairs. Then ask one child in each pair to take away any cutout from the other child. Have children carry out the pasting and matching activity again.
- Children may end up with the same number of shoes and socks. If so, *ask:* Are the number of shoes and the number of socks the *same*? How do you know?

Best Practices In this lesson, the concepts *more* and *fewer* are introduced and practised before the terms *greater than* and *less than*. You may wish to informally introduce *greater than* and *less than* while teaching *more* and *fewer*. For example, *say:* There are more children than apples. 4 is greater than 3. There are fewer apples than children. 3 is less than 4.





Check for Understanding Guided Learning (pages 15 and 16)

1 Have children count the number of red apples. Then have them count the number of green apples. Encourage them to use one-to-one correspondence when comparing the numbers of apples. Highlight that there can be different representations for the same number of objects. Guide them to complete the sentence using *the same as*.

2 Have children draw matching lines with their fingers to match each butterfly to a flower. Check whether children are able to use *more* and *fewer* appropriately.

3 Have children match the number of cats and ducks to the fish. Help them compare the three sets of objects and complete the sentences by saying *more* or *fewer*.



Hands-On Activity: Make Number Trains Using Linking

Cubes (page 17)

This activity requires children to make **linking cube** number trains with more or fewer cubes than a given number.

- In Exercise ①, guide children to see that they can make number trains with different numbers of cubes, as long as there are more than three.
- In Exercise 2, help children see that they can have one or two cubes in their number train.

^{DAY} Teach

See the Lesson Organizer on page 13 for Day 2 resources.

CEARN Count and Compare (page 17)

Children have learned on page 13 to compare sets using the one-to-one correspondence strategy. In this section, they learn to count the **linking cubes** before comparing the numbers. Introduce children to the terms *greater than* and *less than*. Tell children that the terms *greater than* and *less than* are used to compare numbers, while the terms *more* and *fewer* are used when talking about sets of objects. You may use the virtual base 10 blocks to represent and compare numbers up to 10.

• Help children relate the numbers and concrete objects. *Say:* Five cubes are more than three cubes, so 5 is greater than 3. Three cubes are fewer than five cubes, so 3 is less than 5.

Guided Learning (pages 17 and 18)

These exercises provide children with practice using the terms *greater than* and *less than* when comparing numbers.

3 Children need to count the cubes in the number trains first. Then they show their understanding of *greater than* and *less than* by completing the sentences correctly.



Let's Practise

Solve. Use number trains to help you.

1 Point to the 2 sets that show the same number.



Guided Learning (page 18)

4 This exercise is a repeat of Exercise 3 using counters on a horizontal ten-frame.

Hands-On Activity:

Make Number Trains Using Linking

Cubes (page 18)

1 to 3 This activity reinforces the skills of counting and comparing and provides further practice in the use of *greater than* and *less than* in number comparison.

- Have children make two number trains using four **linking cubes** and nine linking cubes, respectively.
- *Ask:* Which train has more (or fewer) cubes? Then ask children to tell you which number is greater.
- For Exercises ④ and ⑤, encourage children to make number trains to compare the given numbers.

Let's Practise (pages 19 and 20)

These exercises provide a review and practice of the vocabulary used in number comparison. Exercise 1) requires children to count and compare four groups and then to apply the concept of *same*. Exercises 2 and 3 review the use of *more* and *fewer* when comparing sets of objects. Exercises 4 to 7 check if children can apply the concepts of *greater than* and *less than* in comparing the magnitude of two numbers from the numerals alone.

Children can practise comparing numbers in Practice 2, of **Online Workbook 1A**. These pages (with the answers) are available online.



Misconceptions Children may confuse the terms greater than and less than. You may wish to provide a mnemonic device, such as the fact that greater has more letters than less. **Differentiation Options** Depending on children's success with the Workbook pages, use these materials as needed. **Extra Support:** Reteach 1A, Worksheet 2

Chapter 1

Counting On and Back

LESSON OBJECTIVES

• Count on or back from any number 10 or less, with and without the use of concrete materials.

- Identify the number that is 1 more or 1 less than a number 10 or less.
- Relate numbers to the anchors of 5 and 10.

less than

Vocabulary

more than

Student Book 1A, pp. 21–28 Workbook 1A, Practice 3

MATERIALS

DAY

- 10 linking cubes per child
- 10 counters per child
- 1 Ten-Frame per child (TRO1)

DIFFERENTIATION RESOURCES

• Reteach 1A, Worksheet 3

5-minute Warm Up

Have children sing a counting song together, such as One, Two, Buckle My Shoe or 1, 2, 3, 4, 5, Once I Caught a Fish Alive.

Problem of the Lesson

Jane has 4 beads. Her sister, Joy, has 1 bead less than Jane has. How many beads does Joy have?





Answer: Joy has 3 beads.



MARN Use Number Towers to Count On

(page 21)

Linking cubes are used to show counting patterns.

- Show children a set of **linking cubes** arranged as shown in the Student Book. Have children compare the number of cubes in the first tower on the left with those in the second tower. *Ask:* What is the difference in number? (There is one more cube in the second tower.)
- Have children compare the number of cubes in the second and third towers, third and fourth towers, and fourth and fifth towers. Point out that there is one more cube in each tower.
- Finally, show children the number sequence and show them that the next tower should have six cubes.

Check for Understanding Guided Learning (page 21)

Have children count the beads in each column and write the number on the board. Then, have children say aloud the numbers from left to right: 3, 4, 5, 6, 7, 8, 9. Then have them say how many beads come next.



Guided Learning (page 22)

2 This requires children to count back from 8 to 4. Have children place eight counters on a Ten-Frame (TRO1) as shown in the first picture on the page. Ask children to remove one counter at a time and count back from 8 as they do so: 8, 7, 6, 5. Have children remove one more and say the number: 4.

Hands-On Activity:

Make Number Towers to Show Counting On (page 23)

In this activity, children practise counting on from numbers other than 1.

• Show children a set of **linking cube** towers arranged in sequence from 2 to 4. Lead them to see that each tower in the sequence shows *one more*.

Arrange children in groups of three or four with 30 linking cubes. Have each group make towers to show counting on from 4 to 7. Help children see they have to add one more cube to make up the next tower.

Have children arrange cubes to show counting on from
 6 to 9. Help children see they have to add one more cube to
 make up the next tower.

Guided Learning (pages 23 and 24)

Have children count on aloud from 1 to 4, and then to 5.
This provides practice counting on from a number other than 0 or 1. Have children count on from 4 to 10 and fill in the missing numbers as they do so.



LEARN Use Linking Cubes to Find 1 More (page 24)

This activity uses **linking cube** trains to demonstrate the meaning of *1 more than*.

- Have children make a train of three **linking cubes**. Model and ask them to add one cube of another colour to the train. Say, and ask children to repeat after you: 4 is 1 more than 3.
- Model and have children add one more cube to the train. *Ask:* What is 1 more than 4? Lead children to say: 5 is 1 more than 4. Repeat this activity by adding cubes one at a time.

Guided Learning (page 24)

5 This exercise checks that children have grasped the concept of *1 more than*.

Best Practices Children may need to use different methods to internalize the concepts *1 more* and *1 less*. Building sets of linking cubes may work for some, while counting tapes (TRO5) are better for other children. Counting on and back aloud may be the preferred method for verbal learners.

Hands-On Activity: Make Number Towers to Show Counting Back (page 25)

In this activity, children practise counting back from numbers other than 10.

• Show children a set of number towers for 8, 7, 6, Lead them to see that each tower has 1 less than the previous tower.

Arrange children in groups of three or four. Give each group 30 linking cubes. Have each group use towers to model counting back from 7 to 4. Help children see they have to take away one cube to make up the next tower.

Have groups arrange cubes to show counting back from 5 to 1.

Guided Learning (pages 25 and 26)

6 Have children count back aloud from 7 to 5, and then to 4.
7 Have children count back from 10 to 5, filling in the missing numbers as they do so.



LEARN Use Linking Cubes to Find 1 Less (page 26)

This activity uses **linking cube** trains to demonstrate the meaning of *1 less than*.

- Have children make a train of four **linking cubes**, three of one colour and one of another. Model and ask them to remove the cube of another colour. Say, and ask children to repeat after you: 3 is 1 less than 4.
- Model and have children remove one more cube from the train. *Ask:* What is 1 less than 3? Lead children to say: 2 is 1 less than 3. Repeat this by removing one cube at a time.

Guided Learning (page 26)

8 Have children look at the number train on the page and count the cubes. *Ask:* What is 1 less than 6? Lead children to complete the sentence on the page.

(EARN) Relate Numbers to 5 and 10

(page 27)

In this activity, children use counters and a ten-frame to relate numbers to the anchors of 5 and 10.

- Have children place seven counters on a **Ten-Frame** (TRO1), as shown on the page. Ask them to count up to 5 and to observe how many counters remain to be counted. *Ask:* How many more do I need to count to make 7? Lead children to say, 7 is 2 more than 5.
- Next, have children place 10 counters on a ten-frame. Model and ask them to count back to 7, removing the counters as they count them. *Ask:* How many less than 10 is 7? How many more than 5 is 7?

Guided Learning (page 27)

9 and 10 Have children look at the counters on the ten-frame.Guide them to compete the sentences.



Differentiating Instruction

English-Language Learners

Demonstrate the meaning of *1 more* and *1 less*. Display a group of five counters. Count the objects and add 1 more. *Say:* There are five counters. One more makes 6. 6 is 1 more than 5. Invite children to repeat your actions and language. Continue by modelling *1 less*. Write the following on the board: _ *is 1 _ than* _. Say different numbers and have children fill in the blanks with appropriate numbers and the words *more* and *less*.

Let's Practise (page 28)

This practice reinforces skills for counting on and back by 1. Exercises 1 and 2 require children to count the number of cubes. Exercises 3 and 4 check that children can relate numbers to the anchors of 5 and 10. Encourage children to use cubes to check their answers.

Exercises **5** to **7** are more challenging and require children to count forward and to identify the missing numbers in a sequence. Exercises **8** and **9** require children to count back to complete the sequences.

Children can practise counting on and back and relating numbers to the anchors of 5 and 10 in Practice 3 of **Online Workbook 1A**. These pages (with the answers) are available online. **Misconceptions** Children may confuse 1 more and 1 less. It may be helpful to provide a visual clue to help with this issue. On the board, make a counting tape by drawing a horizontal ten-frame as shown on Student Book page 18. Label the squares from 1 to 10. Draw an arrow from 1 to 10 above the counting tape and label it *more*. Draw an arrow from 10 to 1 below the counting tape and label it *less*.

Differentiation Options Depending on children's success with the Online Workbook pages, use these materials as needed. **Extra Support:** Reteach 1A, Worksheet 3



Chapter Wrap Up (page 30)

Review reading and writing by having children read the numerals and words at random from a display, on the board, or from cards. Have children count from 0 to 10. You may want to make different number trains and have children count the number of cubes. Use the examples from *Compare* and *Count On and Back* to review the concepts. As you work through the examples, encourage children to use the chapter vocabulary:

- zero
- more
- one
- seven

• six

• ten

fewergreater than

- two • three
- eight • nine
- threefour
- more than • less than
- five
- same
- Have children review the vocabulary, concepts, and skills from Chapter 1 with the Chapter Review/Test in **Online Workbook 1A**. These pages (with the answers) are available online.



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