

Topic 1

Topic Overview

Understand Addition and Subtraction

Lesson	Let's Build 1-1 Spatial Patterns for Numbers to 10 1 day	Let's Investigate 1-2 Add To and Put Together Situations 1 day	Let's Build 1-3 Add To and Put Together 1 day	Let's Build 1-4 Both Addends Unknown 1 day
Essential Understanding	The number of objects in some patterned arrangements can be recognized without counting.	An addition problem may be about adding a part to another part to find a total. It may also be about putting two parts together to find the total.	Adding to is one interpretation of addition. Putting two parts together to make a whole is another interpretation of addition. Addition equations can be used to show add-to or put-together situations.	Decomposing numbers can be used to solve addition word problems in which the total is known, but the parts are unknown. Addition equations can be used to show addition situations where both parts are unknown.
Mathematics Objective	Use different patterns to recognize how many to 10.	Explore different ways to represent and solve addition problems involving adding to or putting together.	Solve word problems about adding to and putting together.	Solve addition word problems by breaking apart a total number of objects.
Language Objective	Orally explain how to identify numbers up to 10 from different patterns.	Explain how to use objects and drawings to model add-to or put-together situations.	Explain how to solve add-to and put-together word problems by using precise math vocabulary.	Write equations to represent breaking apart a whole.
Vocabulary	Reinforce Vocabulary pattern	Reinforce Vocabulary in all	New Vocabulary add, equals, equal sign (=), equation, part, whole, sum	Reinforce Vocabulary part, whole
Materials	Two-color counters (TT 77) <i>TT = Teaching Tools on Savvas Realize®</i>	Connecting cubes (TT 72); Two-color counters (TT 77); Number cards 1-5 (TT 84)	Connecting cubes (TT 72); Two-color counters (TT 77)	Connecting cubes (TT 72); Two-color counters (TT 77)
TEKS & ELPS	TEKS 1.2A Mathematical Process Standards 1.1B, 1.1D, 1.1G ELPS Speaking 2B	TEKS 1.3B, 1.5D Mathematical Process Standards 1.1B, 1.1E, 1.1G ELPS Speaking 2B	TEKS 1.3B, 1.5D, 1.5E Mathematical Process Standards 1.1C, 1.1D, 1.1E ELPS Speaking 2B	TEKS 1.3B, 1.5D, 1.5E Mathematical Process Standards 1.1E, 1.1F, 1.1G ELPS Listening 1E

Topic Assessment Options

in Assessment Sourcebook and Online

- Readiness Test
- Topic Assessment
- Topic Performance Task

Lesson	Let's Investigate 1-5 Take From and Compare Situations 1 day	Let's Build 1-6 Take From: Result Unknown 1 day	Let's Build 1-7 Compare Situations: Difference Unknown 1 day	Let's Build 1-8 More Compare Situations: Difference Unknown 1 day
Essential Understanding	Subtraction problems can be solved in different ways. Take from and compare word problems use subtraction.	Taking away one part from a whole is one interpretation of subtraction. Subtraction equations can be used to show subtraction situations in which one part is taken from the whole.	Comparing to find how many more is one interpretation of addition and subtraction. Subtraction or addition equations can be used to show situations in which two quantities are compared.	Comparing two groups to find how many fewer objects are in one group than another group is one interpretation of addition and subtraction. Subtraction or addition equations can be used to show situations in which two quantities are compared.
Mathematics Objective	Solve subtraction problems in different ways.	Solve subtraction problems involving taking from a group.	Solve problems that involve comparing to find how many more objects are in one group than in another group.	Solve problems that involve comparing to find how many fewer objects are in one group than another group.
Language Objective	Describe how to solve a subtraction problem, orally and in writing.	Orally explain how to use text and rebus images to help interpret take-from word problems.	Orally explain how to use text and images to help interpret comparison word problems involving how many more.	Orally explain how to use text and images to help interpret comparison word problems involving how many fewer.
Vocabulary	Reinforce Vocabulary How many more?, How many left?	New Vocabulary difference, equation, minus, subtract	New Vocabulary more, compare	New Vocabulary fewer
Materials	• Connecting cubes (TT 72); Two-color counters (TT 77)	• Connecting cubes (TT 72); Two-color counters (TT77)	• Connecting cubes (TT 72); Two-color counters (TT 77)	• Connecting cubes (TT 72); Two-color counters (TT 77)
TEKS & ELPS	TEKS 1.3B, 1.5D Mathematical Process Standards 1.1B, 1.1E, 1.1G ELPS Reading 3H	TEKS 1.3B, 1.5D, 1.5E Mathematical Process Standards 1.1C, 1.1D, 1.1E ELPS Reading 3G	TEKS 1.3B, 1.5D Mathematical Process Standards 1.1D, 1.1E, 1.1G ELPS Speaking 2B	TEKS 1.3B, 1.5D Mathematical Process Standards 1.1D, 1.1E, 1.1F ELPS Speaking 2B

Topic 1

Topic Overview *continued* Understand Addition and Subtraction

Lesson	Let's Build 1-9 Change Unknown Problems 1 day	Let's Build 1-10 Part Unknown Problems 1 day	Let's Model in 3 Acts 1-11 Grab a Bite 1 day
Essential Understanding	Adding to is one interpretation of addition. Addition equations can be used to show add to addition situations.	Finding a missing part of a whole is an interpretation of both addition and subtraction. Addition or subtraction equations can be used to show situations involving a missing part.	Many real-world problems can be represented with a mathematical model, but that model may not represent a real-world situation exactly.
Mathematics Objective	Solve addition problems by finding a missing addend.	Solve problems involving putting together or taking apart.	Use addition or subtraction to solve a real-world problem.
Language Objective	Think out loud about how to restate addition problems to help decide what to do to solve.	Write equations to represent and solve word problems involving putting together or taking apart.	Explain predictions and solutions for real-world problems in writing and verbally.
Vocabulary	New Vocabulary addend	New Vocabulary add, subtract	Reinforce Vocabulary model
Materials	Connecting cubes (TT 72); Two-color counters (TT 77) <i>TT = Teaching Tools on Savvas Realize®</i>	Connecting cubes (TT 72); Two-color counters (TT 77)	Provide manipulatives and other tools that students request.
TEKS & ELPS	TEKS 1.3B, 1.5D Mathematical Process Standards 1.1A, 1.1F, 1.1G ELPS Writing 4D	TEKS 1.3B, 1.5D Mathematical Process Standards 1.1A, 1.1D, 1.1F ELPS Reading 3F	TEKS 1.3B, 1.5D Mathematical Process Standards 1.1A, 1.1B, 1.1D, 1.1E, 1.1F, 1.1G

Digital Components

Topic and Lesson

- Interactive Student Edition
- Student Edition eBook
- Teacher’s Edition eBook
- Math Talks
- Visual Learning Animations
- Interactive Practice
- Additional Practice
- Let’s Model in 3 Acts Videos
- Sample Student Work
- Math Walk Videos
- Brainingcamp Virtual Manipulatives
- Brainingcamp LIVE
- Glossary
- Problem-Solving Handbook

Differentiation

- Intervention Activities
- Reteach to Build Understanding
- Build Mathematical Literacy
- Enrichment
- Spiral Review
- Another Look Videos
- Pick a Project
- Math and Literacy Mats
- Amazing Contributions
- Brainingcamp Tasks
- Stand Up and Think
- Hands-On Games
- Digital Games
- Fluency Practice
- Differentiation Library Teacher’s Guide
- Vocabulary Cards
- Academic Vocabulary Activities

Assessment and Intervention

- Course Assessments (Readiness, Cumulative/Benchmark, and Progress Monitoring)
- Topic Review What You Know
- Topic Prep Personalized by *SuccessMaker*®
- Lesson Quick Checks
- Lesson Exit Tickets
- Topic Assessments
- Topic Performance Tasks
- Intervention System
- SCOUT Observational Assessment Tool
- Item Analysis Charts and Rubrics

Planning

- Lesson Plans
- Lesson Presentations
- enVision on the Go Videos
- Teacher Support Videos
- Language Support Handbook

Home Connections

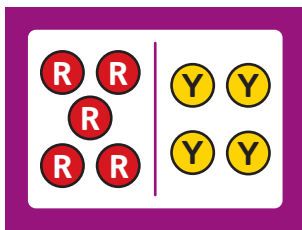
- Family Engagement Site
- Home-School Connection Letters

Topic 1

Math Background: Key Concepts Understand Addition and Subtraction

Number Patterns

- **Spatial Patterns for Numbers to 10** In Lesson 1-1, students use different patterns to recognize how many from numbers 1 to 10. Students observe that the number of objects in some patterned arrangements can be recognized without counting.



Add To and Put Together Situations

- **Explore Addition Situations** In Lesson 1-2, students use concrete tools like connecting cubes or counters, as well as visual models or drawings, to build an understanding of how to represent two common types of addition problems: add to and put together.

Plan
3 apples.
5 more apples.
How many now?



_____ apples now

This understanding connects Lesson 1-2 to 1-4 where students solve addition problems that involve either an unknown total or two unknown addends, by using appropriate representations and equations.

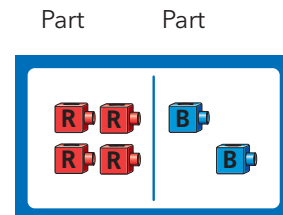
- **Add To and Put Together Problems** In Lesson 1-3, the understandings from Lesson 1-2 are made explicit when students solve add to problems, where the starting amount and the amount that is added are given, and the result is unknown. They use a model and an equation to find the result.

4 dogs.
3 more dogs.
How many dogs now?



Students also solve put together problems. These situations are also known as part-part-whole situations. They model and solve problems where the two parts are given and the whole is unknown.

4 red fish and 2 blue fish
How many fish in all?



- **Both Addends Unknown** In Lesson 1-4, students extend their understanding to solving part-part-whole problems in more than one way, when both parts or addends are unknown and only the whole or total is given.

5 bats in all
Some inside.
Some outside.
 $5 = 3 + 2$



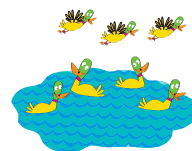
Take From and Compare Situations

- **Explore Subtraction Situations** In Lesson 1-5, students build on their prior knowledge of using objects or drawings to represent two common types of subtraction problems: take from and compare.

This understanding connects Lesson 1-5 to 1-8 where students solve subtraction problems with an unknown result or difference by using appropriate models and equations.

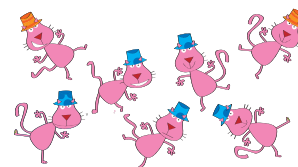
- **Take From Problems** In Lesson 1-6, the understandings from Lesson 1-5 are made explicit when students solve take from problems, where the starting amount and the amount that is taken away are given, and the result is unknown.

There are 7 ducks.
3 ducks fly away.
How many ducks are left?



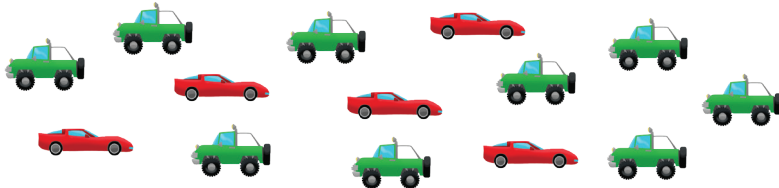
- **Compare Situations** In Lesson 1-7, students solve "how many more" problems. A compare situation involves a larger quantity, a smaller quantity, and the difference between quantities.

5 blue hats with dots
2 orange hats with stripes
How many more blue hats with dots than orange hats with stripes?



In Lesson 1-8, students solve “how many fewer” problems.

Troy has 5 red cars
and 9 green trucks.



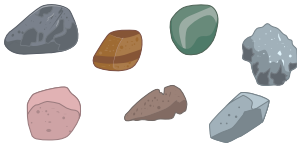
How many **fewer** cars
than trucks does Troy have?

Students use subtraction to solve both types of problems.

Change Unknown and Part Unknown Problems

- **Change Unknown Problems** In Lesson 1-9, students solve add to problems where the starting amount and the result are given, and the amount to be added is unknown. These situations are also called missing-addend problems.

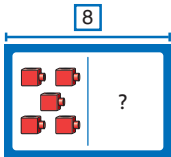
Lily has 7 rocks.
Then she finds more.
Now she has 9 rocks.



How many rocks did Lily find?

- **Part Unknown Problems** In Lesson 1-10, students solve part-part-whole problems where the whole and one part are given, and the other part is unknown. These situations are also called take apart problems.

8 students are in a group.
5 of them wear jackets.
The rest wear sweaters.
How many are wearing sweaters?



Apply Addition and Subtraction Facts to Solve Problems

- **Model Addition and Subtraction Situations** In Lesson 1-11, students use the addition and subtraction facts learned previously to solve a real-world problem about finding the number of apples students took from a bowl.

 **Teacher Support Videos** Topic Overview Videos also present important information about the content of this topic.

Advanced Concepts for the Teacher

- **Addition and Subtraction Situations** The different addition and subtraction situations that students explored in this topic extend to more complex applications across various math topics in the higher grades.

Problems Involving Integers

In the North Pole, the temperature was -4°F in the morning. By afternoon, the temperature rose to 6°F . By how many degrees did the temperature increase from morning to afternoon?

This problem involves an add to situation with the change unknown.

$$\begin{aligned} -4 + \underline{\hspace{1cm}} &= 6 \\ 6 - (-4) &= \underline{\hspace{1cm}} \\ 6 + 4 &= \underline{\hspace{1cm}} \\ 6 + 4 &= 10 \end{aligned}$$

The temperature increased by 10°F .

Problems Involving Linear Equations

Emma had \$120. She bought 2 concert tickets. After the purchase, she has \$40 remaining. How much did each concert ticket cost?

This problem involves a take from situation.

$$\begin{aligned} 120 - 2x &= 40 \\ 120 - 2x - 120 &= 40 - 120 \\ -2x &= -80 \\ \frac{-2x}{-2} &= \frac{-80}{-2} \\ x &= 40 \end{aligned}$$

Each ticket cost \$40.

- **Fluency with Addition and Subtraction Facts** Addition and subtraction facts are used in multidigit addition and subtraction in elementary school, and in many middle school and high school topics.

Simplifying Algebraic Expressions

$$\begin{aligned} 8x + 7y + 9 + 2x - 3y + 6 &= 8x + 2x + 7y - 3y + 9 + 6 \\ &= (8 + 2)x + (7 - 3)y + (9 + 6) \\ &= 10x + 4y + 15 \end{aligned}$$

Math Background: Coherence

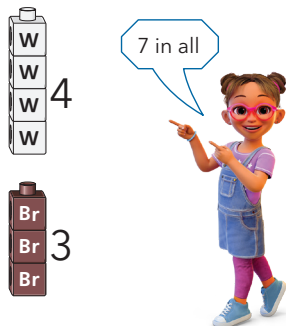
Understand Addition and Subtraction

LOOK BACK

How does Topic 1 connect to what students learned earlier?

Kindergarten

- **Understand Addition and Subtraction** In Topic 4, students were introduced to addition as adding to and putting together (K.3A). In Topic 5, they were introduced to subtraction as taking apart and taking from (K.3A). In Topic 6, students learned to decompose numbers less than or equal to 10. They used objects, drawings, and equations to represent addition and subtraction word problems within 10 (K.3B, K.3C). By the end of kindergarten, students added and subtracted within 5.



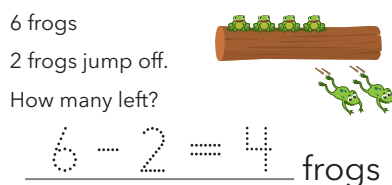
$$4 + 3 = 7$$

- **Count** In Topic 10, students learned to count forward from any given number within the known sequence 0–20. Students build on this skill as they count on and count back to solve addition and subtraction problems (K.2A, K.2B).

TOPIC 1

How is content connected within Topic 1?

- **Real-Life Contexts** Topic 1 presents problem situations that students can relate to in their world. Each situation demonstrates how math can and should be used to model the problem and make sense of the solution (1.3B, 1.5D).



- **Understand Addition and Subtraction Situations** In Topic 1, it is important for students to understand the meaning of a problem and choose an operation that makes sense, rather than strictly associating a particular operation with each type of situation (1.3B, 1.5D).

8 students are in a group.
5 of them wear jackets.
The rest wear sweaters.
How many are wearing sweaters?

This problem could be represented using either addition ($5 + ? = 8$) or subtraction ($8 - 5 = ?$).

LOOK AHEAD

How does Topic 1 connect to what students will learn later?

Later in Grade 1

- **Add and Subtract Within 20** In Topic 2, students will develop automaticity with addition and subtraction within 10 (1.3D). In Topics 3 and 4, they will develop strategies to add and subtract within 20 (1.3D). In Topic 5, students will use addition and subtraction equations to solve different types of problems, including those involving three addends (1.3B, 1.5D).

- **Add and Subtract Data** In Topic 6, students will use addition and subtraction to interpret data (1.8C).

How many more students chose carrots than broccoli?

Favorite Vegetable	
Broccoli	
Carrots	

$$7 - 5 = 2$$

Grade 2

- **Automaticity with Facts to 20** In Topic 1, students will develop automaticity with addition and subtraction within 20 (2.4A).
- **Add and Subtract Tens and Ones** Students will continue to solve addition and subtraction problems throughout Grade 2. In Topic 12, students will add and subtract within 1,000 using models and strategies (2.4C).

Math Background: Balance

Understand Addition and Subtraction

A balanced curriculum emphasizes conceptual understanding, procedural skill and automaticity, and applications.

Conceptual Understanding

- **Understand Addition and Subtraction** The main emphasis of Topic 1 is developing a conceptual understanding of addition and subtraction. By using various representations and acting out, students explore add to, put together, take from, take apart, and compare situations. This early foundation is crucial as it prepares students to transition from solving one-step problems to multi-step situations. This foundational knowledge of addition and subtraction also lays the groundwork for understanding the concepts of multiplication and division.

- **Understand a Situation Beyond Key Words** When teaching students to solve word problems, it is important to emphasize that they should not rely too heavily on key words to determine which operation to use.

For example, while the word *more* might suggest an add to situation, it does not always mean that the numbers in the problem should be added. Students need to focus on understanding the relationship between the given quantities and the unknown quantity to choose the correct operation. This understanding builds a strong foundation for problem solving.

Procedural Skill and Automaticity

There are no automaticity expectations in Topic 1. The content in this topic provides a foundation for demonstrating automaticity with addition and subtraction within 10 in Topic 2.

- **Sums and Differences** Topic 1 focuses on developing a conceptual understanding of addition and subtraction situations. Students will start building procedural skills and automaticity with sums and differences in Topic 2.

Applications

- **Operations in Context** Each lesson in Topic 1 covers problem solving. Rather than launching a series of lessons that involve numbers alone, this topic emphasizes the meaning of the operation embedded within a particular story or situation. This approach helps students understand from the beginning how mathematics is used to think about and solve real-world problems.

Apply Math

7 penguins



Some inside.

Some outside.

Write an equation.



4 inside.
3 outside.

$$\begin{array}{c} 7 \\ \hline \text{whole} \end{array} = \begin{array}{c} 4 \\ \hline \text{part} \end{array} + \begin{array}{c} 3 \\ \hline \text{part} \end{array}$$

- **Read-Aloud Strategies for Early Readers** At the start of Grade 1, some students may need help reading problems. Along with reading problems to students, use these strategies to build understanding:
 - Have students listen to the problems without looking at the page or screen. Talk about the words and numbers they hear. Record them visually.
 - Display the written problem. Talk about the pictures they see and the words that match what is written.
 - Model what happens in the story. Act it out.
 - Talk it out. Have students model the story with a partner.
 - Draw it out. Have students draw, record, or write to represent the problem.

Topic
1

TEKS Mathematical Process Standards

Understand Addition and Subtraction

The mathematical process standards describe the behaviors and thinking habits that mathematically proficient students demonstrate when actively engaged in mathematics work. Opportunities for engagement in all of the process standards, and to develop expertise with these important behaviors and thinking habits, exist throughout the topic and program. In this topic, you may choose to focus on developing and assessing proficiency with process standards 1.1C and 1.1D with this topic's content.

As students build understanding for addition and subtraction situations, look for these behaviors to assess and identify students who demonstrate proficiency with these standards.

Highlighted Mathematical Process Standards Within Topic 1 Lessons

The student is expected to select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems (1.1C).	The student is expected to communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate (1.1D).
Mathematically proficient students:	Mathematically proficient students:
• Use connecting cubes to model add to or put together situations.	• Explain how the arrangement of items does not change the total number of items.
• Use connecting cubes to model a take from word problem to show the subtraction.	• Describe how to solve addition and subtraction word problems using connecting cubes or counters.
• Show how to solve a change unknown problem using a workmat with connecting cubes or counters.	• Look at a picture and explain how to identify the missing addends.
• Use a bar model to identify a missing part in an equation.	• Identify what each number represents in a subtraction equation that models a word problem.
• Write an equation on paper with a pencil to model a word problem.	• Explain how to find the missing part of an addition equation.

Provide opportunities for students to reflect on these mathematical process standards as they select tools to solve addition and subtraction problems and communicate their mathematical ideas.

You can use these questioning strategies throughout the topic.

- How can you use connecting cubes to model this addition problem?
- How can you use connecting cubes to show subtraction?
- How would you set up a bar model to find the missing part?
- What equation can be written to solve this problem?
- If you rearrange the counters, will the number of counters be the same?
- What are the missing addends? Explain your thinking.
- What does each number represent in the equation? Explain your thinking.
- How do you find the missing part of the addition equation?

Build G.R.I.T.

Understand Addition and Subtraction

Building grit in young students while they work on addition and subtraction problem-solving helps them develop persistence and confidence early on. Have them try multiple strategies, like using manipulatives or drawing pictures, so they feel empowered to tackle challenges independently. Remind them that it's okay to make mistakes, as each attempt helps them learn something new and become stronger problem solvers. Model patience and celebrate each small success to foster trust in themselves that will support their growth in math and beyond.

Grow Confidence

Help students see mistakes as learning opportunities. Encourage them to try different strategies when solving "putting together" or "taking from" problems and remind them that there is usually more than one right way to approach a problem. Celebrate every effort they make to grow confidence, even if they don't get the answer right away. Show them that persistence, like trying again to solve "how many more" or "how many fewer" problems, will help them become stronger problem solvers.

Keep Trying (Resilience)

Encourage students to keep trying with their addition and subtraction, even when they feel stuck. Help them see that it's okay to make mistakes and that they can try again with a new approach. Guide them to stay focused and persistent while working on "putting together" and "taking from" problems. By sticking with it, they learn that each small effort and retry helps them get closer to solving the problem.

Trust Yourself (Self-Efficacy)

As students tackle "put together" and "take from" problems, emphasize their progress and celebrate each step forward. By guiding them to see how their own actions like breaking down problems or trying different approaches lead to understanding, they learn to trust their ability to solve challenges. This focus on self-efficacy empowers them to approach each new math problem with trust in themselves.

Organize Your Work (Time Management)

Have students keep their math problems clear and structured. Show them how to lay out each step when solving "put together" and "take from" problems, like drawing parts. For comparison problems, use simple charts or visuals to track differences and similarities. Teaching them to organize their work not only makes it easier to solve but also helps them approach new problems with a sense of control and focus, reinforcing resilience along the way.

Sample Classroom Conversation

Linda: I'm having a hard time figuring out how many apples are left after some are taken away.

Teacher: That's okay, Linda! You are on the right track as you are thinking about what's left, which is a great start! Do you think drawing a picture could help you understand it better?

Linda: I can draw a picture of all the apples I start with, then cross out the ones taken away.

Teacher: That's a fantastic idea! How does drawing help you figure out the answer?

Linda: When I see it, I can count what's left easily.

Teacher: Exactly! By using your drawing, you're staying focused and building your grit, just like solving a puzzle. Every time you stick with it, you're getting stronger math muscles, Linda!

Connect to Real-Life Experiences

Connect word problems to real-life experiences by:

- having them share snacks with friends.
- counting the total number of two different types of toys.
- drawing pictures to make abstract concepts more concrete and understandable.

Linguistic Accommodations

Understand Addition and Subtraction

Language Accommodations and Oral/Written Discourse

There are many opportunities to interact with the topic’s vocabulary words: in Lessons, by using Vocabulary Cards, Vocabulary Review (of previously learned words and new topic words), and review of Vocabulary learned in the topic.

Activities in this topic offer diverse and engaging experiences with math vocabulary to build confidence and support for all, but particularly for Emergent Bilingual (EB) students in developing both, their academic and language skills.

Topic Vocabulary Support

Topic Vocabulary	add addend compare difference	equals equation equal sign (=) fewer	How many left? How many more? in all minus	more part pattern sum	subtract whole
Prior Terms	Cent Cent Sign (¢) Coin Dime	Penny Value Nickel Quarter	Earn Skill Gift Income	Need Want	
Upcoming Terms	Number Line	Doubles Fact	Near Doubles Fact		

Vocabulary in Context

Word	Math Meaning	Other Meaning(s)
Pattern	A sequence of repeating objects, shapes or numbers	A regular arrangement of lines, shapes, colours, etc., as a design on material, carpets, etc.
Equation	A statement showing that two amounts or values are equal	The act of making something equal or considering something as equal
Difference	The subtraction of numbers	A way in which two people or objects are not the same

Context Setting Vocabulary Students will encounter the following terms in this topic, be sure they understand their meaning to make sense of the problem situation.

- Lesson 1 counter, flash card
- Lesson 2 row, square, stack
- Lesson 3 symbol, equal, part
- Lesson 4 rest, object
- Lesson 5 task, tools
- Lesson 6 sign, pond, stamp
- Lesson 7 dots, stripes
- Lesson 8 collection
- Lesson 9 petal, information, mat
- Lesson 10 pebble
- Lesson 11 pack, assumption, prediction

Metalinguistic Transfer to Spanish

- Transferrable Skills**
- Both English and Spanish sentences use a capital letter after a colon introducing a quote or a thought.
- Non-Transferrable Skills**
- The Spanish language does not use capital letters for every word in titles: Practice and Problem Solving should be *Practicar y resolver problemas*.

Cognates

- Cognates in this Topic**
- Conversation : Conversación

Determine : Determinar

Practice : Practicar
- Ideas : Ideas

Total : Total
- False Cognates**
- Discuss** To talk about something showing the different ideas and opinions about it.

Discutir To argue.

Academic Vocabulary

- Recommended Terms**
- Although the academic vocabulary can be used anytime during the year, you may emphasize the terms below in written and oral opportunities:
- Add-to** To increase something in size, number, amount, etc.
- Sum** The result of an addition operation.

English Language Proficiency Standards (ELPS)

Lesson	(1) Listening	(2) Speaking	(3) Reading	(4) Writing
Lesson 1		2B		
Lesson 2		2B		
Lesson 3		2B		
Lesson 4	1E			
Lesson 5			3H	
Lesson 6			3G	
Lesson 7		2B		
Lesson 8		2B		
Lesson 9				4D
Lesson 10			3F	
Lesson 11				

Topic 1

Topic Opener

Understand Addition and Subtraction

Understand Addition and Subtraction

Topic 1

Topic Essential Question

What are ways to think about addition and subtraction?



Math Walk

TEKS Mathematical Process Standard 1.1A The student is expected to apply mathematics to problems arising in everyday life, society, and the workplace.

Mixing Up Math

Directions Say: Let's explore baking and see what we notice and wonder.



B

A

Math Walk TEKS Mathematical Process

Standard 1.1A The student is expected to apply mathematics to problems arising in everyday life, society, and the workplace.

 **Math Walk Video** Generate excitement about the topic by having students watch the Math Walk video about baking ingredients.

Question in the Video

How many cups of sugar are used all together?

Questions for Students

You might give students copies of the Math Walk questions or just project them and have students turn and talk to a partner followed by a whole-class discussion.

What did you notice?

What did you wonder?

What question in the video is the person trying to answer?

What did you see in the video that would help you answer the question?

What other information do you need to answer the question?

What math do you already know that can help you answer the question?

What math questions do you have about what you saw in the video?

Later in the Topic

Later in this topic, show the video again. Ask: What math did you learn that could help you answer the question or find the answer in a different way?

C Topic Essential Question

What are ways to think about addition and subtraction?

Revisit the Topic Essential Question throughout the topic. See the Topic Review for notes about answering the question.

D Home-School Connection

At the start of this topic, send home the Home-School Connection letter to give families an overview of the content in the topic.

A

Review What You Know

Vocabulary

1.



5

2.



4

3.



4

Directions Have students listen as you read the directions and solve. **Say:** 1. *Count the fish. Write the number that tells how many.* 2. *Join the two groups and write the number that tells how many fruits.* 3. *Write the number that tells how many balls in all.* 4. *Tammy has 4 balloons. Draw a picture to show them.* 5. *Count the cats. Write the number that tells how many.* 6. *Circle the number that tells how many crabs you see in all.*

2 Topic 1 | Review What You Know

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Counting

4. Draw 4 balloons.

Check students' drawings.

5. Count how many cats.



3

Sums

6. How many crabs in all?



2 3 4 5

B

Vocabulary Words

- part
- whole
- equation
- equal sign (=)
- equals
- subtract
- minus
- difference
- more
- compare
- fewer
- addend
- sum
- plus
- add
- subtract

C

Vocabulary Activity

Before starting on lessons that introduce new math vocabulary in this topic, consider that some students may have had limited experience with books. Be sure they demonstrate awareness of print concepts, including awareness of directionality of reading as left to right and top to bottom.

D

Academic Vocabulary

Use the online Academic Vocabulary Activities to introduce or revisit the words below. Then use the words during the topic.

Agree/Disagree: Explain to students that they will use *agree* and *disagree* to tell whether they think an argument is correct or not.

Argument: Explain to students that they will make math *arguments* to show their thinking.

Connect: Explain to students how addition and subtraction *connect*, as both can be used to solve comparison word problems.

Relate: Ask students to tell you how connecting cubes show, or *relate* to, quantities in addition and subtraction problems.

E

Item Analysis: Review What You Know

Item	IS	DOK	TEKS
1-3	A1	1	K.2B, K.2C
4	A1	2	K.2B, K.2E
5	A1	1	K.2B, K.2C
6	A1	2	K.2C

F

Topic 1 Prep Personalized by SuccessMaker®

Reviews and remediates key prerequisite TEKS for the topic's content.

Topic
1

Differentiation Library Overview

This library includes opportunities to engage students with the topic’s content in various formats to allow for differentiation.

A

Pick a Project

Use anytime.

STEAM

DL

Project	Engaging Contexts	Activity Modalities	Final Products
1A	Real-world	Create	Math walk
1B	Birds	Draw	Picture
1C	Fruit	Collect data	List
1D	Homes	Build	Model

Name _____

Pick a Project

Project 1A



Project 1B



Project 1C



Project 1D



Directions Key: You will choose one of these projects. Look at picture A. Think about this question: Where do you see math in the real world? Create Your Own Math Walk. Look at picture B. Think about this question: Where do birds lay their eggs? Draw a Bird Clutch.

Directions Key: You will choose one of these projects. Look at picture C. Think about this question: What is the most popular fruit juice in the world? Find Fruit Facts. Look at picture D. Think about this question: What are different homes made of? Build a Model.

Student Edition

B

Math and Literacy

STEAM

DL

Story 1 Winter at the Zoo Use anytime.

Activity 1 Get Ready for Hibernation! Maze Use anytime.

Problem Solving 1A How Many in All? Use any time after Lesson 1-3.

Problem Solving 1B How Many Are Left? Use any time after Lesson 1-6.

C

Amazing Contributions

DL

Gottfried Wilhelm Leibniz worked with binary numbers which helped in the development of computers. Use anytime.

D

Stand Up and Think

DL

Problem 1A Fishy Friends Use any time after Lesson 1-4.

Problem 1B Pencil Problems Use any time after Lesson 1-8.

Read Together

Hibernation

USE WITH TOPIC 1.

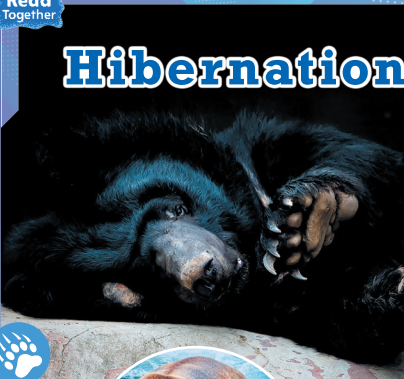
Math and Literacy Mat

Five Fun Facts

- 1 Some bears hibernate.
- 2 Hibernation times vary.
- 3 Bears eat a lot before hibernating.
- 4 Some bears do not eat while hibernating.
- 5 Bears breathe less during hibernation.

Conserve: to save

Bears lower their body temperature. This allows them to conserve energy during hibernation.



Math and Literacy Mat

Differentiation Library resources are available at Savvas Realize®. Additionally, resources with **DL**, are available in print.



A

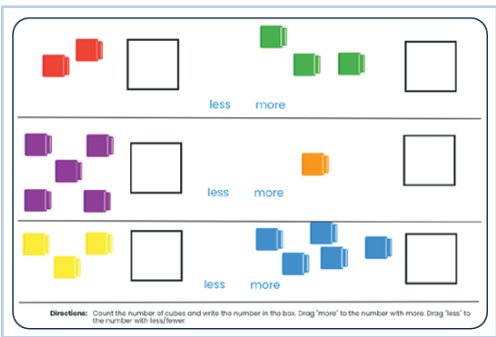
Digital Manipulative Activities



Available only at Savvas Realize®.

How Many Cubes? Students count a given set cubes and decide if other groups are greater than, less than, or equal to the given group. *Use anytime to revisit learned concepts.*

Give Me Ten! Students start by showing a number from 5-10 on the top row, then determine how many more to make 10. *Use anytime to revisit learned concepts.*



Digital Manipulative Activity

B

Lesson Resources

Use with each lesson.

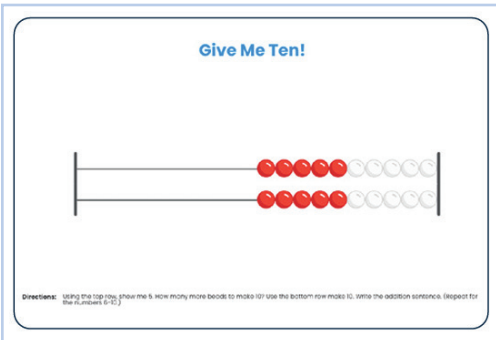
Available only at Savvas Realize®.

Spiral Review Daily opportunity for spaced and interleaved practice

Reteach to Build Understanding

Enrichment

Build Mathematical Literacy



Digital Manipulative Activity

C

Hands-On Games

DL

Five in a Row Students add or subtract within 10. *Use any time after Lesson 1-10.*

What's the Missing Number? Fluency Practice: Addition and Subtraction 0-10 Facts. *Use anytime.*

D

Digital Games



Available only at Savvas Realize®.

Fluency Games Practice to achieve and maintain fluency.

Vocabulary Games Practice to acquire mathematical terminology.

E

Fluency Practice

DL

Add and Subtract within 10. *Use anytime.*



Hands-On Game Board