HMH into Math™ Grade 1

Unit 1: Ways to Add and Subtract

Unit 1 Project: Math Music
Unit 1 Learning Mindset Focus: Try Again / Collects and Tries Multiple Strategies

Module 1: Addition Strategies

Recommended Pacing with Assessments: 12 Days

Module 1 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children solved addition word problems within 10. Children counted numbers in order, beginning from a given number. Children used objects, drawings, and equations to represent ways to make 10. Children represented addition within 10 using objects, drawings, and equations.	Children use strategies to add within 20, including counting on, making a ten, and using known doubles facts. Children solve addition word problems within 20. Children relate counting to addition. Children represent addition facts and solve addition word problems using objects, drawings, and equations.	Children will use mental strategies to fluently add within 20. Children will know all sums of two one-digit numbers by memory. Children will use addition within 100 to solve one-and two-step word problems.

Module 1 Vocabulary

add	find the sum of two or more numbers; find how many in all
count on	to count forward from a given number
doubles	an addition fact that includes two of the same number, such as 5 + 5
equation	a numerical sentence that shows two quantities are equal
is equal to (=)	is a number or amount that is the same as
make a ten	a strategy that teaches children to isolate a ten first to help them add numbers whose sum is greater than ten
plus (+)	put together with
sum	a number obtained as a result of addition

Lesson 1.1 Represent Addition

Build Understanding– 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Model with mathematics.
- Use appropriate tools strategically.

I Can Objective

I can represent addition using equations, pictures, and objects.

Learning Objective

Solve addition word problems and represent addition in different ways, such as with objects, drawings, and equations.

Language Objective

Explain the meaning of terms and symbols: *add*, *equation*, *is equal to (=), plus (+),* and *sum*.

Vocabulary

Review: add
New: equation, is equal to (=), plus (+), sum

Lesson Materials

pencils, MathBoard, connecting cubes, two-color counters, crayons

Lesson 1.2 Count On

Connect Concepts and Skills – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

Mathematical Practices and Processes

- Use appropriate tools strategically.

I Can Objective

I can count on to add.

Learning Objective

Use counting on as a strategy to solve addition facts.

Language Objectives

- Explain the meaning of count on in context.
- Describe how to count on to solve addition facts.

Vocabulary

Review: count on

Lesson Materials

pencils, connecting cubes, two-color counters, MathBoard

Lesson 1.3 Add 10 More

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Look for and make use of structure.

I Can Objective

I can find the sum of 10 and some more.

Learning Objective

Use ten frames to find the sum of 10 and a number less than 10.

Language Objective

Describe how to use ten frames to find sums.

Lesson Materials

Ten Frames (Teacher Resource Masters), pencils, two-color counters, connecting cubes

Lesson 1.4 Make a 10 to Add

Connect Concepts and Skills – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Use appropriate tools strategically.
- Look for and make use of structure.

I Can Objective

I can use the make a ten strategy to help add.

Learning Objective

Use the make a ten strategy to solve addition facts.

Language Objectives

- Explain what make a ten means in context.
- Explain how to solve problems using the make a ten strategy.

Vocabulary

New: make a ten

Lesson Materials

two-color counters, Ten Frames (Teacher Resource Masters), pencils, crayons, MathBoard

Lesson 1.5 Add Doubles

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Mathematical Practices and Processes

- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can identify, represent, and solve doubles facts.

Learning Objective

Represent and solve doubles facts.

Language Objectives

- Explain what a doubles fact is.
- Explain how to solve problems using doubles facts.

Vocabulary

New: doubles

Lesson Materials

connecting cubes, two-color counters, crayons, pencils, MathBoard

Lesson 1.6 Use Known Sums to Add

Connect Concepts and Skills – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can use doubles facts to help add other facts.

Learning Objective

Use doubles facts to solve other addition facts.

Language Objectives

- Explain what a doubles fact is.
- Describe how to use doubles facts to solve other facts.

Lesson Materials

connecting cubes, two-color counters, crayons, pencils, MathBoard

Lesson 1.7 Choose a Strategy to Add

Apply and Practice – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.

I Can Objective

I can choose a strategy to solve an addition problem.

Learning Objective

Apply strategies such as making a ten, counting on, and using doubles to solve addition word problems.

Language Objective

Explain how to decide which addition strategy to use to solve a problem.

Lesson Materials

connecting cubes, two-color counters

HMH into Math™ Grade 1

Unit 1: Ways to Add and Subtract

Unit 1 Project: Math Music
Unit 1 Learning Mindset Focus: Try Again / Collects and Tries Multiple Strategies

Module 2: Subtraction Strategies

Recommended Pacing with Assessments: 11 Days

Module 2 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children represented subtraction within 10 with concrete, visual, and written models. Children solved subtraction word problems within 10. Children subtracted fluently within 5.	Children subtract within 20, demonstrating fluency for subtraction within 10. Children use subtraction within 20 to solve word problems. Children relate counting to subtraction. Children understand subtraction as an unknown addend problem.	Children will use subtraction within 100 to solve one- and two-step word problems. Children will fluently subtract within 20 using mental strategies.

Module 2 Vocabulary

count on	to count forward from a given number
equation	a numerical sentence that shows two quantities are equal
make a ten	a strategy that teaches children to isolate a ten first to help them add numbers whose sum is greater than ten or subtract from a number that is greater than ten
subtract	to take away objects from a group or to compare groups
count back	to count backward from a given number
difference	the answer in a subtraction problem
minus (–)	a symbol that shows subtraction

Lesson 2.1 Represent Subtraction

Build Understanding – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Model with mathematics.

I Can Objective

I can represent subtraction using equations, pictures, and objects.

Learning Objective

Solve subtraction word problems and represent subtraction in different ways, such as with objects, drawings, and equations.

Language Objectives

- Explain what subtraction means.
- Use the new vocabulary terms *minus (–)* and *difference* in context.

Vocabulary

Review: equation, subtract
New: difference, minus (–)

Lesson Materials

pencils, connecting cubes, two-color counters, crayons, MathBoard

Lesson 2.2 Count Back

Connect Concepts and Skills – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can count back to solve a subtraction problem.

Learning Objective

Use counting back as a strategy to solve basic subtraction facts.

Language Objective

Explain how to count back to solve a subtraction problem.

Vocabulary

New: count back

Lesson Materials

pencils, connecting cubes, two-color counters, crayons, MathBoard

Lesson 2.3 Count on to Subtract

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Use appropriate tools strategically.

I Can Objective

I can count on to solve a subtraction problem.

Learning Objective

Use counting on as a strategy to solve basic subtraction facts.

Language Objective

Explain how to count on to solve a subtraction problem.

Vocabulary

Review: count on

Lesson Materials

pencils, two-color counters, connecting cubes, MathBoard

Lesson 2.4 Add to Subtract

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Understand subtraction as an unknown-addend problem.

Add and subtract within 20. . . . Use strategies such as counting on; making ten . . . ; decomposing a number leading to a ten . . . ; using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums. . . .

Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.

Mathematical Practices and Processes

- Model with mathematics.
- Look for and make use of structure.

I Can Objective

I can use addition to solve a subtraction problem.

Learning Objective

Use addition to solve basic subtraction facts.

Language Objectives

- Explain how to add to subtract.
- Explain how addition and subtraction are related.

Lesson Materials

pencils, two-color counters, connecting cubes, MathBoard

Lesson 2.5 Use 10 to Subtract

Connect Concepts and Skills – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add and subtract within 20. . . . Use strategies such as counting on; making ten . . . ; decomposing a number leading to a ten . . . ; using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums. . . .

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Use appropriate tools strategically.
- Look for and make use of structure.

I Can Objective

I can make a ten to solve a subtraction problem.

Learning Objective

Use making a ten as a strategy to solve basic subtraction facts.

Language Objectives

- Explain how to use the make a ten strategy to subtract.
- Explain how to use counters in a ten frame to make a ten.

Vocabulary

Review: make a ten

Lesson Materials

pencils, connecting cubes, two-color counters, number cubes, Ten Frames (Teacher Resource Masters)

Lesson 2.6 Choose a Strategy to Subtract

Apply and Practice – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. . .

Add and subtract within 20. . . . Use strategies such as counting on; making ten . . . ; decomposing a number leading to a ten . . . ; using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums. . . .

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Use appropriate tools strategically.

I Can Objective

I can choose a strategy to solve a subtraction problem.

Learning Objective

Choose a strategy to solve word problems involving basic subtraction facts.

Language Objectives

- Explain the strategy used to solve a subtraction word problem.
- Explain why a subtraction strategy was chosen to solve a problem.

Lesson Materials

two-color counters, Ten Frames (Teacher Resource Masters)

HMH into Math™ Grade 1

Unit 1: Ways to Add and Subtract

Unit 1 Project: Math Music
Unit 1 Learning Mindset Focus: Try Again / Collects and Tries Multiple Strategies

Module 3: Properties of Operations

Recommended Pacing with Assessments: 9 Days

Module 3 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children identified when a number of objects in one group is equal to the number of objects in another group. Children solved addition and subtraction problems within 10 with objects, drawings, and equations. Children demonstrated fluency for addition and subtraction within 5.	Children add and subtract within 20, and demonstrate fluency for addition within 10. Children apply the Commutative property of addition and the Associative property of addition. Children solve word problems by adding three numbers. Children understand the meaning of the equal sign. Children determine if equations involving addition or subtraction are true or false.	Children will add and subtract within 1,000, using strategies based on properties of operations. Children will fluently add and subtract within 20. Children will add up to four two-digit numbers. Children will determine an unknown number that makes an equation true.

Module 3 Vocabulary

addends	numbers that are added to form a sum

Lesson 3.1 Represent Addition in Any Order

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Apply properties of operations as strategies to add and subtract.

Mathematical Practices and Processes

- Model with mathematics.
- Look for and make use of structure.

I Can Objective

I can use objects and draw to show that the sum stays the same when the order of the addends changes.

Learning Objective

Represent the Commutative property of addition for sums within 20.

Language Objectives

- Explain the meaning of the term addend.
- Explain what it means to change the order of the addends

Vocabulary

New: addends

Lesson Materials

two-color counters, connecting cubes, crayons, pencil

Lesson 3.2 Add in Any Order

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Apply properties of operations as strategies to add and subtract.

Mathematical Practices and Processes

- Model with mathematics.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can show that when you change the order of addends the sum stays the same.

Learning Objective

Understand and apply the Commutative property of addition for sums within 20.

Language Objective

Explain why two addends can be added in any order and the sum stays the same.

Lesson Materials

two-color counters, connecting cubes, square tiles, pencil

Lesson 3.3 Represent Addition of 3 Numbers

Connect Concepts and Skills – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Apply properties of operations as strategies to add and subtract.

Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Look for and make use of structure.

I Can Objective

I can use objects and draw to show how to add three numbers.

Learning Objective

Represent the Associative property of addition for sums within 20.

Language Objective

Describe how you can add three numbers.

Lesson Materials

connecting cubes, two-color counters, square tiles, pencil

Lesson 3.4 Add 3 Numbers

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Apply properties of operations as strategies to add and subtract.

Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can use strategies to decide how to add three numbers.

Learning Objective

Understand and apply the Associative property of addition for sums within 20.

Language Objective

Explain how to use strategies to decide which two addends to add first when adding three numbers.

Lesson Materials

two-color counters, connecting cubes, color tiles, pencil

Lesson 3.5 Add 3 Numbers to Solve Problems

Apply and Practice – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Apply properties of operations as strategies to add and subtract.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Model with mathematics.

I Can Objective

I can find the sum of three numbers to solve word problems.

Learning Objective

Use the Associative property of addition to solve word problems within 20.

Language Objective

Give an example of a word problem that you would need to add three numbers to solve.

Lesson Materials

connecting cubes, two-color counters

Lesson 3.6 Determine Equal and Not Equal

Apply and Practice – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Attend to precision.

I Can Objective

I can draw and write to show whether an equation is true or false.

Learning Objective

Analyze equations to determine whether they are true or false.

Language Objectives

- Explain the meaning of the symbol *is equal to (=).*
- Explain how to determine whether an equation is true.

Lesson Materials

connecting cubes, two-color counters

Lesson 3.7 Develop Fluency in Addition

Apply and Practice – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Mathematical Practices and Processes

- Model with mathematics.
- Attend to precision.

I Can Objective

I can quickly solve addition facts within 10.

Learning Objective

Develop fluency for addition within 10.

Language Objective

Choose a number from 6 to 10 and tell all the ways you can add to make that number.

HMH into Math™ Grade 1

Unit 1: Ways to Add and Subtract

Unit 1 Project: Math Music
Unit 1 Learning Mindset Focus: Try Again / Collects and Tries Multiple Strategies

Module 4: Apply the Addition and Subtraction Relationship

Recommended Pacing with Assessments and Performance Task: 11 Days

Module 4 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children fluently added and subtracted within 5. Children solved addition and subtraction word problems within 10, including addition problems with both addends unknown. Children used objects, drawings, and equations to add and subtract within 10.	Children fluently add and subtract within 10. Children use the relationship between addition and subtraction to solve problems, find unknown addends, and solve facts within 20. Children represent and identify related facts. Children use addition to check subtraction within 20.	Children will fluently add and subtract within 20. Children will use the relationship between addition and subtraction to solve problems within 100 and recall basic facts. Children will use algebra to find unknown addends within 100.

Module 4 Vocabulary

addend	any number added to another number
related facts	addition and subtraction equations which share the same numbers

Lesson 4.1 Think Addition to Subtract

Connect Concepts and Skills – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Understand subtraction as an unknown-addend problem.

Add and subtract within 20. . . . Use strategies such as . . . using the relationship between addition and subtraction . . . .

Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Reason abstractly and quantitatively.

I Can Objective

I can use addition to help solve a subtraction problem.

Learning Objective

Use addition to solve subtraction facts.

Language Objectives

- Explain how to use addition to solve subtraction problems within 20.
- Describe the relationship between addition and subtraction.

Lesson Materials

two-color counters, connecting cubes, crayons, MathBoard, pencils

Lesson 4.2 Represent Related Facts

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add and subtract within 20. . . . Use strategies such as counting on; making ten . . . ; decomposing a number leading to a ten . . . ; using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 − 8 = 4); and creating equivalent but easier or known sums. . . .

Mathematical Practices and Processes

- Use appropriate tools strategically.

I Can Objective

I can represent related facts in different ways. I can use related facts to find unknown numbers.

Learning Objective

Represent related facts using objects, pictures, and equations.

Language Objective

- Explain the meaning of related facts.
- Discuss concrete and visual models of related facts.

Vocabulary

New: related facts

Lesson Materials

connecting cubes, two-color counters, MathBoard, pencils

Lesson 4.3 Identify Related Facts

Connect Concepts and Skills – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Look for and make use of structure.

I Can Objective

I can tell when addition and subtraction facts are related to each other.

Learning Objective

Understand how to determine if facts are related to each other.

Language Objectives

- Explain how to identify related facts.
- Tell why two given facts are related or not related.

Lesson Materials

two-color counters, connecting cubes, MathBoard, pencils

Lesson 4.4 Use Addition to Check Subtraction

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Mathematical Practices and Processes

- Model with mathematics.
- Look for and make use of structure.

I Can Objective

I can use a related addition fact to check the answer to a subtraction problem.

Learning Objective

Use a related addition fact to check subtraction.

Language Objective

Explain how to use addition to check the answer to a subtraction problem.

Lesson Materials

connecting cubes, two-color counters, MathBoard, pencils

Lesson 4.5 Use Subtraction to Find an Unknown Addend

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.

Mathematical Practices and Processes

- Model with mathematics.
- Look for and make use of structure.

I Can Objective

I can use a related subtraction fact to find an unknown addend.

Learning Objective

Use the relationship between addition and subtraction to find an unknown addend.

Language Objectives

- Describe the parts of an addition equation.
- Explain how to find an unknown addend using a related subtraction fact.

Vocabulary

New: addend

Lesson Materials

connecting cubes, two-color counters, MathBoard, pencils

Lesson 4.6 Solve for the Unknown Addend

Apply and Practice – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.

Mathematical Practices and Processes

- Model with mathematics.

I Can Objective

I can solve problems that have an unknown addend.

Learning Objective

Use subtraction to solve word problems with an unknown addend.

Language Objectives

- Describe how to solve word problems with an unknown addend.
- Explain how to use subtraction to find an unknown addend.

Lesson 4.7 Develop Fluency in Subtraction

Apply and Practice – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Mathematical Practices and Processes

- Model with mathematics.
- Look for and make use of structure.

I Can Objective

I can quickly solve subtraction facts within 10.

Learning Objective

Develop fluency with subtraction within 10.

Language Objectives

- Explain strategies to solve basic subtraction facts.
- Describe ways to subtract from a number.

HMH into Math™ Grade 1

Unit 2: Addition and Subtraction Situations and Data

Unit 2 Project: Pair Compare
Unit 2 Learning Mindset Focus: Get Help / Asks Questions

Module 5: Understand Add To and Take From Problems

Recommended Pacing with Assessments: 7 Days

Module 5 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children represented addition and subtraction by acting out situations. Children used addition and subtraction to solve word problems within 10.	Children use objects, drawings, and equations to represent and solve Add To and Take From Result Unknown problems within 20. Children use objects, drawings, and equations to represent and solve Add To and Take From Change Unknown problems within 20. Children use objects, drawings, and equations to represent and solve Add To and Take From Start Unknown problems within 20.	Children will use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to and taking from.

Module 5 Vocabulary

equation	a numerical sentence that shows two quantities are equal

Lesson 5.1 Represent Result Unknown Problems with Objects and Drawings

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Model with mathematics.

I Can Objective

I can add or subtract to solve word problems when the result is unknown and represent the problem with objects, drawings, and equations.

Learning Objective

Use objects and drawings to show Add To and Take From Result Unknown problems, write equations that match the problem, and solve the problem.

Language Objectives

- Explain how to determine which information is needed to solve Add To and Take From Result Unknown problems.
- Explain how to use objects, drawings, and equations to show Add To and Take From Result Unknown problems.

Vocabulary

Review: equation

Lesson Materials

number cubes, two-color counters, connecting cubes

Lesson 5.2 Represent Change Unknown Problems with Objects and Drawings

Build Understanding – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Model with mathematics.

I Can Objective

I can add or subtract to solve word problems when the change is unknown and represent the problem with objects, drawings, and equations.

Learning Objective

Use objects and drawings to show Add To and Take From Change Unknown problems, write equations that match the problem, and solve the problem.

Language Objectives

- Explain how to use objects and drawings to show Add To and Take From Change Unknown problems.
- Explain how to write equations to match Add To and Take From Change Unknown problems.

Lesson Materials

Ten Frames (Teacher Resource Masters), two-color counters, connecting cubes

Lesson 5.3 Represent Start Unknown Problems with Objects and Drawings

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Model with mathematics.
- Use appropriate tools strategically.

I Can Objective

I can add or subtract to solve word problems when the start is unknown and represent the problem with objects, drawings, and equations.

Learning Objective

Use objects and drawings to show Add To and Take From Start Unknown problems, write equations that match the problem, and solve the problem.

Language Objectives

- Explain how to use objects and drawings to show Add To and Take From Start Unknown word problems.
- Explain how to write equations to match Add To and Take From Start Unknown word problems.

Lesson Materials

Ten Frames

Lesson 5.4 Solve Add To and Take From Problems

Apply and Practice – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Model with mathematics.

I Can Objective

I can write equations to solve word problems when the result, change, or start is unknown.

Learning Objective

Use objects and drawings to show Add To and Take From Result Unknown, Change Unknown, or Start Unknown word problems and write equations that match the problem and solve the problem.

Language Objectives

- Explain how to recognize which quantity is unknown for Add To and Take From problems for result, change, or start unknown.
- Explain how to use objects, drawings, and equations to show and solve Add To and Take From problems for result, change, or start unknown.

HMH into Math™ Grade 1

Unit 2: Addition and Subtraction Situations and Data

Unit 2 Project: Pair Compare
Unit 2 Learning Mindset Focus: Get Help / Asks Questions

Module 6: Understand Put Together and Take Apart Problems

Recommended Pacing with Assessments: 12 Days

Module 6 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children solved word problems involving addition and subtraction within 10. Children used objects, drawings, and equations to represent and solve Put Together and Take Apart problems within 10.	Children use objects, drawings, and equations to represent and solve Put Together and Take Apart Total Unknown problems within 20. Children use objects, drawings, and equations to represent and solve Put Together and Take Apart Addend Unknown problems within 20. Children use objects, drawings, and equations to represent and solve Put Together and Take Apart Both Addends Unknown problems within 20.	Children will use addition and subtraction within 100 to solve word problems. Children will solve two-step addition and subtraction word problems.

Module 6 Vocabulary

equation	a numerical sentence that shows two quantities are equal

Lesson 6.1 Represent Total Unknown Problems with Objects and Drawings

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Model with mathematics.

I Can Objective

I can solve word problems when the total is unknown and represent the problem with objects, drawings, and equations.

Learning Objective

Use objects and drawings to show Put Together Total Unknown word problems, write an equation that matches the problem, and solve the problem.

Language Objective

Explain how to determine information needed to solve Put Together Total Unknown problems.

Vocabulary

Review: equation

Lesson Materials

number cube, two-color counters, connecting cubes, Ten Frames (Teacher Resource Masters)

Lesson 6.2 Represent Both Addends Unknown Problems with Objects and Drawings

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Model with mathematics.

I Can Objective

I can solve word problems when both addends are unknown and represent the problem with objects, drawings, and equations.

Learning Objective

Use objects and drawings to show Put Together and Take Apart Both Addends Unknown word problems, write an equation that matches the problem, and solve the problem.

Language Objectives

- Explain how to solve Put Together Both Addends Unknown problems.
- Explain how to write equations to match and solve word problems.

Lesson Materials

two-color counters, connecting cubes

Lesson 6.3 Represent Addend Unknown Problems with Objects and Drawings

Build Understanding – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Model with mathematics.

I Can Objective

I can solve word problems when one addend is unknown and represent the problem with objects, drawings, and equations.

Learning Objective

Use objects and drawings to show Put Together Addend Unknown word problems, write an equation that matches the problem, and solve the problem.

Language Objectives

- Explain how to use objects and drawings to solve Put Together Addend Unknown problems.
- Explain how to write equations to match and solve word problems.

Lesson Materials

two-color counters, connecting cubes

Lesson 6.4 Represent Total Unknown Problems with a Visual Model

Connect Concepts and Skills – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Model with mathematics.

I Can Objective

I can make a visual model to solve word problems when the total is unknown.

Learning Objective

Use visual models to show Put Together problems where the total is unknown, write an equation that matches the problem, and solve the problem.

Language Objective

- Explain how to use visual models to solve Put Together Total Unknown problems.
- Explain how to write equations to solve Put Together Total Unknown problems.

Lesson Materials

two-color counters, connecting cubes

Lesson 6.5 Represent Addend Unknown and Both Addends Unknown Problems with a Visual Model

Connect Concepts and Skills – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.

I Can Objective

I can make a visual model to solve word problems when one or both addends are unknown.

Learning Objective

Use visual models to show Put Together and Take Apart problems where one or both addends are unknown, write an equation that matches the problem, and solve the problem.

Language Objectives

- Explain how to use visual models to solve Put Together and Take Apart problems where one or both addends is unknown.
- Explain how to write equations to solve problem types.

Lesson Materials

two-color counters, connecting cubes, number cube

Lesson 6.6 Solve Put Together and Take Apart Problems

Apply and Practice – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Model with mathematics.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can solve word problems when the total is unknown or when one or both addends are unknown.

Learning Objective

Use visual models to show Put Together and Take Apart problems, write an equation that matches the problem, and solve the problem.

Language Objective

- Explain how to use visual models to solve Put Together and Take Apart problems.
- Explain how to write equations to solve problem types.

Lesson 6.7 Solve Addition and Subtraction Problems

Apply and Practice – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Attend to precision.

I Can Objective

I can choose ways to solve word problems to find unknown sums, differences, or addends.

Learning Objective

Solve Add To, Take From, Put Together, and Take Apart problems and write an equation that matches the problem.

Language Objective

Explain how to solve addition and subtraction problems.
Explain how to write equations to solve addition and subtraction problems.

Lesson Materials

connecting cubes, two-color counters, pencil

HMH into Math™ Grade 1

Unit 2: Addition and Subtraction Situations and Data

Unit 2 Project: Pair Compare
Unit 2 Learning Mindset Focus: Get Help / Asks Questions

Module 7: Understand Compare Problems

Recommended Pacing with Assessments: 12 Days

Module 7 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children used matching and counting strategies to identify if a group of objects is greater than, less than, or equal to another group of objects. Children solved addition and subtraction word problems using objects and drawings.	Children use objects, drawings, and equations to solve problem types within 20. Children solve situations involving comparing with unknowns in all positions.	Children will use addition and subtraction within 100 to solve comparing problem types. Children will use drawings and equations to solve problems.

Module 7 Vocabulary

fewer	smaller quantity or amount
more	greater quantity or amount

Lesson 7.1 Represent Difference Unknown Problems with Objects and Drawings

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Model with mathematics.
- Look for and make use of structure.

I Can Objective

I can solve addition and subtraction problems to find how many more and how many fewer.

Learning Objective

Solve Difference Unknown word problems by comparing.

Language Objective

Explain how the words *more* and *fewer* relate to finding the difference.

Lesson Materials

two-color counters, connecting cubes

Lesson 7.2 Represent Bigger Unknown Problems with Objects and Drawings

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Model with mathematics.
- Use appropriate tools strategically.

I Can Objective

I can solve a word problem to find the bigger unknown amount.

Learning Objective

Solve Bigger Unknown word problems by comparing.

Language Objective

Explain how the words *more* and *fewer* relate to finding the bigger unknown amount.

Lesson Materials

two-color counters, connecting cubes

Lesson 7.3 Represent Smaller Unknown Problems with Objects and Drawings

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can solve a word problem to find the smaller unknown amount.

Learning Objective

Solve Smaller Unknown word problems by comparing.

Language Objective

Describe how the words *more* and *fewer* relate to finding the smaller unknown amount.

Lesson Materials

two-color counters, connecting cubes

Lesson 7.4 Represent Difference Unknown Problems with a Visual Model

Connect Concepts and Skills – 2 Days Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Use appropriate tools strategically.

I Can Objective

I can use visual models and write equations to solve word problems that compare to find an unknown difference.

Learning Objective

Solve Difference Unknown word problems by comparing using a visual model.

Language Objective

Describe how the words *more* and *fewer* relate to finding the difference.

Lesson Materials

counters, connecting cubes

Lesson 7.5 Represent Difference Unknown Problems with a Visual Model

Connect Concepts and Skills – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Use appropriate tools strategically.

I Can Objective

I can use visual models and write equations to show bigger and smaller unknowns.

Learning Objective

Solve Bigger Unknown and Smaller Unknown word problems by comparing using a visual model.

Language Objective

Explain how the words *more* and *fewer* relate to finding Bigger Unknown and Smaller Unknown amounts in word problems.

Lesson Materials

two-color counters, connecting cubes

Lesson 7.6 Use Strategies to Solve Compare Problems

Apply and Practice – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Look for and express regularity in repeated reasoning.
- Construct viable arguments and critique the reasoning of others.

I Can Objective

I can use different strategies to solve word problems.

Learning Objective

Solve all Compare problem types using strategies.

Language Objective

Describe a strategy to solve a Compare problem.

Lesson 7.7 Solve Addition and Subtraction Situations

Apply and Practice – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Mathematical Practices and Processes

- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can write equations to model word problems.

Learning Objective

Solve different types of addition and subtraction situation problems.

Language Objective

Describe what the unknown is in a variety of different contexts.

Lesson Materials

counters, connecting cubes

HMH into Math™ Grade 1

Unit 2: Addition and Subtraction Situations and Data

Unit 2 Project: Pair Compare
Unit 2 Learning Mindset Focus: Get Help / Asks Questions

Module 8: Data

Recommended Pacing with Assessments and Performance Task: 10 Days

Module 8 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children classified and counted the number of objects in a category. Children compared groups by using matching and counting strategies. Children compared lengths of two objects to determine which is longer.	Children organize, represent, and interpret data in a picture graph, tally chart, or bar graph with up to three categories. Children ask and answer questions by using data from picture graphs, tally charts, or bar graphs. Children solve problems by organizing data in a tally chart or bar graph with up to three categories.	Children will use a picture graph, tally chart, and bar graph to represent data with up to four categories. Children will solve simple Put Together, Take Apart, and Compare problems using information from a bar graph.

Module 8 Vocabulary

bar graph	a graph that uses bars to show data
picture graph	a graph that uses pictures to show data
tally chart	a chart that uses tally marks to record data
tally marks (tallies)	a mark that shows one piece of data

Lesson 8.1 Interpret Picture Graphs

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Attend to precision.

I Can Objective

I can read a picture graph and use the graph to answer questions, such as how many more.

Learning Objective

Understand how to read a picture graph where each picture represents one and use data shown by the picture graph to answer questions.

Language Objectives

- Explain how a picture graph uses pictures to show data.
- Explain how to read picture graphs and interpret the pictures as numbers of items in that category.

Vocabulary

New: picture graph

Lesson Materials

connecting cubes, crayons, pencil

Lesson 8.2 Represent Data with Picture Graphs

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Attend to precision.

I Can Objective

I can make a picture graph to organize information and use the graph to answer questions.

Learning Objective

Make a picture graph where each picture represents one and use data shown by the picture graph to answer questions.

Language Objective

Explain how to show data in a picture graph.

Lesson Materials

plane shapes, crayons, pencil

Lesson 8.3 Interpret Tally Charts

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Attend to precision.

I Can Objective

I can read a tally chart and use the chart to answer questions.

Learning Objective

Understand how data is shown by a tally chart and use data shown by tallies in a tally chart to answer questions.

Language Objective

Explain how tallies in a tally chart can be used to display data.

Vocabulary

New: tally chart, tally marks (tallies)

Lesson Materials

two-color counters, connecting cubes, crayons, pencils

Lesson 8.4 Represent Data with Tally Charts

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Attend to precision.

I Can Objective

I can make a tally chart to organize information and use it to answer questions.

Learning Objective

Make a tally chart and use data shown by the tally chart to answer questions.

Language Objective

Explain how to use tally marks to show data in a tally chart.

Lesson Materials

connecting cubes, crayons, pencils

Lesson 8.5 Interpret Bar Graphs

Connect Concepts and Skills – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards
Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Mathematical Practices and Processes
- Reason abstractly and quantitatively.
- Attend to precision.

I Can Objective
I can read a bar graph and use the graph to answer questions.

Learning Objective
Understand how to read a bar graph and use data shown by the bar graph to answer questions.

Language Objectives
- Explain how a bar graph is different from a picture graph.
- Explain how the bars of a bar graph show the numbers of items in that category.

Vocabulary
New: bar graph

Lesson Materials
connecting cubes, crayons, pencils

Lesson 8.6 Represent Data with Bar Graphs

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards
Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Mathematical Practices and Processes
- Model with mathematics.
- Reason abstractly and quantitatively.

I Can Objective
I can make a bar graph to organize information and use it to answer questions.

Learning Objective
Understand how to read a bar graph and use data shown by the bar graph to answer questions.

Language Objective
Explain how to show data in a bar graph.

Lesson Materials
connecting cubes, crayons, pencils

Lesson 8.7 Use Data to Solve Problems

Apply and Practice – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Attend to precision.

I Can Objective

I can use information given in a word problem to make a tally chart or bar graph to solve the problem.

Learning Objective

Make and use a tally chart or bar graph to solve problems.

Language Objective

Explain how to solve a problem by organizing data in a tally chart or bar graph.

Houghton Mifflin Harcourt.
The Learning Company™

HMH into Math™ Grade 1

Unit 3: Numbers to 120

Unit 3 Project: 120-Grid Games
Unit 3 Learning Mindset Focus: Challenge Me / Accepts Challenges

Module 9: Understand Place Value

Recommended Pacing with Assessments: 5 Days

Module 9 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children counted to 100 by ones and tens. Children found ways to make 10.	Children understand that the two digits in a two-digit number represent tens and ones. Children understand that 10 is ten ones. Children understand that the numbers from 11 to 19 are composed of a ten and some ones.	Children will understand that the three digits in a three-digit number represent hundreds, tens, and ones. Children will understand that 100 is 10 tens.

Module 9 Vocabulary

ones	the value of a digit in the ones position on a place-value chart
ten	a group of 10 ones

Lesson 9.1 Make Ten and ones

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

10 can be thought of as a bundle of ten ones — called a "ten."

The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Look for and make use of structure.

I Can Objective

I can represent a number from 11 to 19 as a ten and ones with objects and drawings.

Learning Objective

Represent numbers 11–19 as 1 ten and ones using objects, drawings, and numerals.

Language Objective

Describe how a concrete model or visual model represents a number from 11 to 19.

Lesson Materials

connecting cubes, two-color counters, Ten Frame (Teacher Resource Masters), MathBoard, crayons, pencils

Lesson 9.2 Understand Ten and Ones

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

10 can be thought of as a bundle of ten ones — called a "ten."

The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Look for and make use of structure.

I Can Objective

I can write to represent a number from 11 to 19 as ten and ones in three different ways.

Learning Objectives

- Represent numbers 11–19 as 1 ten and some ones using objects and drawings.
- Write to represent equivalent forms of 1 ten and some ones.

Language Objective

Explain how numbers 11–19 can be shown and described as a ten and ones.

Vocabulary

New: ones, ten

Lesson Materials

Lesson Materials: two-color counters, connecting cubes, Ten Frame (Teacher Resource Masters), pencils

Lesson 9.3 Make Tens

Connect Concepts and Skills – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

10 can be thought of as a bundle of ten ones — called a "ten."

The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Look for and make use of structure.

I Can Objective

I can represent groups of ten from 10 to 90 as tens and ones and show the number with objects and drawings.

Learning Objective

Represent groups of ten in the range 10–90 with objects, drawings, and numerals.

Language Objective

Explain how to use tens to show the numbers 10, 20, 30, 40, 50, 60, 70, 80, or 90.

Lesson Materials

two-color counters, connecting cubes, Ten Frame (Teacher Resource Masters), Hundred Chart (Teacher Resource Masters), MathBoard, pencils, crayons

HMH into Math™ Grade 1

Unit 3: Numbers to 120

Unit 3 Project: 120-Grid Games
Unit 3 Learning Mindset Focus: Challenge Me / Accepts Challenges

Module 10: Count and Represent Numbers

Recommended Pacing with Assessments: 5 Days

Module 10 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children used objects and drawings to represent numbers from 11 to 20 as a ten and some ones (or as tens). Children counted to 100 by ones and by tens. read and wrote numbers to 20. Children explored place value for numbers to 20. Children decomposed numbers less than 10 in more than way.	Children count, read, and write numbers to 120. Children use objects and drawings to represent numbers to 120 as tens and ones. Children explore place value for numbers to 99. Children represent two-digit numbers as tens and ones in multiple ways. Children understand that 10 ones can be represented as a ten.	Children will count, read, and write numbers to 1,000. Children will represent three-digit numbers as hundreds, tens, and ones. Children will explore place value for numbers to 1,000. Children will represent three-digit numbers as hundreds, tens, and ones in multiple ways. Children will understand that 10 tens can be represented as a hundred and 10 hundreds can be represented as a thousand.

Module 10 Vocabulary

ones	the value of a digit in the ones position on a place-value chart
ten	a group of 10 ones

Lesson 10.1 Count to 10

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can count forward from any number up to 120.

Learning Objective

Count forward by ones from any number to 120.

Language Objectives

- Orally count forward by ones from any number up to 120.
- Explain how to use a counting chart to count forward from any number up to 120.

Lesson Materials

number cubes, connecting cubes, pencils, Counting Chart (Teacher Resource Masters), MathBoard

Lesson 10.2 Represent Numbers as Tens and Ones with Objects

Build Understanding – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Understand that the two digits of a two-digit number represent amounts of tens and ones.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Attend to precision.

I Can Objective

I can use objects to show a two-digit number as tens and ones.

Learning Objective

Represent two-digit numbers as tens and ones using objects and numbers.

Language Objectives

- Explain how to show a number as tens and ones in a place-value chart.
- Describe *tens* and *ones*.

Vocabulary

Review: ones, tens

Lesson Materials

base-ten blocks, connecting cubes, Place-Value Charts (Teacher Resource Masters), MathBoard, pencils

Lesson 10.3 Represent Numbers as Tens and Ones with Drawings

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Understand that the two digits of a two-digit number represent amounts of tens and ones.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Attend to precision.

I Can Objective

I can draw to show a two-digit number as tens and ones.

Learning Objective

Represent two-digit numbers as tens and ones using drawings and numbers.

Language Objectives

- Explain how to draw a quick picture to show tens and ones.
- Explain how to represent a two-digit number as tens and ones.

Lesson Materials

base-ten blocks, connecting cubes, Place-Value Charts

Lesson 10.4 Decompose Numbers in Different Ways

Connect Concepts and Skills – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

10 can be thought of as a bundle of ten ones—called a "ten."

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can show a two-digit number as tens and ones in different ways.

Learning Objective

Show two-digit numbers and tens and ones in more than one way.

Language Objectives

- Understand that a group of 10 ones is called a *ten*.
- Explain how to show a two-digit number as tens and ones in more than one way.

Lesson Materials

connecting cubes, small bags with 50–99 small objects, Place-Value Charts (Teacher Resource Masters), base-ten blocks, MathBoard, pencils

Lesson 10.5 Represent, Read, and Write Numbers from 100 to 110

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Look for and make use of structure.

I Can Objective

I can read and write numbers from 100 to 110 and show the numbers with objects and drawings.

Learning Objective

Read and write numbers from 100 to 110 and represent them as tens and ones using objects or pictures.

Language Objectives

- Read, write, and orally count numbers from 100 to 110.
- Explain how to represent numbers from 100 to 110 as tens and ones.

Lesson Materials

base-ten blocks, Counting Chart (Teacher Resource Masters), Place-Value Charts (Teacher Resource Masters), pencils

Lesson 10.6 Represent, Read, and Write Numbers from 110 to 120

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Look for and make use of structure.

I Can Objective

I can read and write numbers from 110 to 120 and show the numbers with objects and drawings.

Learning Objective

Read and write numbers from 110 to 120 and represent them as tens and ones using objects or pictures.

Language Objective

- Read, write, and orally count numbers from 110 to 120.
- Explain how to represent numbers from 110 to 120 as tens and ones.

Lesson Materials

120 small objects (such as base-ten blocks or connecting cubes), bags, connecting cubes, base-ten blocks, Counting Chart (Teacher Resource Masters), Place-Value Charts (Teacher Resource Masters), pencils

HMH into Math™ Grade 1

Unit 3: Numbers to 120

Unit 3 Project: 120-Grid Games
Unit 3 Learning Mindset Focus: Challenge Me / Accepts Challenges

Module 11: Compare Numbers

Recommended Pacing with Assessments and Performance Task: 8 Days

Module 11 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children used counting strategies to compare the number of objects in groups as greater than, less than, or equal to. Children used matching strategies to compare the number of objects in groups as greater than, less than, or equal to. Children compared written numbers 1–10.	Children use place value to compare two-digit numbers. Children compare numbers using symbols >, =, and <.	Children will use place value to compare three-digit numbers. Children will compare numbers using symbols >, =, and <.

Module 11 Vocabulary

compare	to describe whether amounts or sizes are equal to, less than, or greater than each other
is equal to (=)	a number or an amount that is the same as
ones	the value of a digit in the ones position on a place-value chart
ten	a group of 10 ones
is greater than (>)	more in quantity or amount
is less than (<)	fewer in quantity or amount

Lesson 11.1 Understand Greater Than

Build Understanding – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards
Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols **>**, **=**, and **<**.

Mathematical Practices and Processes
- Reason abstractly and quantitatively.
- Look for and make use of structure.

I Can Objective
I can use tens and ones to compare two-digit numbers and find which is greater.

Learning Objective
Use concrete modeling with tens and ones to compare two-digit numbers and determine which number is greater.

Language Objective
Explain what it means to say one number is greater than another number.

Vocabulary
Review: is greater than

Lesson Materials
base-ten blocks, Place-Value Chart (Teacher Resource Masters)

Lesson 11.2 Understand Less Than

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards
Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

Mathematical Practices and Processes
- Reason abstractly and quantitatively.
- Attend to precision.
- Construct viable arguments and critique the reasoning of others.

I Can Objective
I can use tens and ones to compare two-digit numbers and find which is less.

Learning Objective
Use concrete modeling with tens and ones to compare two-digit numbers and determine which number is less.

Language Objective
Explain what it means to say one number is less than another number.

Vocabulary
Review: is less than

Lesson Materials
base-ten blocks, Place-Value Chart (Teacher Resource Masters)

Lesson 11.3 Use Symbols to Compare

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.

Mathematical Practices and Processes

- Attend to precision.
- Look for and make use of structure.

I Can Objective

I can use the symbols <, >, and = to compare two-digit numbers.

Learning Objective

Use place value and the symbols >, <, and = to compare numbers.

Language Objective

Describe the meaning of the symbols for *is greater than, is equal to*, and *is less than* and explain how to use them to compare numbers.

Vocabulary

Review: =
New: >, <

Lesson Materials

base-ten blocks, Hundred Chart, Number Lines (Teacher Resource Masters)

Lesson 11.4 Compare Numbers

Apply and Practice – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

Mathematical Practices and Processes

- Attend to precision.
- Look for and make use of structure.

I Can Objective

I can compare two-digit numbers to solve problems.

Learning Objective

Compare two-digit numbers to solve problems.

Language Objectives

- Explain the meaning of the terms *is greater than, is less than, is equal to, more,* and *fewer*.
- Explain the steps to find a number that is both greater than 45 and less than 50.

HMH into Math™ Grade 1

Unit 4: Addition and Subtraction in Base Ten

Unit 4 Project: Fruit Pops for Puppies
Unit 4 Learning Mindset Focus: Bounce Back / Notices Others

Module 12: Understand Addition and Subtraction with Tens and Ones

Recommended Pacing with Assessments: 9 Days

Module 12 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children composed and decomposed numbers 11 to 19 into tens and ones. Children used drawings and equations to decompose and compose numbers.	Children add a two-digit number with a one-digit number or with a multiple of ten, within 100. Children subtract multiples of 10 in the range 10 to 90. Children use mental math to find 10 less and 10 more.	Children will add and subtract within 100. Children will solve addition and subtraction problems using drawings and equations with a symbol for the unknown number. Children will mentally add 10 or 100 to numbers 100–900.

Module 12 Vocabulary

equation	a numerical sentence that shows two quantities are equal
ones	the value of a digit in the ones position on a place-value chart
ten	a group of 10 ones

Lesson 12.1 Represent Adding Tens

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Model with mathematics.
- Look for and make use of structure.

I Can Objective

I can add multiples of ten with multiples of ten.

Learning Objective

Add tens to decade numbers.

Language Objectives

- Explain how to add tens to tens.
- Explain how to use equations to show problems.

Vocabulary

Review: equations, ones, tens

Lesson Materials

base-ten blocks, number cube, connecting cubes

Lesson 12.2 Represent Subtracting Tens

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Mathematical Practices and Processes

- Model with mathematics.
- Look for and make use of structure.

I Can Objective

I can subtract multiples of ten from multiples of ten.

Learning Objective

Subtract tens from decade numbers.

Language Objectives

- Explain how to subtract tens from tens.
- Explain how to use equations to show subtraction problems that subtract tens from tens.

Lesson Materials

connecting cube trains, base-ten blocks

Lesson 12.3 Add or Subtract Tens

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can add and subtract multiples of ten.

Learning Objective

Add and subtract multiples of ten from decade numbers. Write and solve equations that match the word problems.

Language Objectives

- Explain how to use concrete and visual models to add and subtract tens.
- Have children draw and write equations to add and subtract tens numbers.

Lesson Materials

base-ten blocks, cubes

Lesson 12.4 Use a Hundred Chart to Add

Connect Concepts and Skills – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Mathematical Practices and Processes

- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.

I Can Objective

I can use a hundred chart to add two-digit numbers with one-digit numbers or multiples of ten.

Learning Objective

Use a hundred chart to add ones and tens to a two-digit number and write the equation that matches the problem.

Language Objective

- Explain how to use a hundred chart to add two-digit numbers without regrouping.
- Explain how to use an equation to show word problems.

Lesson Materials

base-ten blocks

Lesson 12.5 Represent Addition with Tens and Ones

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Mathematical Practices and Processes

- Model with mathematics.
- Attend to precision.

I Can Objective

I can show how to add a one-digit number or a multiple of ten to a two-digit number by combining tens and ones.

Learning Objective

Use concrete models to add multiples of ten or ones to two-digit numbers and write equations to solve the problem.

Language Objective

- Explain how to use visual models to add tens and ones with two-digit numbers.
- Explain how to write equations to match visual models.

Lesson Materials

base-ten blocks

Lesson 12.6 Represent Make Ten to Add

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Use appropriate tools strategically.

I Can Objective

I can use the *make a ten* strategy to add a two-digit number and a one-digit number.

Learning Objective

Add a two-digit number and a one-digit number by *making a ten* using concrete models and visual models and write an equation to show the problem.

Language Objectives

- Explain what is the *make a ten* strategy.
- Explain how the *make a ten* strategy can help to solve problems and write equations.

Lesson Materials

base-ten blocks, number cube

Lesson 12.7 Represent Make Ten to Add with a Visual Model

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Model with mathematics.

I Can Objective

I can use a visual model to show how to use the *make a ten* strategy to add a two-digit number and a one-digit number.

Learning Objective

Use an open number line to add tens and ones to two-digit numbers by making a ten and write an equation to show the problem.

Language Objectives

- Explain what an open number line is.
- Explain how to use an open number line to add tens and ones to two-digit numbers by making a ten.
- Explain how to write equations to show the action on the open number line.

Lesson Materials

base-ten blocks

Lesson 12.8 Use Mental Math to Find 10 Less and 10 More

Apply and Practice – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.

I Can Objective

I can show 10 less or 10 more than a number without having to count.

Learning Objective

Use mental math to find 10 less than and 10 more than a number.

Language Objective

- Explain what is mental math in context.
- Explain how to solve problems by identifying 10 more and 10 less than a given number.

Lesson Materials

base-ten blocks

HMH into Math™ Grade 1

Unit 4: Addition and Subtraction in Base Ten

Unit 4 Project: Fruit Pops for Puppies
Unit 4 Learning Mindset Focus: Bounce Back / Notices Others

Module 13: Two-Digit Addition and Subtraction

Recommended Pacing with Assessments and Performance Task: 9 Days

Module 13 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children composed and decomposed numbers from 11 to 19 into tens and ones. Children added and subtracted within 20, demonstrating fluency for addition and subtraction within 10. Children used strategies to add and subtract.	Children add multiples of 10 and a two-digit number within 100. Children add a one-digit number and a two-digit number within 100. Children subtract multiples of 10 in the range 10–90 from multiples of 10 within 100. Children add 2 two-digit numbers within 100.	Children will use mental math to add tens and hundreds to a given number up to 1000. Children will use strategies to fluently add and subtract with 100.

Module 13 Vocabulary

count on	to count forward from a given number
make a ten	a strategy that teaches children to isolate a ten first to help them add numbers who sum is greater than ten

Lesson 13.1 Use a Hundred Chart to Show Two-Digit Addition and Subtraction

Connect Concepts and Skills – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Use appropriate tools strategically.

I Can Objective

I can use a hundred chart to add or subtract two-digit numbers.

Learning Objective

Use a hundred chart to add tens to a two-digit number and subtract tens from multiples of ten.

Language Objectives

- Explain how to add tens to a two-digit number using a hundred chart.
- Explain how to subtract tens from tens using a hundred chart.

Vocabulary

Review: count on

Lesson Materials

Hundred Chart (Teacher Resource Master), base-ten blocks (tens and ones), MathBoard

Lesson 13.2 Understand and Explain Place Value Addition

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Mathematical Practices and Processes

- Model with mathematics.
- Look for and make use of structure.

I Can Objective

I can use place value to add two-digit numbers.

Learning Objective

Add two-digit numbers within 100 using place value.

Language Objectives

- Explain how to use a place-value chart to show a two-digit number.
- Explain how to use tens and ones to add two-digit numbers with visual models and equations.

Lesson Materials

base-ten blocks, MathBoard, Hundred Charts (Teacher Resource Master), pencil

Lesson 13.3 Understand and Explain Place Value Subtraction

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Mathematical Practices and Processes

- Model with mathematics.
- Look for and make use of structure.

I Can Objective

I can use place value to subtract tens.

Learning Objective

Subtract multiples of ten from multiples of ten using place value.

Language Objectives

- Explain how to use place value to identify the number of tens.
- Explain how to use place value to subtract tens.

Lesson Materials

base-ten blocks, MathBoard

Lesson 13.4 Solve Two-Digit Addition and Subtraction Problems

Apply and Practice – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Mathematical Practices and Processes

- Attend to precision.
- Construct viable arguments and critique the reasoning of others.

I Can Objective

I can choose strategies to solve two-digit addition and subtraction problems.

Learning Objective

Choose a strategy to solve two-digit addition and subtraction word problems within 100.

Language Objectives

- Describe what information is needed to solve a word problem.
- Explain the strategies used to solve addition and subtraction word problems.

Vocabulary

Review: make a ten

Lesson Materials

base-ten blocks, Place-Value Charts (Teacher Resource Masters), index cards

Lesson 13.5 Practice Facts to 20

Apply and Practice – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Attend to precision.

I Can Objective

I can solve addition and subtraction facts to 20.

Learning Objective

Apply strategies to solve addition and subtraction facts to 20.

Language Objective

Explain how to use strategies to add and subtract within 20.

Lesson 13.6 Practice Two-Digit Addition and Subtraction

Apply and Practice – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Model with mathematics.

I Can Objective

I can add and subtract with two-digit numbers.

Learning Objective

Solve word problems by adding two-digit numbers within 100 and by subtracting multiples of ten from multiples of ten.

Language Objective

Explain how to solve two-digit addition and subtraction problems.

HMH into Math™ Grade 1

Unit 5: Geometry

Unit 5 Project: Wave a Flag
Unit 5 Learning Mindset Focus: Try Again / Learns Effectively

Module 14: Three-Dimensional Shapes

Recommended Pacing with Assessments: 6 Days

Module 14 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children described three-dimensional objects using shape names. Children identified shapes as two- or three-dimensional. Children analyzed and compared three-dimensional shapes, including cones, cubes, cylinders, and spheres. Children built three-dimensional shapes from components.	Children distinguish between defining attributes versus non-defining attributes of three-dimensional shapes, including cones, cubes, cylinders, rectangular prisms, and spheres. Children combine three-dimensional shapes to form composite shapes. Children combine composite shapes to make a new composite shape.	Children will recognize and draw three-dimensional shapes having specified attributes.

Module 14 Vocabulary

curved surface	a rounded surface
flat surface	a level surface
cone	a three-dimensional shape with a round base and a point at the top
cube	a square three-dimensional shape such as a box
cylinder	a three-dimensional shape with flat circular ends and a curved surface such as a tube
rectangular prism	a rectangular three-dimensional shape such as a brick
sphere	a round three-dimensional shape such as a ball

Lesson 14.1 Describe and Draw Three-Dimensional Shapes

Build Understanding – 2 Days

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.

Mathematical Practices and Processes

- Use appropriate tools strategically.

I Can Objective

I can describe, build, and draw three-dimensional shapes.

Learning Objective

Describe, build, and draw three-dimensional shapes.

Language Objectives

- Explain what a three-dimensional shape is.
- Describe the attributes of three-dimensional shapes.

Vocabulary

Review: curved surface, flat surface
New: cone, cube, cylinder, rectangular prism, sphere

Lesson Materials

three-dimensional shapes; pencils; MathBoard; Cone Pattern, Cube Pattern, Cylinder Pattern, Rectangular Prism Pattern (Teacher Resource Masters)

Lesson 14.2 Compose Three-Dimensional Shapes

Connect Concepts and Skills – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

Mathematical Practices and Processes

- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can combine three-dimensional shapes to make a new shape.

Learning Objective

Combine three-dimensional shapes to make composite shapes.

Language Objectives

- Explain how to combine three-dimensional shapes to make a new shape.
- Use three-dimensional shape names to describe a composite shape.

Lesson Materials

pencils, three-dimensional shapes, MathBoard

Lesson 14.3 Make New Three-Dimensional Shapes

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

Mathematical Practices and Processes

• Use appropriate tools strategically.

I Can Objective

I can make new three-dimensional shapes by putting together combined shapes.

Learning Objective

Make a new combined shape by putting together multiple composite shapes.

Language Objectives

• Explain what a combined three-dimensional shape is.
• Explain how to put composite shapes together to make a new shape.

Lesson Materials

pencils, three-dimensional shapes, MathBoard

HMH into Math™ Grade 1

Unit 5: Geometry

Unit 5 Project: Wave a Flag
Unit 5 Learning Mindset Focus: Try Again / Learns Effectively

Module 15: Two-Dimensional Shapes

Recommended Pacing with Assessments: 7 Days

Module 15 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children named shapes regardless of orientation or size. Children composed shapes to make a new larger shape.	Children distinguish between defining and non-defining attributes. Children use defining attributes to identify, build, and draw shapes. Children make composite shapes by combining shapes. Children make new shapes by combining composite shapes.	Children will use defining attributes to identify and draw two-dimensional shapes. Children will identify the number of angles in two-dimensional shapes.

Module 15 Vocabulary

circle	a two-dimensional, or flat, shape that is curved
rectangle	a two-dimensional, or flat, shape with 4 straight sides and 4 square vertices
square	a two-dimensional, or flat, shape with 4 straight sides of equal length and 4 square vertices
triangle	a two-dimensional, or flat, shape with 3 straight sides and 3 vertices
side	the line segments that form polygons
vertex	the point where 2 sides of a polygon meet
hexagon	a two-dimensional, or flat, shape with 6 straight sides and 6 vertices
trapezoid	*inclusive* a quadrilateral with at least one pair of parallel sides
trapezoid	*exclusive* a quadrilateral with exactly one pair of parallel sides

Lesson 15.1 Sort Two-Dimensional Shapes by Attribute

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.

Mathematical Practices and Processes

- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can use defining features to sort and identify two-dimensional shapes.

Learning Objective

Use attributes to sort and describe two-dimensional shapes.

Language Objectives

- Use defining words to sort shapes.
- Describe features that can be used to sort two-dimensional shapes.

Vocabulary

Review: circle, rectangle, square, triangle
New: side, vertex (vertices)

Lesson Materials

pattern blocks, plane shapes, Two-Dimensional Shape cards (Teacher Resource Masters)

Lesson 15.2 Describe and Draw Two-Dimensional Shapes

Build Understanding – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.

Mathematical Practices and Processes

- Look for and make use of structure.
- Construct viable arguments and critique the reasoning of others.

I Can Objective

I can use defining features to build and draw two-dimensional shapes.

Learning Objective

Build and draw two-dimensional shapes using attributes such as straight sides and vertices.

Language Objectives

- Explain how to use defining features to identify two-dimensional shapes.
- Use the words *sides* and *vertices* to describe two-dimensional shapes.

Vocabulary

Review: sides, vertices
New: hexagon, trapezoid

Lesson Materials

three-dimensional shapes, pattern blocks, plane shapes

Lesson 15.3 Compose Two-Dimensional Shapes

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Attend to precision.

I Can Objective

I can put two-dimensional shapes together to make a named shape.

Learning Objective

Combine two-dimensional shapes to make a composite shape.

Language Objectives

- Explain what it means to combine two-dimensional shapes.
- Explain how combining two-dimensional shapes makes a new shape.

Lesson Materials

pattern blocks, plane shapes

Lesson 15.4 Identify Composite Shapes

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Attend to precision.

I Can Objective

I can put two-dimensional shapes together to make new shapes.

Learning Objective

Combine two-dimensional shapes to make a composite shape, including shapes that have straight and curved sides.

Language Objective

Explain how you can combine two-dimensional shapes that have straight and curved sides.

Lesson Materials

pattern blocks, plane shapes, geometric shapes, Two-Dimensional Shapes (Teacher Resource Masters)

Lesson 15.5 Make New Two-Dimensional Shapes

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

Mathematical Practices and Processes

- Attend to precision.
- Look for and express regularity in repeated reasoning.

I Can Objective

I can put combined shapes together to make a new shape.

Learning Objective

Combine composite shapes to make a new shape.

Language Objectives

- Give an example of how to first make a combined shape and then make that same shape again.
- Explain how to put combined shapes together to make a new shape.

Lesson Materials

pattern blocks, 1-Inch Grid Paper (Teacher Resource Masters), scissors

HMH into Math™ Grade 1

Unit 5: Geometry

Unit 5 Project: Wave a Flag
Unit 5 Learning Mindset Focus: Try Again / Learns Effectively

Module 16: Fraction Foundations

Recommended Pacing with Assessments and Performance Task: 7 Days

Module 16 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children analyzed and compared two-dimensional shapes. Children identified two-dimensional shapes. Children composed simple shapes to form larger shapes.	Children show same-size shapes that make two-dimensional shapes. Children partition circles and rectangles into two or four equal or unequal shares. Children describe shares using the words *halves*, *half of*, *fourths*, *fourth of*, *quarters*, and *quarter*, *of*.	Children will recognize and draw shapes with specific attributes. Children will partition circles and rectangles into two, three, or four equal shares. Children will describe shares using the words *halves, thirds, half of, a third of,* etc.

Module 16 Vocabulary

equal shares	parts of a whole that are the same size
fourth of	one of four equal parts of a whole
fourths	four equal parts or shares
half of	one of two equal parts of a whole
halves	two equal parts or shares
quarter of	one of four equal parts or shares
quarters	four equal parts or shares
unequal shares	parts of a whole that are not the same size

Lesson 16.1 Take Apart Two-Dimensional Shapes

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves, fourths,* and *quarters,* and use the phrases *half of, fourth of,* and *quarter of.* Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

Mathematical Practices and Processes

- Attend to precision.
- Look for and make use of structure.

I Can Objective

I can identify and represent how shapes that are the same size and shape can make circles and rectangles.

Learning Objective

Show same-size shapes within a circle or rectangle.

Language Objectives

- Explain how to recognize same-size shapes.
- Explain how to show same-size shapes within a shape.

Vocabulary

Review: circle, square

Lesson Materials

MathBoard, crayons, pencils, plane shapes, pattern blocks

Lesson 16.2 Identify Equal or Unequal Shares

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves, fourths,* and *quarters,* and use the phrases *half of, fourth of,* and *quarter of.* Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

Mathematical Practices and Processes

- Construct viable arguments and critique the reasoning of others.
- Attend to precision.
- Look for and make use of structure.

I Can Objective

I can identify and represent equal shares and unequal shares in circles and rectangles.

Learning Objective

Identify equal or unequal shares in a circle or rectangle.

Language Objectives

- Explain how to determine equal shares and unequal shares.
- Explain how to show equal and unequal shares.

Vocabulary

New: equal shares, unequal shares

Lesson Materials

Equal and Unequal Shares Cards (Teacher Resource Masters), MathBoard, pencils, crayons, scissors

Lesson 16.3 Partition Shapes into Halves

Connect Concepts and Skills – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves, fourths,* and *quarters*, and use the phrases *half of, fourth of,* and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

Mathematical Practices and Processes

- Construct viable arguments and critique the reasoning of others.
- Attend to precision.
- Look for and make use of structure.

I Can Objective

I can identify and represent halves of circles and rectangles.

Learning Objective

Separate circles and rectangles into halves and describe the whole as two of the shares.

Language Objectives

- Explain how many halves are in a whole.
- Explain the meaning of *half of* and *halves*.

Vocabulary

New: half of, halves

Lesson Materials

MathBoard, crayons, pencils, Two-Dimensional Shapes (Teacher Resource Masters)

Lesson 16.4 Partition Shapes into Fourths

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves, fourths,* and *quarters*, and use the phrases *half of, fourth of,* and *quarter of.* Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Look for and make use of structure.

I Can Objective

I can identify and represent fourths of circles and rectangles.

Learning Objective

Separate circles and rectangles into fourths and describe the whole as four of the shares.

Language Objectives

- Explain how many fourths are in a whole.
- Explain the meaning of *fourths, fourth of, quarters,* and *quarter of.*

Vocabulary

New: fourth of, fourths, quarter of, quarters

Lesson Materials

MathBoard, crayons, pencils, scissors, Squares, Circles, and Rectangles (Teacher Resource Masters)

HMH into Math™ Grade 1

Unit 6: Measurement

Unit 6 Project: Ramp Races
Unit 6 Learning Mindset Focus: Bounce Back / Responds to Feedback

Module 17: Measure Length

Recommended Pacing with Assessments: 6 Days

Module 17 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children compared the length of two objects by using *longer* and *shorter*. Children described measurable attributes of objects. Children used *more of* and *less of* to describe the measurable attribute.	Children order objects by length. Children compare lengths indirectly. Children express length as a whole number of length units. Children measure length by placing length units end to end with no gaps or overlaps.	Children will use appropriate tools to measure length. Children will estimate lengths in inches, feet, centimeters, and meters. Children will determine differences in length of objects.

Module 17 Vocabulary

length	the measure of an object from end to end
longer	a length greater than one other object
shorter	a length shorter than one other object
longest	a length that is greater than all others in a group
shortest	a length that is less than all others in a group

Lesson 17.1 Order Length

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards
Order three objects by length; compare the lengths of two objects indirectly by using a third object.

Mathematical Practices and Processes
- Construct viable arguments and critique the reasoning of others.
- Attend to precision.

I Can Objective
I can order three objects by length.

Learning Objective
Order three objects by length.

Language Objectives
- Explain *longest* and *shortest*.
- Explain how to order three lengths.

Vocabulary
Review: length
New: longest, shortest

Lesson Materials
objects of different lengths

Lesson 17.2 Use Indirect Measurement to Compare Lengths

Connect Concepts and Skills – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards
Order three objects by length; compare the lengths of two objects indirectly by using a third object.

Mathematical Practices and Processes
- Reason abstractly and quantitatively.
- Look for and make use of structure.

I Can Objective
I can compare the lengths of two objects indirectly using the length of a third object.

Learning Objective
Compare two lengths using the length of a third object indirectly.

Language Objectives
- Explain how to use indirect measurement to compare length.
- Explain how to compare the lengths of two objects using a third object indirectly.

Vocabulary
Review: longer, shorter

Lesson Materials
objects of different lengths, pieces of string

Lesson 17.3 Use Nonstandard Units to Measure Length

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Attend to precision.

I Can Objective

I can measure the length of objects using units that are same size.

Learning Objective

Use nonstandard units that are the same size to measure the length of objects.

Language Objective

Explain how to use nonstandard units to measure objects.

Lesson Materials

square tiles, paper clips, ones blocks, objects of different lengths

Lesson 17.4 Make a Nonstandard Measuring Tool

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Attend to precision.

I Can Objective

I can make a measuring tool with units that are the same size and measure objects using the tool.

Learning Objective

Use nonstandard units to make a measuring tool to measure the length of objects.

Language Objective

Explain how to make a nonstandard measuring tool that shows units that do not overlap or have gaps between the units.

Lesson Materials

grid paper (Teacher Resource Masters), square tiles, paper clips, ones blocks, objects of different lengths

HMH into Math™ Grade 1

Unit 6: Measurement

Unit 6 Project: Ramp Races
Unit 6 Learning Mindset Focus: Bounce Back / Responds to Feedback

Module 18: Measure Time

Recommended Pacing with Assessments and Performance Task: 7 Days

Module 18 Mathematical Progressions

Prior Learning	Current Development	Future Connections
Children read and wrote numbers 1–20. Children counted forward from a given number.	Children tell and write time to the hour. Children tell and write time to the half hour.	Children will tell and write time to the nearest five minutes.

Module 18 Vocabulary

half hour	a unit of time equal to 30 minutes
half past	half an hour after a stated time
hour	a unit of time equal to 60 minutes
hour hand	the short hand on an analog clock
minute hand	the long hand on an analog clock
minutes	units used to measure short amounts of time; in one minute, the minute hand moves from one mark to the next

Lesson 18.1 Understand Time to the Hour

Build Understanding – 1 Day Professional Learning Video

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards
Tell and write time in hours and half-hours using analog and digital clocks.

Mathematical Practices and Processes
- Use appropriate tools strategically.
- Look for and make use of structure.

I Can Objective
I can tell time to the hour using the hour hand.

Learning Objective
Tell and write time to the hour using analog clocks.

Language Objective
Explain how to use the hour hand to tell time to the hour.

Vocabulary
New: hour, hour hand

Lesson Materials
crayons, MathBoards

Lesson 18.2 Understand Time to the Half Hour

Build Understanding – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards
Tell and write time in hours and half-hours using analog and digital clocks.

Mathematical Practices and Processes
- Attend to precision.
- Look for and express regularity in repeated reasoning.

I Can Objective
I can tell time to the half hour using the hour hand.

Learning Objective
Tell and write time to the half hour using analog clocks.

Language Objectives
- Explain a half hour.
- Explain how to show the position of the hour hand for a half hour time.

Vocabulary
New: half hour, half past

Lesson Materials
Time Cards (Teacher Resource Masters), crayons, MathBoards, scissors, pencils

Lesson 18.3 Tell Time to the Hour and Half Hour

Connect Concepts and Skills – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Tell and write time in hours and half-hours using analog and digital clocks.

Mathematical Practices and Processes

- Use appropriate tools strategically.
- Attend to precision.

I Can Objective

I can tell time to the hour and half hour using the hour and minute hand.

Learning Objective

Tell and write time to the hour and half hour on analog and digital clocks.

Language Objectives

- Explain time to the hour and half hour.
- Explain how to show time to the hour and half hour using the hour and minute hand.

Vocabulary

New: minute hand, minutes

Lesson Materials

MathBoards, Analog Clock Model (Teacher Resource Masters), fasteners

Lesson 18.4 Practice Time to the Hour and Half Hour

Apply and Practice – 1 Day

Conceptual	Conceptual and Procedural	Procedural
Build Understanding	Connect Concepts and Skills	Apply and Practice

Mathematics Standards

Tell and write time in hours and half-hours using analog and digital clocks.

Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Use appropriate tools strategically.

I Can Objective

I can tell time to the hour and half hour.

Learning Objective

Practice telling and writing time to the hour and half hour on analog and digital clocks.

Language Objective

Explain how to tell and write time to the hour and half hour.