Discovering the Joy in Math:

Scottsdale Unified SCHOOL DISTRICT



Dave Harwell
Senior Account Executive

Vanessa Whited
STEM Content Specialist

HMH Into Math®





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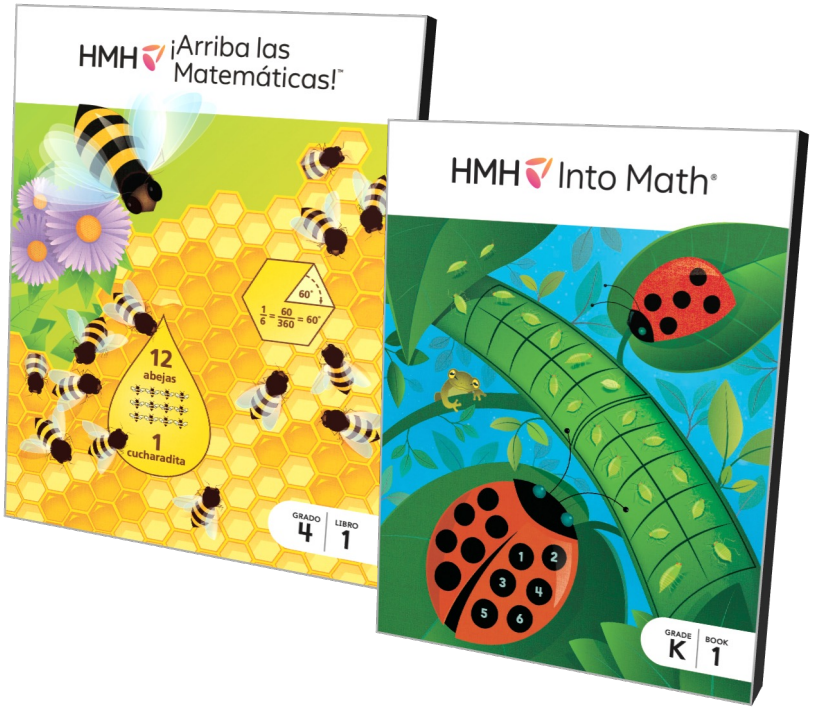
The World of Math



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Program resources



What if...

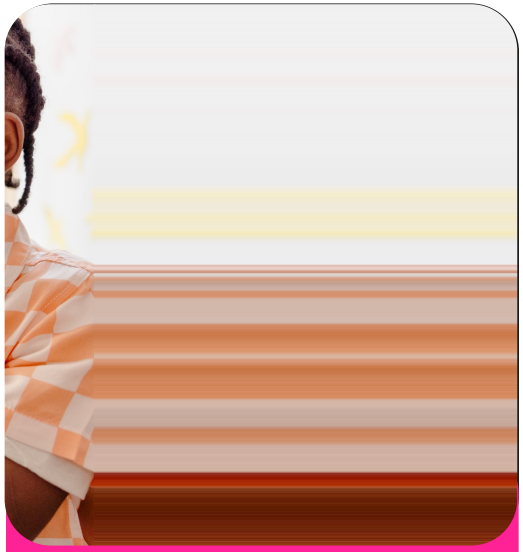
You had a comprehensive math program that helped **every student** find joy in math?

You could support **every teacher** in providing high quality instruction?

You had resources to meet the needs of each unique learner **every day**?

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Discovering the Joy of Math



Every Student



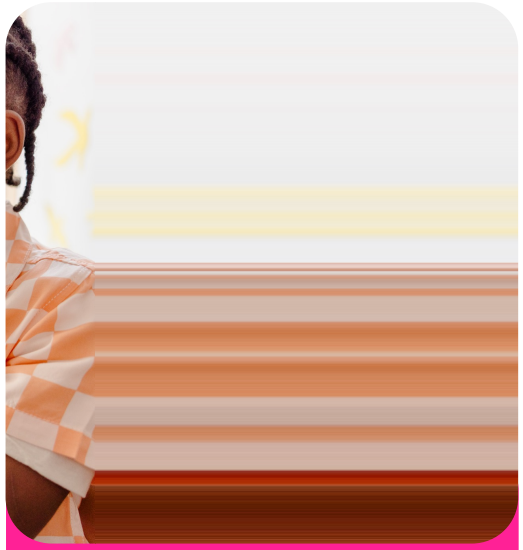
Every Teacher



Every Day

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Discovering the Joy of Math



Every Student

Every Teacher

Every Day

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Whole Class Lesson Flow



Learning Goal self evaluation



Learning Goal

I can make a ten to find sums.

Choose how well you understand this learning goal.



I don't understand.



I need more practice.

I've got it.

Spark Your Learning

Spark Your Learning

There are 10 berries in a bowl. Some berries are strawberries, and some are blueberries.

How many strawberries and blueberries are in the bowl?

Show two different ways to make a ten to find the possible numbers of each type of berry. Then use an addition fact to represent each way.

Show your thinking.



Name

Addition and Subtraction Within 20

Lesson 5.5

Use the Make-a-Ten
egy to Add
ng Goal
ke a ten to find sums.
ow well you understand this learning g

I need more practice. I've got it.

ark Your Learning

10 berries in a bowl. Some berries are
ies, and some are blueberries.
y strawberries and blueberries are in

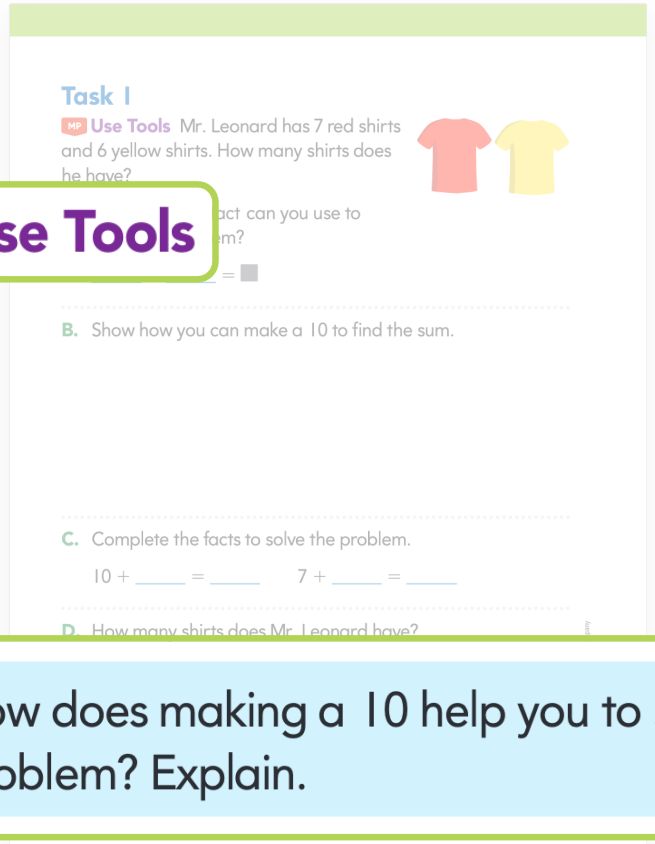
different ways to make a ten to find
le numbers of each type of berry.
an addition fact to represent each way.
r thinking.

Lesson Tools

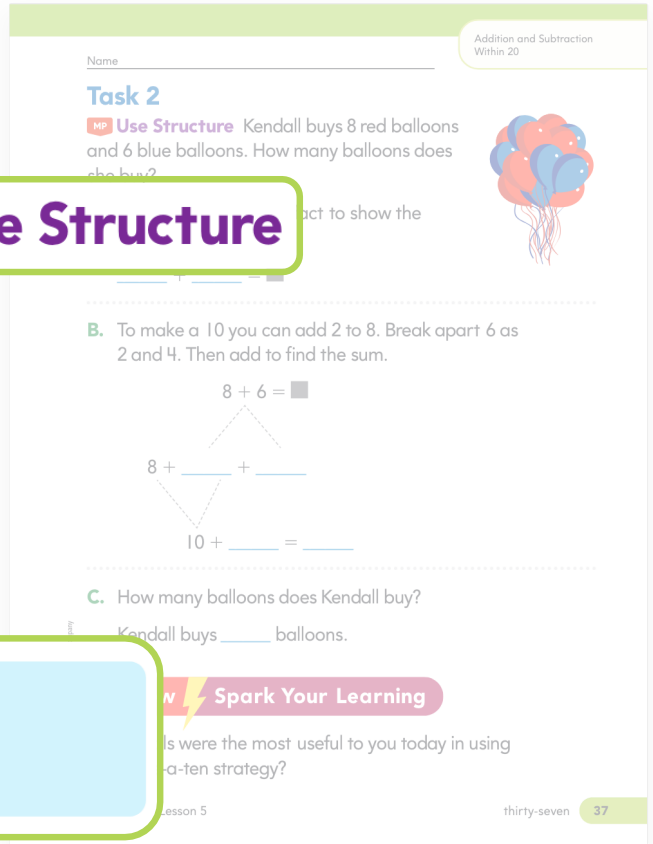


Turn & Talk How can you find all the possible combinations of strawberries and blueberries in the bowl?

Task-Based Learning & Discourse



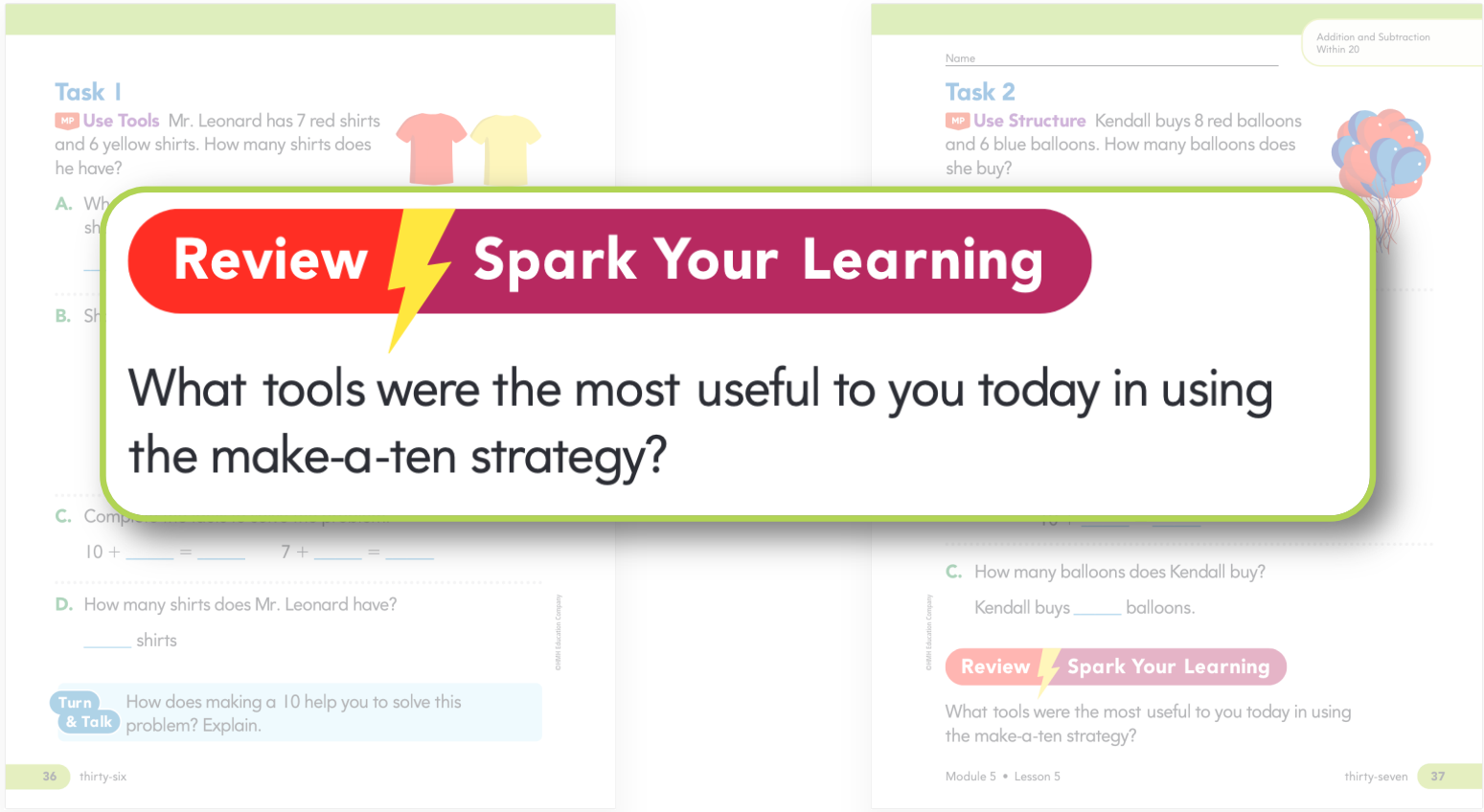
MP Use Tools



MP Use Structure

Turn & Talk How does making a 10 help you to solve this problem? Explain.

Task-Based Learning & Discourse



Mid-lesson formative assessment

Quick Check

1 Ben has 3 baseball cards. Jake gives him 9 cards. How many baseball cards does Ben have now? Make a ten to solve the problem.

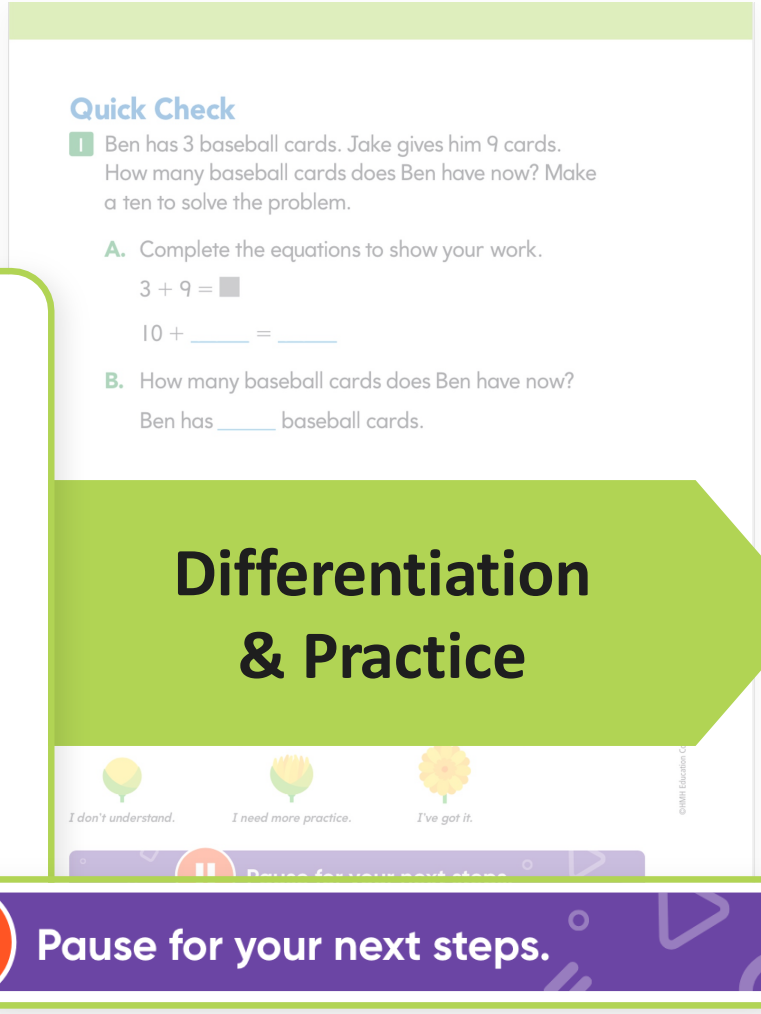
A. Complete the equations to show your work.

$3 + 9 = \square$

$10 + \_\_\_\_\_ = \_\_\_\_\_$

B. How many baseball cards does Ben have now?

Ben has _____ baseball cards.



Differentiation & Practice

Pause for your next steps.

Actionable Formative Assessment

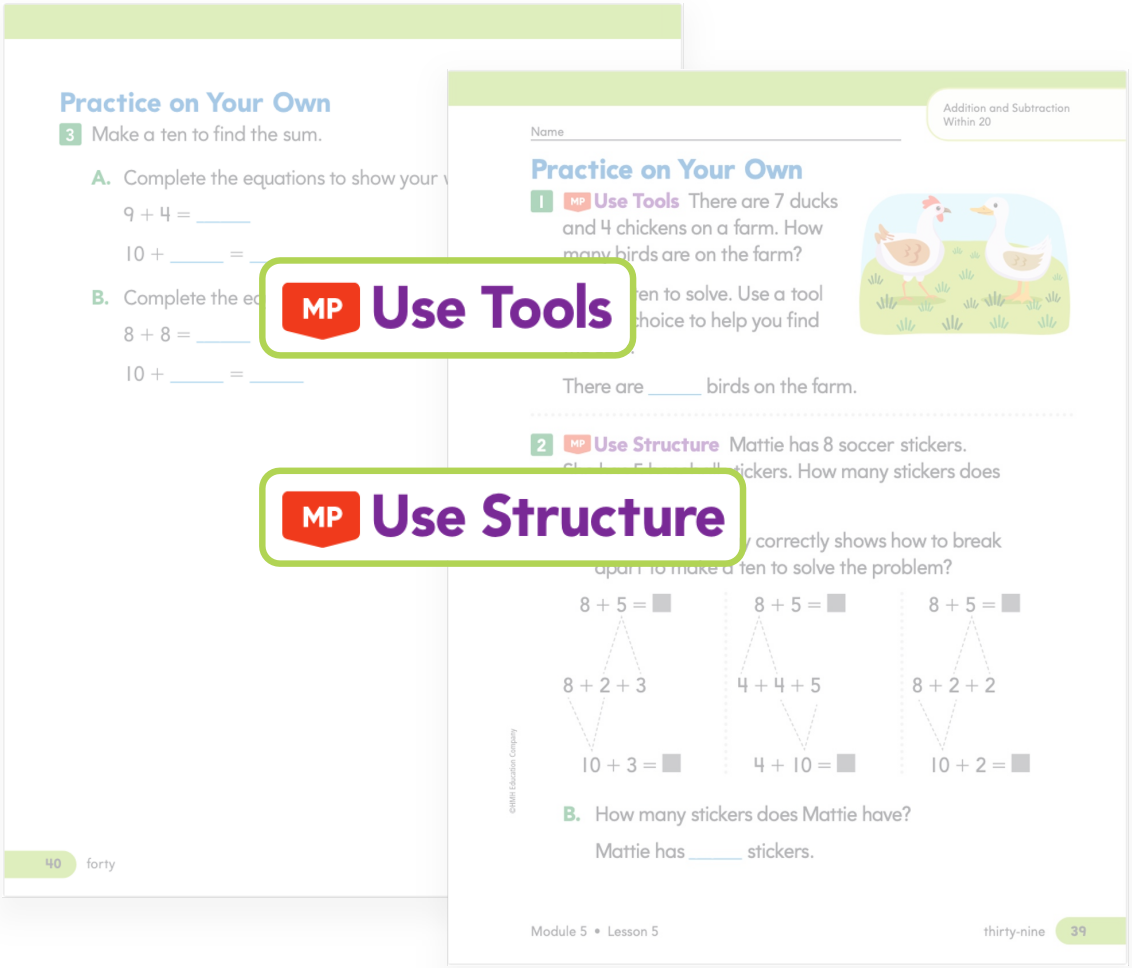


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Daily independent practice



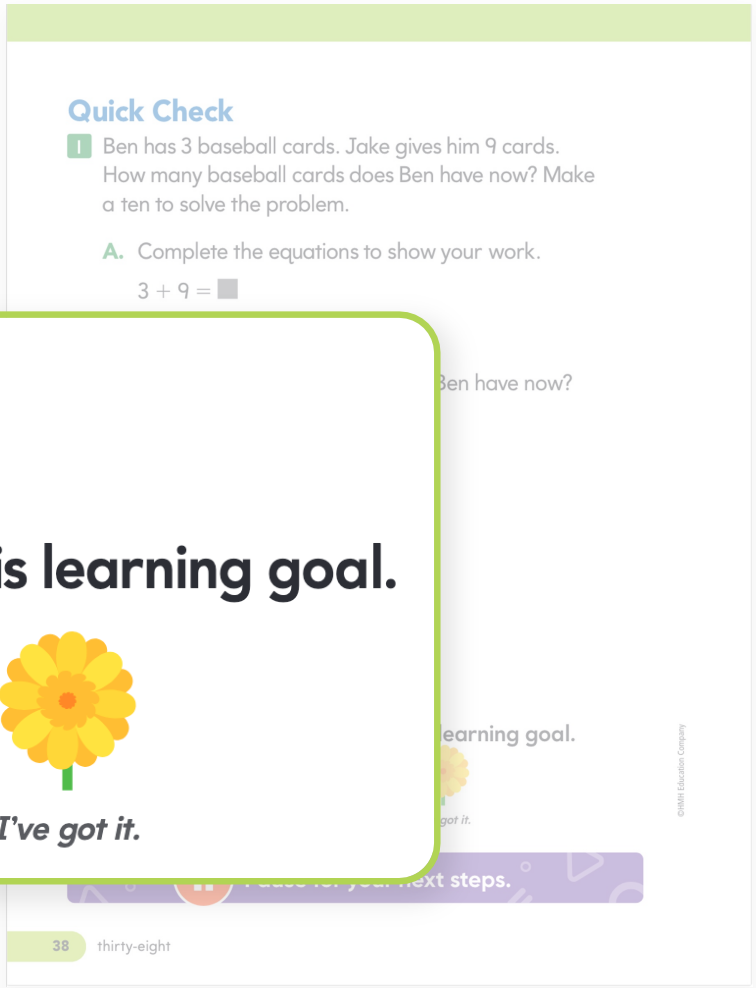


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Lesson closure and Exit Ticket



Learning Goal

I can make a ten to find sums.

Choose how well you understand this learning goal.



I don't understand.



I need more practice.

I've got it.

Whole Class Lesson Flow



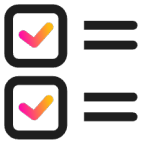
Get Ready

- Learning Goal routine



Learn

- Spark Your Learning: Three Reads routine
- Task 1: Three Reads and Stronger and Clearer Each Time routines
- Task 2: Three Reads and Compare and Connect routines
- Review Spark Your Learning

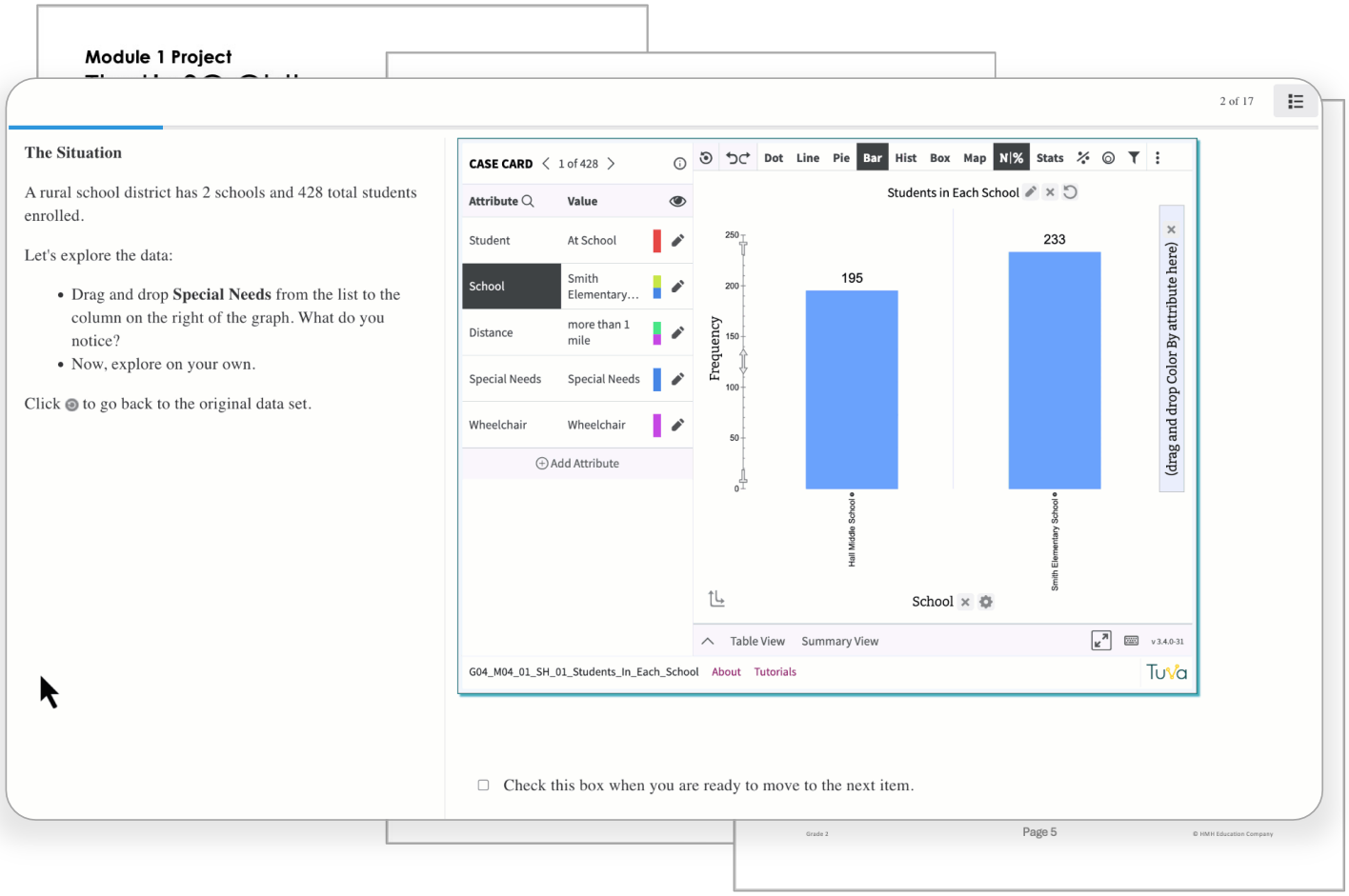


Assess

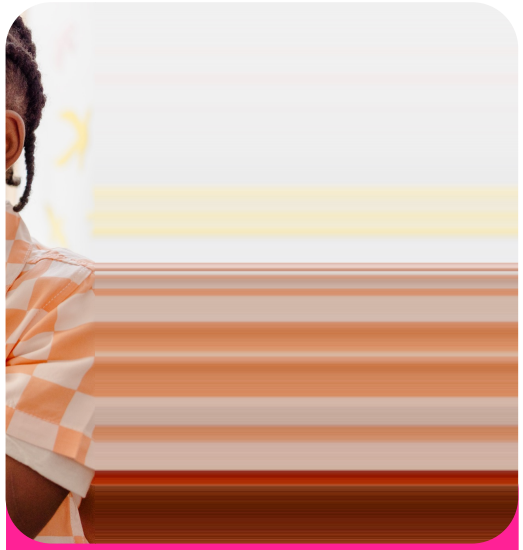
- Quick Check routine
- Learning Goal routine

Module Project

- ✓ STEM and Real World Connections
- ✓ UDL and MLL Teaching Strategies
- ✓ DOK 4 Level Questions



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Every Teacher

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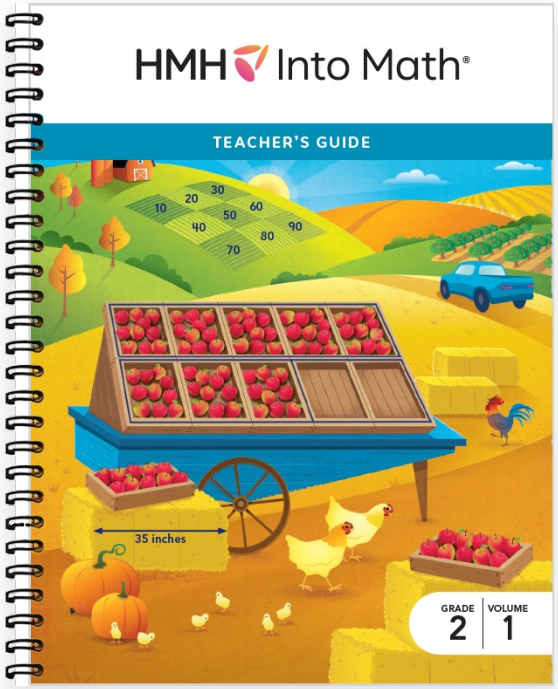
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Every Teacher

Every Day

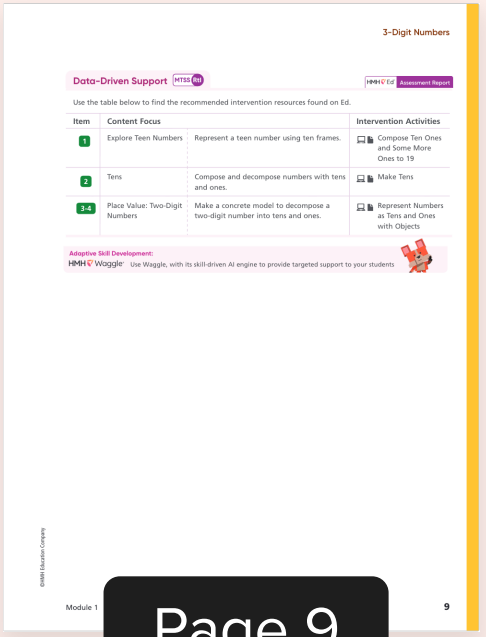
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Module Planning





Page 2



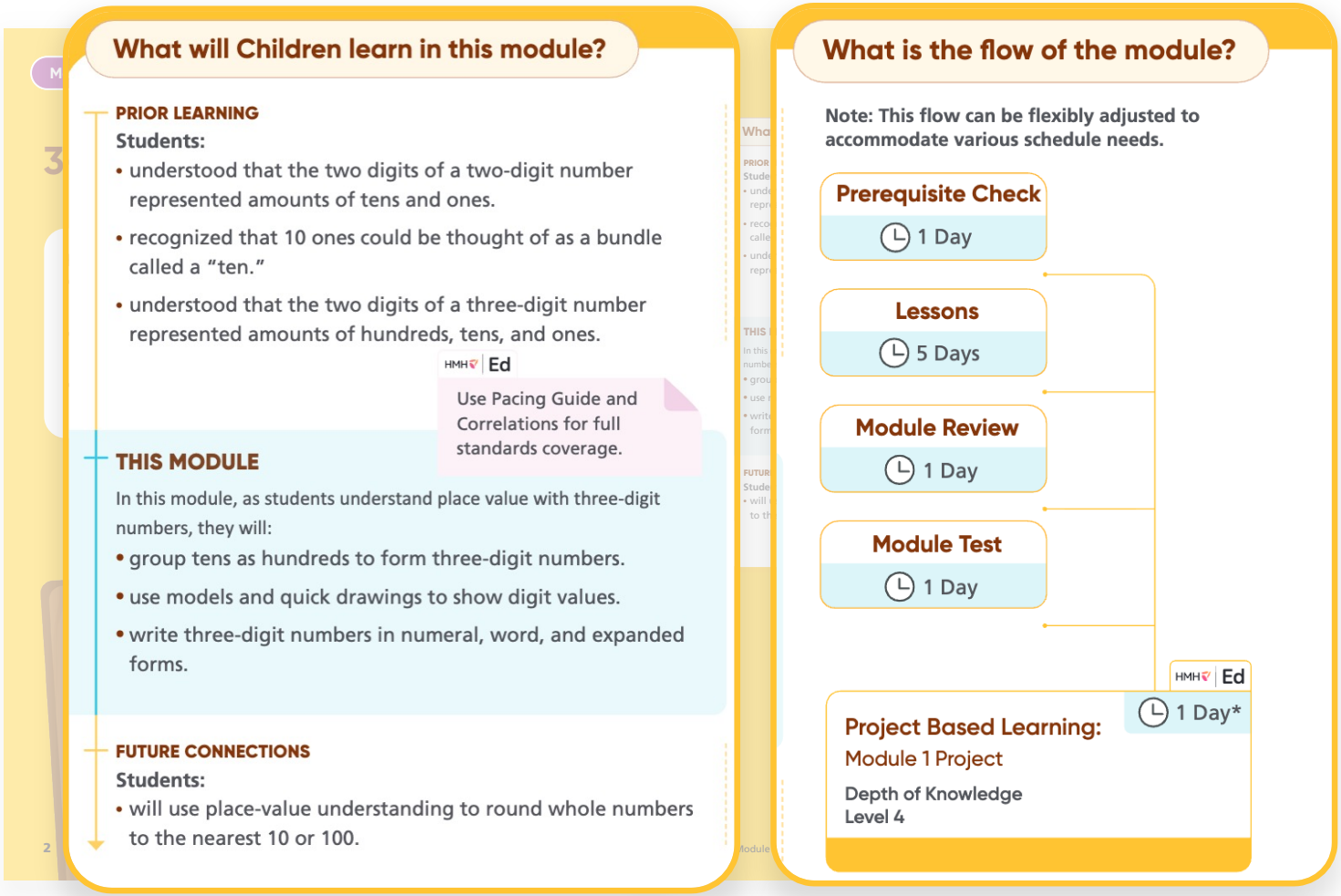
Page 9

Notice & Wonder

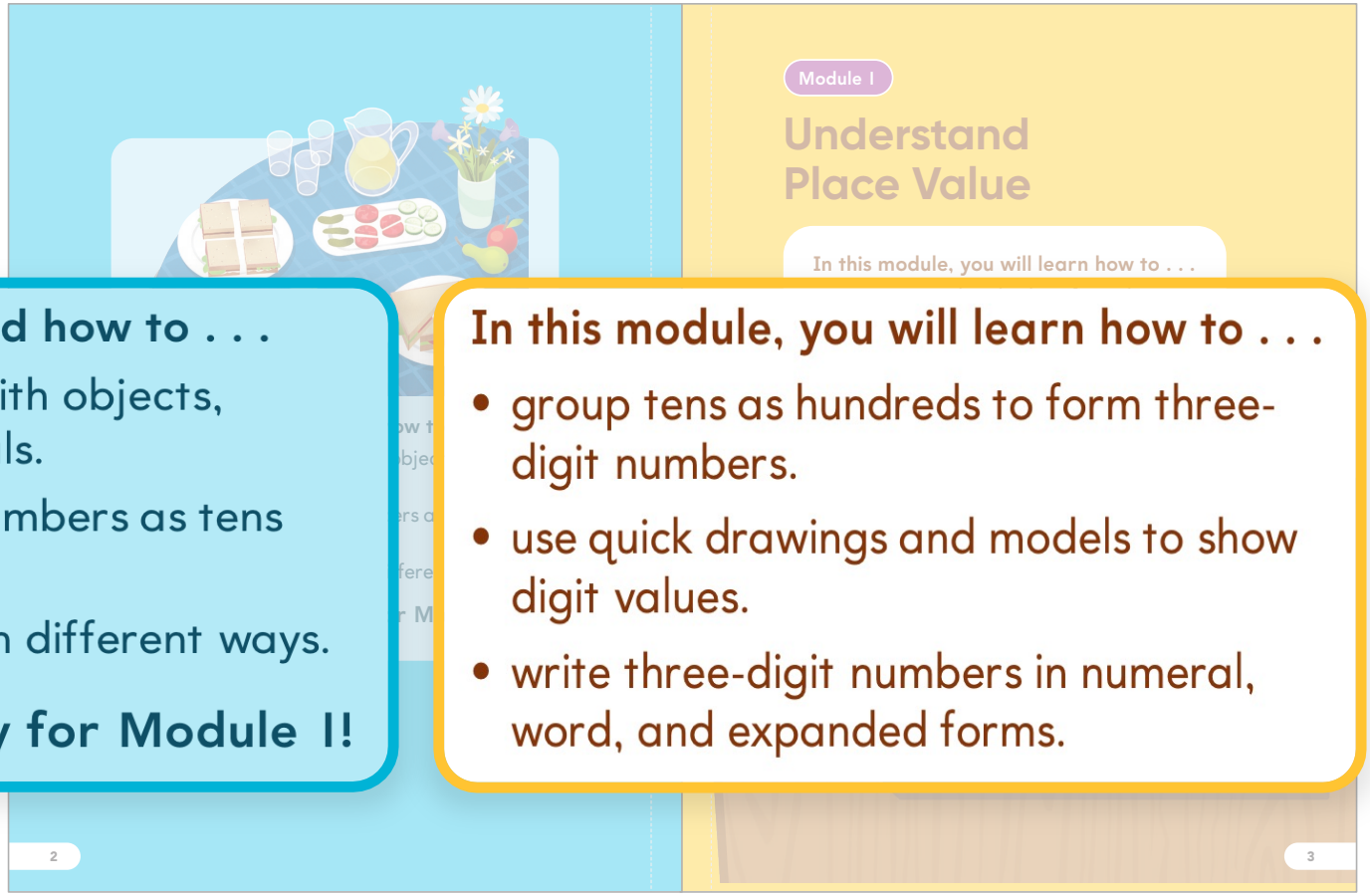
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Module Planning



Module for Students



In Grade 1, you learned how to . . .

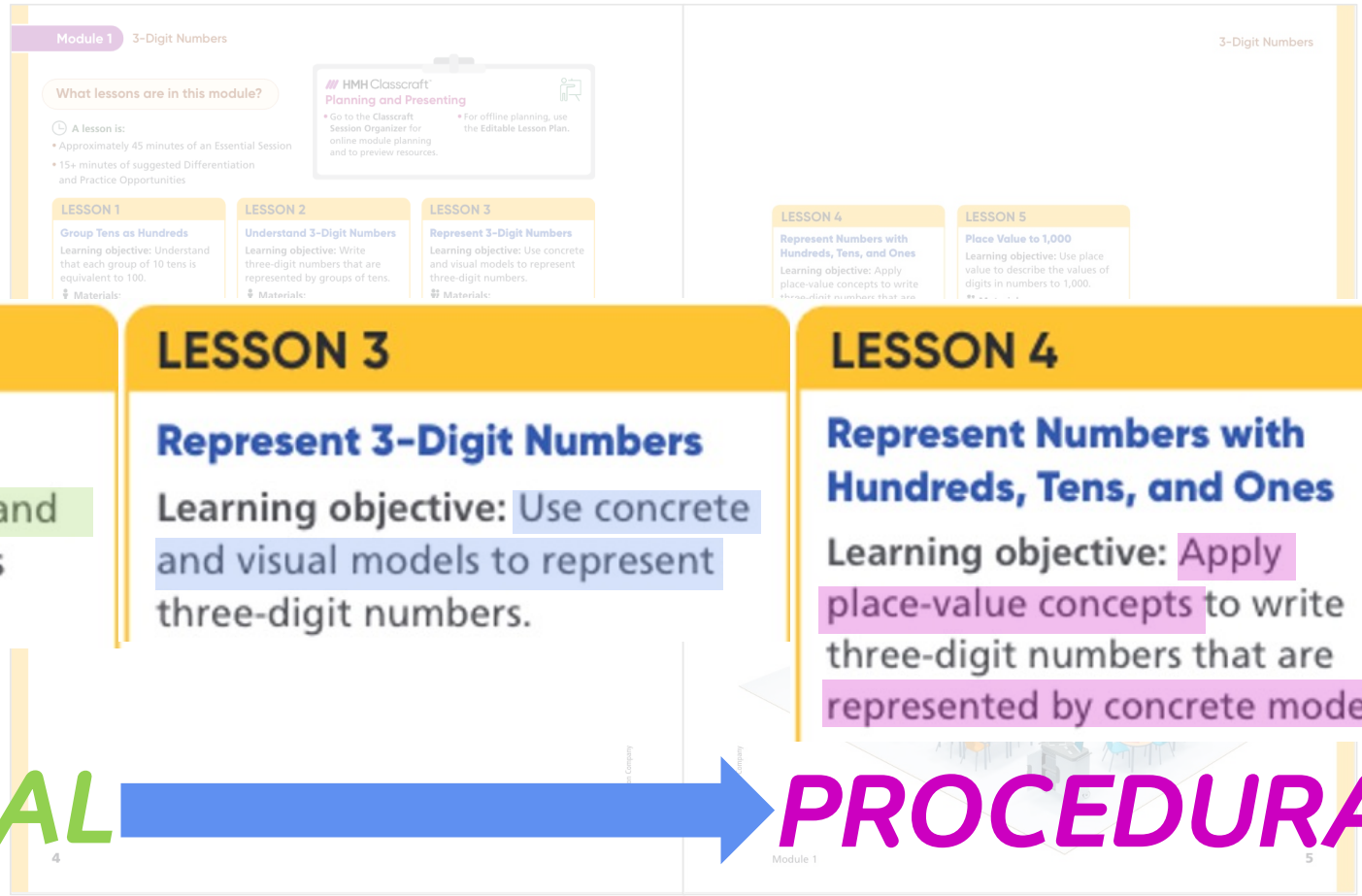
- represent a number with objects, drawings, and numerals.
- represent two-digit numbers as tens and ones.
- decompose numbers in different ways.

Now, let's get ready for Module 1!

In this module, you will learn how to . . .

- group tens as hundreds to form three-digit numbers.
- use quick drawings and models to show digit values.
- write three-digit numbers in numeral, word, and expanded forms.

Module Planning



LESSON 1

Group Tens as Hundreds

Learning objective: Understand that each group of 10 tens is equivalent to 100.

LESSON 3

Represent 3-Digit Numbers

Learning objective: Use concrete and visual models to represent three-digit numbers.

LESSON 4

Represent Numbers with Hundreds, Tens, and Ones

Learning objective: Apply place-value concepts to write three-digit numbers that are represented by concrete models.

CONCEPTUAL → PROCEDURAL

What if...

You could ensure the **active participation** of all your multilingual learners?

You could teach your students Math and English at the **same time**?

You could **readily incorporate** quick routines that support your students' language development?

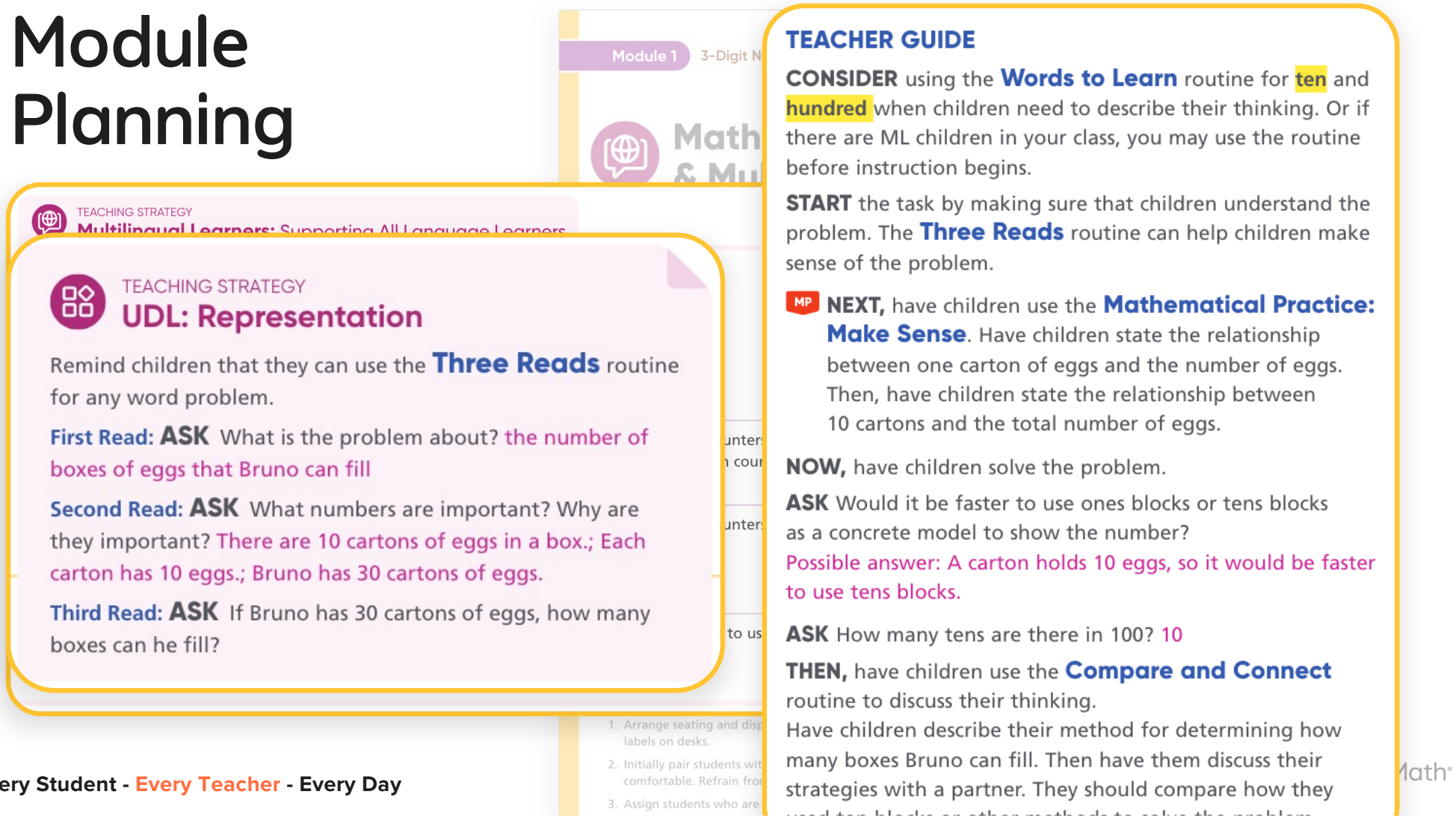
Multilingual Learner Support



Dr. Kate Kinsella

ENGLISH LEARNERS SUCCESS FORUM

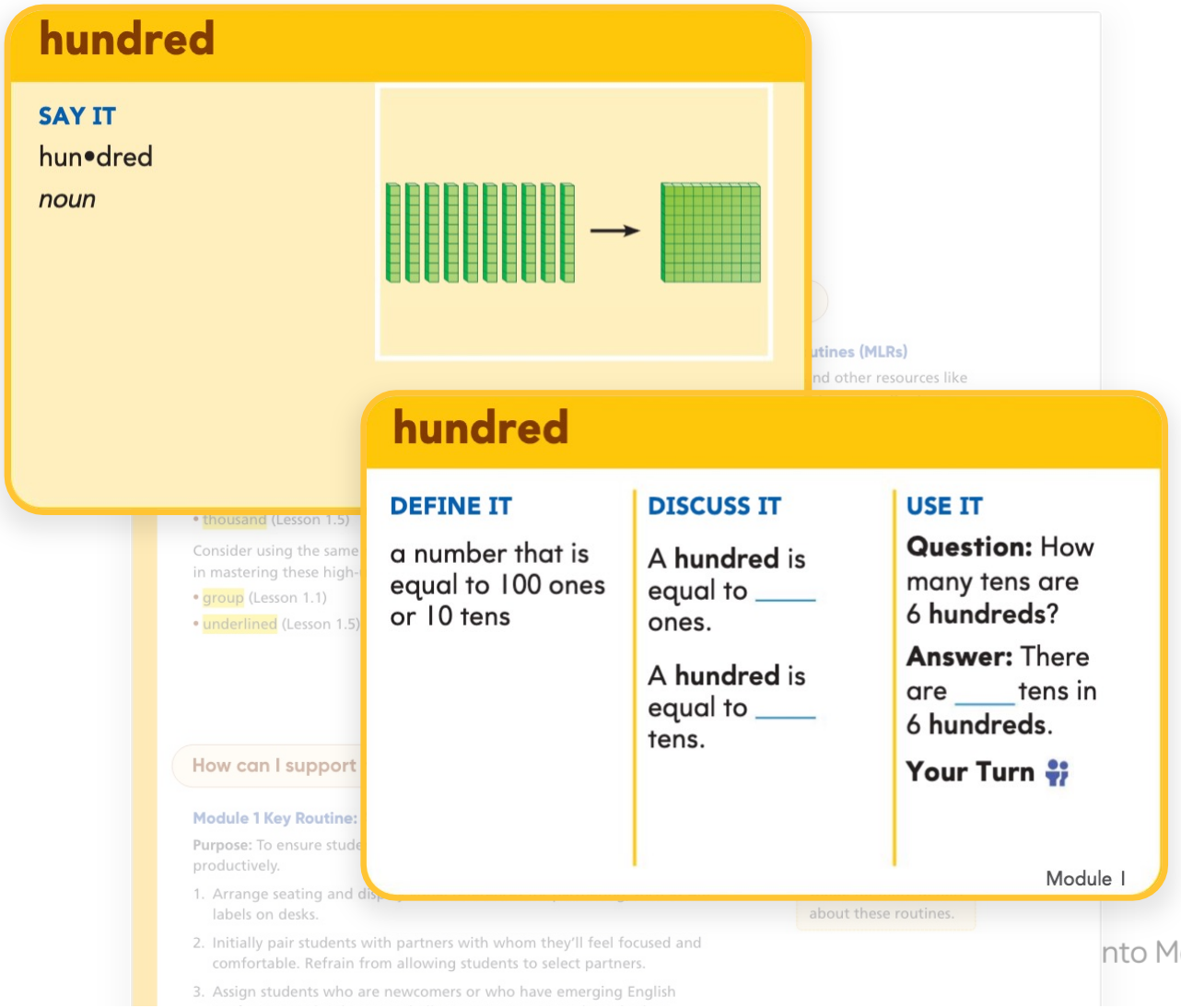
Module Planning



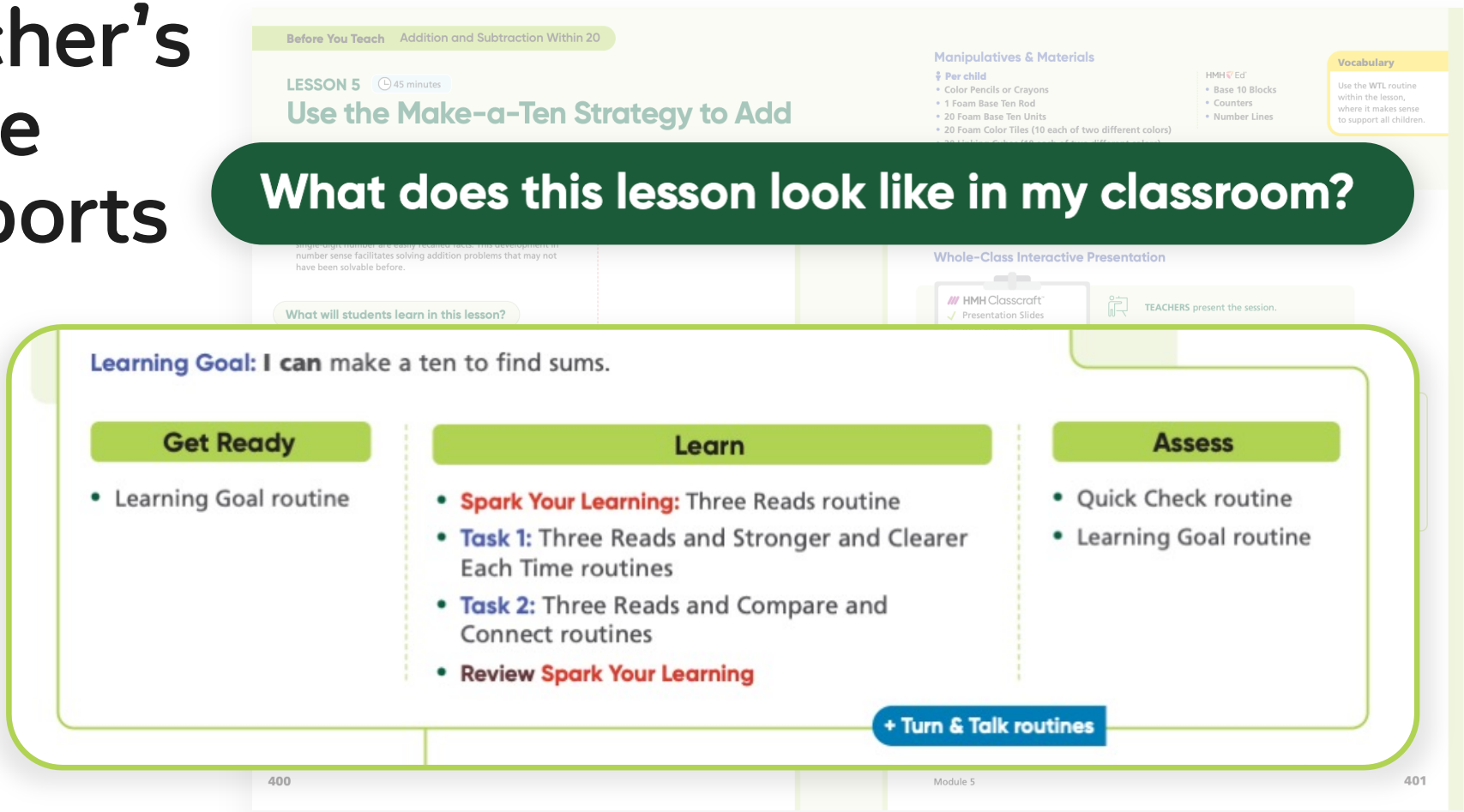
Module Planning



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Teacher's Guide Supports

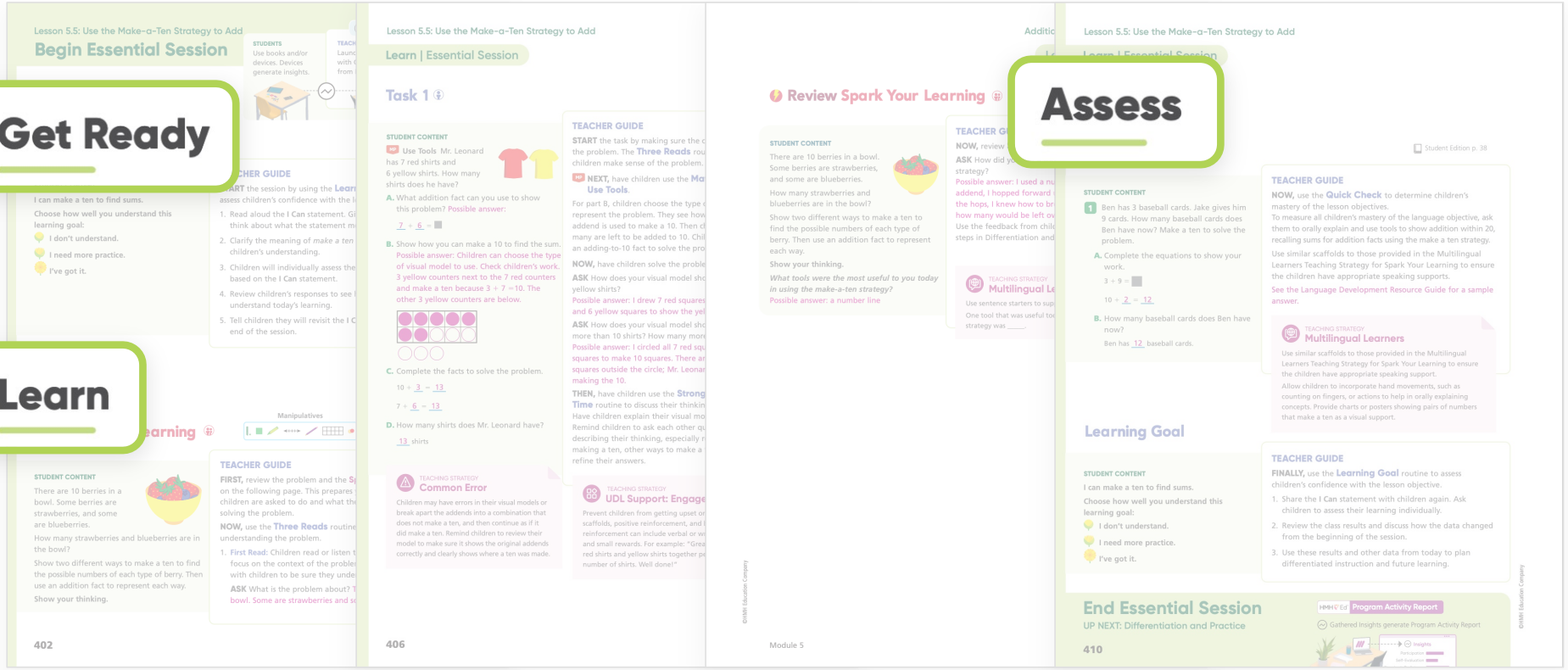


What does this lesson look like in my classroom?

Whole Class Lesson Flow



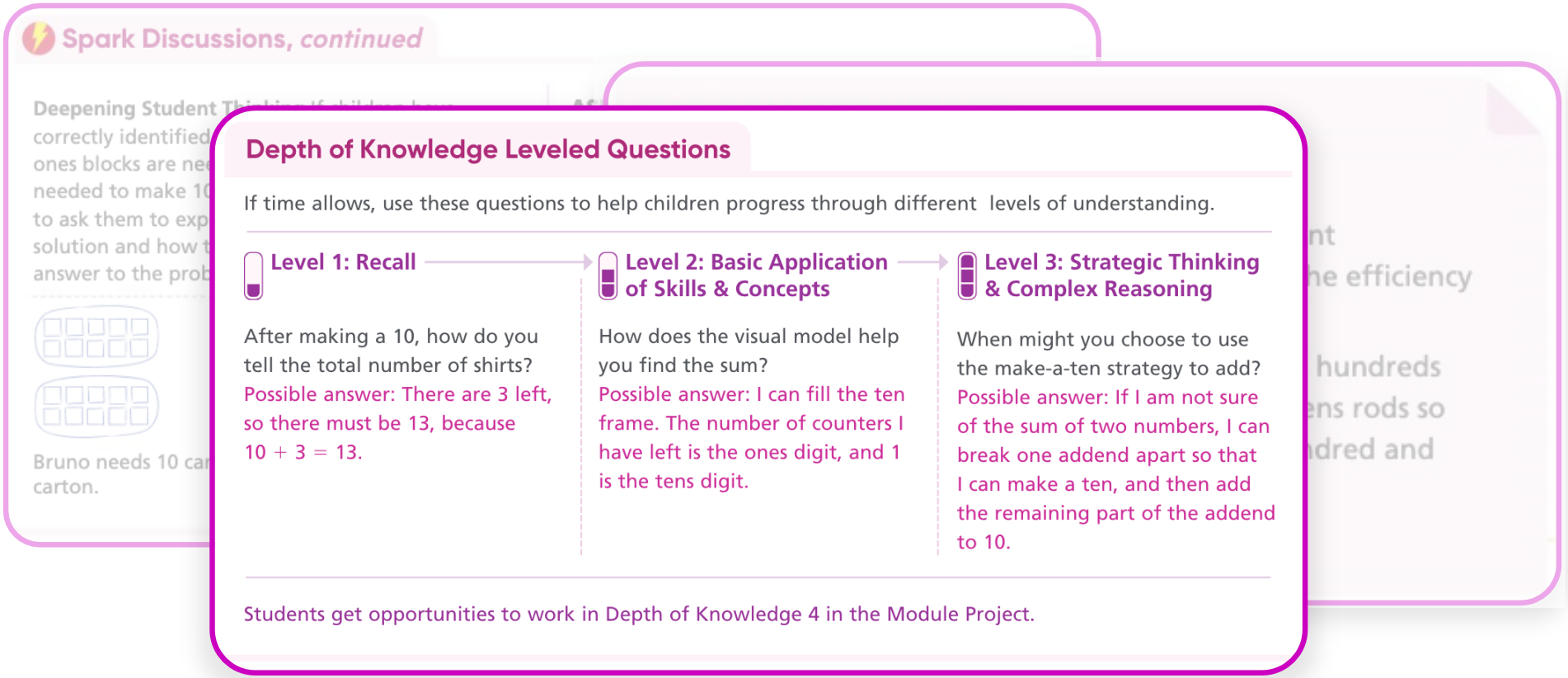
Facilitating Task-Based Learning



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Facilitating Task-Based Learning



Actionable Formative Assessment Guidance



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Every Student

Every Teacher



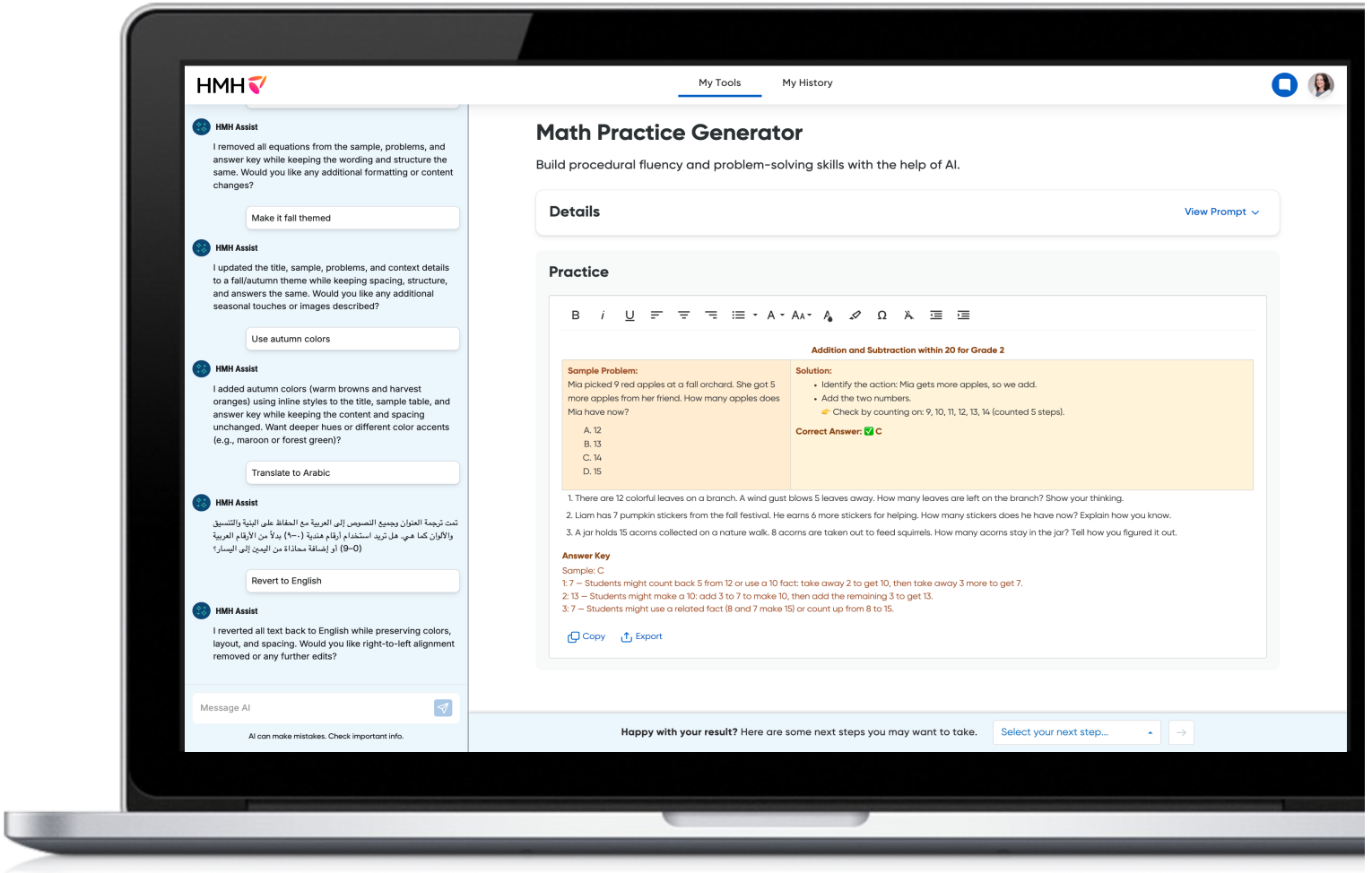
Every Day

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AI Tools Support Every Day

Generate:

- ✓ Quizzes
- ✓ Translations
- ✓ Newsletters



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What if...

You knew what **unfinished learning** your students have before beginning a Module?

You could gather **actionable** formative data each class day?

You could respond to **student needs** every day, at each stage of learning?

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Cycle of Assessment and Instruction



Diagnostic



Formative



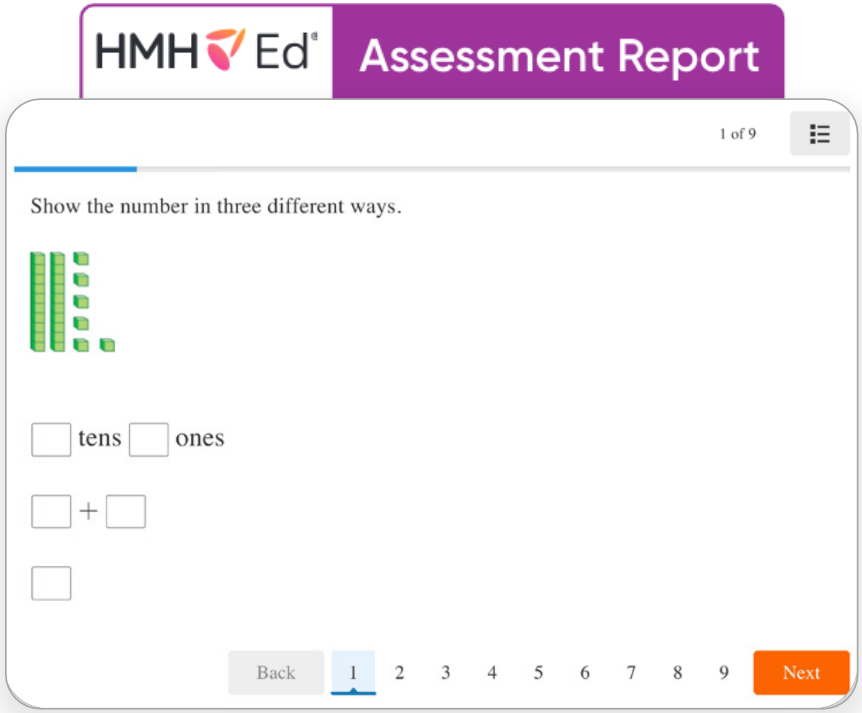
Summative



Interim



Prerequisite Check



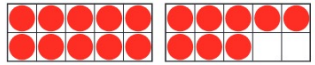
Name _____

Prerequisite Check

Complete these problems to review prior concepts and skills you will need for this module.

Explore Teen Numbers

1 Count how many. Give the number.



Tens

2 Show the tens. Count the tens. Give the number.

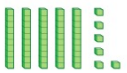
A. Make a quick drawing to show 40 ones.

B. Count the tens and give the number.

_____ tens = _____

Place Value: Two-Digit Numbers

Look at the picture of base-ten blocks. Show how many tens and ones. Show the number.

3 

_____ tens _____ ones

_____

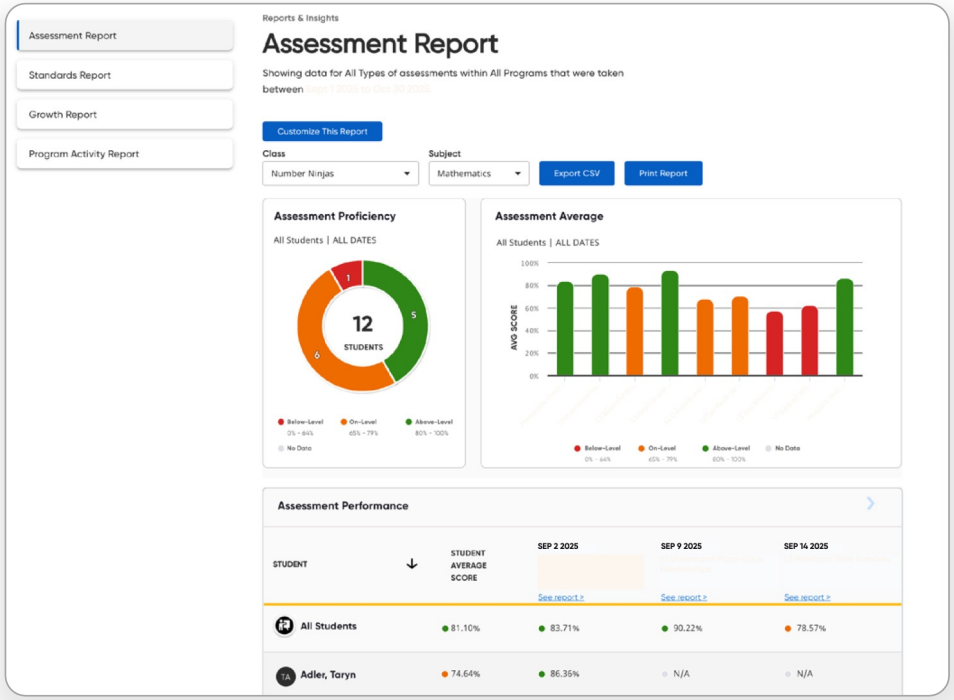
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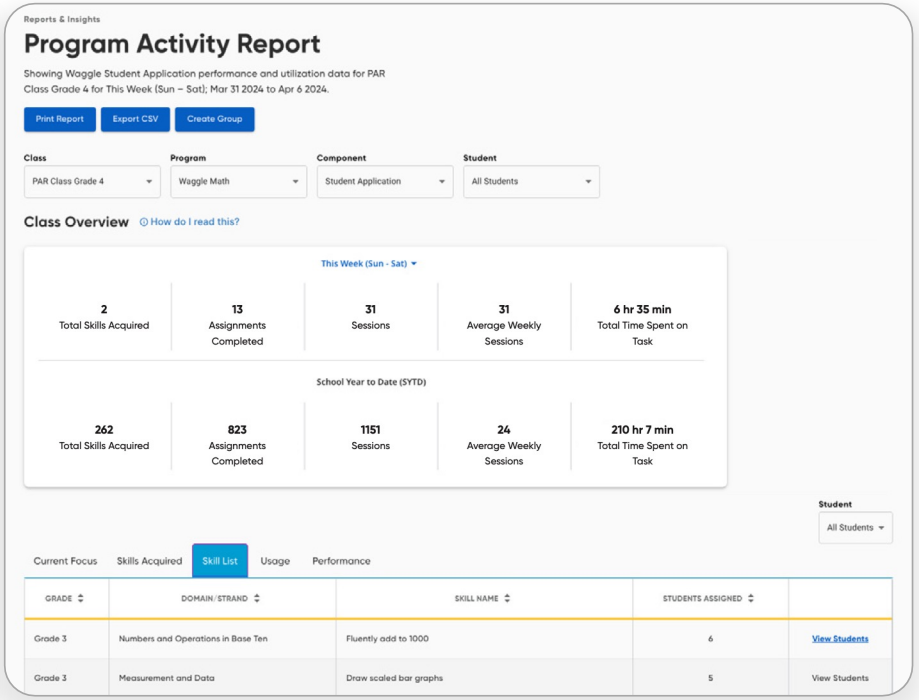
_____ tens _____ ones

_____

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Data Reporting On Ed





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Supporting Prerequisite Skills

Module 1 3-Digit Numbers

Intervention Activities

- Compose Ten Ones and Some More Ones to 19
- Make Tens
- Represent Numbers as Tens and Ones with Objects

Data-Driven Support MTSS RtI

Use the table below to find the recommended intervention resources foun

Item	Content Focus	
1	Explore Teen Numbers	Represent a teen number using ten fr
2	Tens	Compose and decompose numbers wi and ones.
3-4	Place Value: Two-Digit Numbers	Make a concrete model to decompose two-digit number into tens and ones.

Adaptive Skill Development:
HMH Waggle Use Waggle, with its skill-driven AI engine to provide targeted support to your students



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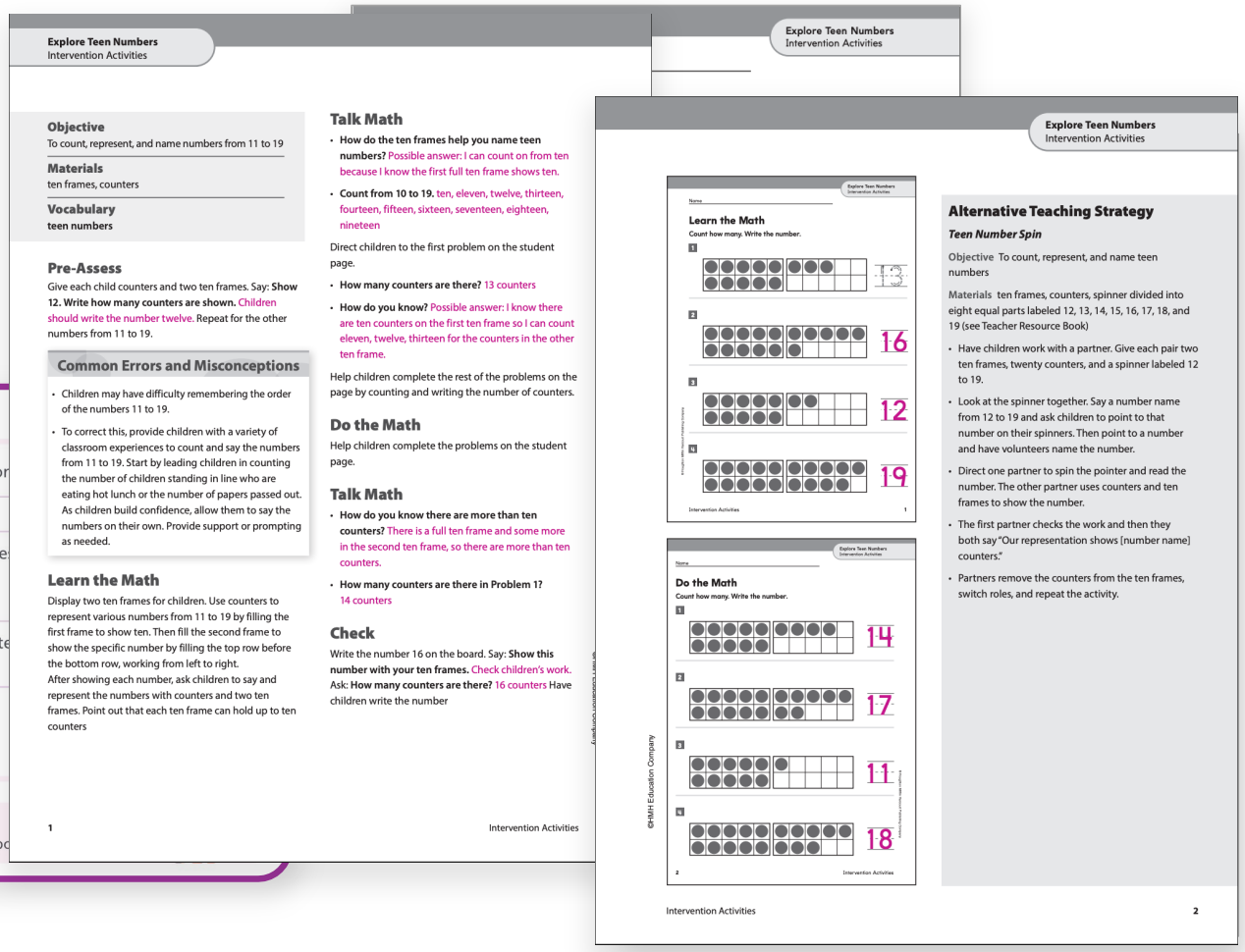
Supporting Prerequisite Skills

Data-Driven Support MTSS RtI

Use the table below to find the recommended intervention resources found or

Item	Content Focus	
1	Explore Teen Numbers	Represent a teen number using ten frame
2	Tens	Compose and decompose numbers with te and ones.
3-4	Place Value: Two-Digit Numbers	Make a concrete model to decompose a two-digit number into tens and ones.

Adaptive Skill Development:
HMH Waggle® Use Waggle, with its skill-driven AI engine to provide targeted suppo



Explore Teen Numbers
Intervention Activities

Objective
To count, represent, and name numbers from 11 to 19

Materials
ten frames, counters

Vocabulary
teen numbers

Pre-Assess
Give each child counters and two ten frames. Say: **Show 12. Write how many counters are shown.** Children should write the number twelve. Repeat for the other numbers from 11 to 19.

Common Errors and Misconceptions
- Children may have difficulty remembering the order of the numbers 11 to 19.
- To correct this, provide children with a variety of classroom experiences to count and say the numbers from 11 to 19. Start by leading children in counting the number of children standing in line who are eating hot lunch or the number of papers passed out. As children build confidence, allow them to say the numbers on their own. Provide support or prompting as needed.

Learn the Math
Display two ten frames for children. Use counters to represent various numbers from 11 to 19 by filling the first frame to show ten. Then fill the second frame to show the specific number by filling the top row before the bottom row, working from left to right.
After showing each number, ask children to say and represent the numbers with counters and two ten frames. Point out that each ten frame can hold up to ten counters

Talk Math
- **How do the ten frames help you name teen numbers?** Possible answer: I can count on from ten because I know the first full ten frame shows ten.
- **Count from 10 to 19.** ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen

Direct children to the first problem on the student page.
- **How many counters are there?** 13 counters
- **How do you know?** Possible answer: I know there are ten counters on the first ten frame so I can count eleven, twelve, thirteen for the counters in the other ten frame.

Help children complete the rest of the problems on the page by counting and writing the number of counters.

Do the Math
Help children complete the problems on the student page.

Talk Math
- **How do you know there are more than ten counters?** There is a full ten frame and some more in the second ten frame, so there are more than ten counters.
- **How many counters are there in Problem 1?** 14 counters

Check
Write the number 16 on the board. Say: **Show this number with your ten frames.** Check children's work. Ask: **How many counters are there?** 16 counters Have children write the number

1 Intervention Activities

Explore Teen Numbers
Intervention Activities

Name

Learn the Math
Count how many. Write the number.

1 16
2 12
3 19
4

Intervention Activities 1

Name

Do the Math
Count how many. Write the number.

1 14
2 17
3 11
4 18

2 Intervention Activities

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Alternative Teaching Strategy
Teen Number Spin

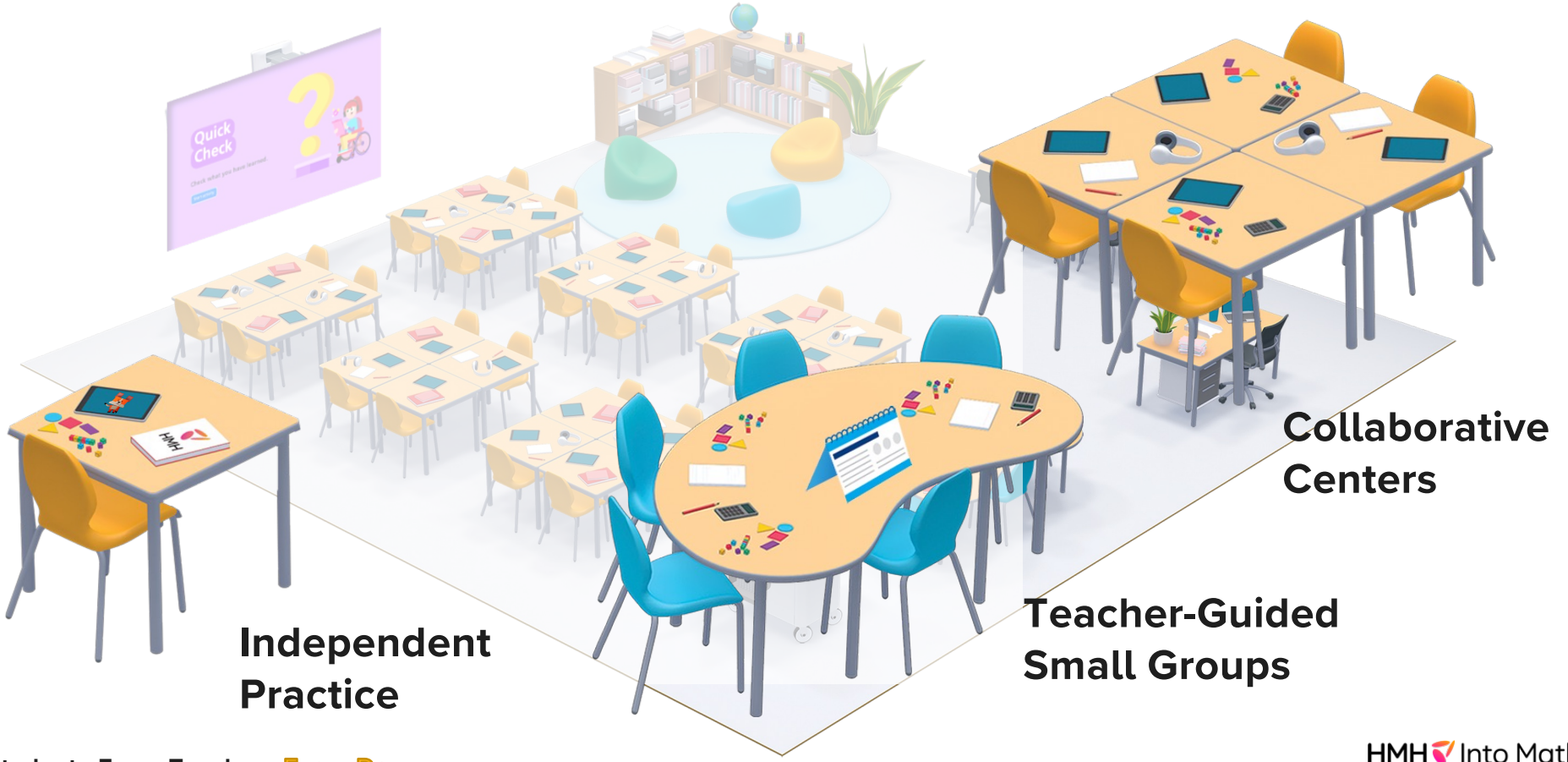
Objective To count, represent, and name teen numbers

Materials ten frames, counters, spinner divided into eight equal parts labeled 12, 13, 14, 15, 16, 17, 18, and 19 (see Teacher Resource Book)

- Have children work with a partner. Give each pair two ten frames, twenty counters, and a spinner labeled 12 to 19.
- Look at the spinner together. Say a number name from 12 to 19 and ask children to point to that number on their spinners. Then point to a number and have volunteers name the number.
- Direct one partner to spin the pointer and read the number. The other partner uses counters and ten frames to show the number.
- The first partner checks the work and then they both say "Our representation shows [number name] counters."
- Partners remove the counters from the ten frames, switch roles, and repeat the activity.

Intervention Activities 2

Actionable Formative Assessment



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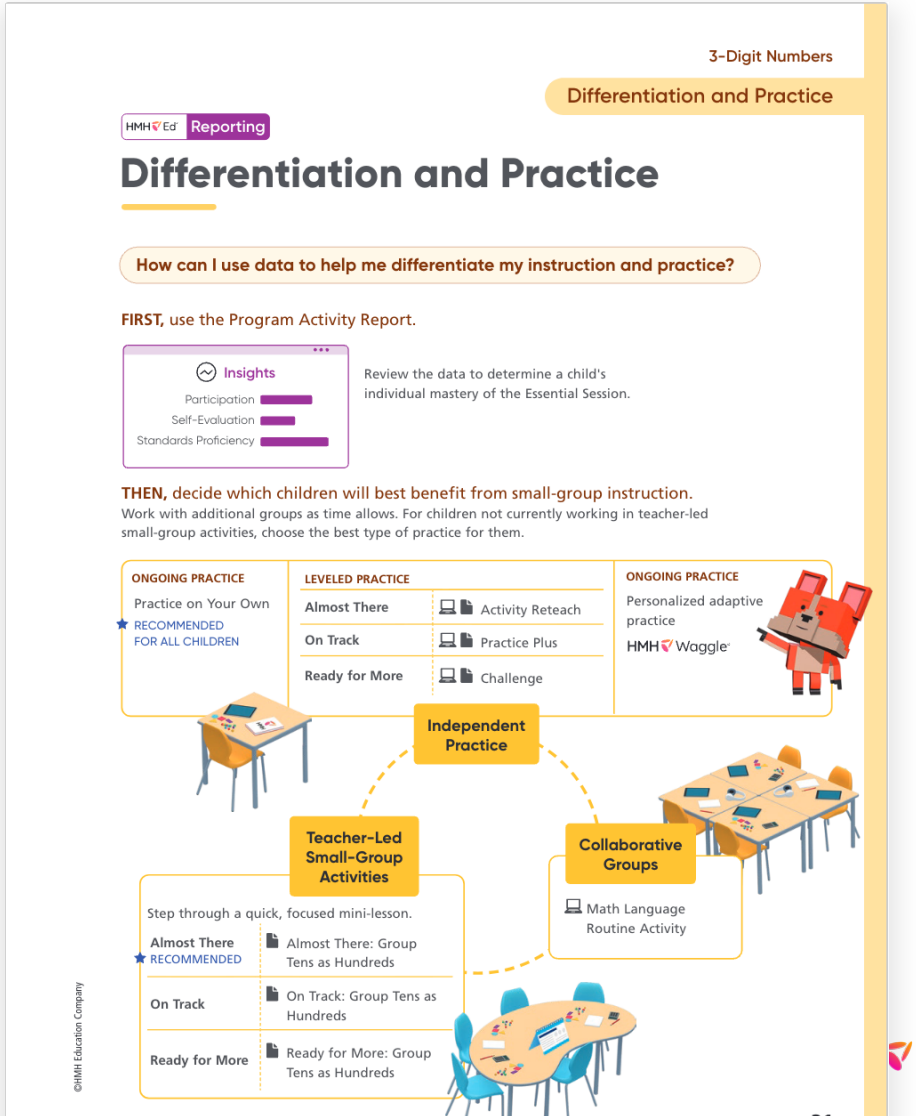
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Supporting Differentiation



Teacher-Guided Small Groups

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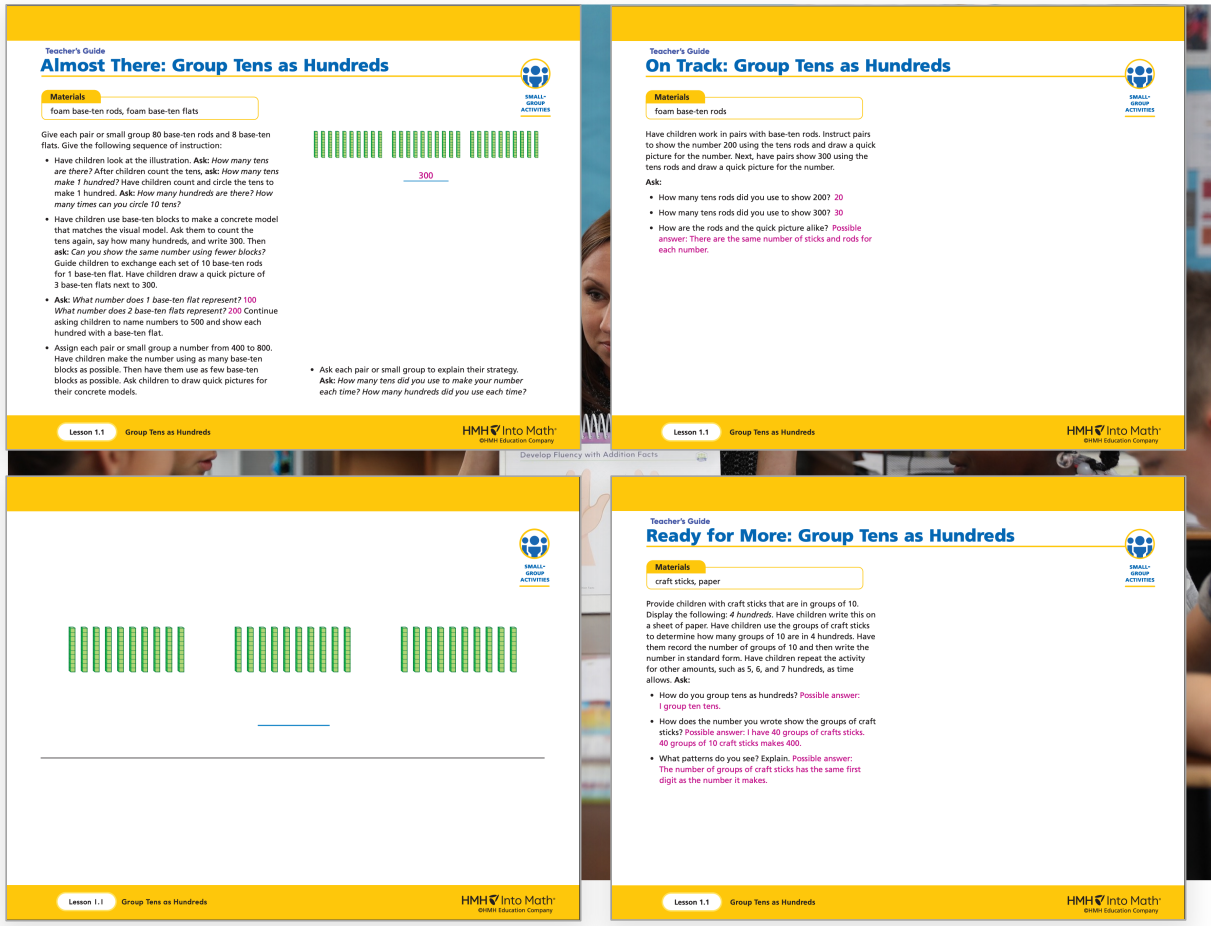


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Supporting Differentiation



Teacher-Guided Small Groups

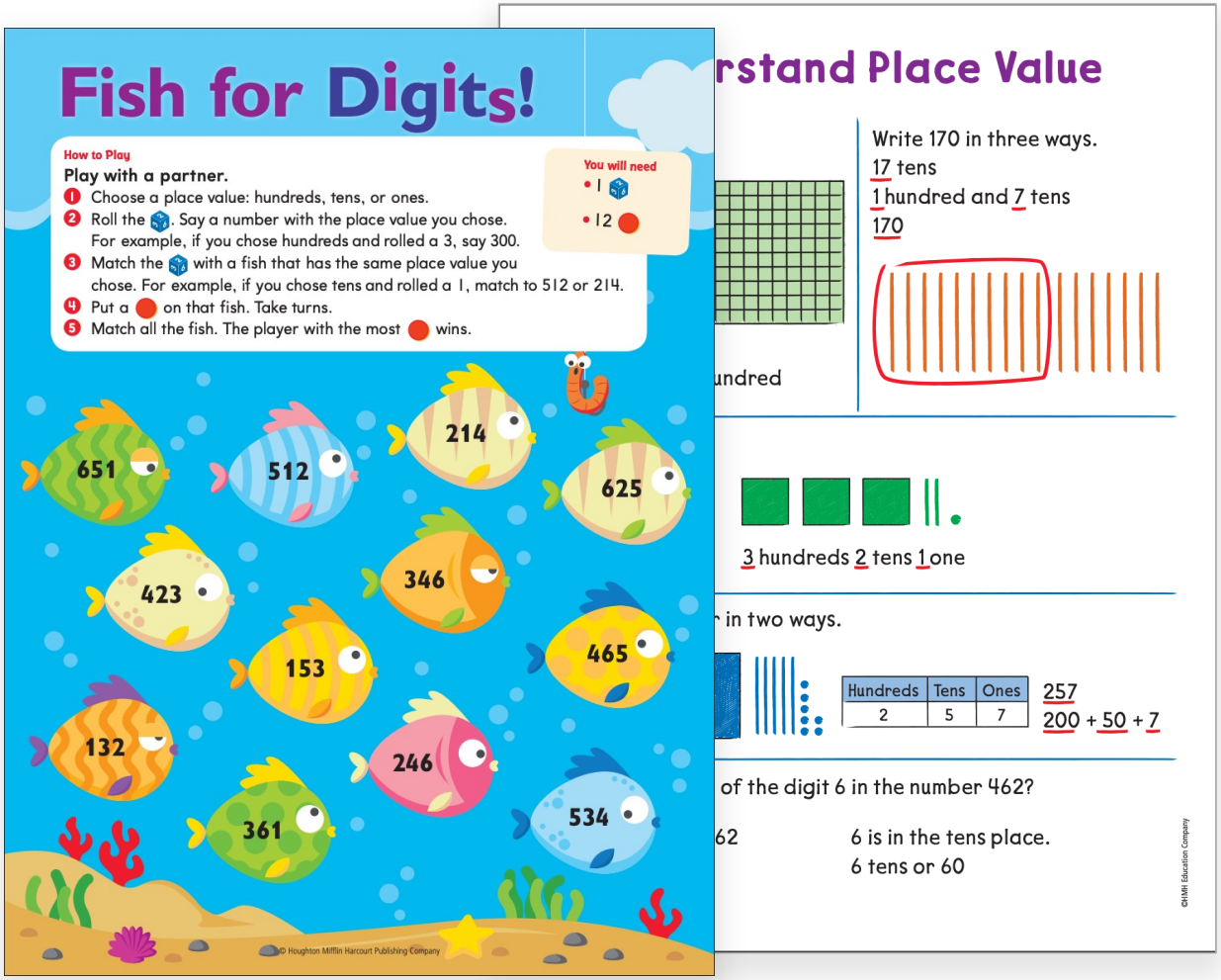


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Collaborative Centers



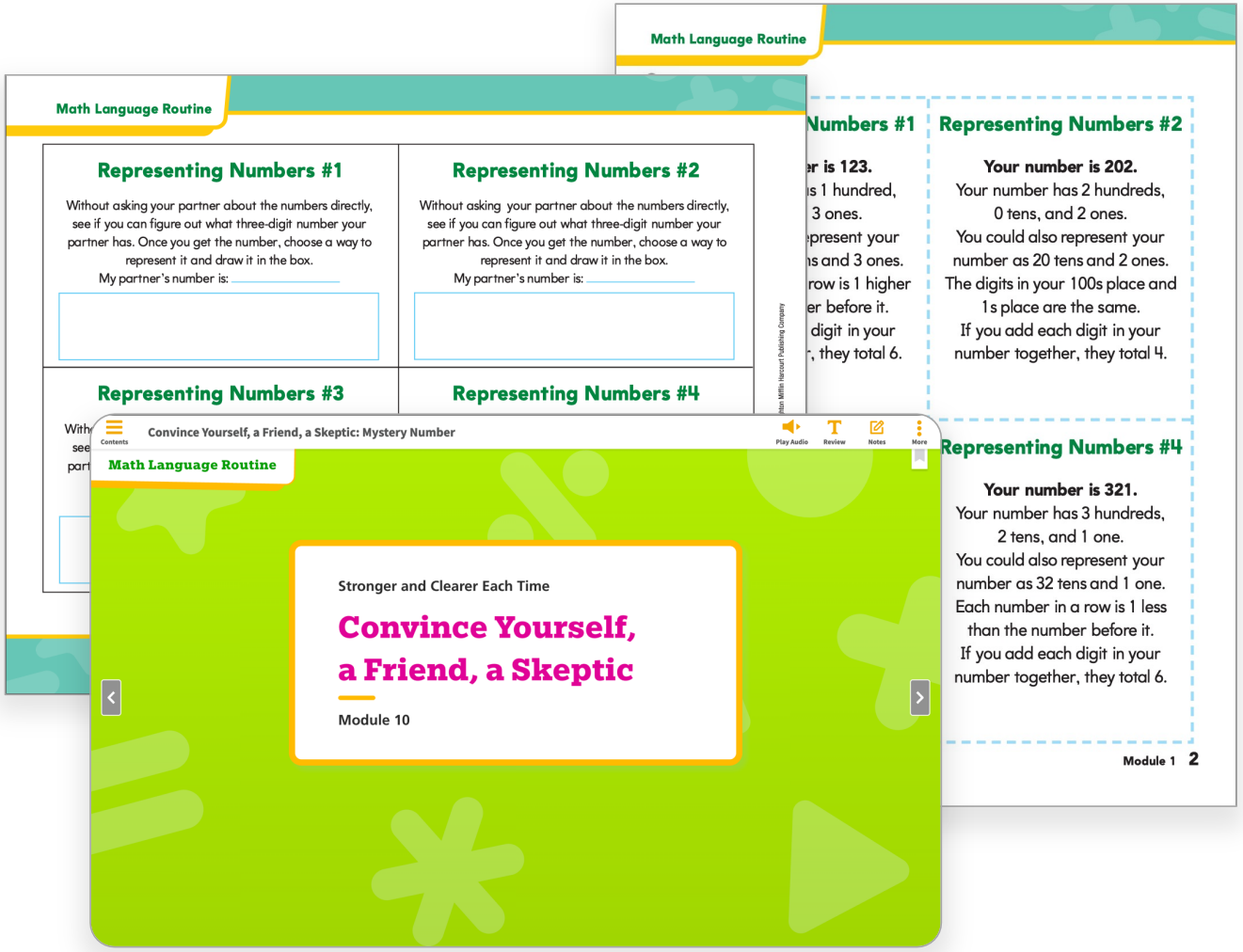


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Math Language Routines





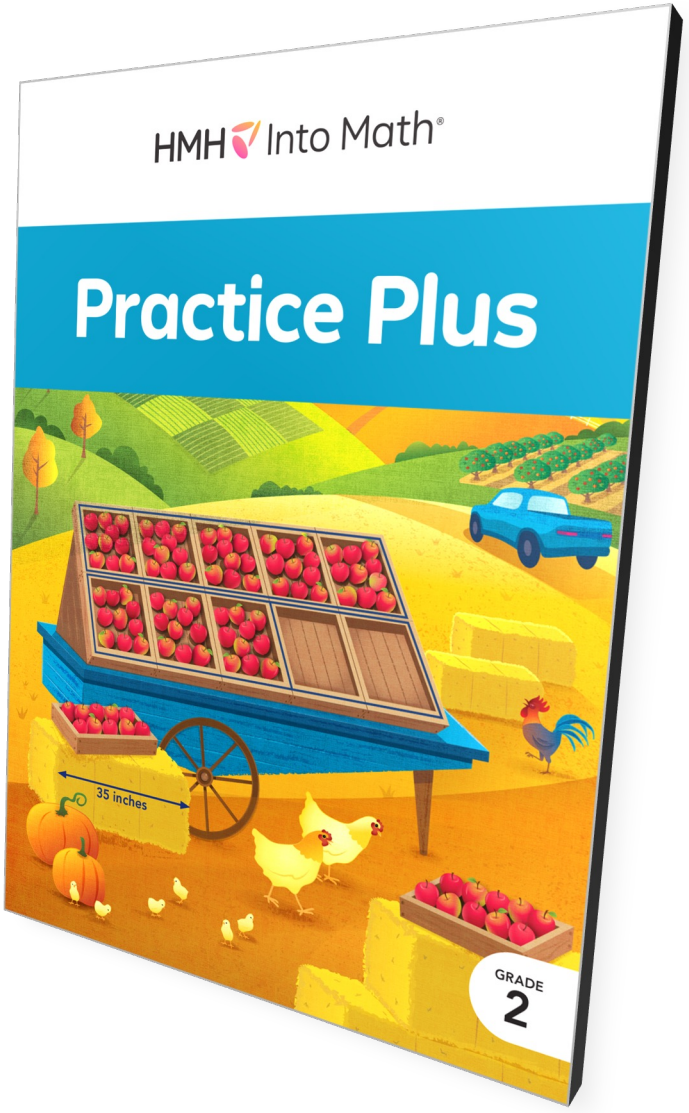
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HMH
PEER
COACH

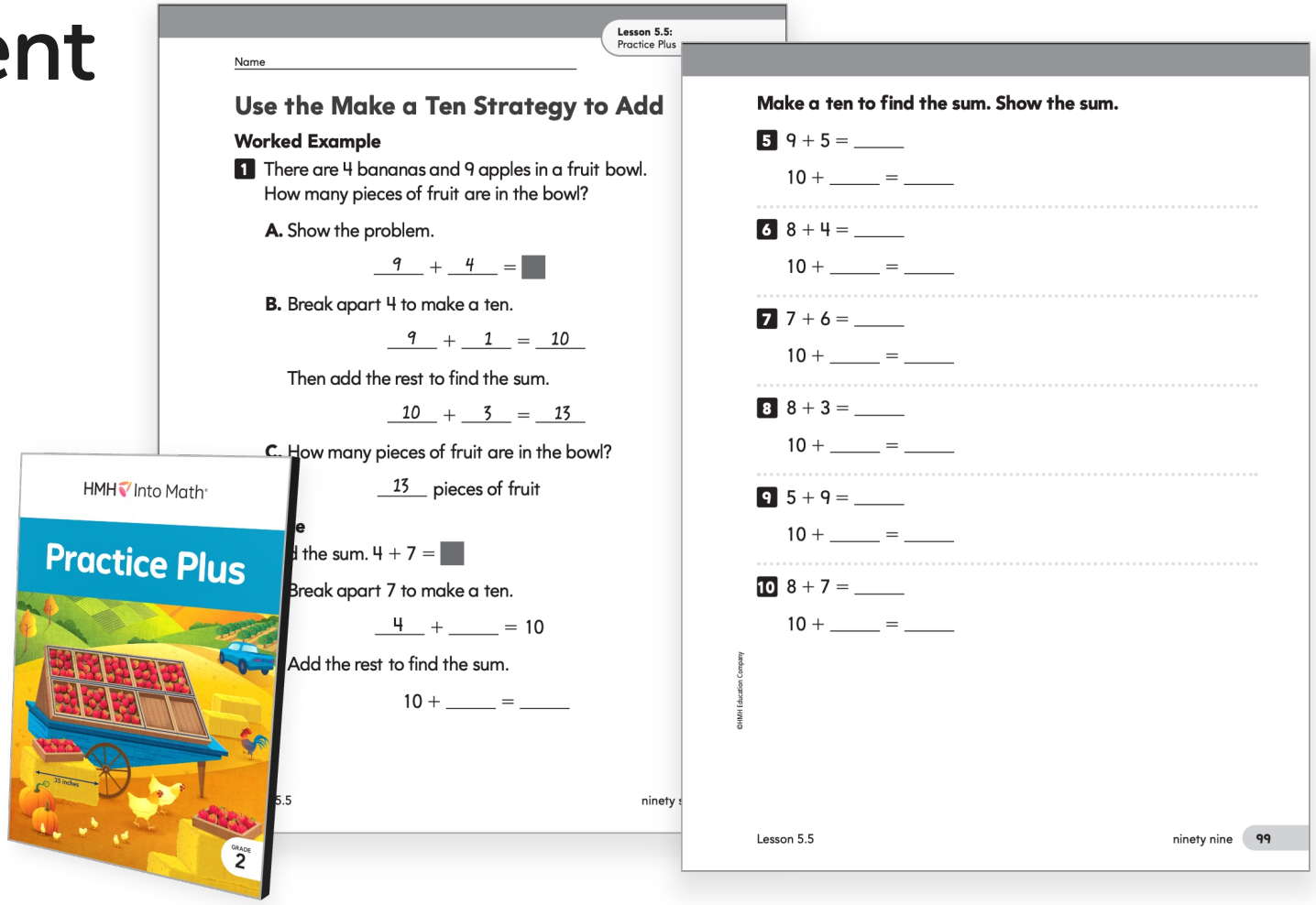
Independent Practice





Independent Practice



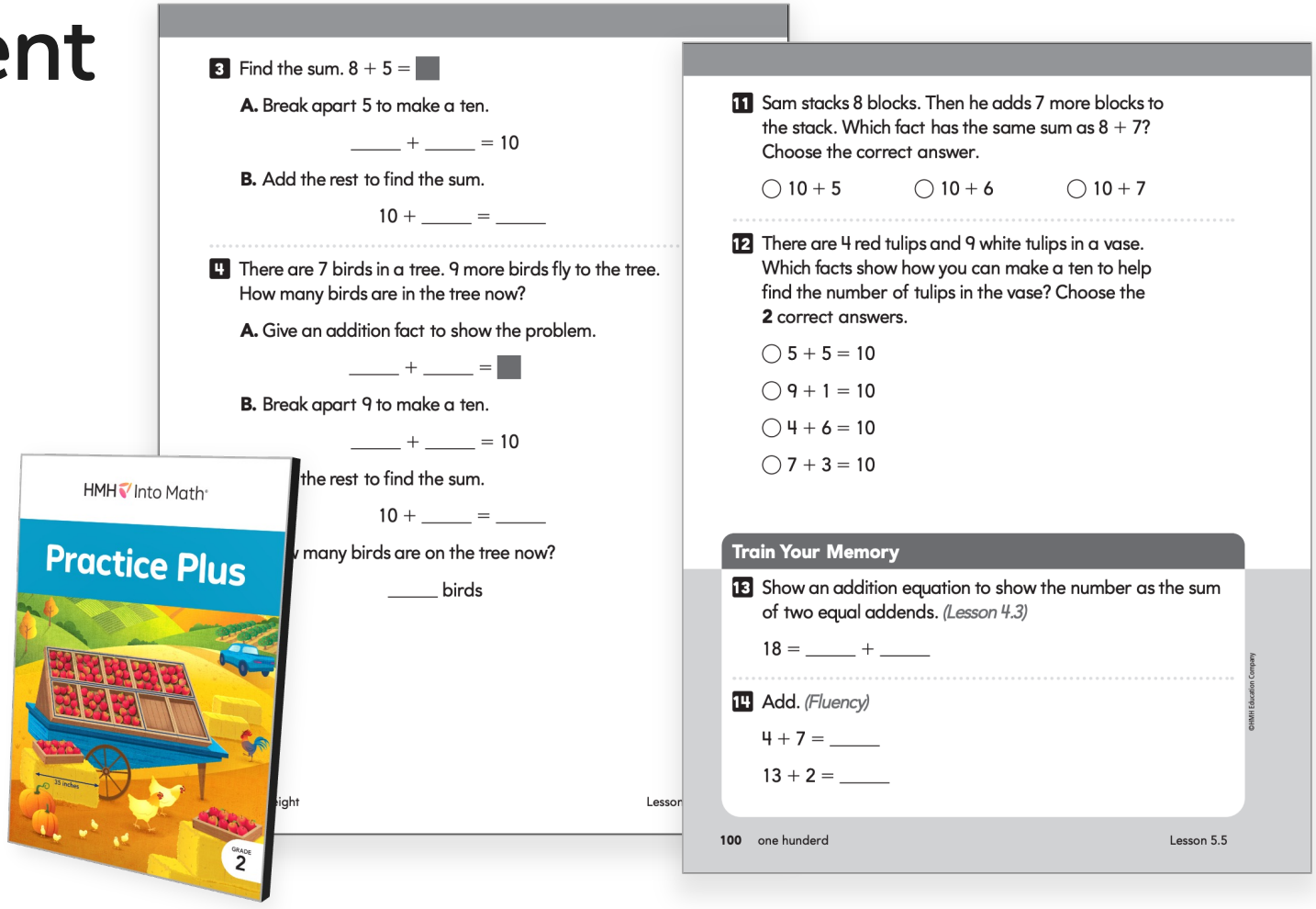


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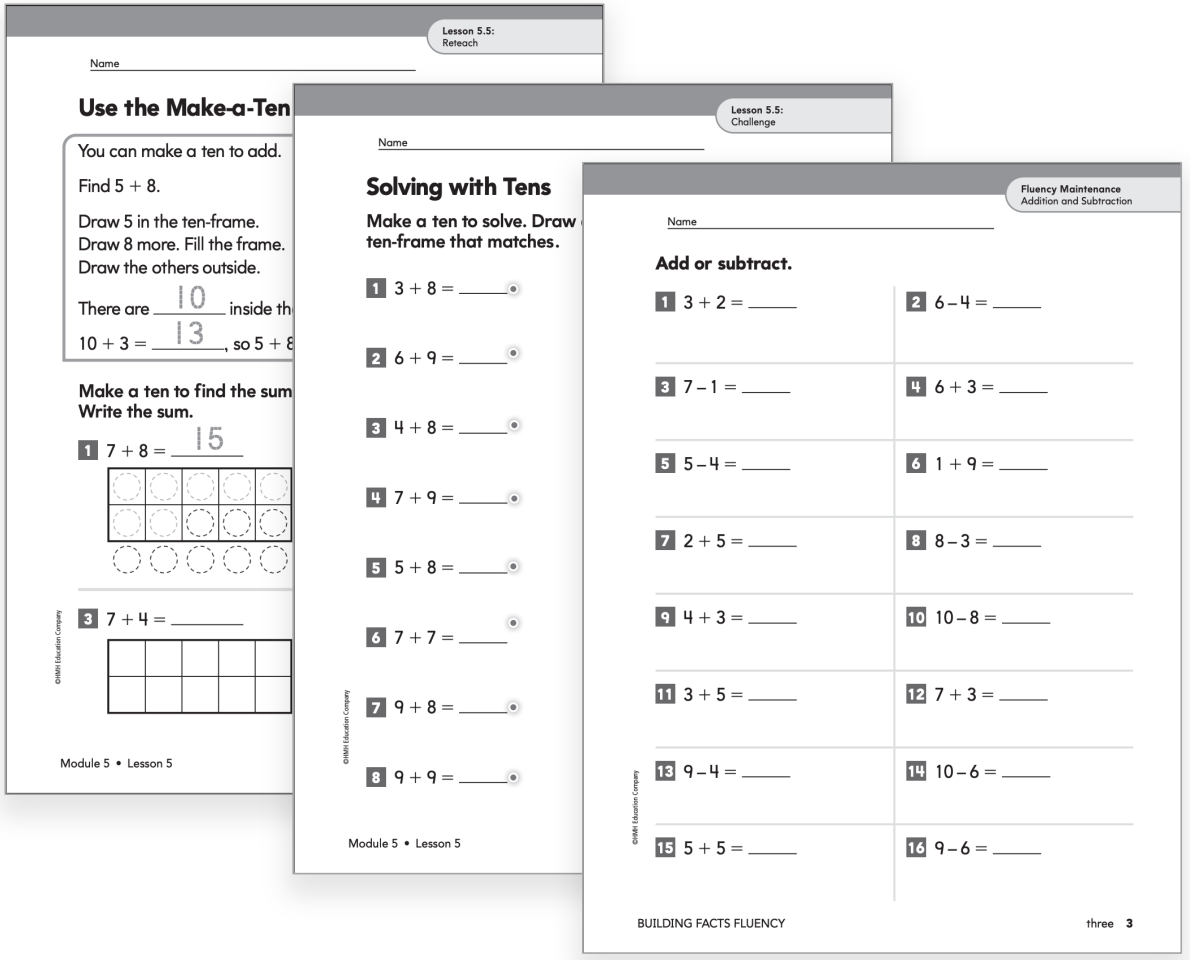
Independent Practice





Just right Differentiated Practice





Lesson 5.5: Reteach

Name

Use the Make-a-Ten

You can make a ten to add.

Find 5 + 8.

Draw 5 in the ten-frame.
Draw 8 more. Fill the frame.
Draw the others outside.

There are 10 inside th

10 + 3 = 13, so 5 + 8

Make a ten to find the sum
Write the sum.

1 7 + 8 = 15

3 7 + 4 = _____

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Module 5 • Lesson 5

Lesson 5.5: Challenge

Name

Solving with Tens

Make a ten to solve. Draw a ten-frame that matches.

1 3 + 8 = _____

2 6 + 9 = _____

3 4 + 8 = _____

4 7 + 9 = _____

5 5 + 8 = _____

6 7 + 7 = _____

7 9 + 8 = _____

8 9 + 9 = _____

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Module 5 • Lesson 5

Fluency Maintenance
Addition and Subtraction

Name

Add or subtract.

1 3 + 2 = _____

2 6 – 4 = _____

3 7 – 1 = _____

4 6 + 3 = _____

5 5 – 4 = _____

6 1 + 9 = _____

7 2 + 5 = _____

8 8 – 3 = _____

9 4 + 3 = _____

10 10 – 8 = _____

11 3 + 5 = _____

12 7 + 3 = _____

13 9 – 4 = _____

14 10 – 6 = _____

15 5 + 5 = _____

16 9 – 6 = _____

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BUILDING FACTS FLUENCY three 3

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Unlocking mastery through purposeful practice





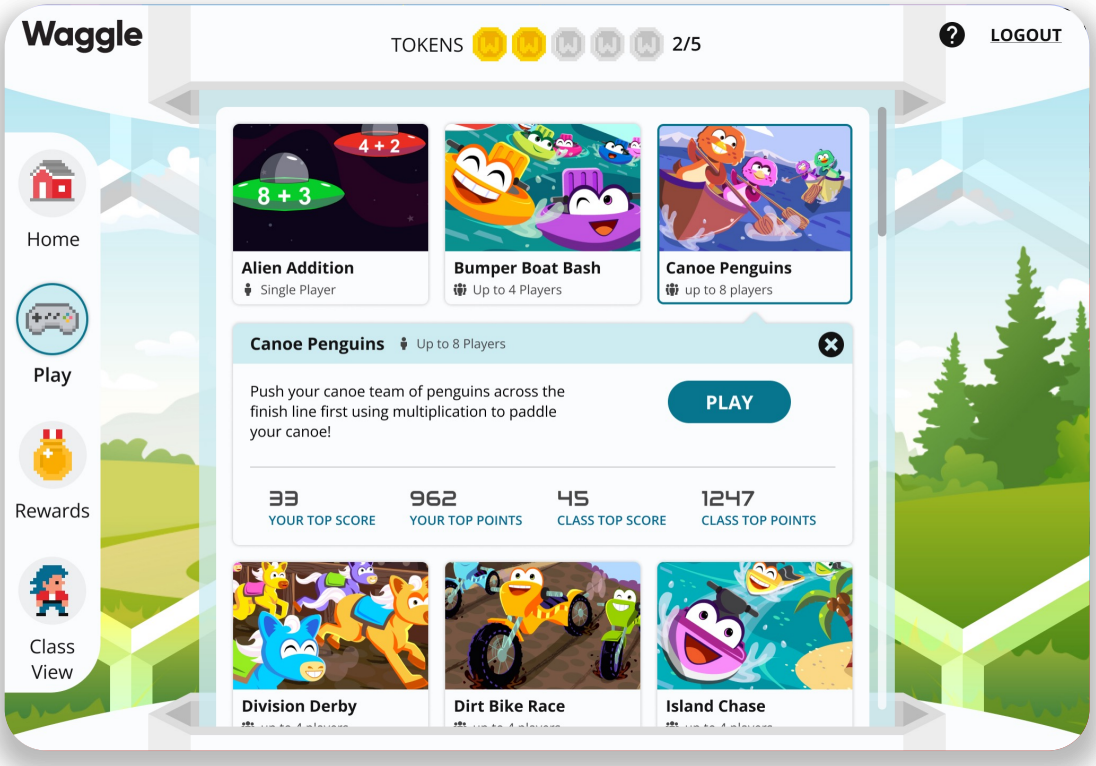


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Unlocking mastery through purposeful practice



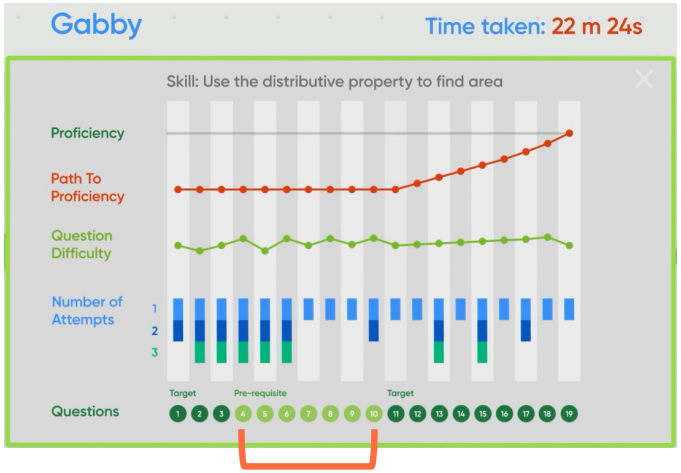


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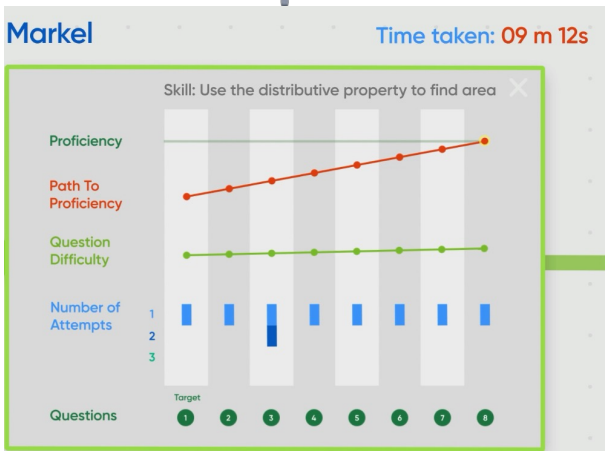


Unlocking Mastery Through Purposeful Practice





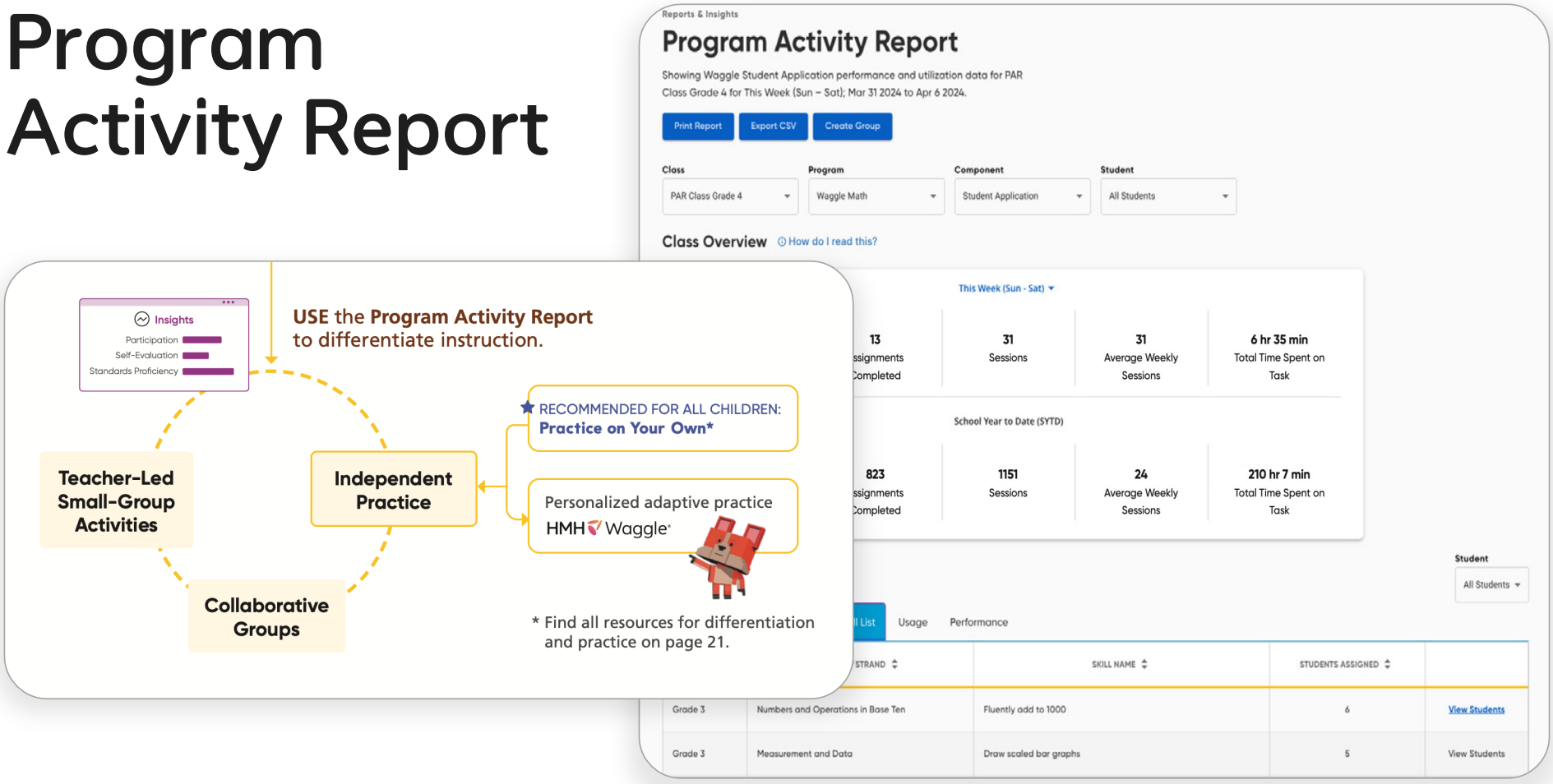




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Program Activity Report



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Summative Module Review

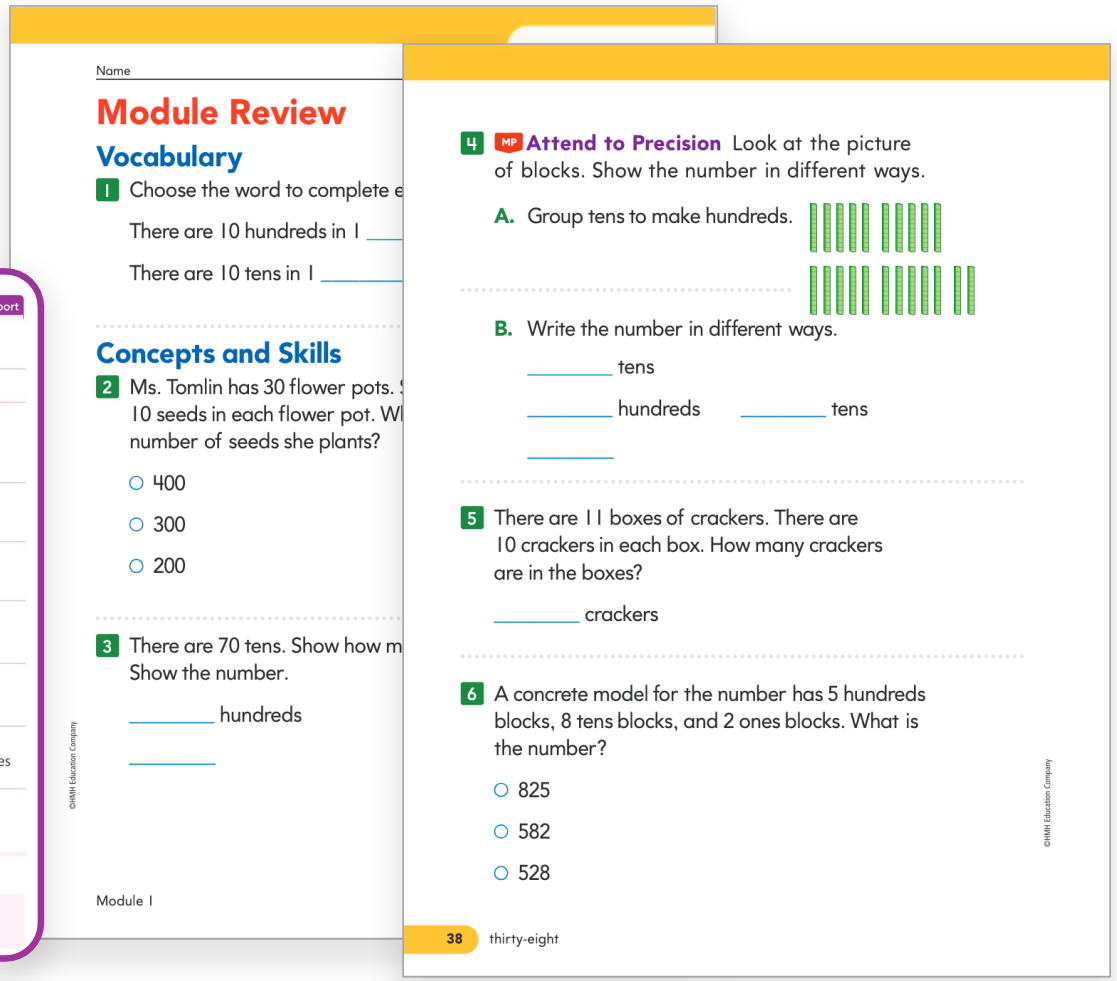
Data-Driven Support

HMH Ed Assessment Report

Use the table below to find the recommended teaching resources, found on Ed.

Item	Content Focus	Intervention
1	Identify the number of tens in a hundred and the number of hundreds in a thousand.	Group Tens as Hundreds
2–3	Determine the number of hundreds.	Group Tens as Hundreds
4a–4b	Identify different ways to show the same number.	Understand Three-Digit Numbers
5	Determine the three-digit numbers for a group of tens	Understand Three-Digit Numbers
6	Identify the number in the described model.	Represent Three-Digit Numbers
7	Identify the number shown by the visual model.	Represent Numbers with Hundreds, Tens, and Ones
8–9	Determine the value of the digit in a number.	Place Value to 1,000

Adaptive Skill Development:
HMH Waggle Use Waggle, with its skill-driven AI engine to provide targeted support to your students



Name

Module Review

Vocabulary

1 Choose the word to complete e

There are 10 hundreds in 1 ____

There are 10 tens in 1 ____

Concepts and Skills

2 Ms. Tomlin has 30 flower pots. S
10 seeds in each flower pot. Wh
number of seeds she plants?

- 400
- 300
- 200

3 There are 70 tens. Show how m
Show the number.

____ hundreds

____

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Module 1

4 MP **Attend to Precision** Look at the picture of blocks. Show the number in different ways.

A. Group tens to make hundreds.

B. Write the number in different ways.

____ tens

____ hundreds ____ tens

____

5 There are 11 boxes of crackers. There are 10 crackers in each box. How many crackers are in the boxes?

____ crackers

6 A concrete model for the number has 5 hundreds blocks, 8 tens blocks, and 2 ones blocks. What is the number?

- 825
- 582
- 528

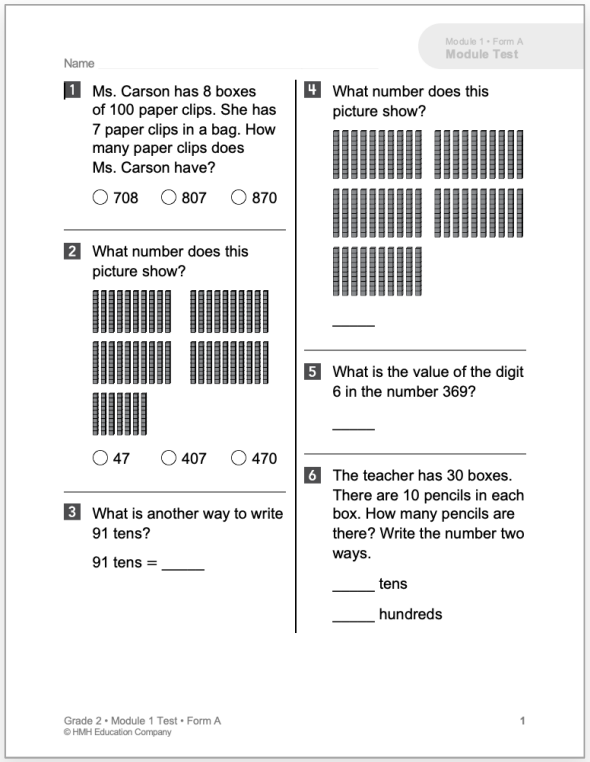
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38 thirty-eight

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Summative Module Assessment



Name

Module 1 • Form A
Module Test

1 Ms. Carson has 8 boxes of 100 paper clips. She has 7 paper clips in a bag. How many paper clips does Ms. Carson have?

○ 708 ○ 807 ○ 870

2 What number does this picture show?

○ 47 ○ 407 ○ 470

3 What is another way to write 91 tens?

91 tens = _____

4 What number does this picture show?

_____

5 What is the value of the digit 6 in the number 369?

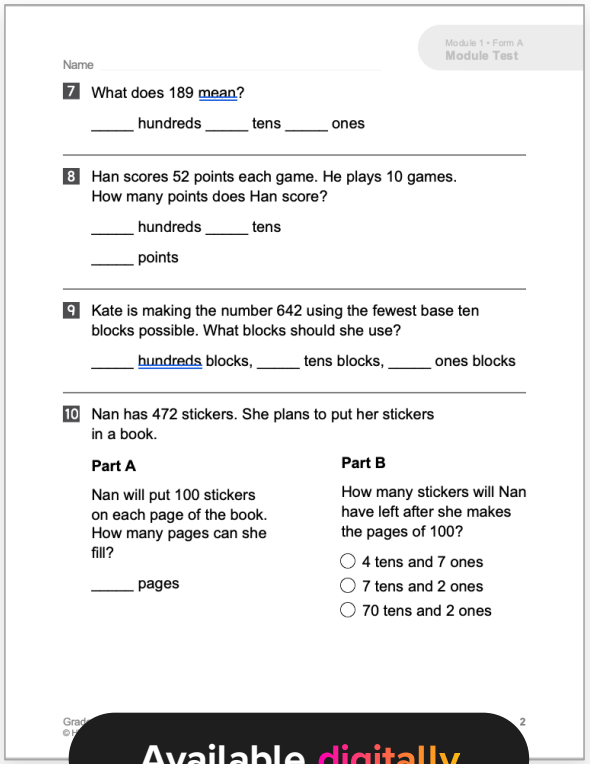
_____

6 The teacher has 30 boxes. There are 10 pencils in each box. How many pencils are there? Write the number two ways.

_____ tens

_____ hundreds

Grade 2 • Module 1 Test • Form A
© HMH Education Company
1



Name

Module 1 • Form A
Module Test

7 What does 189 mean?

_____ hundreds _____ tens _____ ones

8 Han scores 52 points each game. He plays 10 games. How many points does Han score?

_____ hundreds _____ tens

_____ points

9 Kate is making the number 642 using the fewest base ten blocks possible. What blocks should she use?

_____ hundreds blocks, _____ tens blocks, _____ ones blocks

10 Nan has 472 stickers. She plans to put her stickers in a book.

Part A

Nan will put 100 stickers on each page of the book. How many pages can she fill?

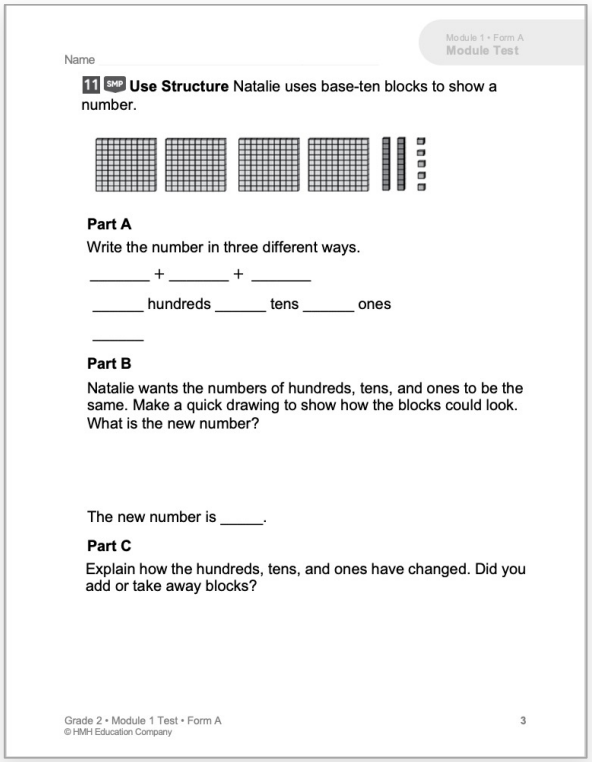
_____ pages

Part B

How many stickers will Nan have left after she makes the pages of 100?

○ 4 tens and 7 ones
○ 7 tens and 2 ones
○ 70 tens and 2 ones

Grad
© H
2



Name

Module 1 • Form A
Module Test

11 SMP **Use Structure** Natalie uses base-ten blocks to show a number.

Part A

Write the number in three different ways.

_____ + _____ + _____

_____ hundreds _____ tens _____ ones

_____

Part B

Natalie wants the numbers of hundreds, tens, and ones to be the same. Make a quick drawing to show how the blocks could look. What is the new number?

The new number is _____.

Part C

Explain how the hundreds, tens, and ones have changed. Did you add or take away blocks?

Grade 2 • Module 1 Test • Form A
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Available digitally

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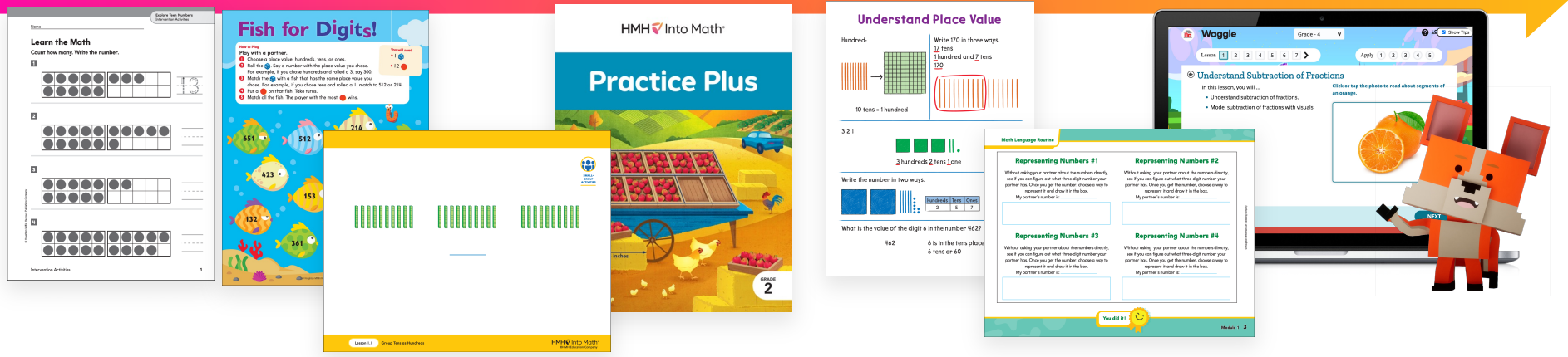
Cycle of Assessment and Instruction

Diagnostic

Formative

Summative

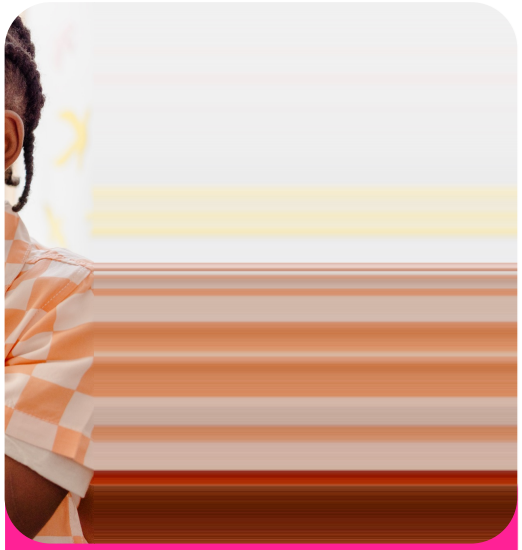
Interim



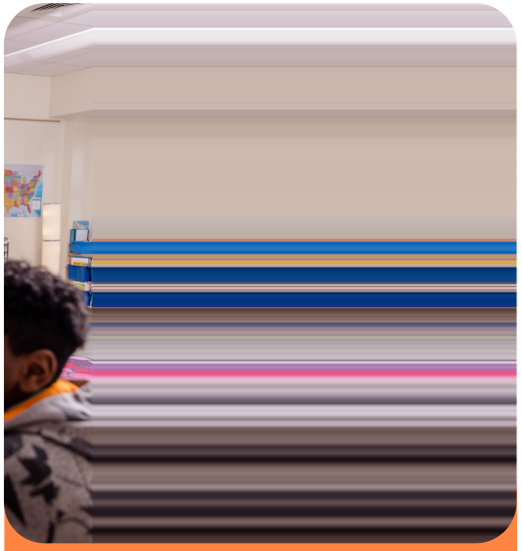
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Discovering the Joy of Math



Every Student



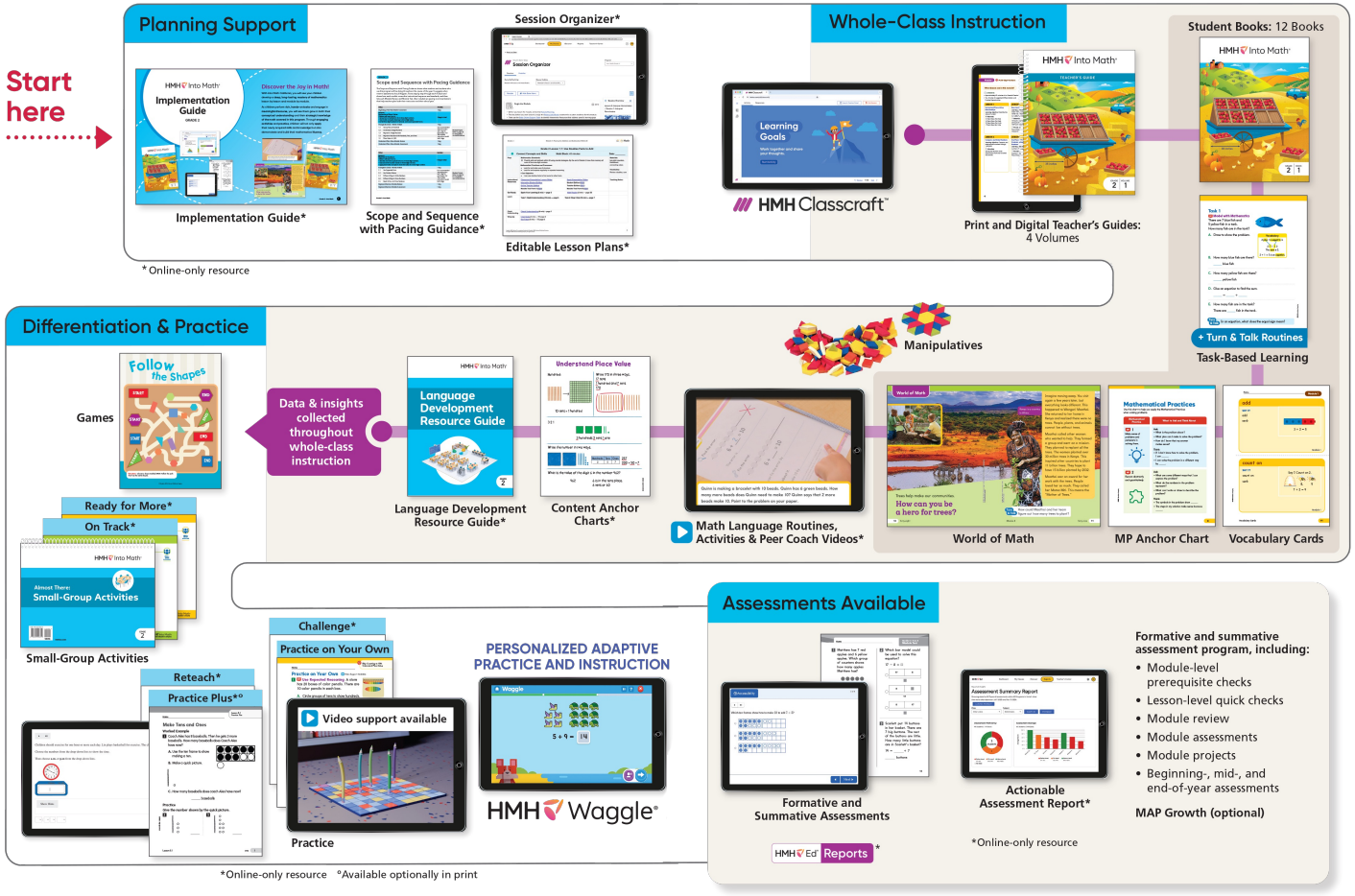
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Program components



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Planning Made Easy



HMH Classcraft™

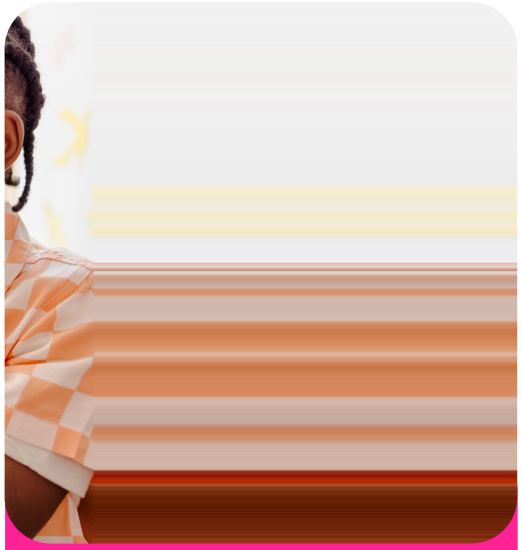
Planning and Presenting

- Go to the **Classcraft Session Organizer** for online module planning and to preview resources.
- For offline planning, use the **Editable Lesson Plan.**

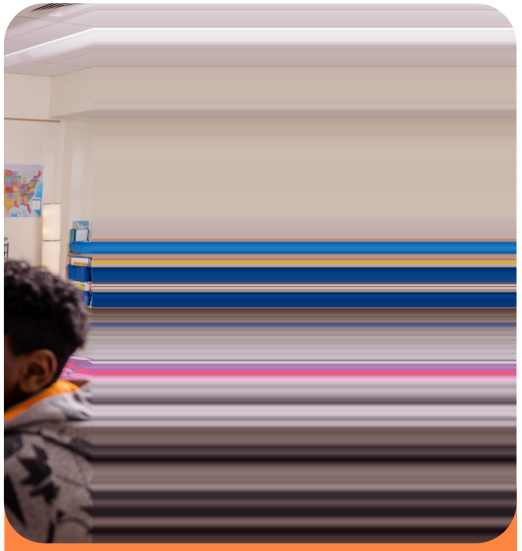
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Every Student



Every Teacher

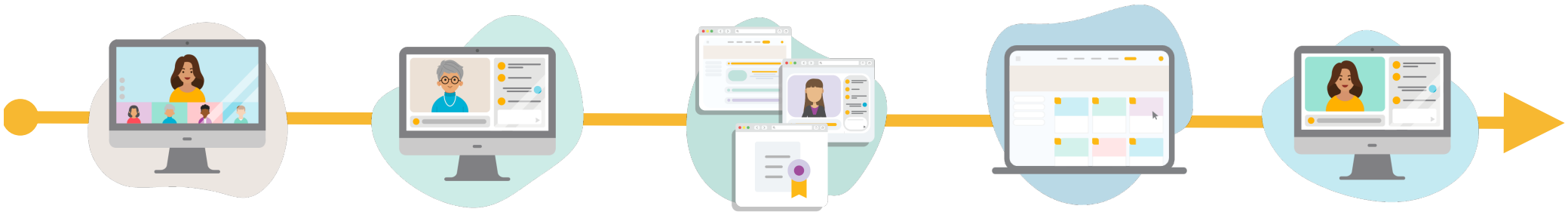


Every Day

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HMH Program Implementation Support



Getting Started Session

An introduction to program resources, implementation model, and the digital experience on Ed

Teacher Success Pathway

Live and on-demand learning on Ed to ensure teacher success within the first 30 days

Coachly

Gives teachers support when and where they need it with unlimited virtual coaching and messaging

Leader Success

A leaders look into your new HMH program. Program development is designed to support subject mastery

Teacher's/Leader's Corner

Year-long access to on-demand resources and live events for all teachers and leaders

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Discovering the Joy in Math:

Every student
Every teacher
Every day

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