

# Ancillary Sampler



## About Amplify

Amplify is dedicated to collaborating with educators to create learning experiences that are rigorous and riveting for all students. Amplify creates K–12 core and supplemental curriculum, assessment, and intervention programs for today’s students.

A pioneer in K–12 education since 2000, Amplify is leading the way in next-generation curriculum and assessment. All of our programs provide teachers with powerful tools that help them understand and respond to the needs of every student.

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55 Washington Street, Suite 800,  
Brooklyn, NY 11201  
[www.amplify.com](http://www.amplify.com)

# Overview information

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| Differentiation and Intervention ..... | xx  |



# Welcome to your Amplify Desmos Math ancillary sampler!

One of the core tenets of the program's design is that students can catch up while keeping up with grade-level math. To ensure all students access grade-level math, Amplify Desmos Math includes core instruction, a suite of assessments, and tailored practice resources that adjust to student learning.

Multiple points of entry to lesson content and Responsive Feedback enable every student to be challenged, yet successful. Cohesive differentiation and intervention resources provide the necessary support to prevent students from falling behind or allow them to extend their thinking.

Amplify Desmos Math includes print blackline master ancillaries for Assessment, and Intervention. On the pages that follow, you'll find examples of Amplify Desmos Math Mini-Lessons, assessment resources from a sample unit, centers, and more.

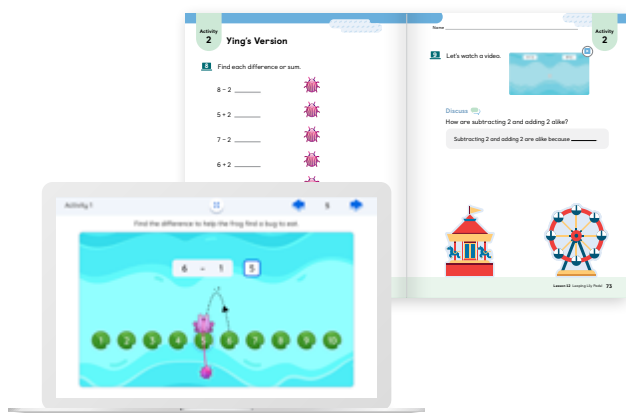
# Sample resources

|                               |     |
|-------------------------------|-----|
| Assessments and Rubrics ..... | 1   |
| Mini-Lessons .....            | 13  |
| Centers .....                 | 63  |
| Extensions .....              | 105 |



# Program Resources

## For Students

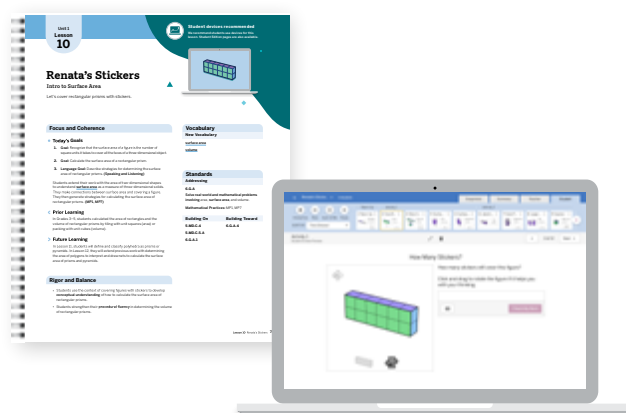


- Student Edition (two volumes)
- Digital access to lesson resources and practice
- Interactive student activity screens
- Responsive Feedback
- Collaboration tools
- Personalized practice

## Optional: Manipulative Kits



## For Teachers



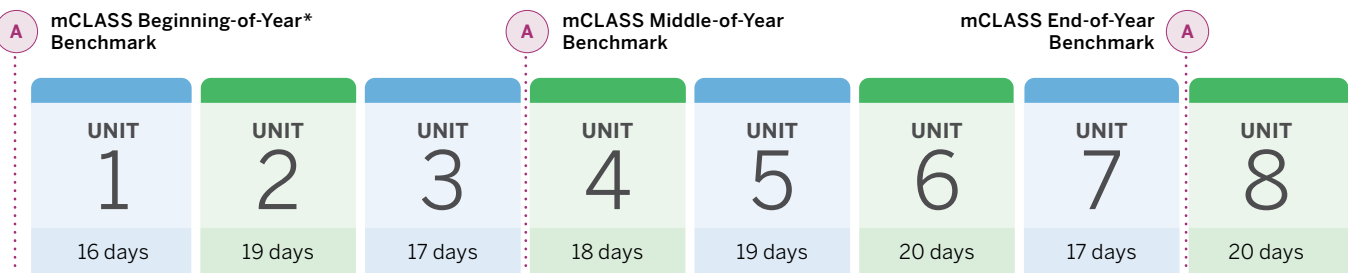
- Teacher Edition (two volumes)
- Digital access to planning and instruction resources
- Presentation Screens
- Facilitation and progress-monitoring tools
- Assessment and reporting suite, including mCLASS® Assessments

## Assessment Resources, Center Resources, Intervention and Extension Resources



# Program Architecture

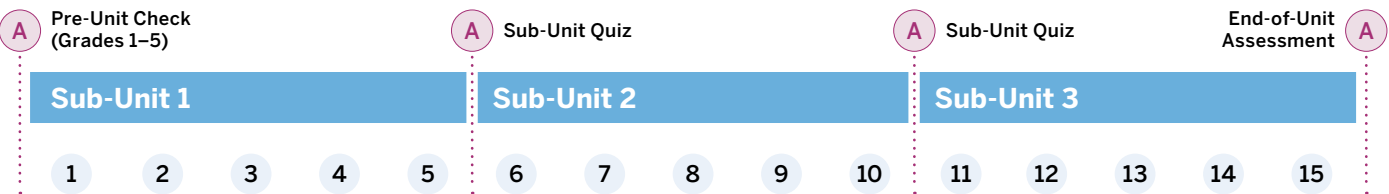
## Course



**Note:** The number of lessons varies from unit to unit. See Scope and Sequence for the full program scope.

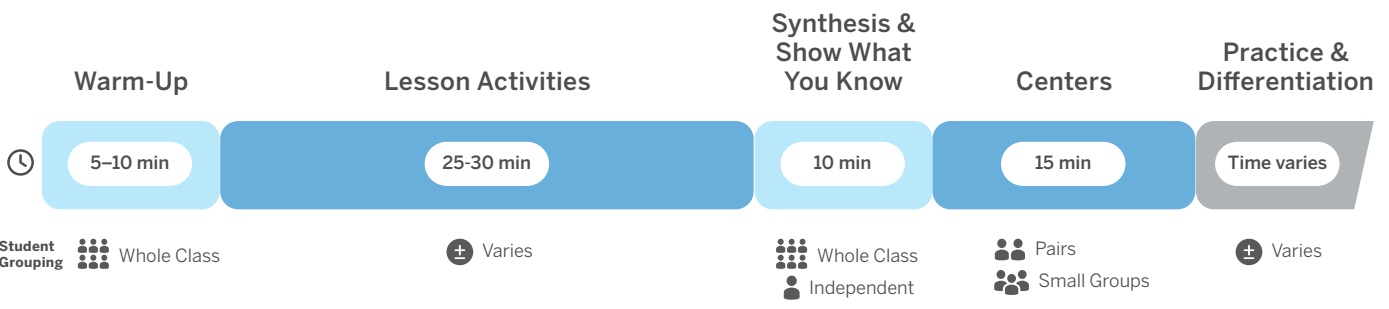
\*A brief, but powerful, mCLASS Beginning-of-Year Screener is provided when mCLASS Benchmark is not included.

## Unit



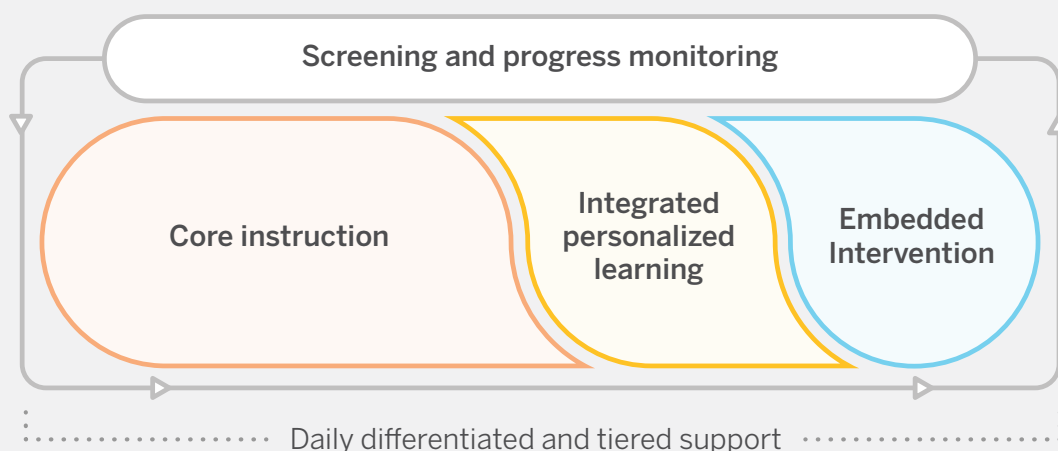
**Note:** The number of sub-units per unit and lessons within each sub-unit varies. This depiction shows the general structure of a unit. See the course Table of Contents in the print Teacher Edition for more details.

## Lesson



# Support math classrooms with one integrated, data-driven solution.

In Amplify Desmos Math, data informs instruction within integrated resources. Cohesive differentiation and intervention resources support and challenge students toward a deeper understanding of the learning goals, ensuring all students can keep up with or stretch beyond grade-level math.



## Screening and progress monitoring

mCLASS® Assessments, along with daily formative checks, measure what students know and how they think. The asset-based assessment system provides teachers with targeted, actionable insights, linked to core instruction and intervention resources.

## Core instruction

Amplify Desmos Math lessons provide a structured approach to problem-based learning, helping teachers create a collaborative math community with students at its center. Each lesson systematically builds on students' curiosity to develop lasting grade-level understandings for all students.

## Integrated personalized learning

Boost Personalized Learning activities help students access grade-level math through engaging, independent digital practice. Responsive Feedback adjusts to students' work, providing item-level adaptivity to further support their learning.

## Embedded intervention

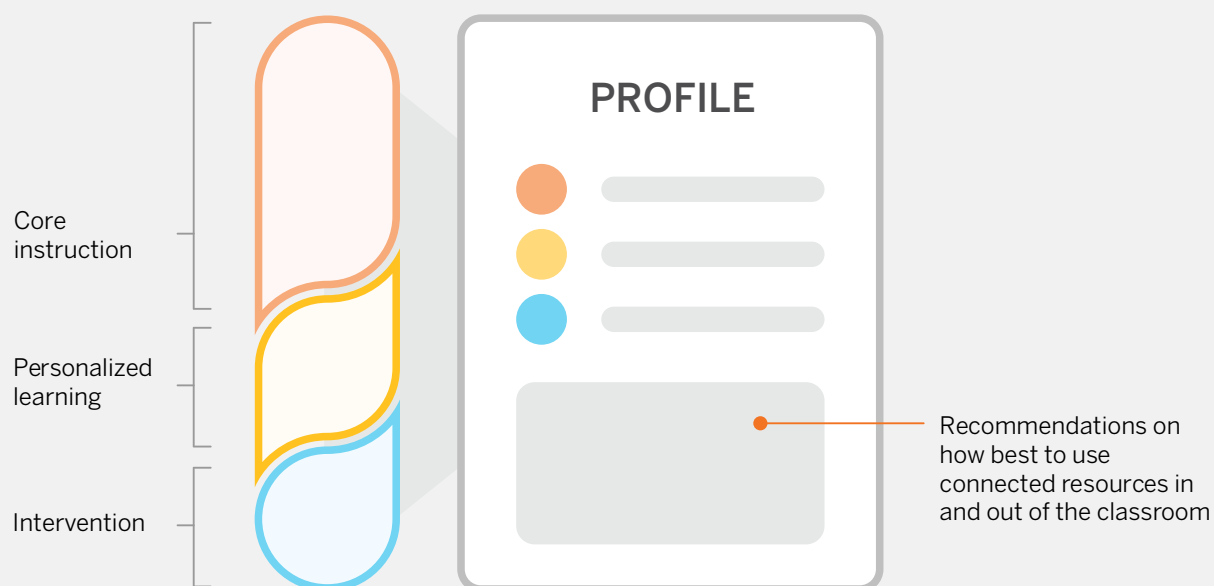
Integrated resources like Mini-Lessons, Math Fluency, Math Adventures, and Extensions provide targeted intervention on a specific concept or skill. This intervention is directly connected to daily content and offer students the individualized supports they need.

# Tailored to what students think and know

Every time students demonstrate what they know, we analyze their work to create an accurate and up-to-date picture of how students think and what they know.

We've charted how mathematical thinking skills are linked, influence learning, and connect to mathematical standard mastery. Our model uses this information to tailor Personalized Learning supports to instructional areas that directly build toward grade-level concepts or skills.

Comprehensive Student Profiles provide full data on students' assets and skills, empowering teachers to provide just-in-time scaffolds throughout core instruction and targeted intervention when needed.



# Robust assessments drive learning and inform instruction.

A variety of performance data in Amplify Desmos Math provides evidence of student learning while helping students bolster their skills and understanding.

Throughout lessons, units, and the entire program, you'll find summative and formative assessments meant to provide insights into students' conceptual understandings. Student learning is never a surprise at the end of a unit—with Amplify Desmos Math, understanding is made continually visible.

 **Unit 1 | Quiz: Sub-Unit 1**

**Assess and Respond**

Support, strengthen, and stretch learning by assigning these digital resources that adjust to each student's current level of skill and understanding:

- Personalized Practice
- By Heart Fluency Practice
- Math Adventures

**Quiz: Sub-Unit 1** Independent | 20 min

**Facilitation:** Assign this Sub-Unit Quiz at the end of Sub-Unit 1 to evaluate students' proficiency with the key concepts and skills addressed in this sub-unit. The *Up Next* problem previews targeted concepts and skills addressed in the next sub-unit.

| Item Analysis                                   |                                                                  |     |                         |
|-------------------------------------------------|------------------------------------------------------------------|-----|-------------------------|
| Problem(s)                                      | Concept or skill                                                 | DOK | Standard(s)             |
| 1                                               | Comparing the volumes of figures                                 | 2   | 4.MD.A.1, 5.MD.C.3, MP6 |
| 2                                               | Determining the volume of a rectangular prism showing unit cubes | 2   | 5.MD.C.3, MP7           |
| <b>Up Next . . . (preparation for Lesson 7)</b> |                                                                  |     |                         |
| 3*                                              | Knowing relative sizes of standard measurement units             | 2   | 4.MD.A.1, MP7           |

\* Because this problem addresses prerequisite concepts for the next sub-unit, the *Up Next* problem is not intended to be part of a student's overall score on this assessment.

**Assessment Resources**

- Student Print Assessments
- Answer Keys

**Differentiation Resources**

Grade 5 Assessment Resources

Grade 5 Intervention and Extension Resources

Grade 5 Centers Resources

**Intervention and Extension Resources includes:**

- Mini-Lessons
- Extensions

**Centers Resources includes:**

- Centers

**Practice**

During Sub-Unit 2, if students need further review or practice with concepts or skills, consider the following resources:

- In-Lesson Practice (Student Edition)
- Item Bank

**27A Unit 1 Volume**

**Assessment Resource PDF**

Name \_\_\_\_\_ Date \_\_\_\_\_

**Quiz: Sub-Unit 1** Unit 1

1 Each rectangular prism is made up of unit cubes. Which figure has a greater volume? **Claim 1: Concepts and Procedures**





1 Show or explain your thinking.  
*Sample work shown.*

Figure A has a volume of 10 unit cubes, and Figure B has a volume of 9 unit cubes.  
So, Figure A has a greater volume because it takes up more space.

answer: Figure A.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Quiz: Sub-Unit 1 (continued)** Unit 1

2 The rectangular prism is made up of unit cubes. Determine the volume of the rectangular prism in unit cubes.  
**Claim 1: Concepts and Procedures**

1 Show or explain your thinking.  
*Sample work shown.*

There are 2 layers of 15 unit cubes.

answer: 30 unit cubes

**Up Next . . .**

3 Which units could be used to measure the length of a pencil? Select all that apply.  
**Claim 1: Concepts and Procedures**

☒ A. centimeter ☐ B. meter ☐ C. kilometer  
☒ D. inch ☐ E. foot ☐ F. yard

**D Differentiation (Quiz: Sub-Unit 1)**

To Strengthen and Stretch students' learning, refer to the differentiation resources suggested throughout this Sub-Unit.

| Sub-Unit Goals                                                                                                     | Problem(s) | Respond to Student Thinking                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Describe and determine the volume of a rectangular prism using its layered structure.                              | 1          | <b>Support</b> <ul style="list-style-type: none"><li>• <b>Mini-Lesson:</b> Comparing Volume (Lesson 2)</li><li>• <b>Teacher Move:</b> Have students review the problem and then provide additional opportunities for students to compare the volumes of prisms.</li></ul>                                            |
|                                                                                                                    | 2          | <b>Support</b> <ul style="list-style-type: none"><li>• <b>Mini-Lesson:</b> Using the Structure of Rectangular Prisms to Determine Volume (Lesson 4)</li><li>• <b>Teacher Move:</b> Have students review the problem by determining the volume of the top layer and then counting the number of layers.</li></ul>     |
| <b>Up Next . . . (preparation for Lesson 7)</b>                                                                    |            |                                                                                                                                                                                                                                                                                                                      |
| Determine the volume of a rectangular prism using the formulas $V = \ell \times w \times h$ and $V = B \times h$ . | 3          | <b>Support</b> <ul style="list-style-type: none"><li>• <b>Mini-Lesson:</b> Solving Problems With Liters and Milliliters (Grade 4, Unit 5, Lesson 13)</li><li>• <b>Teacher Move:</b> Plan to use base-ten units and unit cubes in Lesson 7 to demonstrate the relative sizes of standard measurement units.</li></ul> |

**Unit 1 Volume 27B**

## Unit-level assessments

Our embedded unit assessments offer key insights into students' conceptual understanding of math. These assessments provide regular, actionable information about how students are thinking about and processing math, with both auto-scoring and in-depth rubrics that help teachers anticipate and respond to students' learning needs.

### Pre-Unit Check (grades 2–A1)

Each unit begins with an assessment designed to identify the student skills that will be particularly relevant to the upcoming unit. This check is agnostic to the standards covered in the following unit and serves not as a deficit-based acknowledgment of what students do not know, but rather as an affirmation of the knowledge and skills with which students come in.

### End-of-Unit Assessment

Students engage with rigorous grade-level mathematics through a variety of formats and tasks in the End-of-Unit Assessment. A combination of autoscored and rubric-scored items provide deep insights into student thinking. All Amplify Desmos Math End-of-Unit Assessments include two forms.

### Sub-Unit Quizzes (grades 1–A1)

With regular Sub-Unit Quizzes, student understanding never comes as an end-of-unit surprise. In these checks, students are assessed on a subset of conceptual understandings from the unit, with rubrics that help illuminate students' current understanding and provide guidance for responding to student thinking.

### Sub-Unit Checklists (grades K–1)

These checklists enable teachers to observe key skills and concepts that cannot be assessed on a pencil-and-paper assessment. The checklists outline the supports students need to get where they need to go.

# Lesson-level assessments

Amplify Desmos Math lessons are centered around sense-making and in-the-moment feedback. Daily moments of assessment provide valuable evidence of learning for both the teacher and student.

### Responsive Feedback

We harness the power of digital math and graphing tools to show students the meaning of their thinking in context. Teachers have the ability to see and provide in-the-moment feedback as students progress through a lesson. Responsive Feedback motivates students and engages them in the learning process.

### Show What You Know

Each lesson has a daily formative assessment focused on one of the key concepts in the lesson. Show What You Know moments are carefully designed to minimize the time students take to complete while maximizing the insight the teacher receives on a daily basis to attend to student needs during the following class. *Show What You Know is optional in grades K–1.*

Beginning in grade 2, all unit-level and lesson-level assessments can be completed digitally.

Name \_\_\_\_\_ Date \_\_\_\_\_

Show What You Know

1.05

For Problems 1–4, find the number that makes the equation true.

1

12 + \_\_\_\_\_ = 15

2

20 - 9 = \_\_\_\_\_

3

\_\_\_\_\_ + 6 = 19

4

16 - \_\_\_\_\_ = 9

I can ...

Find numbers that make addition and subtraction equations true.



27

Name \_\_\_\_\_ Date \_\_\_\_\_

Show What You Know

1.11

Identify the mystery number from the table using the following clues:

- The number is a composite number.
- The number is a multiple of 3.
- 7 is a factor of the number.

|    |   |    |    |
|----|---|----|----|
| 15 | 7 | 63 | 32 |
|----|---|----|----|

I can ...

Use what I know about factors, multiples, and prime and composite numbers to identify numbers.

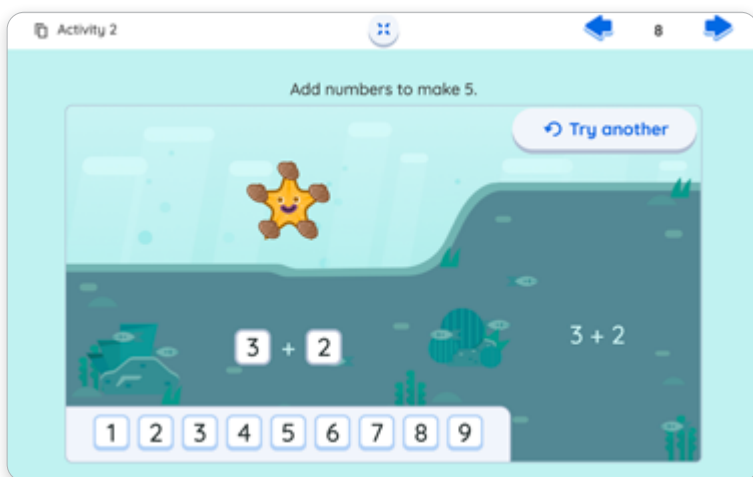


31

Show What You Know example pages for grades 2 and 4.

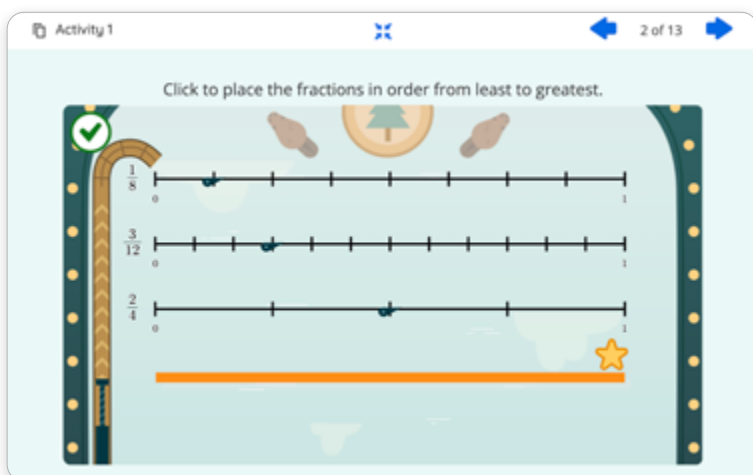
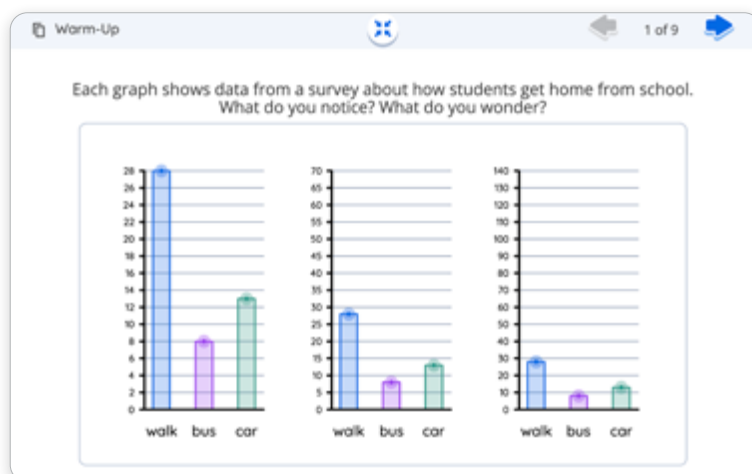
xii | AmplifyDesmos Math

- **Celebrate student thinking with Responsive Feedback.** We harness the power of digital math and graphing tools to show students the meaning of their thinking in context. Responsive Feedback motivates students and engages them in the learning process.



In the Kindergarten lesson Harry Explores the Ocean, students receive immediate feedback on whether their addition equation equals five through an animation of a starfish collecting seashells.

In the grade 3 lesson: 2, 5, or 10?, teachers use interactive bar graphs on a Presentation Screen to help students consider how the same data is represented on graphs with three different scales—2, 5, and 10.



In the grade 4 lesson Getting in Order, students compare and order sets of fractions from least to greatest to control the locations of flippers in a pinball game. When the fractions are in order, a ball will fall through all of the flippers and roll to the star.

# Benchmark and progress monitoring assessments identify students' skills and knowledge.

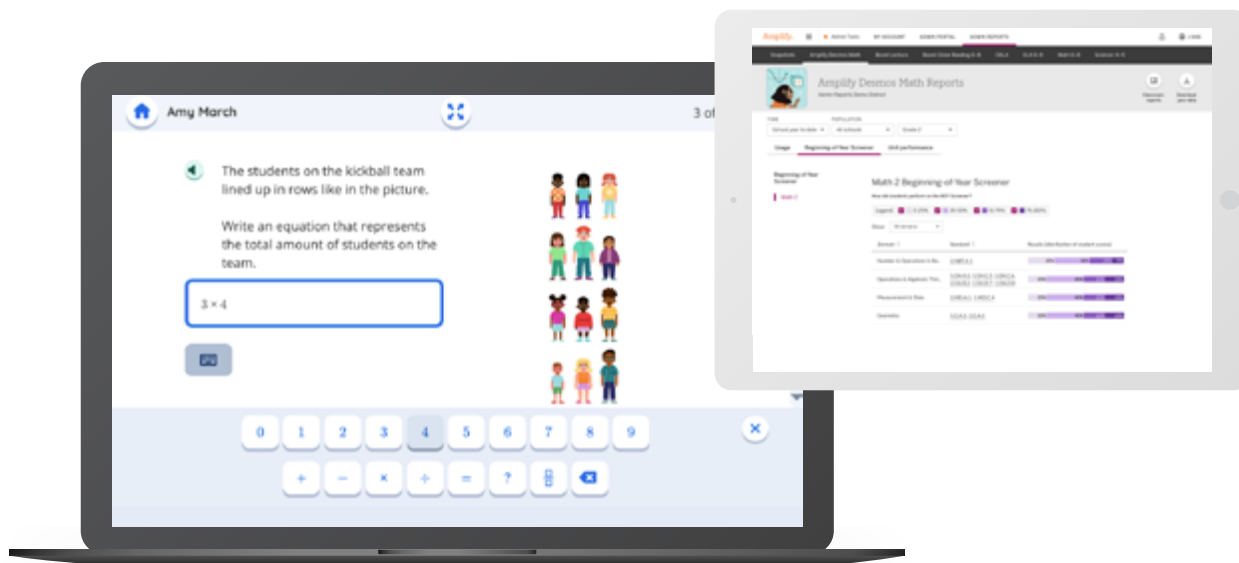
Assessments from mCLASS® surface students' math thinking with an asset-based approach, providing better insights into what students know, where they need support, and which assets to leverage.

## mCLASS Benchmark

This powerful digital benchmark assessment system is administered to the whole class three times a year, at the beginning, middle, and end of the year. The assessments are designed to analyze student responses with a focus on revealing underlying math thinking, evaluating student knowledge of grade-level math, and informing instructional decisions.

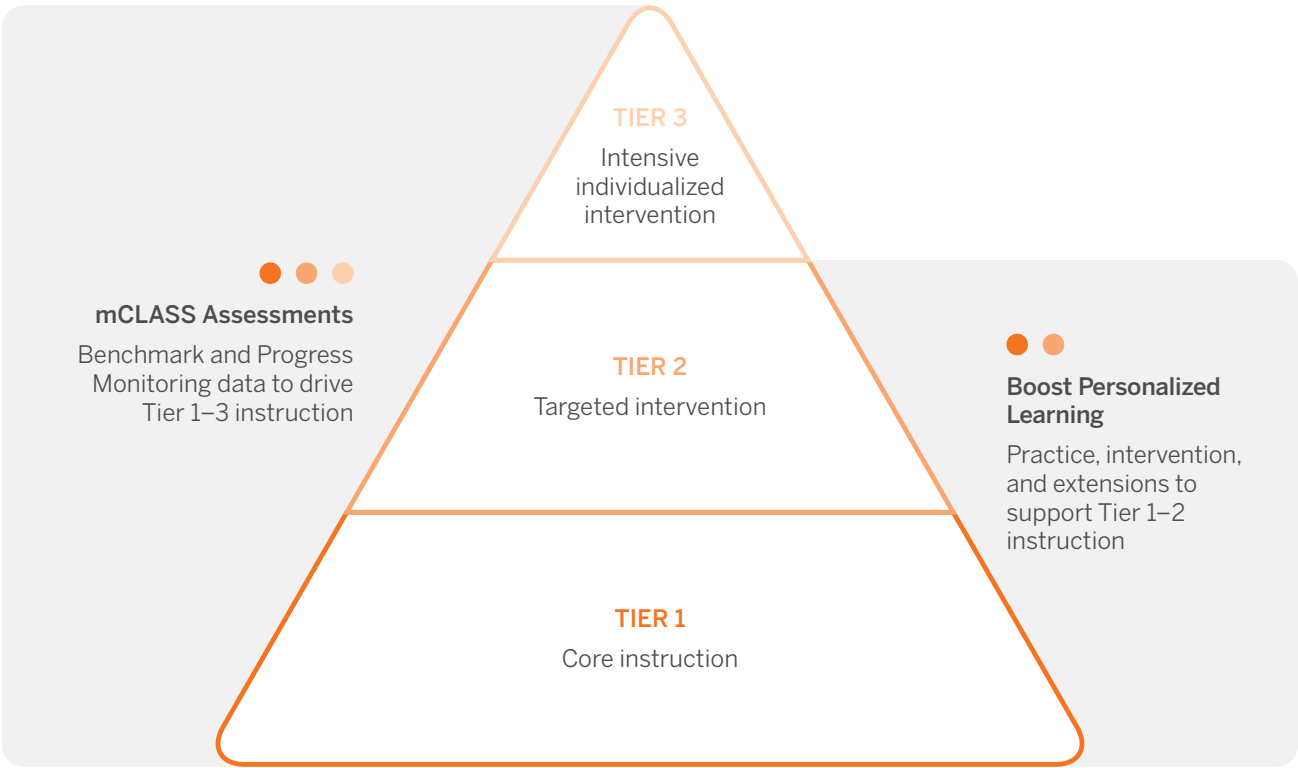
The comprehensive system of assessments also:

- Evaluates student progress toward grade-level expectations for growth measure.
- Identifies specific areas of strength and developmental need for each student to inform differentiation in Amplify Desmos Math and Boost Personalized Learning.
- Benchmark also includes an adaptive diagnostic module that can be optionally administered to collect additional information for Tier 1 and Tier 2 intervention targeting.



# mCLASS Progress Monitoring

Progress Monitoring helps teachers chart students' progression between assessment periods. For students receiving targeted support, progress monitoring informs whether intervention is working or whether adjustments are needed to improve student learning.



As an essential part of a school's MTSS or Response to Intervention (RTI) framework, these assessments can be used to track student progress in specific areas as part of targeted instructional support towards benchmark goals.

Progress Monitoring is designed to be brief and easily administered every two weeks, although teachers are encouraged to use these in ways that best meet their instructional needs and goals for the student.

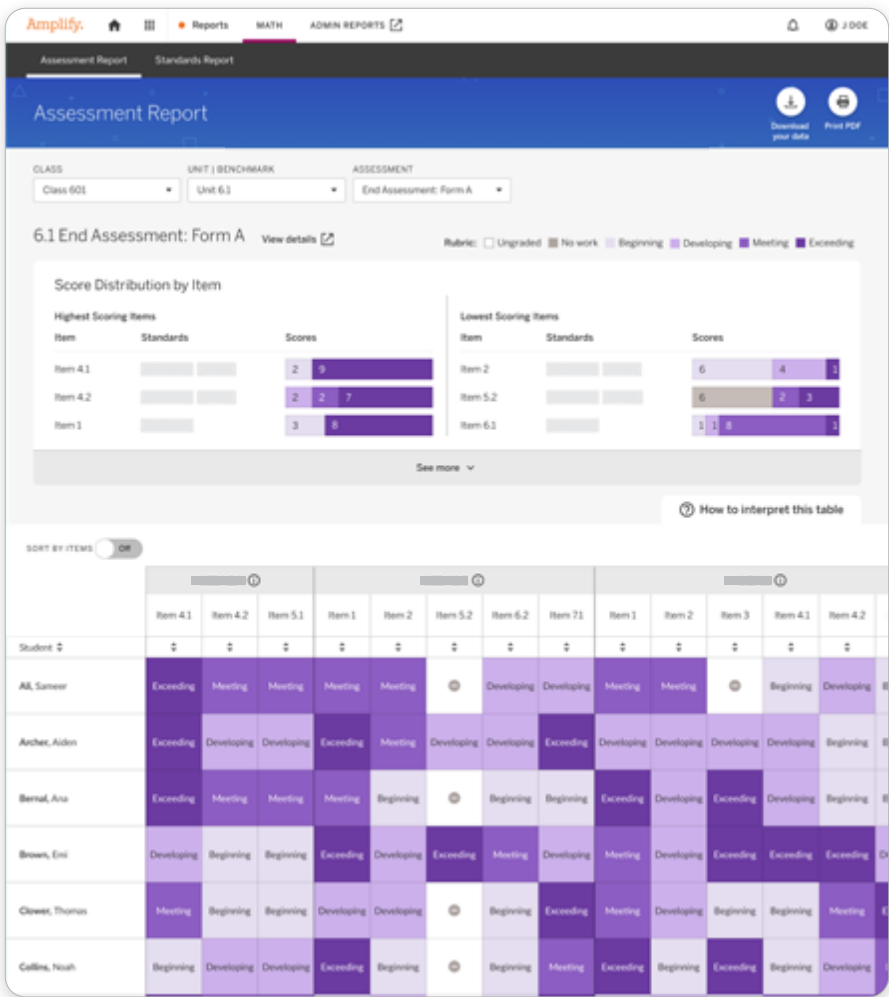
# Reporting tools provide integrated insight into learning.

Amplify Desmos Math provides teachers and administrators with unified reporting and insights so that educators have visibility into what students know about grade-level math—and can plan instruction accordingly for the whole class, small groups, and individual students.

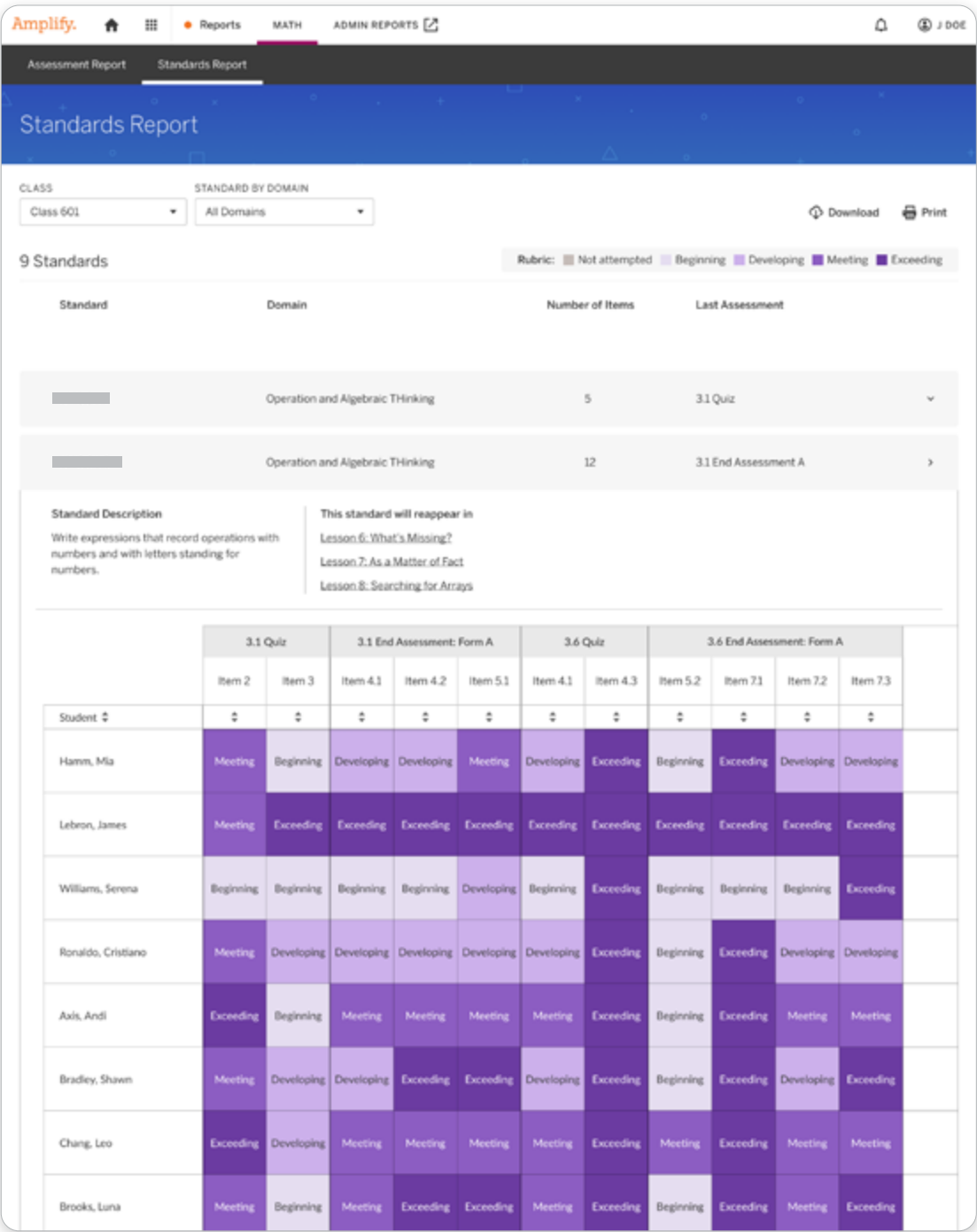
Reporting functionality integrates unit assessments, lesson assessments, personalized learning, benchmark assessments, and progress monitoring for a comprehensive look at student learning.

Amplify Desmos Math is designed to fit your specific data and reporting needs. Reporting functionality integrates unit assessments and lesson assessments for a comprehensive look at student learning.

At-a-glance views of unit-level assessment results inform instructional planning, and you can also drill down to item-level analysis



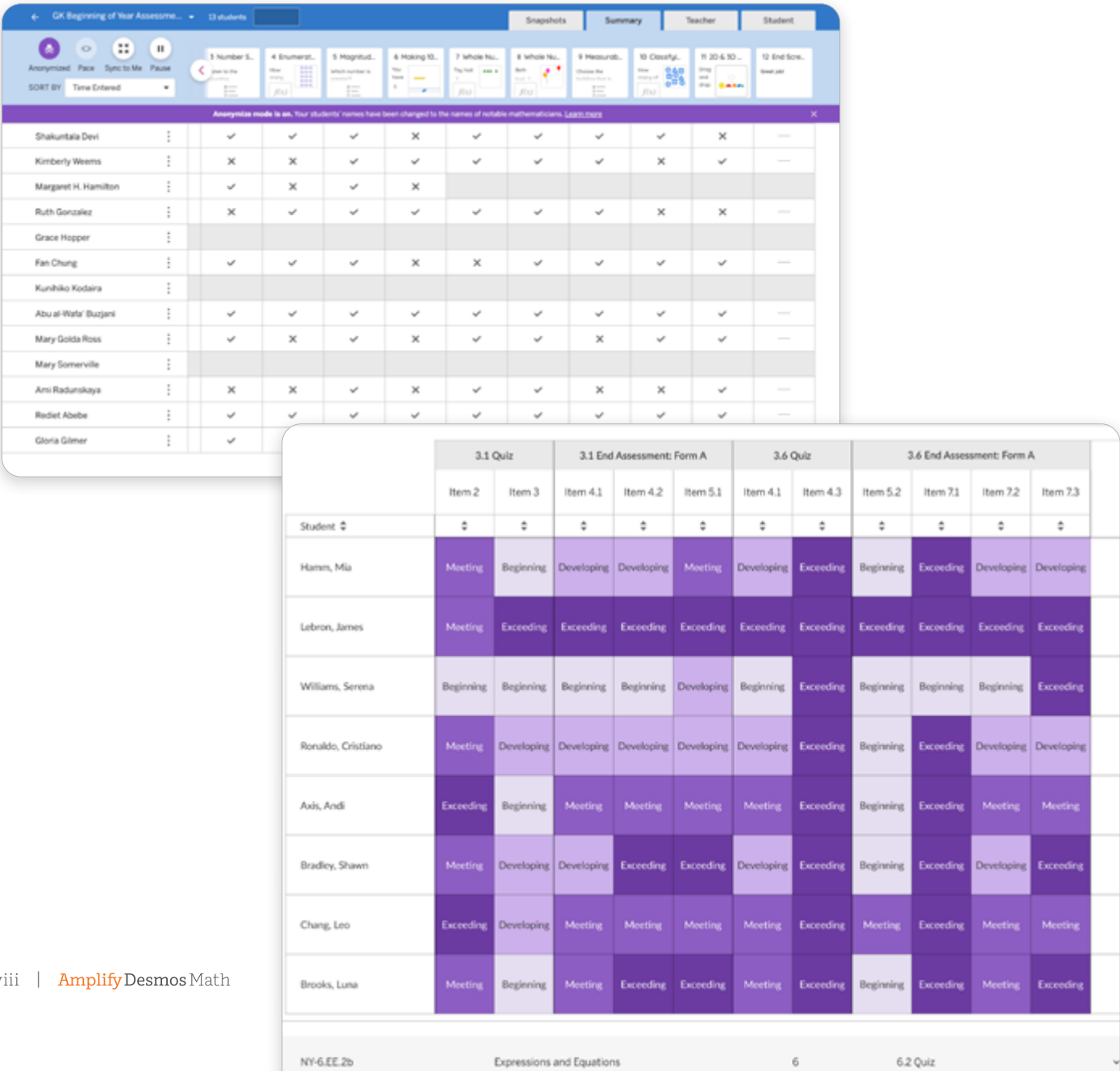
Our standards report allows you to monitor proficiency at the class and individual student levels.



# Teachers have data at their fingertips to guide and differentiate instruction.

A variety of performance data in Amplify Desmos Math provides evidence of student learning while helping students bolster their skills and understanding.

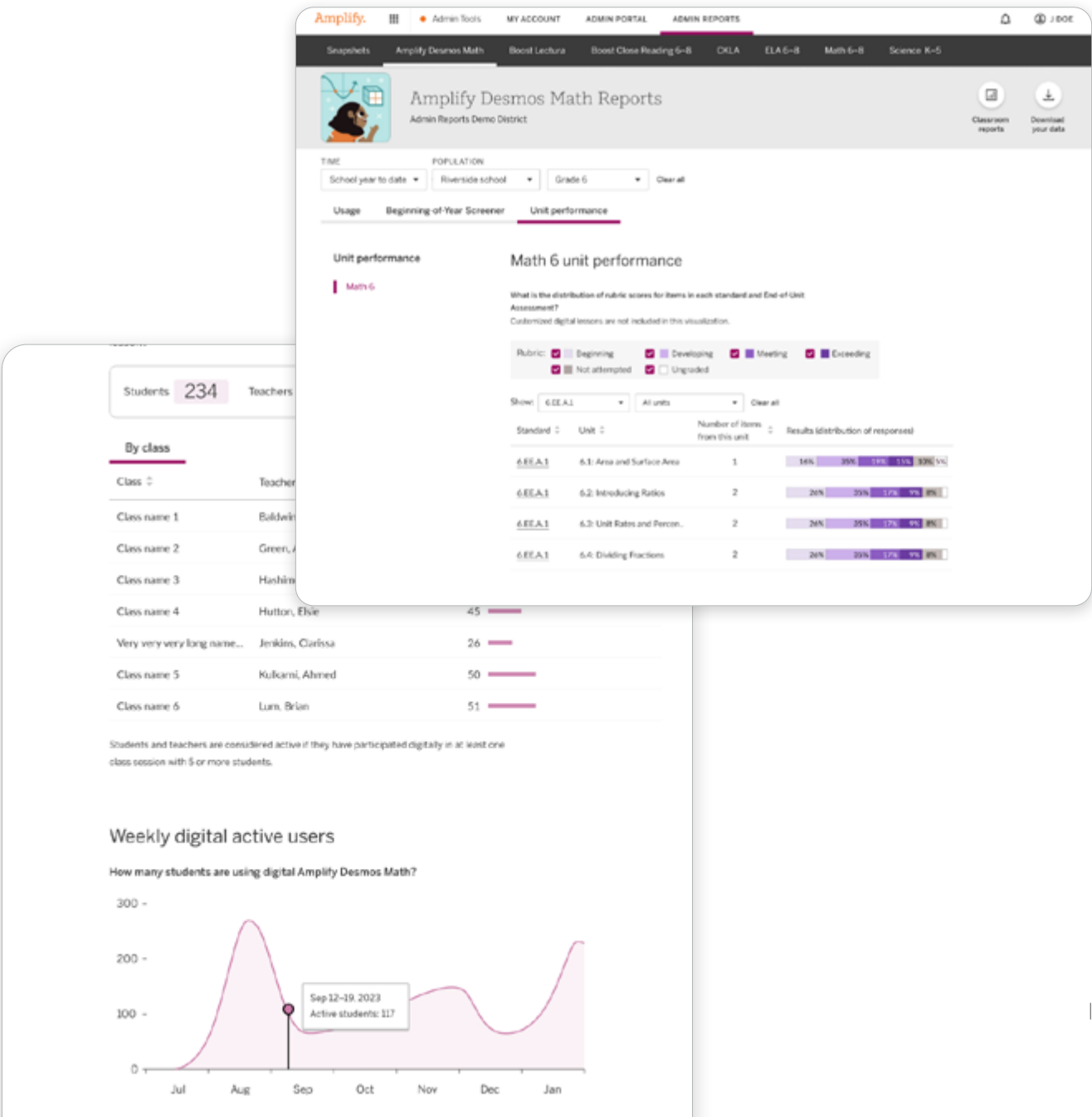
- Proficiency and growth is shown by domain, cluster, standard, and priority concepts. Areas of potential student need are highlighted to allow teachers to modify their instruction and target differentiated support.
- With actionable insights provided by mCLASS Benchmark and Progress Monitoring assessments, teachers are given the data they need to inform Tier 2 and Tier 3 intervention.
- Caregiver-friendly visuals and language enable educators to easily share and celebrate growth with families.



# Administrator Reporting

Amplify Desmos Math provides a complete picture of student, class, and district performance, allowing administrators to implement instructional and intervention plans.

- Track student, class, and district performance with usage, completion, and assessment data.
- Accurately group students and classes with the Benchmark and Progress Monitoring data of mCLASS Math and allow teachers to reliably implement and track the progress of Tier 2 and Tier 3 intervention.
- Provide one data-driven solution that educators can rely on for high-quality math instruction.



# Boost Personalized Learning

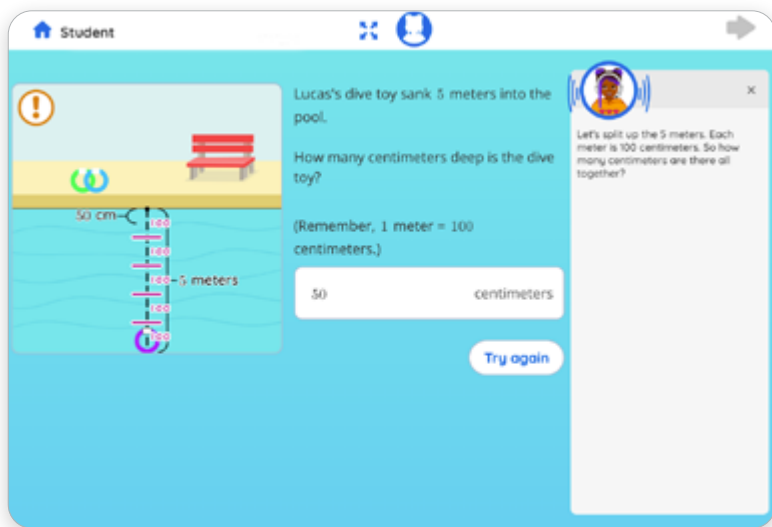
Amplify Desmos Math includes digital, adaptive practice that provides the personalized support a student needs to access grade-level math every day. Boost Personalized Learning activities target a skill or concept aligned to the day's core lesson, with each student receiving personalized scaffolds based on what they already know.

This adaptive technology complements daily learning and provides another layer of support to the in-lesson differentiation and instructional guidance provided to teachers.

## Personalized feedback, scaffolds, and supports

Activities adapt to each student's unique needs based on prior assessment data and student responses. Tailored, differentiated support includes:

- **Responsive Feedback:** Visual, mathematical representation of the student's response
- **Guidance and tips:** Adaptive suggestions to help get students unstuck
- **Strategy modeling:** Moments of explicit instruction to summarize key concepts and support sensemaking
- **Precursor skill support:** Instruction and practice on skills and concepts that highly influence the development of grade-level understanding



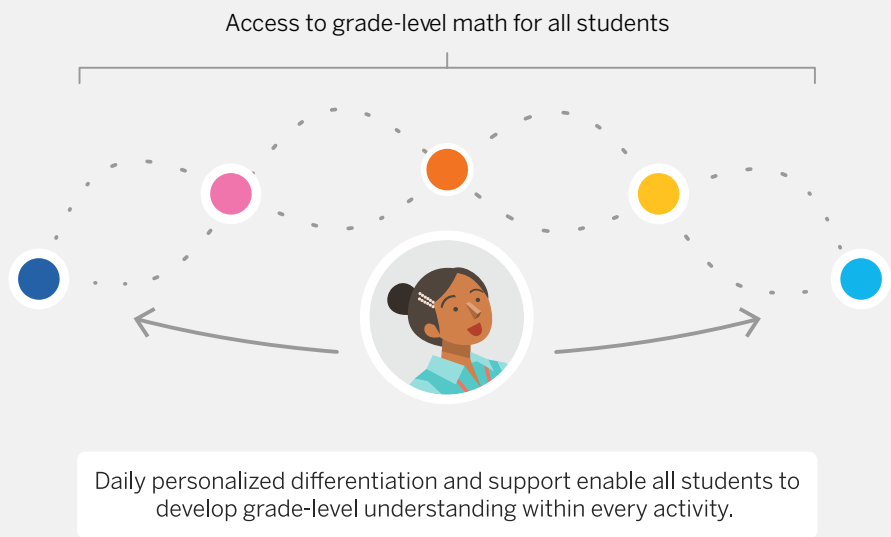
 TRY IT!

Go to [amplify.com/admsample](https://amplify.com/admsample) to access sample activities

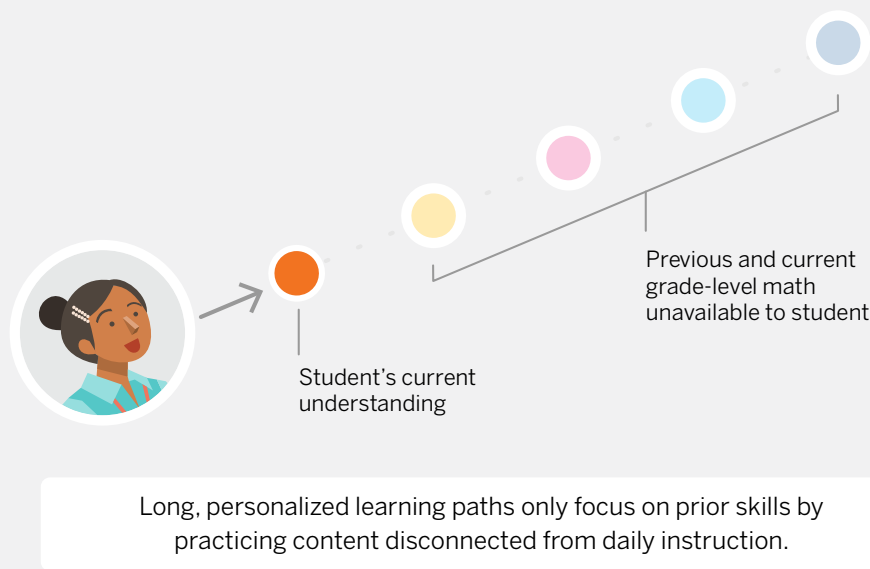
# All students can access grade-level math, every day.

Boost Personalized Learning enables all students to access grade-level math in each activity with tailored supports based on what they already know. This eliminates the long path where students receive interventions that slowly build understanding unrelated to daily instruction.

## The asset-based approach of Boost Personalized Learning



## The traditional, deficit-based approach to intervention



# More opportunities for personalized practice

## Math Adventures

Math Adventures are strategy-based digital math games that offer students a fun, engaging and low-stakes way of practicing math skills. Unlike simple, repetitive math games, students navigate through various levels of complex worlds with Responsive Feedback along the way.

Math Adventures are perfect for times when teachers need students to be independent after finishing classwork, an assessment, or group work.



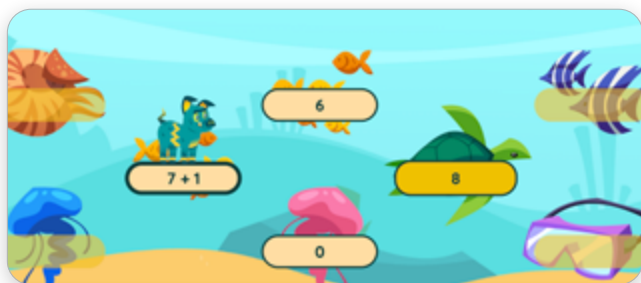
### Twelve a Dozen

A story-rich puzzle platform game that integrates algebraic math into core game mechanics. Players must use their factoring skills and solve order-of-operations puzzles to save the world.



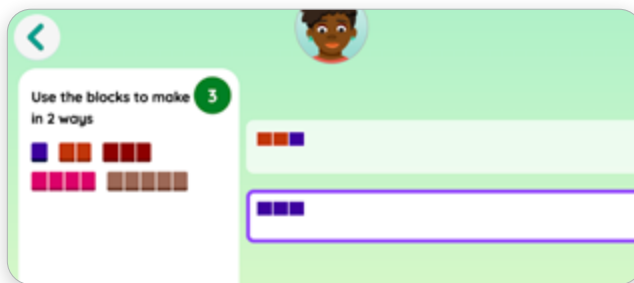
### Formula Won

A racing game in which players advance around different game board race tracks, competing against an AI opponent by picking sets of cards and operations. Requires players to operate with integers, mixed numbers, or decimals.



### Number Jumper

Take an adventure across different lands. Students practice addition and subtraction facts by jumping from platform to platform as they travel through swamps, caves, forests, pillow forts, and many more settings.



### Connect the Blocks

Students use blocks to compose different combinations of target numbers. Students see equations that match their builds and receive feedback in the form of a length bar. Students develop their fluency through repeated opportunities to flexibly build and recognize different parts of a whole.

## Fluency Practice

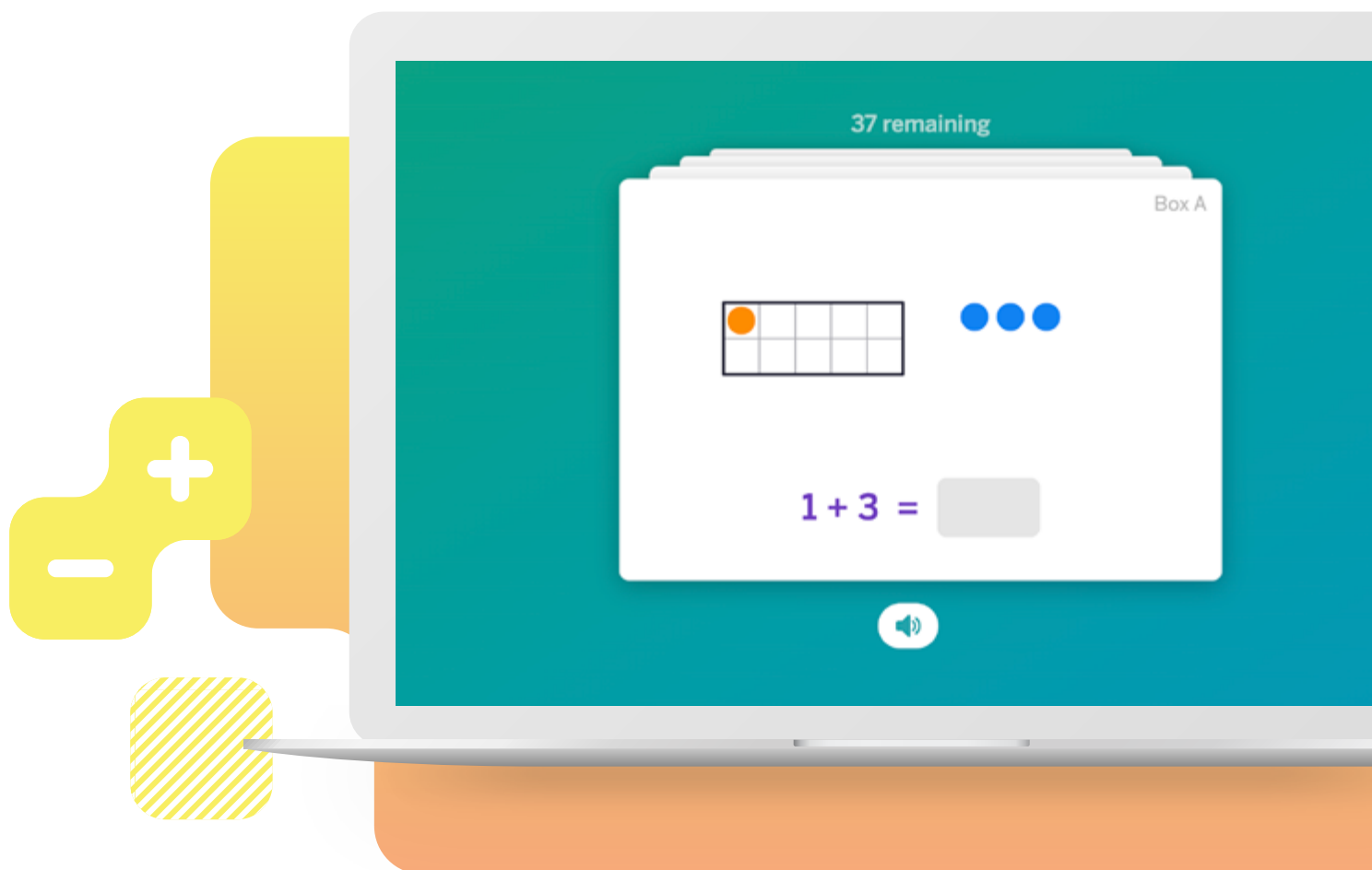
Fact fluency frees up brainpower and working memory for students to do more complex mathematical work. When basic facts and procedures are second nature, it's easier to figure out how to structure a multi-step word problem, model a solution, or puzzle out systems of equations.

We've partnered with Math for Love to iterate on the popular Multiplication by Heart for the other basic operations, such as Addition and Subtraction by Heart, Division by Heart, and fluency of other math procedures.

The Fluency Practice of Amplify Desmos Math uses an evidence-based approach to memory retention—spaced repetition—for the basic facts. The focus is conceptual understanding, not just “drill and kill” focused on rote memorization. The adaptive nature of the practice allows students to focus less and less on the facts they already know. This approach builds fluency without the anxiety that timed tests can cause.

### TRY IT!

Go to [fluency.amplify.com](https://fluency.amplify.com) to access sample activities



# About Mini-Lessons

## Intervention Mini-Lessons aligned to core instruction

Amplify Desmos Math Mini-Lessons are 15-minute lessons aligned to the most critical topics throughout a unit. Teacher-led Mini-Lessons are used to provide targeted intervention to small groups of students who need additional support or to re-engage students with content that they may need more time on.

Amplify Desmos Math Mini-Lessons are the perfect complement to our problem-based approach, because they provide more explicit instruction opportunities and leverage a consistent instructional routine (Modeled Review, Guided Practice, Check for Understanding).

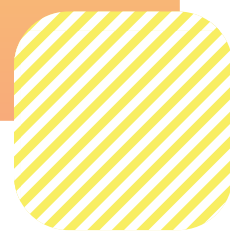
## A minds-on experience to support your students' curiosity and thinking beyond the core lesson

Rather than serving as simple solo drills or worksheets, Mini-Lessons tie directly into critical topics to keep students thinking and exploring the grade-level math they need more time with.

## Differentiation where and when it matters most, to help all students access grade-level math

Mini-Lessons are used to address critical prerequisite skills for upcoming lessons or to engage students in grade-level math immediately after a core lesson, when they need more time to think about a concept or skill. Mini-Lessons reinforce the same topics and content students see in core instruction.





## Faded worked examples build proficiency

The design of Amplify Desmos Math Mini-Lessons is informed by the extensive research around worked examples, in particular faded worked examples. Because novice learners benefit more from worked examples than more experienced learners (Kalyuga, Ayres, Chandler, & Sweller, 2003), one pedagogical approach involves scaffolding, or fading away, the support given in the worked examples as practice goes on and students become more proficient (Atkinson et al., 2003; van Merriënboer, Kirschner, & Kester, 2003).

In essence, the worked examples get less “worked out” over time. Studies on the use of faded worked examples have found benefits for problem solving, both in terms of better performance on difficult problems (Atkinson et al., 2003) and less time taken to achieve the same level of performance (Flores & Inan, 2014). Students working with faded worked examples have also been shown to have fewer unproductive moments during their practice sessions (Renkl et al., 2004).



# Structure of a Mini-Lesson

## Structure of a Mini-Lesson

Easy as one, two, three:

- 1

Modeled review

Teachers work through an example with students.
- 2

Guided practice

Teachers guide students through faded examples, where scaffolds are heavier early on and are gradually removed.
- 3

Check for understanding

Teachers provide students an opportunity to show what they have learned.

Determining the Volume of Solid Rectangular Prisms

Teacher's Guide

ML 1.06

Goal

Calculate the volume of a rectangular prism using the formula  $V = l \times w \times h$ .

Standard

NY-5.MD.5b

Materials

highlighters

Modeled Review

Point to Han's example.

Ask:

- "Why did Han cross out one of the edge lengths?"
- "How does the expression Han wrote represent the volume of the prism?"

Reinforce Han's thinking by saying, "Sometimes, problems show more information than you need. To calculate the volume, you only need to identify the length, width, and height of the prism and then multiply."

Model identifying the needed edge lengths to write an expression.

Guided Practice

For each problem, focus students' attention on using the provided prisms to complete the table.

To scaffold students' thinking, ask:

- "What do the edge lengths represent?"
- "How does each expression represent the volume of the prism?"

Vocabulary

If needed, share the meaning of the words with students.  
**associative property of multiplication:** The product of three or more numbers remains the same regardless of how the numbers are grouped.  
**rectangular prism:** A solid figure with six faces that are all rectangles.  
**volume:** The amount of space a three-dimensional figure takes up.

1 | Grade 5

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Determining the Volume of Solid Rectangular Prisms

Teacher's Guide

ML 1.06

Guided Practice

1

Suggest students highlight the edge lengths that represent the length, width, and height.

Key Takeaway:

- Say, "Volume is measured in cubic units, such as cubic inches. The formula  $V = lwh$  can be used to determine the volume of any rectangular prism."

Check

Determine the volume of the prism. Show or explain your thinking. *Sample work shown.*

1

length = 10

width = 3

height = 3

$V = 10 \times 3 \times 3$

$V = 90$

answer: 90 cubic units

2

length = 5

width = 4

height = 5

$V = 5 \times 4 \times 5$

$V = 100$

answer: 100 cubic units

Reflection

Ask:

- "How could you determine whether an expression represents the volume of a rectangular prism?"
- "After today's lesson, what questions do you still have?"

Check: Recommended Next Steps

Almost There

If students need more support, consider using Grade 5 Mini-Lesson 1.08: Using Volume Formulas.

Got It!

If students need more practice, have students refer to the prism in the Modeled Review. Ask them what the volume would be if the height was 6 units.

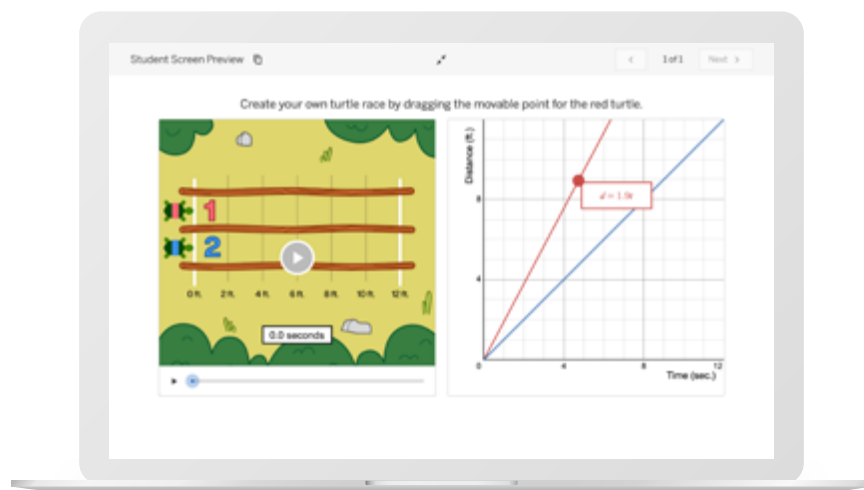
2 | Grade 5

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xxvi | AmplifyDesmosMath

# Accessing Mini-Lessons in Amplify Desmos Math

Amplify Desmos Math Mini-Lessons are easily accessible at point-of-use for teachers.



## In the digital experience

Online, Teacher Edition PDF pages for each Mini-Lesson, along with the Teacher Presentation Screens, can be accessed within sub-unit resources.

## In the print Teacher Edition

In the Amplify Desmos Math Teacher Edition, Mini-Lessons will be referenced in the differentiation table at the sub-unit level.

### Assessments

Every unit includes a variety of formative and summative assessments, designed to highlight students' understanding of a variety of concepts and skills.

#### Pre-unit Check

The Pre-unit Check helps highlight the knowledge and skills students already have related to this unit. (Can be given in its entirety before the unit or spread throughout the unit.)

Standards addressed: 3.OA.A.2, 3.OA.B.5, 4.NF.A.1, 4.NF.A.2, 5.NF.B.3, 5.NF.B.6, 5.NF.B.7, 5.NF.C.3, 5.NF.C.6, 5.NF.C.8

#### Lesson | Exit Ticket

Each lesson's Exit Ticket helps highlight students' progress toward the lesson goals.

#### Sub-unit Quizzes

Each Sub-unit Quiz and Rubric helps highlight students' progress toward the concepts and skills addressed in part of a unit.

Standards addressed on Quiz: Sub-units 1 and 2: 5.NF.A.1

#### End-of-unit Assessment

The End-of-unit Assessment helps highlight students' progress toward the concepts and skills addressed throughout the unit.

Standards addressed: 5.OA.A.2, 5.OA.A.3, 5.NF.A.1

### Differentiation

Every unit includes additional resources to support, strengthen, and stretch student learning.

#### Support

Provide targeted intervention for students by using these resources.

#### Strengthen

Reinforce students' understanding of the lesson's concepts and skills by using these resources.

#### Stretch

Challenge students and extend their learning with these resources.

| Unit Goals                                                                                           | Differentiation Response                                                                                            |
|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Decompose a shape and rearrange without overlaps to create a shape with the same area. (Lessons 1-2) | <div>Support</div> <ul style="list-style-type: none"> <li>Mini-lesson (1 min)   Mini-Lesson Title</li> </ul>        |
| Check for understanding: Lesson 2 Exit Ticket                                                        | <div>Strengthen</div> <ul style="list-style-type: none"> <li>Lesson from previous courses: T16A, Title Y</li> </ul> |
| Calculate the area of a parallelogram and triangle. (Lessons 3-7)                                    | <div>Support</div> <ul style="list-style-type: none"> <li>Resource linked here</li> </ul>                           |
| Check for understanding: Lesson 7 Exit Ticket                                                        | <div>Strengthen</div> <ul style="list-style-type: none"> <li>Resource linked here</li> </ul>                        |
| Calculate the area of a polygon. (Lesson 8)                                                          | <div>Support</div> <ul style="list-style-type: none"> <li>Resource linked here</li> </ul>                           |
| Check for understanding: Lesson 8 Exit Ticket                                                        | <div>Strengthen</div> <ul style="list-style-type: none"> <li>Resource linked here</li> </ul>                        |
| Calculate the surface area of a prism or pyramid. (Lessons 9-12)                                     | <div>Support</div> <ul style="list-style-type: none"> <li>Resource linked here</li> </ul>                           |
| Check for understanding: Lesson 12 Exit Ticket                                                       | <div>Strengthen</div> <ul style="list-style-type: none"> <li>Resource linked here</li> </ul>                        |
| Calculate the surface area of a pyramid or cone. (Lessons 13-15)                                     | <div>Support</div> <ul style="list-style-type: none"> <li>Resource linked here</li> </ul>                           |
| Check for understanding: Lesson 15 Exit Ticket                                                       | <div>Strengthen</div> <ul style="list-style-type: none"> <li>Resource linked here</li> </ul>                        |

**Desmos Math** helps students catch up while keeping up with grade-level math. Assign the Desmos Math Practice module that aligns to the subject for students to access corresponding lessons, additional practice, and games. Amplify Desmos Math includes select Desmos Math content. Full access to Desmos Math is available as an additional purchase.

#### Differentiation Within the Lesson

Each lesson in Amplify Desmos Math includes point-of-use differentiation suggestions to modify or adjust instruction during the lesson to accommodate the needs of all learners.

**Spotlight on...**

Lesson A.A.1A Test goes here. Test goes here. Test goes here. Test goes here. Test goes here.

### Differentiation

Every unit includes additional resources to support, strengthen, and stretch student learning.

#### Support

Provide targeted intervention for students by using these resources.

#### Strengthen

Reinforce students' understanding of the lesson's concepts and skills by using these resources.

#### Stretch

Challenge students and extend their learning with these resources.

| Unit Goals                                                                                           | Differentiation Response                                                                             |
|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Decompose a shape and rearrange without overlaps to create a shape with the same area. (Lessons 1-2) | <div>Support</div> <ul style="list-style-type: none"> <li>Mini-lesson</li> </ul>                     |
| Check for understanding: Lesson 2 Exit Ticket                                                        | <div>Strengthen</div> <ul style="list-style-type: none"> <li>Lesson from previous courses</li> </ul> |
| Calculate the area of a parallelogram and triangle. (Lessons 3-7)                                    | <div>Support</div> <ul style="list-style-type: none"> <li>Resource linked here</li> </ul>            |
| Check for understanding: Lesson 7 Exit Ticket                                                        | <div>Strengthen</div> <ul style="list-style-type: none"> <li>Resource linked here</li> </ul>         |
| Calculate the area of a polygon. (Lesson 8)                                                          | <div>Support</div> <ul style="list-style-type: none"> <li>Resource linked here</li> </ul>            |
| Check for understanding: Lesson 8 Exit Ticket                                                        | <div>Strengthen</div> <ul style="list-style-type: none"> <li>Resource linked here</li> </ul>         |

# Centers

## Game-based Centers strengthen student engagement and reinforce key skills and concepts

Centers are engaging, hands-on games for students to play collaboratively to strengthen their understanding of key skills and concepts.

Centers are designed so that students engage in them with minimal teacher direction and support. Each Center has multiple stages so that students return to the same Center game repeatedly within and across grade levels, with the content of the Center growing in complexity to align with grade-level standards in a scaffolded manner.



## Daily Center Time (Grades K–1)

The last 15 minutes of the daily lesson is always Center Time. Depending on where the lesson falls in the learning trajectory, students will either:

- Be introduced together to a new Center
- Engage in Center Choice Time, choosing previously introduced Centers to revisit

## Centers as Activities

New Centers are strategically introduced to the whole class as one of the Lesson Activities.

- Students return to these Centers in future Center Choice Times
- Teachers can also engage students in Centers as a Differentiation activity

## Differentiation

Each lesson lists specific Centers that teachers can use with small groups to strengthen their understanding of key learning goals.

- Students usually have previously been introduced to at least an earlier stage of these Centers
- Teachers can also use Centers after Assessment points

The materials required to utilize Centers are included in program materials.

- Work mats and instruction cards are included in the Centers Resource book
- The required manipulatives are included in the Manipulative Kit

### Capture Squares



Students generate a number and connect two dots that are adjacent to the number. If that line closes a square, they capture it and shade it using their color. The player to shade three squares first is the winner.

Stage 1

Add Within 10

Stage 2

Subtract Within 10

Stage 3

Add Within 20

Stage 4

Subtract Within 20

Stage 5

Multiply With 2, 5, and 10

Stage 6

Multiply With 2–5

Stage 7

Multiply With 6–9

### Cover Up



Let's multiply using factors of 1–5 and 10.

**You'll need . . .**

- 2 base-ten units
- two-color counters
- Gameboard A or B
- Recording Sheet

**Set-up**

- Choose a Gameboard.
- Choose who will use red counters and who will use yellow counters.

**How to Play**

**1 Player A:**

- Place each cube on a number in the gray row. Each cube can be on a different number, or both cubes can be on the same number. Multiply the numbers.
- Cover the product of the two numbers with a counter.
- Record the multiplication expression and product.

**2 Player B:**

- Move one of the cubes. Multiply the numbers.
- If the product is not already covered with a counter, cover it.
- Record the multiplication expression and product.

**3** Take turns moving one cube at a time. Record each multiplication expression and product, even if you were unable to cover the product.

**How to Win**

- The first player to cover 5 squares in a row wins.

### Cover Up



|     |    |    |
|-----|----|----|
| 40  | 2  | 3  |
| 6   | 20 | 8  |
| 100 | 15 | 2  |
| 12  | 9  | 16 |
| 4   | 1  | 50 |

|   |   |   |   |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

| xxix

# Stretch student mathematical thinking with Extensions.

All students should have access to fun and challenging problems. Amplify Desmos Math extensions are 10–15-minute activities aligned to the most critical topics in a sub-unit. Extensions can provide targeted intervention to small groups of students ready for an extra challenge or whole-class.

Amplify Desmos Math extensions build on our student-led, problem-based approach, providing more opportunities for students to engage in creative and rigorous problems that can be approached with different strategies.

These low-lift activities give teachers flexibility and provide students with open-ended, hands-on problems they can choose from.

## Challenge Extension Activities

These activities focus on student choice and provide open-ended problem-solving questions to discuss together. They are hands-on and require only a pencil and paper.

**Unit 6** Sub-Unit 2 Extension

Name \_\_\_\_\_ Date \_\_\_\_\_

1

Each point on these scatterplots was created by randomly choosing an  $x$ -value between 0 and 10, then multiplying by 3 and adding a different random number to get the  $y$ -value.

- In Scatter Plot A, a random number between  $-0.5$  and  $0.5$  was added to the  $y$ -coordinate.
- In Scatter Plot B, a random number between  $-8$  and  $8$  was added to the  $y$ -coordinate.
- In Scatter Plot C, a random number between  $-20$  and  $20$  was added to the  $y$ -coordinate.

Scatter Plot A

Scatter Plot B

Scatter Plot C

For each scatter plot, draw a line that fits the data.

Continued next page ...

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Extensions are structured on the principle of student choice and designed to be student-led. Every sub-unit comes with an Extension problem set.

Extension Activities will be referenced in the differentiation table at the lesson-level. You will also find the sub-unit extensions recommended for each lesson digitally on the differentiation tab.

Teachers are provided with:

- Key background information about the math in the problem
- Sample responses
- Hints to share with students (when needed)
- Suggestions for which problems to share with the whole class

 You Choose!

Pick any problem to start with.

2

There are 9 different-sized cubes in a  $2 \times 2 \times 2$  cube: 8 unit cubes and one  $2 \times 2 \times 2$  cube.

| Cube                  | Number of $1 \times 1 \times 1$ cubes                                               | Number of $2 \times 2 \times 2$ cubes                                               |
|-----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| $2 \times 2 \times 2$ |  |  |

How many different-sized cubes are there in a  $3 \times 3 \times 3$  cube?



 You Choose!

Pick any problem on this page to start with.

1



Avocado

Directions:

Jada made guacamole from several avocados and left the pits. Figure out how many avocados Jada used. Explain how you know.



## KINDERGARTEN

# Assessments and Rubrics

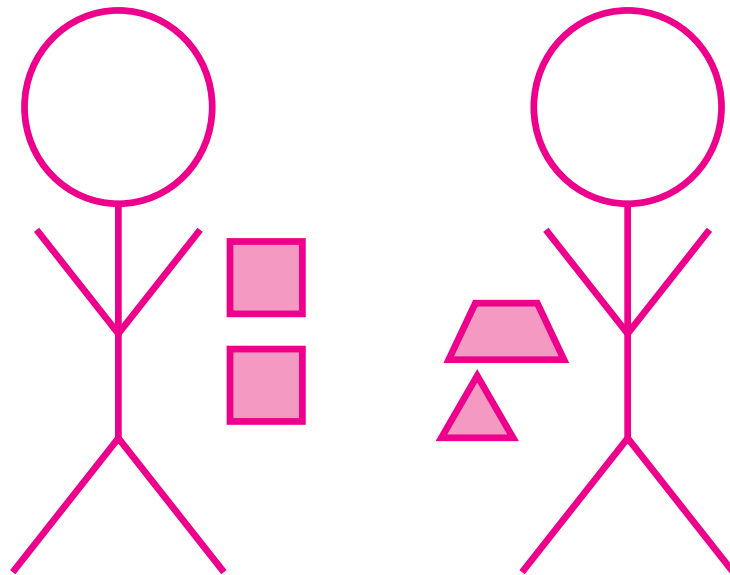
The following section includes one full unit of unit-level assessments. These include the Sub-Unit Checklist, Sub-Unit Quizzes, and End-of-Unit Assessment. These assessments will also be available for students to complete digitally in Grades 2–5. Daily Show What You Know assessments are optional in grades K–1.

## Quiz: Sub-Unit 1

Unit K.1

 Draw

Sample response shown.



### Directions

- 1 Draw a picture to show what you have learned about math.

**Purpose:** Use this checklist as students progress through the sub-unit. Look for students who demonstrate learning on these standards during Activities and Centers, and utilize the resources with students who need more support with the Skill or Concept.

| Skill or Concept                                                                      | Resources if students need support                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>a</b> Describe the math tools they are using.</p>                               | <p><b>As students work on Lessons 1–5, provide opportunities for:</b></p> <ul style="list-style-type: none"> <li>Describing the tools they are using by asking, “What do the tools you are using look like?”</li> <li>Describing how they are using tools by asking, “How are you using this tool?”</li> </ul>                                                                                                                                                                                                                                                                                    |
| <p><b>b</b> Describe how they are using math tools.</p>                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p><b>c</b> Explore and use math tools (e.g., sort, make patterns, build, count).</p> | <p><b>As students work on Lessons 1–4, provide opportunities for:</b></p> <ul style="list-style-type: none"> <li>Exploring a new use of the tool by asking: <ul style="list-style-type: none"> <li>“What else could you do with this tool?”</li> <li>“How could you use this tool in the same way as another tool?”</li> <li>“How could you use this tool in a different way than other tools?”</li> </ul> </li> </ul>                                                                                                                                                                            |
| <p><b>d</b> Build with math tools to represent objects or images.</p>                 | <p><b>Centers:</b> <i>Connecting Cubes</i>, Stage 2, <i>Pattern Blocks</i>, Stage 2, <i>Solid Shapes</i>, Stage 2</p> <ul style="list-style-type: none"> <li>Have students build an object to match the object in the picture.</li> <li>Ask: <ul style="list-style-type: none"> <li>“What do you notice about the object in this picture?”</li> <li>“How is the object you built the same as the object in the picture? How is it different?”</li> <li>“How did you choose which tools to use? What could you change to make your object match the object in the picture?”</li> </ul> </li> </ul> |

Make enough copies so that you can record the names of each of your students. Consider making an additional copy of the Skills or Concepts to refer to as you observe student work throughout the sub-unit.

|              | Checklist |   |   |   |
|--------------|-----------|---|---|---|
|              |           |   |   |   |
| Student Name | a         | b | c | d |
|              |           |   |   |   |
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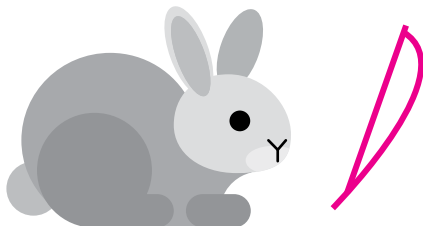
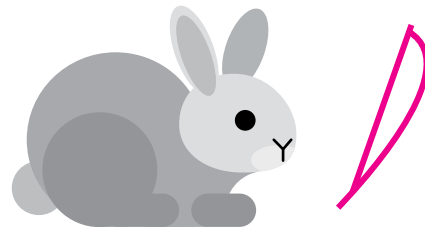
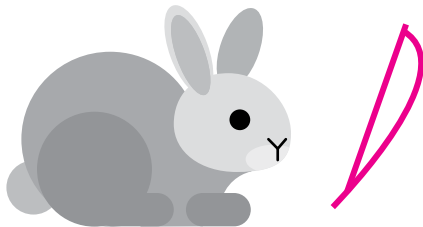
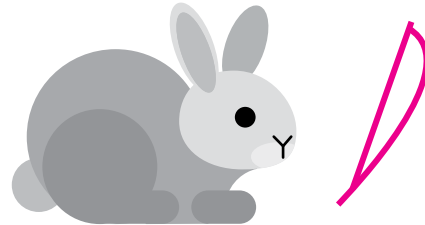
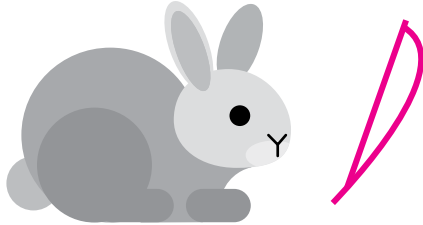
## Quiz: Sub-Unit 2

Unit K.1

 Show your thinking.

Sample response shown.

1



### Directions

- 1 Use a math tool or drawing to show enough carrots so that each bunny has 1 carrot.

**Purpose:** Use this checklist as students progress through the sub-unit. Look for students who demonstrate learning on these standards during Activities and Centers, and utilize the resources with students who need more support with the Skill or Concept.

| Skill or Concept                                                                                     | Resources if students need support                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>a</b> Subitize groups of up to 4 objects or images.                                               | <b>Centers:</b> <i>Pattern Blocks, Stage 3, Solid Shapes, Stage 3</i> <ul style="list-style-type: none"> <li>Display a Pattern Blocks Card and cover all but 1 group of shapes.</li> <li>Ask, "How many do you see? How do you see them?"</li> </ul>                                                                                                          |
| <b>b</b> Identify equivalent groups, shown in different arrangements, for groups of up to 4 objects. | <b>Centers:</b> <i>Pattern Blocks, Stage 3, Solid Shapes, Stage 3</i> <ul style="list-style-type: none"> <li>Display a Pattern Blocks Card and cover all but 1 group of shapes.</li> <li>Say, "Make a group of shapes that has the same number of shapes as the group in the picture."</li> <li>Ask, "Do you have enough shapes? How do you know?"</li> </ul> |
| <b>c</b> Match objects one-to-one to determine if there are enough.                                  |                                                                                                                                                                                                                                                                                                                                                               |
| <b>d</b> Create equivalent groups.                                                                   | <b>Center:</b> <i>Connecting Cubes, Stage 2</i> <ul style="list-style-type: none"> <li>Display a Connecting Cubes Card.</li> <li>As students build objects to match the picture on the card, ask, "How do you know you used the same number of cubes as the picture?"</li> </ul>                                                                              |

Make enough copies so that you can record the names of each of your students. Consider making an additional copy of the Skills or Concepts to refer to as you observe student work throughout the sub-unit.

|              | Checklist |   |   |   |
|--------------|-----------|---|---|---|
|              |           |   |   |   |
| Student Name | a         | b | c | d |
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| Notes:       |           |   |   |   |

**Purpose:** Use this checklist as students progress through the sub-unit. Look for students who demonstrate learning on these standards during Activities and Centers, and utilize the resources with students who need more support with the Skill or Concept.

| Skill or Concept                                                | Resources if students need support                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>a</b> Count to 10 by 1.                                      | <p><b>As students engage in choral counting in Lessons 14 and 15, provide opportunities for:</b></p> <ul style="list-style-type: none"> <li>Additional rounds of choral counting.</li> <li>Pairing verbal counting with movements. As students count, encourage them to raise a finger for each number, clap or stomp for each number, or point to each written number as they are said aloud.</li> </ul> |
| <b>b</b> Use one-to-one correspondence.                         | <p><b>As students work on Lessons 13–18, provide opportunities for:</b></p> <ul style="list-style-type: none"> <li>Using math tools, such as egg cartons or cups, to support students in pairing each object to a number name as they physically move each object.</li> <li>Planning how to keep track of objects before counting them.</li> </ul>                                                        |
| <b>c</b> Keep track of objects while counting them.             |                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>d</b> Answer “how many?” without recounting.                 | <p><b>Center:</b> <i>Solid Shapes</i>, Stage 2</p> <ul style="list-style-type: none"> <li>Have students choose all the shapes they will need to build the design in the picture.</li> <li>Ask, “How many shapes will you use?”</li> <li>Have students build what is in the picture.</li> <li>Ask, “How many shapes did you use?”</li> </ul>                                                               |
| <b>e</b> Determine the quantity of a group of up to 10 objects. | <p><b>Centers:</b> <i>Connecting Cubes</i>, Stage 3, <i>Pattern Blocks</i>, Stage 3</p> <ul style="list-style-type: none"> <li>Display any Connecting Cubes Mat or Pattern Blocks Card (excluding Mat J, Card H, and Card J).</li> <li>Have students select all the cubes or shapes they will need.</li> <li>Ask, “How many objects are in the group you made?”</li> </ul>                                |

Make enough copies so that you can record the names of each of your students. Consider making an additional copy of the Skills or Concepts to refer to as you observe student work throughout the sub-unit.

| Student Name | Checklist |   |   |   |   |
|--------------|-----------|---|---|---|---|
|              | a         | b | c | d | e |
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| Teacher Directions                                                                                                                                                                                                                 | Skill or Concept                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>a</b> Say, “Count as high as you can.”<br/>Ask, “Do you know what number comes next?”</p> <p><b>Note:</b> Record any omissions or mistakes.</p>                                                                              | Count to 10.                                                                                                                                                                                                                                                                                                                    |
| <p><b>b</b> Display 5 cubes on the table in front of the student.</p> <p>Ask:</p> <ul style="list-style-type: none"> <li>• “How many cubes are on the table?”</li> <li>• “So, how many cubes are there?”</li> </ul>                | <ul style="list-style-type: none"> <li>• Touch or move each object 1 time.</li> <li>• Say 1 number for each object.</li> <li>• Say the numbers in order.</li> <li>• Keep track of cubes that have been counted.</li> <li>• Answer c1 or c2 with the last number they said (even if that last number was inaccurate).</li> </ul> |
| <p><b>Use data from <b>b</b> to choose <b>c1</b> or <b>c2</b>.</b></p>                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                 |
| <p><b>c1</b> If the student answers with a number other than 5, display 3 cubes.</p> <p>Ask:</p> <ul style="list-style-type: none"> <li>• “How many cubes are on the table?”</li> <li>• “So, how many cubes are there?”</li> </ul> |                                                                                                                                                                                                                                                                                                                                 |
| <p><b>c2</b> If the student answers with “5 cubes,” display 10 cubes.</p> <p>Ask:</p> <ul style="list-style-type: none"> <li>• “How many cubes are on the table?”</li> <li>• “So, how many cubes are there?”</li> </ul>            |                                                                                                                                                                                                                                                                                                                                 |

| Checklist Item                                                                                                                                                                                                                                                                                                                                                                                                                       | Student name:                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <b>a</b> Say, "Count as high as you can."<br>Ask, "Do you know what number comes next?"<br><br><b>Note:</b> Record any omissions or mistakes.                                                                                                                                                                                                                                                                                        | Count to 10.                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Notes:                                                                           |
| <b>b</b> Display 5 cubes on the table in front of the student.<br><br>Ask: <ul style="list-style-type: none"> <li>"How many cubes are on the table?"</li> <li>"So, how many cubes are there?"</li> </ul>                                                                                                                                                                                                                             | Touch or move each object 1 time.                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Notes:                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Say 1 number for each object.                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Notes:                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Say the numbers in order.                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Notes:                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Keep track of cubes that have been counted.                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Notes:                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Answer with the last number they said (even if that last number was inaccurate). |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Notes:                                                                           |
| <b>c1</b> If the student answers with a number other than 5, display 3 cubes.<br><br>Ask: <ul style="list-style-type: none"> <li>"How many cubes are on the table?"</li> <li>"So, how many cubes are there?"</li> </ul> <b>c2</b> If the student answers with "5 cubes," display 10 cubes.<br><br>Ask: <ul style="list-style-type: none"> <li>"How many cubes are on the table?"</li> <li>"So, how many cubes are there?"</li> </ul> | Touch or move each object 1 time.                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Notes:                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Say 1 number for each object.                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Notes:                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Say the numbers in order.                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Notes:                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Keep track of cubes that have been counted.                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Notes:                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Answer with the last number they said (even if that last number was inaccurate). |
|                                                                                                                                                                                                                                                                                                                                                                                                                                      | Notes:                                                                           |



## KINDERGARTEN

# Mini-Lessons

The following section includes a selection of Mini-Lessons that support core instruction. These 15-minute lessons are aligned to the most critical topics throughout a unit to provide targeted intervention to small groups who need additional support. Mini-Lessons appear as a support activity in the differentiation options supporting each lesson.



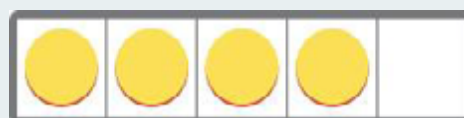
Name \_\_\_\_\_ Date \_\_\_\_\_

## Matching Representations of the Same Quantity

ML 1.07



Modeled Review



Guided Practice

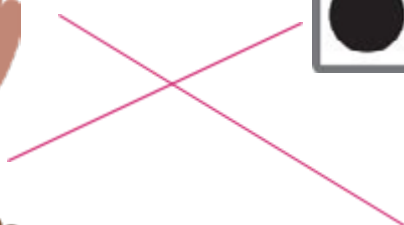


Draw lines to match the fingers with the dots that show the same number.

1.



2.

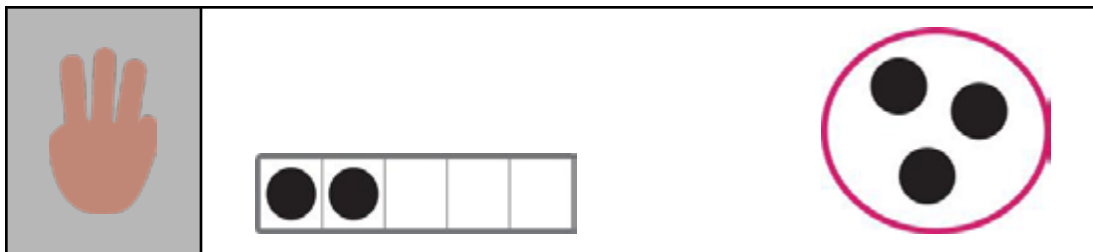


## Guided Practice



Circle the dots in each row that show the same number as the fingers.

3.

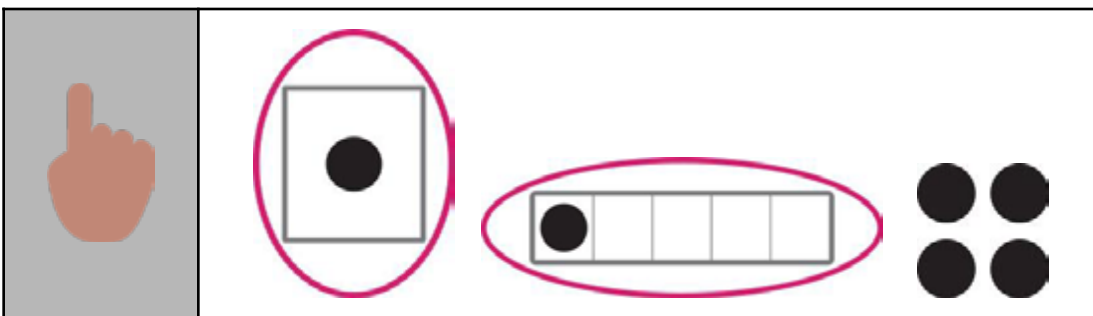


4.



Circle the two groups of dots that show the same number as the fingers.

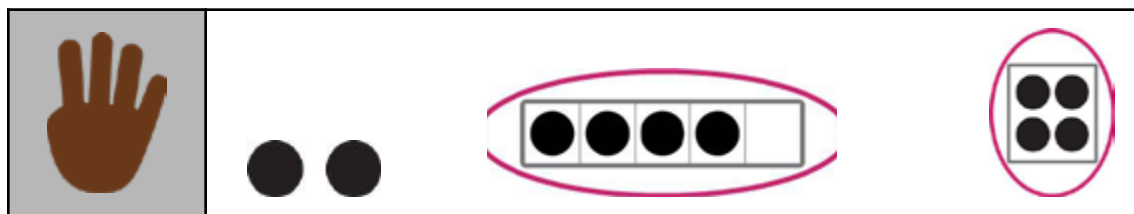
5.



## Check



Circle the two groups of dots that show the same number as the fingers.



### Goal

Identify pictures of up to four objects by matching representations.

### Standard

K.CC.B.4

### Materials

two-color counters (optional)



### Modeled Review

Point to the problem in the Modeled Review and **ask**:

- “What do you notice about the two images?”
- “What number do the fingers show? What number does the 5-frame show?”
- “How can you count to show they are the same number?”

**Reinforce** the goal by saying, “The same number can be represented in different ways.”



Model touching and counting each object while reinforcing that the organization of images presented does not change the quantity they represent.



### Guided Practice

For each problem, focus students' attention on matching the two images that represent the same quantity.

To scaffold their thinking, **ask**:

- “What number is shown by the fingers on the first hand?”
- “Which group of dots show the same number?”

Name \_\_\_\_\_
Date \_\_\_\_\_

**Matching Representations of the Same Quantity**
ML 1.07

Modeled Review

Guided Practice

Draw lines to match the fingers with the dots that show the same number.

1.

2.

1 | © 2024 Amplify Education, Inc. All rights reserved.

### Vocabulary

If needed, share the meaning of the word with students.

- **same**

### Guided Practice

**A** Guide visualization by encouraging students to refer to the images of fingers as they think about how many are in the group.

#### Key Takeaway:

**Say**, “We know groups show the same number when they have the same number of objects.”



### Guided Practice

Circle the dots in each row that show the same number as the fingers.

3.





4.





Circle the two groups of dots that show the same number as the fingers.

5.








### Check

Circle the two groups of dots that show the same number as the fingers.






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### Reflection

#### Ask:

- “How can we decide whether two groups show the same number?”
- “What are you most proud of from today’s learning?”



### Check: Recommended Next Steps

#### Almost there

If students need more support, provide them with two visual representations of numbers within 4. Ask students to share if the two groups show the same number.

#### Got it!

If students need more practice, provide students with four visual representations of numbers within 4 in which two represent the same quantity. Ask students to identify which pictures represent the same number.

# Identifying Equal Groups

ML 1.08



## Modeled Review



How many do you see ?



Santiago



Diego



## Guided Practice



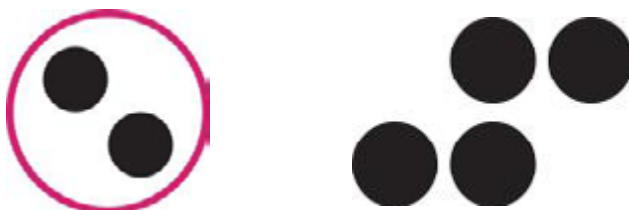
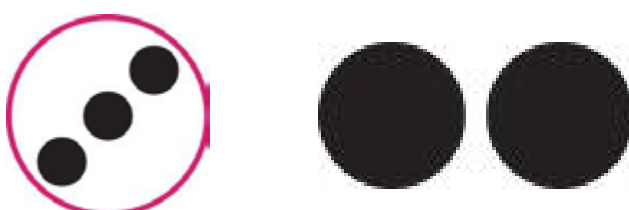
1. Draw lines to match each 5-frame with the picture that shows the same number.



## Guided Practice



2. Circle the dots in each row that show the same number as the 5-frame.

|                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|    |   |
|    |   |
|  |  |

## Check



Circle the dots that show the same number as the 5-frame.

|                                                                                     |                                                                                      |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|

### Goal

Subitize and identify equivalent groups of up to 4 images.

### Standard

K.CC.B.4

### Materials

counters (optional), 5-frame (optional)



### Modeled Review

Point to the problem in the Modeled Review and **ask**:

- “How many counters are in the 5-frame? How do you know?”
- “What similarities do you notice between Santiago and Diego’s thinking? What differences?”
- “How else could you show 3?”

**Reinforce** the goal by saying, “The same amount can be represented in different ways.”



Invite students to point to each group and count aloud in their native language.



### Guided Practice

For each problem, focus students’ attention on drawing lines between the 5-frames and images that represent the same quantity.

Encourage students to count the dots and then look for a matching representation.

Name \_\_\_\_\_ Date \_\_\_\_\_

## Identifying Equal Groups

ML 1.08

Modeled Review

How many do you see?

Santiago

Diego

Guided Practice

1. Draw lines to match each 5-frame with the picture that shows the same number.

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### Vocabulary

If needed, share the meaning of the word with students.

- same

### Guided Practice

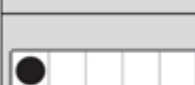
**A** Chunk this task into smaller, more manageable parts by having students first find the value represented by the 5-frame, and then count the dot arrangements to find the equivalent group.

#### Key Takeaway:

**Say,** "There are different ways to see the objects in a small group and know how many objects there are."

 **Guided Practice**


**2.** Circle the dots in each row that show the same number as the 5-frame.

|                                                                                    |                                                                                     |                                                                                     |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |
|  |  |  |
|  |  |  |

 **Check**


Circle the dots that show the same number as the 5-frame.

|                                                                                    |                                                                                      |                                                                                      |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|

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### Reflection

#### Ask:

- "What makes sense? What is still confusing?"
- "What is something you weren't sure about at the start of the lesson but understand now?"



### Check: Recommended Next Steps

#### Almost there

If students need more support, use a 5-frame and counters to show numbers from 1 to 4 in a structured format. Ask students to recognize the arrangement of counters and say the number without counting.

#### Got it!

If students need more practice, point to each group of dots in Problem 2 and ask them to quickly identify the number without counting.

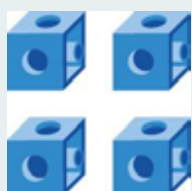
Name \_\_\_\_\_ Date \_\_\_\_\_

## Showing the Same Number in Different Ways

ML 1.09



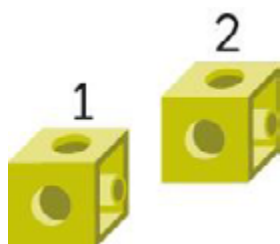
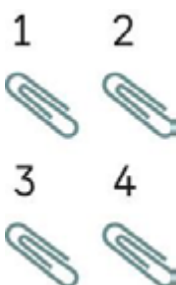
### Modeled Review



### Guided Practice



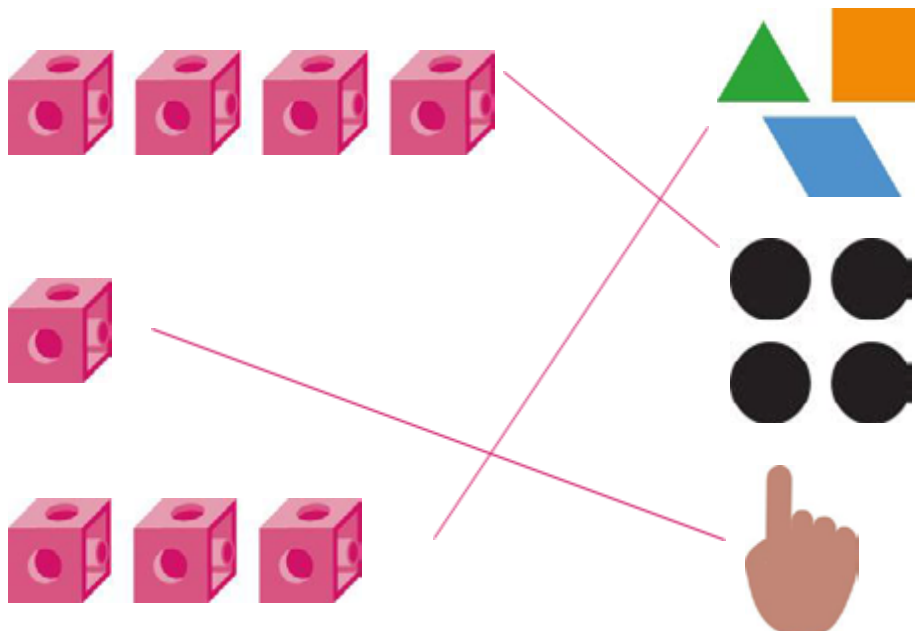
1. Draw lines to match the groups that show the same number.



## Guided Practice



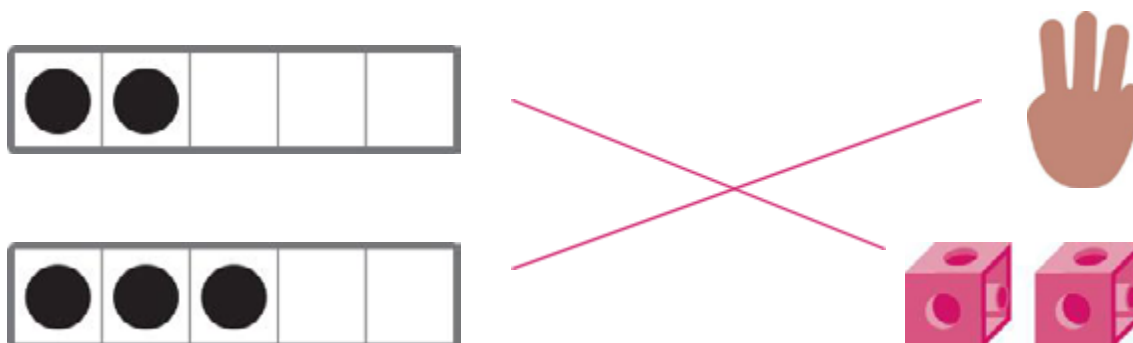
2. Draw lines to match the cubes with the group of math tools that shows the same number.



## Check



- Draw lines to match the dots with the group of math tools that shows the same number.



### Goal

Identify sets of objects with the same quantity using math tools such as fingers and objects.

### Standard

K.CC.B.4

### Materials

5-frame (optional), counters (optional)



### Modeled Review

Point to the problem in the Modeled Review and **ask**:

- “What number does the connecting cubes show? The 5-frame? The fingers?”
- “What do you notice about the three images?”
- “How can you count to show they are the same?”

**Reinforce** the goal by saying, “Different math tools can be used to show the same number.”



Throughout the lesson, model touching and counting each object in a group to help students match the groups representing the same number.



### Guided Practice

For each problem, focus students' attention on matching groups that show the same number.

Encourage students to touch and count the objects in each group to determine how many each group represents.

Name \_\_\_\_\_
Date \_\_\_\_\_

Showing the Same Number in Different Ways

ML 1.09

Modeled Review

ML 1.09

Guided Practice

ML 1.09

1. Draw lines to match the groups that show the same number.

1 2

3 4

1 2

3 4

1 2

3 4

1 2 3 4

### Vocabulary

If needed, share the meaning of the word with students.

- **same**

### Guided Practice

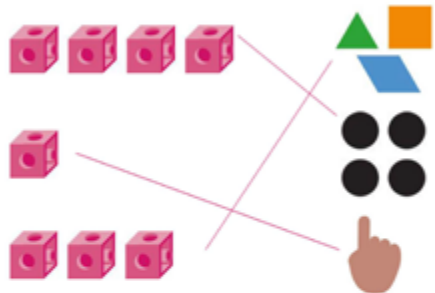
**A** Provide students with 5-frames and counters they can use to represent the same quantities as each group.

#### Key Takeaway:

**Say**, “Tools, such as fingers or objects, can be used to show how many.”

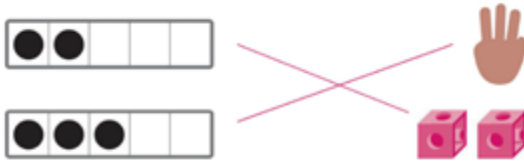

**Guided Practice**

2. Draw lines to match the cubes with the group of math tools that shows the same number.




**Check**

Draw lines to match the dots with the group of math tools that shows the same number.



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### Reflection

#### Ask:

- “Which math tools did you prefer using today? Why?”
- “What is something new you learned today?”



### Check: Recommended Next Steps

#### Almost there

If students need more support, consider using Mini-Lesson 1.08: *Matching Representations of the Same Quantity*.

#### Got it!

If students need more practice, provide them with a visual representation of a number within 4 and ask students to represent the same quantity using math tools.

Name \_\_\_\_\_ Date \_\_\_\_\_

## Using Fingers or Drawings to Show a Number

ML 1.10



### Modeled Review



Name: Clare

Draw a group that shows the same number as the fingers.



### Guided Practice

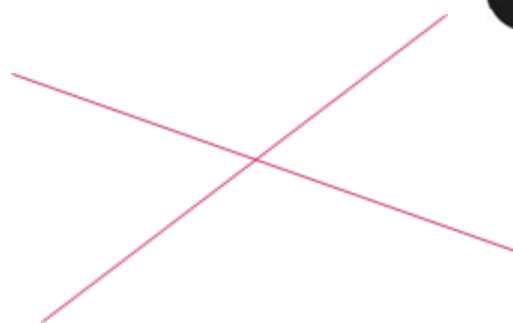


Draw lines to match the fingers with the group that shows the same number.

1.



2.



## Guided Practice



Draw a group that shows the same number as the fingers.

3.



4.



5.



## Check



Draw a group that shows the same number as the fingers.



### Goal

Use objects and drawings to represent the same number.

### Standard

K.CC.B.4

### Materials

connecting cubes (optional)



### Modeled Review

Point to Clare's work and **ask**:

- "What number do the fingers show?"
- "How many dots did Clare draw?"
- "How can you show they are the same number?"

**Reinforce** Clare's thinking by saying, "Different objects can be used to represent the same number. Counting objects can help identify matching sets of objects."

**ML/EL** Model touching and counting each finger held up and verbalizing the total. Then count and label the dots to determine if the two groups represent the same number.



### Guided Practice

For each problem, focus students' attention on using fingers and drawings to show the same number.

To scaffold their thinking, **ask**:

- "What number do the fingers show?"
- "Where else do you see the same number?"

Name \_\_\_\_\_ Date \_\_\_\_\_

**Using Fingers or Drawings to Show a Number** ML 1.10

**Modeled Review**

Name: Clare

Draw a group that shows the same number as the fingers.



**Guided Practice**

Draw lines to match the fingers with the group that shows the same number.

1.  

2.  

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### Guided Practice

**A** Provide students with connecting cubes to represent the same number as the fingers before drawing.

#### Key Takeaway:

**Say**, “Groups can have different objects but the same number. You can show how many are in a group with math tools or drawings.”


**Guided Practice**


Draw a group that shows the same number as the fingers.

3. 



4. 



5. 




**Check**


Draw a group that shows the same number as the fingers.





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### Reflection

#### Ask:

- “What tools can you use to show how many?”
- “What have you learned about groups that show the same number?”



### Check: Recommended Next Steps

#### Almost there

If students need more support, consider using Mini-Lesson 1.09: *Showing the Same Number in Different Ways*.

#### Got it!

If students need more practice, use fingers to show a number within 4. Ask students to represent the numeral presented using drawings or connecting cubes.

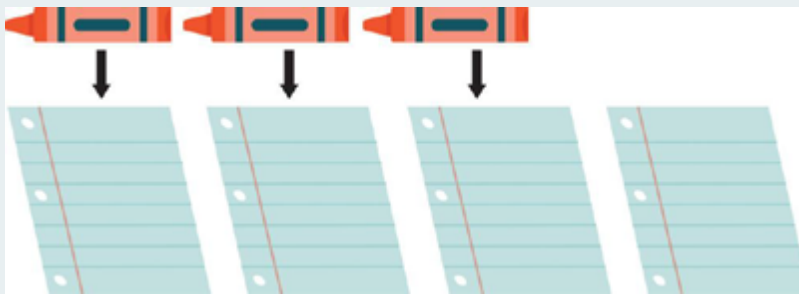
Name \_\_\_\_\_ Date \_\_\_\_\_

## Answering the Question “Are There Enough?”

ML 1.11



Modeled Review

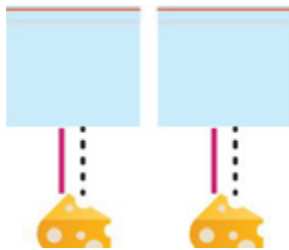


Guided Practice

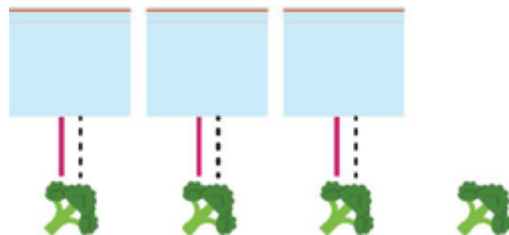


Are there enough bags?

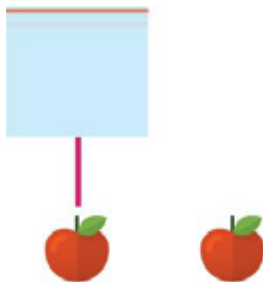
1.



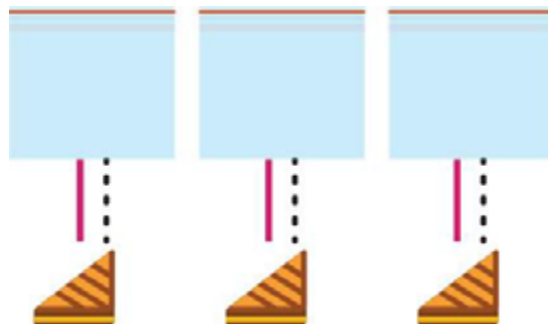
2.



3.



4.



## Guided Practice



Are there enough baseballs? Circle or .



## Check



Are there enough bags? Circle or .



### Goal

Use matching to determine if there are enough.

### Standard

K.CC.C.6

### Materials

connecting cubes (optional)



### Modeled Review

Point to the problem in the Modeled Review and **ask**:

- “Are there enough crayons for the pieces of paper?”
- “How do the arrows drawn from the crayons to the paper help you know if there are enough?”

**Reinforce** the goal by saying, “To answer the question ‘Are there enough?’, you need to determine if there are the same number of objects in each group.”

**ML/EL** Model drawing lines to connect an image from one group to an image from another group.



### Guided Practice

For each problem, focus students’ attention on answering the question “Are there enough?”

Encourage students to use matching to help determine if there are enough by drawing lines connecting objects from one group to another group.

Name \_\_\_\_\_ Date \_\_\_\_\_

## Answering the Question “Are There Enough?”

ML 1.11

### Modeled Review

### Guided Practice

Are there enough bags?

1.

2.

3.

4.

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### Vocabulary

If needed, share the meaning of the word with students.

- same

### Guided Practice

**A** Chunk this task into smaller, more manageable parts by first having students try to match the objects in each group. Next, invite students to tell if they have enough.

#### Key Takeaway:

**Say**, “We can figure out if there are enough by matching or thinking about how many there are.”


**Guided Practice**


Are there enough baseballs? Circle  or .

5.        




6.    




7.    





**Check**


Are there enough bags? Circle  or .











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### Reflection

#### Ask:

- “When might you need to know if there is enough of something?”
- “What questions do you have about today’s lesson?”



### Check: Recommended Next Steps

#### Almost there

If students need more support, consider using Mini-Lesson 1.09: *Showing the Same Number in Different Ways*.

#### Got it!

If students need more practice, provide them with two groups of cubes within 4, including both equal and unequal groups of cubes. Ask them to respond to the question “Are there enough?” by showing a thumbs up or thumbs down.

Name \_\_\_\_\_ Date \_\_\_\_\_

## Matching to Create Groups With Enough Objects

ML 1.12



### Modeled Review



Name: Diego

Draw enough hats so that each person in the group has one hat.



### Guided Practice



Draw enough worms so that each bird has one worm.

1.



2.



3.



## Guided Practice



Draw enough plates so that each banana has one plate.



## Check



Draw enough napkins so that each pretzel has one napkin.



### Goal

Create groups with an equal number of objects.

### Standard

K.CC.C.6

### Materials

connecting cubes (optional)



### Modeled Review

Point to Diego's work and ask:

- "Diego drew hats for the people. Are there enough hats for each person to have one?"
- "How do you know?"

**Reinforce** Diego's thinking by saying, "To create groups with the same number of objects, start by looking at the first group. Then create the second group by drawing objects near the first group."



Model touching and counting objects in the first group and drawing objects to show the same number.



### Guided Practice

For each problem, focus students' attention on drawing enough objects to match the first group.

To scaffold their thinking, ask:

- "How many birds are in the group?"
- "How many worms do you need to draw to have enough?"

Name \_\_\_\_\_ Date \_\_\_\_\_

## Matching to Create Groups With Enough Objects

ML 1.12

### Modeled Review

Name: Diego

Draw enough hats so that each person in the group has one hat.

### Guided Practice

Draw enough worms so that each bird has one worm.

1.

2.

3.

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### Guided Practice

**A** Have students use connecting cubes to place on top of the images in the first group to create a group with enough objects.

#### Key Takeaway:

**Say**, “When making a group with enough, you know to stop getting objects when the objects in each group have a match.”


**Guided Practice**


Draw enough plates so that each banana has one plate.

4.  

5.  

6.  


**Check**


Draw enough napkins so that each pretzel has one napkin.

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### Reflection

#### Ask:

- “What can you do to figure out if there is enough of something?”
- “What is something new you learned today?”



### Check: Recommended Next Steps

#### Almost there

If students need more support, consider using Mini-Lesson 1.11: *Answering the Question “Are There Enough?”*

#### Got it!

If students need more practice, provide students with a group of cubes within 10. Ask students to draw enough objects so that there are enough for each cube.

Name \_\_\_\_\_ Date \_\_\_\_\_

## Counting to Determine the Quantity of a Group

ML 1.13



### Modeled Review



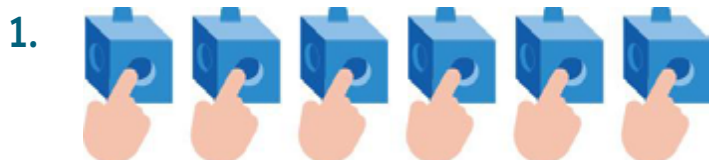
How many are there?



### Guided Practice



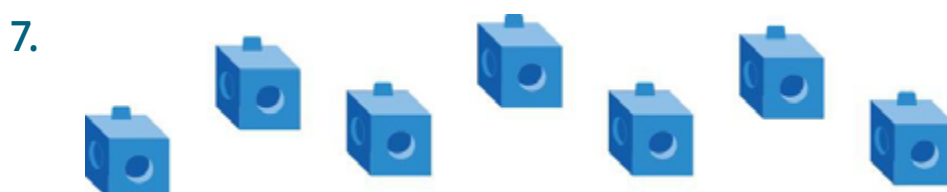
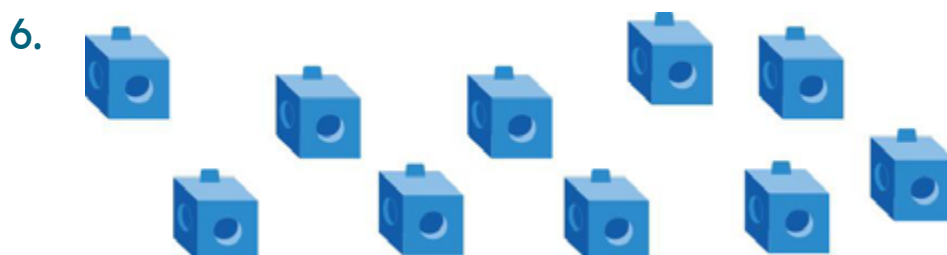
How many are there? **Oral activity. No writing expected.**



## Guided Practice



How many are there? **Oral activity. No writing expected.**



## Check



How many are there? **Oral activity. No writing expected.**



### Goal

Count to answer “how many?” questions for up to 10 objects.

### Standard

K.CC.B.4.A

### Materials

connecting cubes



### Modeled Review

Point to the problem in the Modeled Review and **ask**:

- “Can you touch and count each cube?”
- “How do you know there are 9 cubes altogether?”

**Reinforce** the goal by saying, “When counting, say one number for each object.”

**ML/EL** Invite students to touch and count each cube individually, ensuring there is 1:1 correspondence while counting.



### Guided Practice

For each problem, focus students' attention on counting the cubes to determine the quantity of a group.

To scaffold their thinking, **say**:

- “Touch and count the cubes.”
- “Be sure to only count each cube once.”

Name \_\_\_\_\_
Date \_\_\_\_\_

**Counting to Determine the Quantity of a Group**

**ML 1.13**

**Modeled Review**

How many are there?

123456789

**Guided Practice**

How many are there? Oral activity. No writing expected.

- 1.
- 2.
- 3.
- 4.

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### Guided Practice

**A** Provide students with connecting cubes that represent the same amount as the printed sets of cubes. Invite students to touch and count the connecting cubes to determine how many are in each group.

#### Key Takeaway:

**Say,** "Counting can be used to determine the number of objects in a group. When counting, say one number for each object."


**Guided Practice**


How many are there? **Oral activity. No writing expected.**

5. 

---

6. 

---

7. 


**Check**


How many are there? **Oral activity. No writing expected.**



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### Reflection

#### Ask:

- "What did you notice about counting the cubes?"
- "What made sense from today's lesson?"



### Check: Recommended Next Steps

#### Almost there

If students need more support, present them with a set of cubes within 10. Ask students to touch and count each object presented.

#### Got it!

If students need more practice, draw a group of circles within 10. Ask students to touch and count the circles.

Name \_\_\_\_\_ Date \_\_\_\_\_

## Exploring How Many Are in a Group

ML 1.14



### Modeled Review



Name: Han

Touch and count the cubes. How many cubes are there?



1, 2, 3, 4  
There are 4  
cubes.



### Guided Practice



How many cubes are there? **Oral activity. No writing expected.**

1.



2.



3.



## Guided Practice



How many cubes are there? **Oral activity. No writing expected.**



## Check



How many cubes are there? **Oral activity. No writing expected.**



**Goal**

Determine the quantity of objects counted by recognizing that the last number said represents the number of objects..

**Standard**

K.CC.B.4.B

**Materials**

connecting cubes

**Modeled Review**

Point to Han's work and **ask**:

- "How did Han figure out how many cubes there are?"
- "Can you show me how Han could have counted the cubes?"

**Reinforce** Han's thinking by saying, "Han said one number each time he counted a cube. The last number he said represents the total number of cubes."

**ML/EL** Remind students to touch and count each cube individually to determine the total number of cubes in each group.

**Guided Practice**

For each problem, focus students' attention on counting to determine how many are in each group.

To scaffold their thinking, **say**:

- "Touch and count each cube."
- "The last number said is the total number of cubes."

Name \_\_\_\_\_ Date \_\_\_\_\_

**Exploring How Many Are in a Group** ML 1.14

**Modeled Review**

Name: Han

Touch and count the cubes. How many cubes are there?



1, 2, 3, 4  
There are 4 cubes.

**Guided Practice**

How many cubes are there? **Oral activity. No writing expected.**

1. 

2. 

3. 

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### Guided Practice

**A** Provide students with connecting cubes that represent the same amount as the printed sets of cubes. Invite students to touch and count the connecting cubes to determine how many are in each group.

#### Key Takeaway:

**Say,** “Counting can help you figure out how many. The last number you say when you count tells how many objects are in the group.”


**Guided Practice**


How many cubes are there? **Oral activity. No writing expected.**

4. 

---

5. 

---

6. 

---


**Check**


How many cubes are there? **Oral activity. No writing expected.**



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### Reflection

#### Ask:

- “How can you know how many objects are in a group you have counted without counting again?”
- “What made sense in today’s lesson?”



### Check: Recommended Next Steps

#### Almost there

If students need more support, consider using Mini-Lesson 1.13: *Counting to Determine the Quantity of a Group*.

#### Got it!

If students need more practice, use connecting cubes to represent numbers within 10. Ask students to count and identify the total number of cubes.

# Exploring Counting Strategies

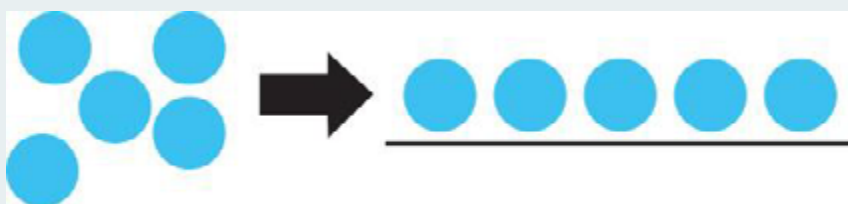
ML 1.15



## Modeled Review



Put the counters in a line. Count to find how many.



1, 2, 3, 4, 5.  
There are  
5 counters.



## Guided Practice



Put the counters in a line. Count to find how many. **Oral activity. No writing expected.**

1.




---

2.

---

3.

---



## Guided Practice



Put the counters in a line. Count to find how many. **Oral activity. No writing expected.**

4.

---

5.

---

6.

---

7.

---



## Check



Put the counters in a line. Count to find how many. **Oral activity. No writing expected.**

---

**Goal**

Use a counting strategy to determine the quantity of a group.

**Standard**

K.CC.B.5

**Materials**

two-color counters

**Modeled Review**

Point to the problem in the Modeled Review and **ask**:

- “How does putting the counters in a line help you count them?”
- “Do the number of counters change when you put them in a straight line? Why not?”

**Reinforce** the goal by saying, “You can make sure you count each object only once by lining up the objects as you say each number.”



Model placing counters in a straight line, touching, and counting to find how many.

**Guided Practice**

For each problem, focus students' attention on lining up the provided counters.

Encourage students to place the provided counters in a straight line before touching and counting each counter to find how many.

**Note:** Provide students with only 3 counters for Guided Practice Problem 1. For all other problems, provide them with counters within 10. Students do not need to have the same number of counters.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Exploring Counting Strategies** ML 1.15

**Modeled Review**

Put the counters in a line. Count to find how many.

**Guided Practice**

Put the counters in a line. Count to find how many. **Oral activity. No writing expected.**

1.   
\_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

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### Guided Practice

**A** If needed, consider drawing circles on the line to help students organize their counters.

**Note:** Provide students with counters within 10. Students do not need to have the same number of counters.

#### Key Takeaway:

**Say,** “Counting strategies, including moving or organizing objects, help you keep track while counting.”

**Guided Practice**

Put the counters in a line. Count to find how many. **Oral activity. No writing expected.**

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

**Check**

Put the counters in a line. Count to find how many. **Oral activity. No writing expected.**

\_\_\_\_\_

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### Reflection

#### Ask:

- “What are some objects you can count at home?”
- “What is something you learned today during our lesson?”



### Check: Recommended Next Steps

#### Almost there

If students need more support, consider using the Mini-Lesson 1.14: *Exploring How Many Are in a Group*.

#### Got it!

If students need more practice, provide them with a scattered set of counters within 10. Ask students to put them in a straight line to help them keep track while counting.

# Counting With Math Tools

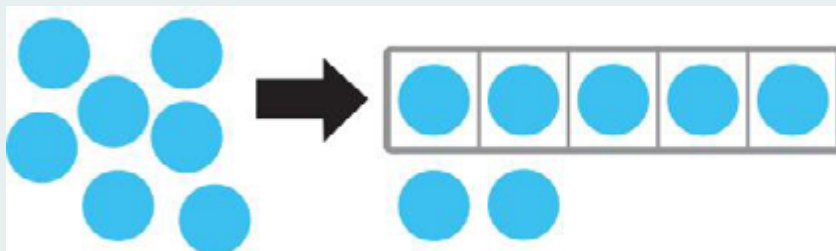
ML 1.16



## Modeled Review



Move the counters to the 5-frame. Count to find how many.



1, 2, 3, 4, 5, 6, 7.  
There are 7  
counters.



## Guided Practice



Move the counters to the 5-frame. Count to find how many. **Oral activity. No writing expected.**

1.



2.





## Guided Practice



3. Move the counters to the 5-frame. Count to find how many. **Oral activity. No writing expected.**

|  |  |  |  |  |
|--|--|--|--|--|
|  |  |  |  |  |
|--|--|--|--|--|



## Check



Move the counters to the 5-frame. Count to find how many. **Oral activity. No writing expected.**

|  |  |  |  |  |
|--|--|--|--|--|
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**Goal**

Use 5-frames to determine the quantity of a group of objects.

**Standard**

K.CC.B.5

**Materials**

two-color counters

**Modeled Review**

Point to the problem in the Modeled Review and **ask**:

- “How many counters fit in a 5-frame?”
- “Where do you put the extra counters when there are more than 5?”
- “Do the number of counters change when you put them in a 5-frame? Why not?”

**Reinforce** the goal by saying, “Math tools can be used to help us figure out how many.”

**ML/EL** Model putting counters in a 5-frame and counting to figure out how many.

**Guided Practice**

For each problem, focus students' attention on using the 5-frame to organize and count the provided counters.

Encourage students to place the provided counters in the 5-frame before touching and counting each counter to find how many.

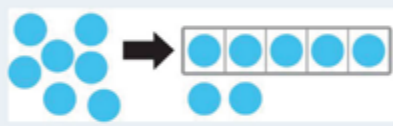
**Note:** For Problem 1, provide students with only 4 counters. For problem 2, provide students with counters within 5.

Name \_\_\_\_\_ Date \_\_\_\_\_

**Counting With Math Tools** ML 1.16

**Modeled Review**

Move the counters to the 5-frame. Count to find how many.



**Guided Practice**

Move the counters to the 5-frame. Count to find how many. **Oral activity. No writing expected.**

1. 

2. 

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 **Guided Practice**

**A** If needed, consider drawing circles in the 5-frame to help students organize their counters.

**Note:** Provide students with counters within 10. Students do not need to have the same number of counters.

**Key Takeaway:**

**Say,** “Using a math tool, such as a 5-frame, can help you organize and keep track of the objects you are counting.”

 **Guided Practice**


3. Move the counters to the 5-frame. Count to find how many. **Oral activity. No writing expected.**

 **Check**


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### Reflection

**Ask:**

- “How did the math tools you used today help you figure out how many?”
- “What is something you are proud of from today’s lesson?”



### Check: Recommended Next Steps

**Almost there**

If students need more support, consider using Mini-Lesson 1.15: *Exploring Counting Strategies*.

**Got it!**

If students need more practice, present them with a group of scattered counters within 10. Ask students to organize their counters using the 5-frame in Problem 3 and count to determine the total.

Name \_\_\_\_\_ Date \_\_\_\_\_

## Representing Quantities Using Drawings

ML 1.17



### Modeled Review



Name: Shawn

Draw circles to match the number of cubes.



### Guided Practice



Draw lines to match the cubes with the drawing that shows the same number.

1.



2.



3.

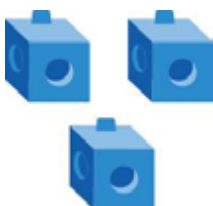


## Guided Practice

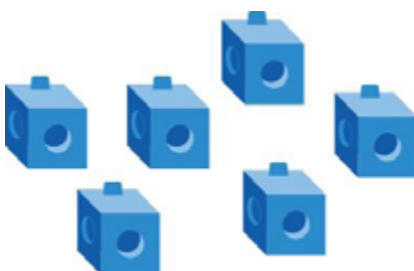


Draw circles to show how many cubes.

4.



5.



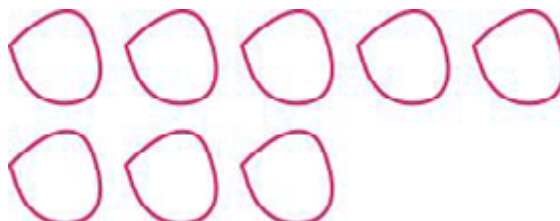
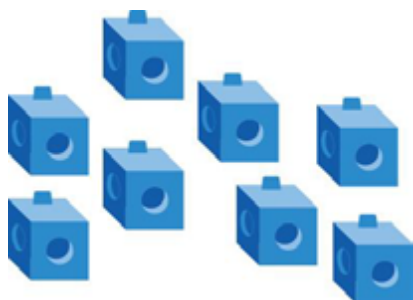
6.



## Check



Draw circles to show how many cubes.



**Goal**

Using drawings to represent a given quantity of objects.

**Standard**

K.CC.B.5

**Materials**

connecting cubes (optional)

**Modeled Review**

Point to Shawn's work and ask:

- "How many cubes are there?"
- "How does Shawn show the same number with circles?"

**Reinforce** Shawn's thinking by saying, "Drawings can be used to represent a matching number of objects."

**ML/EL** Model touching and counting the cubes presented in the scattered arrangement and representing the same number with drawings.

**Guided Practice**

For each problem, focus students' attention on matching each group of cubes with the drawing that shows the same number.

To scaffold their thinking, **ask**:

- "How many cubes are there?"
- "Which drawing shows the same number?"

Name \_\_\_\_\_ Date \_\_\_\_\_

## Representing Quantities Using Drawings

ML 1.17

### Modeled Review

Name: Shawn

Draw circles to match the number of cubes.

### Guided Practice

Draw lines to match the cubes with the drawing that shows the same number.

- 
- 
- 

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### Guided Practice

**A** For students that need support in representing the quantity, consider providing the appropriate number of boxes for students to draw circles in.

#### Key Takeaway:

**Say**, “There are different ways to show how many are in a group. Drawings can be a useful way to quickly show how many.”

 **Guided Practice**


Draw circles to show how many cubes.

4.





5.





6.





 **Check**


Draw circles to show how many cubes.




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### Reflection

#### Ask:

- “What are some useful ways to show how many?”
- “What questions do you have?”



### Check: Recommended Next Steps

#### Almost there

If students need more support, consider using Mini-Lesson 1.15: *Exploring Counting Strategies*.

#### Got it!

If students need more practice, present them with a group of cubes within 10. Ask students to represent the quantity using drawings.

# Asking and Answering “How Many?” Questions

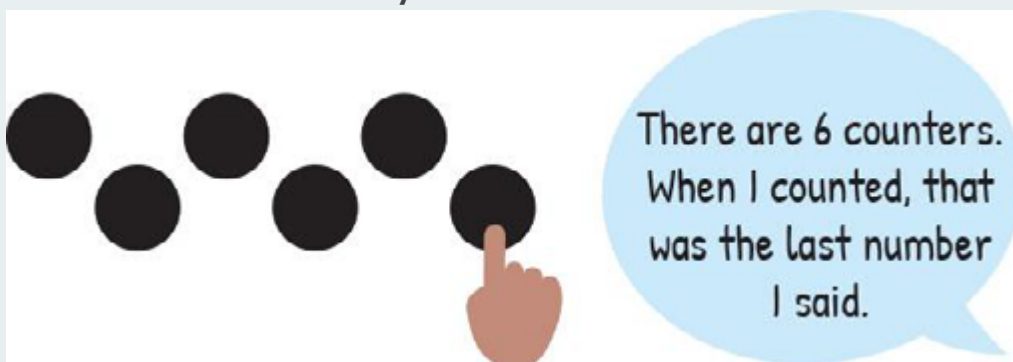
ML 1.18



## Modeled Review



How many counters are there?



## Guided Practice



How many counters are there? **Oral activity. No writing expected.**

1. 

---

2. 

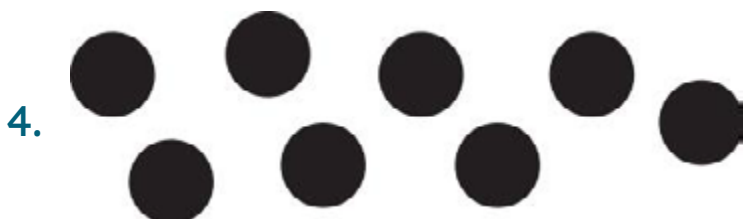
---

3. 

## Guided Practice



How many counters are there? **Oral activity. No writing expected.**



## Check



How many counters are there? **Oral activity. No writing expected.**



### Goal

Count to answer “how many?” questions.

### Standard

K.CC.B.5

### Materials

two-color counters (optional)



### Modeled Review

Point to the problem in the Modeled Review and **ask**:

- “How many circles are there?”
- “How could you count the circles?”

**Reinforce** the goal by saying, “When counting, each object represents 1 and the last number name said is the total number of objects in the group.”

**ML/EL** Invite students to touch and count the circles and respond to the question “how many?”



### Guided Practice

For each problem, focus students’ attention on counting each object only once to determine how many are in the group.

To scaffold their thinking, **say**:

- “Touch and count each circle.”
- “The last number name said is the answer to ‘how many?’”

Name \_\_\_\_\_ Date \_\_\_\_\_

## Asking and Answering “How Many?” Questions

ML 1.18

### Modeled Review

How many counters are there?

There are 6 counters. When I counted, that was the last number I said.

### Guided Practice

How many counters are there? **Oral activity. No writing expected.**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

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### Guided Practice

**A** Provide students with counters representing the same number as the group of circles. Have students touch and count the counters to determine how many.

**Note:** Encourage students to count each set at least twice to ensure they get the same number each time.

#### Key Takeaway:

**Say,** “Math is everywhere. Math can be used to count and show important things in the world.”


**Guided Practice**


How many counters are there? **Oral activity. No writing expected.**

4. 

---

5. 

---

6. 


**Check**


How many counters are there? **Oral activity. No writing expected.**



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### Reflection

#### Ask:

- “What is something new you learned about math in this lesson?”
- “What are you most proud of from today’s lesson?”



### Check: Recommended Next Steps

#### Almost there

If students need more support, consider using Mini-Lesson 1.14: *Exploring How Many Are in a Group*.

#### Got it!

If students need more practice, present them with a group of counters within 10 arranged in a line, rectangular array, circle, or scattered arrangement. Ask students how many objects there are.

## KINDERGARTEN

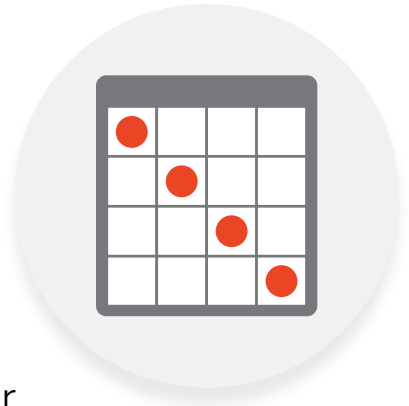
# Centers

The following section includes a selection of Center Resources. Centers are engaging hands-on, 15-minute games for students to play collaboratively to strengthen their understanding of key skills and concepts. Centers appear in instruction as part of instructional activities, lesson differentiation, and daily Centers time (K–1 only).



# Bingo

Students choose a card and cover the appropriate space on the board with a counter.



GRADE K

**Stage 1** Images

**Stage 2** Images and Numbers

**Stage 3** Add and Cover

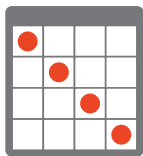
**Stage 4** Numbers 11–19



| Stage                                                 | Materials                                                                                                                                                  | Differentiation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stage 1</b><br>Images<br><br>(GRADE K)             | <ul style="list-style-type: none"><li>• Directions, Bingo Cards, Gameboards A–D (Centers Resources)</li><li>• counters (Manipulative Kit)</li></ul>        | <b>Support</b><br>Have students work with a partner using the same Gameboard.<br><br><b>Stretch</b><br>Suggest that students play a version in which they attempt to be the first player to fill the entire board, rather than a row or column.                                                                                                                                                                                                                                                         |
| <b>Stage 2</b><br>Images and Numbers<br><br>(GRADE K) | <ul style="list-style-type: none"><li>• Directions, Gameboards A–D, Number Cards, 1–10 (Centers Resources)</li><li>• counters (Manipulative Kit)</li></ul> | <b>Support</b> <ul style="list-style-type: none"><li>• Have students work with a partner using the same Gameboard.</li><li>• Have students cover only one picture during each turn, rather than any pictures that match the card.</li></ul> <b>Stretch</b><br>Suggest that students attempt to be the first player to fill four in a row, rather than the entire board.                                                                                                                                 |
| <b>Stage 3</b><br>Add and Cover<br><br>(GRADE K)      | <ul style="list-style-type: none"><li>• Directions, Dot Number Cards, Gameboards A–D (Centers Resources)</li><li>• counters (Manipulative Kit)</li></ul>   | <b>Support</b> <ul style="list-style-type: none"><li>• Have students work with a partner using the same Gameboard.</li><li>• Provide students with access to 10-frames and either counters or cubes to represent the expressions.</li></ul> <b>Stretch</b> <ul style="list-style-type: none"><li>• Have students list the addition equations formed from the two Dot Number Cards.</li><li>• Have students continue playing until one player fills the entire board in order to win the game.</li></ul> |

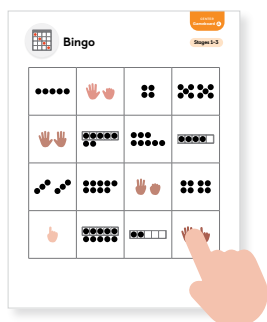


| Stage                                               | Materials                                                                                                                                                                                  | Differentiation                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stage 4</b><br>Numbers 11–19<br><b>(GRADE K)</b> | <ul style="list-style-type: none"> <li>Directions, Number Cards, 11–19, Gameboards A–D (<a href="#">Centers Resources</a>)</li> <li>counters (<a href="#">Manipulative Kit</a>)</li> </ul> | <div><b>Support</b></div> <ul style="list-style-type: none"> <li>Have students work with a partner using the same Gameboard.</li> <li>Have students cover only one picture during each turn, rather than any pictures that match the card.</li> </ul> <div><b>Stretch</b></div> <p>Have students continue playing until one player fills the entire board in order to win the game.</p> |



# Bingo

1



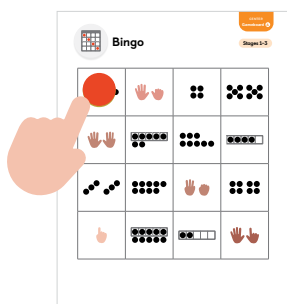
Choose a different Gameboard than your group.

2



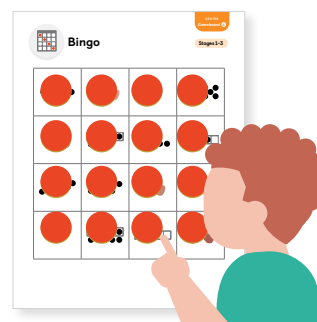
Take turns drawing a card.

3



Place a counter on any pictures that have the same number as the group on the card.

4



When a player fills in the row or column, clear all boards and play again.

Let's match images that show the same number.

**Groups**

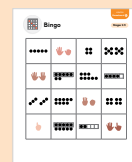
**You'll need . . .**



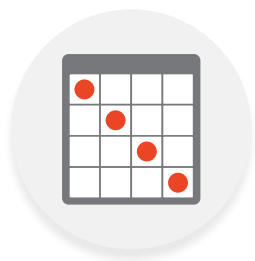
counters



Bingo Cards



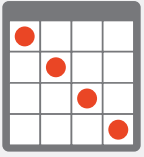
Gameboards  
A-D



# Bingo

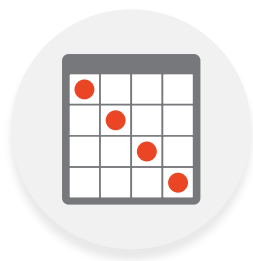
Stages 1-3

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# Bingo

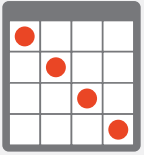
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# Bingo

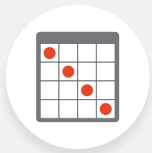
Stages 1-3

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# Bingo

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# Bingo

Stage 1

CENTER  
Cards  
(p. 1 of 4)

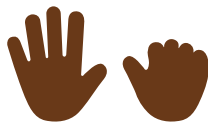
 **Directions:** Make one copy per group of students. Pre-cut the cards and distribute them so that each group of students receives one set of cards.



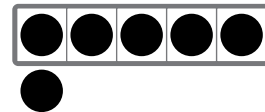
Bingo Stage 1



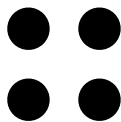
Bingo Stage 1



Bingo Stage 1



Bingo Stage 1



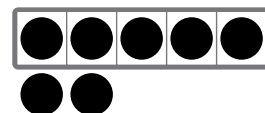
Bingo Stage 1



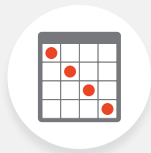
Bingo Stage 1



Bingo Stage 1



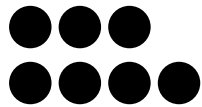
Bingo Stage 1



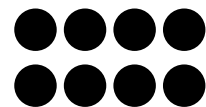
# Bingo

Stage 1

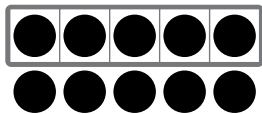
CENTER  
Cards  
(p. 2 of 4)



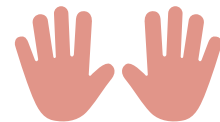
Bingo Stage 1



Bingo Stage 1



Bingo Stage 1



Bingo Stage 1



Bingo Stage 1



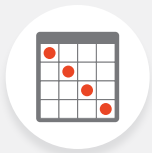
Bingo Stage 1



Bingo Stage 1



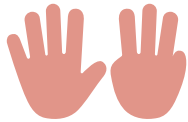
Bingo Stage 1



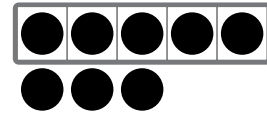
# Bingo

Stage 1

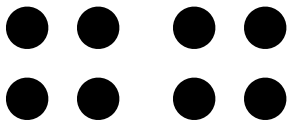
CENTER  
Cards  
(p. 3 of 4)



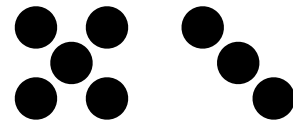
Bingo Stage 1



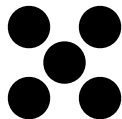
Bingo Stage 1



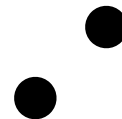
Bingo Stage 1



Bingo Stage 1



Bingo Stage 1



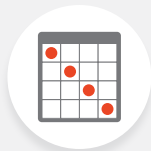
Bingo Stage 1



Bingo Stage 1



Bingo Stage 1



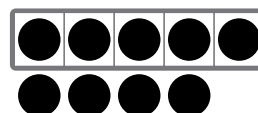
# Bingo

Stage 1

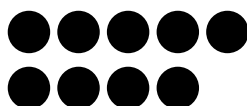
CENTER  
Cards  
(p. 4 of 4)



Bingo Stage 1



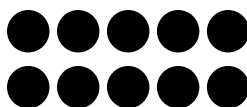
Bingo Stage 1



Bingo Stage 1



Bingo Stage 1

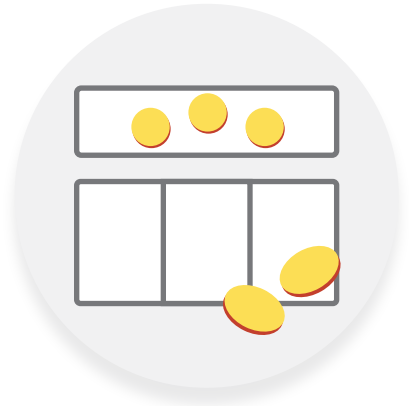


Bingo Stage 1



Bingo Stage 1

# Less, Same, More



Students use a mat to show numbers that are less than, the same as, or more than a given quantity or number.

GRADE K

- Stage 1** Groups of Objects
- Stage 2** Images
- Stage 3** Drawings
- Stage 4** Numbers and Images

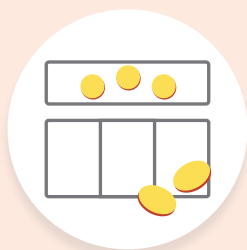


# Less, Same, More

| Stage                                                   | Materials                                                                                                                                                                                    | Differentiation                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stage 1</b><br>Groups of Objects<br><b>(GRADE K)</b> | <ul style="list-style-type: none"><li>• Directions, Work Mat<br/>(Centers Resources)</li><li>• counters<br/>(Manipulative Kit)</li></ul>                                                     | <b>Support</b><br>Have students start with less than 5 counters to place at the top of the Work Mat.<br><br><b>Stretch</b><br>Have students increase the number of counters to place at the top of the Work Mat.                                                                                                                                           |
| <b>Stage 2</b><br>Images<br><b>(GRADE K)</b>            | <ul style="list-style-type: none"><li>• Directions, Image Cards, Grade K, Work Mat<br/>(Centers Resources)</li></ul>                                                                         | <b>Support</b> <ul style="list-style-type: none"><li>• Remove cards that represent a number greater than 5 so students have fewer cards to sort.</li><li>• Have students focus on only one of the categories (less, same, or more).</li></ul> <b>Stretch</b><br>Have students determine “how many more” and “how many less” as the cards are being sorted. |
| <b>Stage 3</b><br>Drawings<br><b>(GRADE K)</b>          | <ul style="list-style-type: none"><li>• Directions, Image Cards, Grade K, Work Mat<br/>(Centers Resources)</li><li>• dry-erase markers, sheet protectors<br/>(Classroom materials)</li></ul> | <b>Support</b><br>Remove cards that represent a number greater than 5.<br><br><b>Stretch</b><br>Have students draw “1 more” and “1 less” on the Work Mat for each card.                                                                                                                                                                                    |

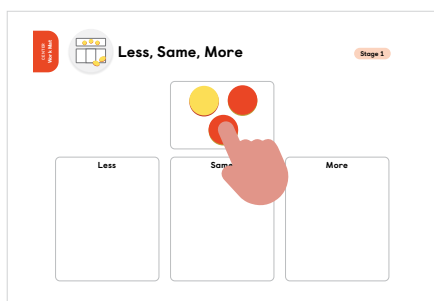


| Stage                                                        | Materials                                                                                                                      | Differentiation                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stage 4</b><br>Numbers and Images<br><br><b>(GRADE K)</b> | <ul style="list-style-type: none"> <li>Directions, Number and Image Cards, Work Mat<br/> <b>(Centers Resources)</b></li> </ul> | <div><b>Support</b></div> <ul style="list-style-type: none"> <li>Remove cards that represent a number greater than 5.</li> <li>Have students focus on only one of the categories (less, same, or more).</li> </ul> <div><b>Stretch</b></div> <p>Have students draw their own set of cards representing the numbers 11–20. Then have students trade their new set of cards with a partner to sort.</p> |



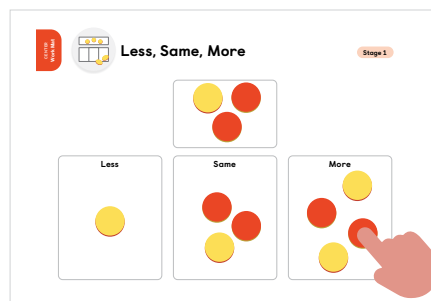
# Less, Same, More

1



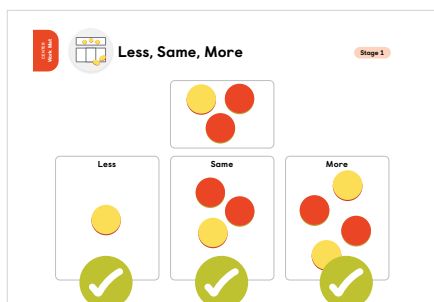
Choose a handful of counters, and place them in the box at the top of your Work Mat.

2



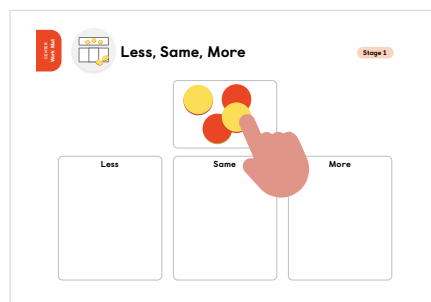
Place counters on the Work Mat to show *less*, *same*, and *more*.

3



Trade Work Mats with your partner, and check their work.

4



Play again with a new handful of counters.

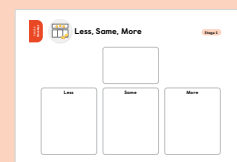
Let's make less, more, and the same number with objects.

**Pairs**

**You'll need . . .**



counters



Work Mat



# Less, Same, More

Stages 1-4

A large, empty rectangular box with rounded corners, intended for a student to draw or write a response.

**Less**

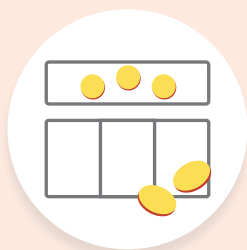
A large, empty rectangular box with rounded corners, intended for a student to draw or write a response.

**Same**

A large, empty rectangular box with rounded corners, intended for a student to draw or write a response.

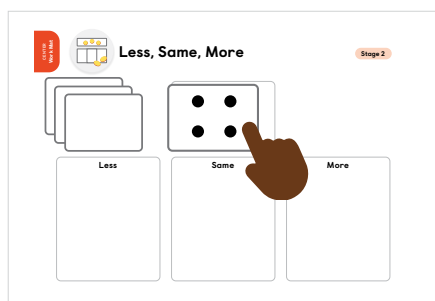
**More**

A large, empty rectangular box with rounded corners, intended for a student to draw or write a response.



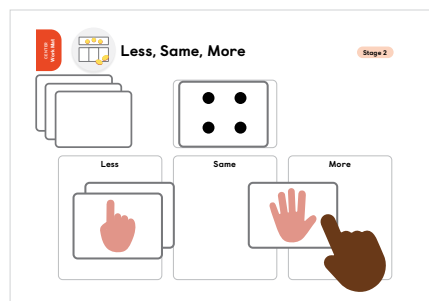
# Less, Same, More

1



Draw one card, and place it in the box at the top of your Work Mat.

2



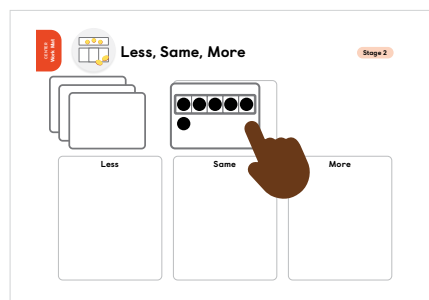
Flip over each card and sort to show *less*, *same*, or *more*.

3



Talk with your partner about your work.

4



After placing all the cards, clear the Work Mat and play again with a new card.

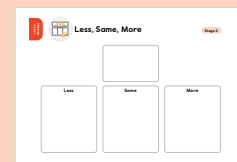
Let's sort cards to show less, more, and the same number.

**Pairs**

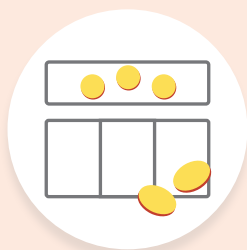
**You'll need . . .**



Image Cards,  
Grade K

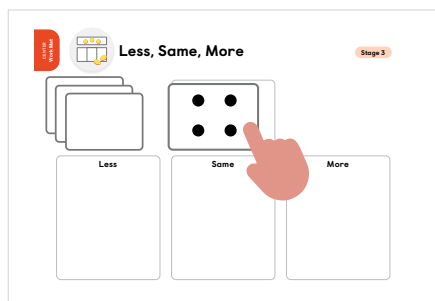


Work Mat



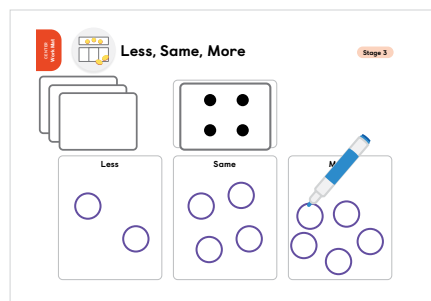
# Less, Same, More

1



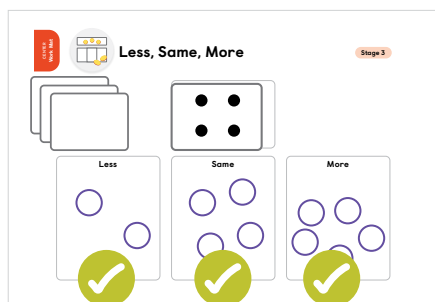
Draw one card and place it in the box at the top of your Work Mat.

2



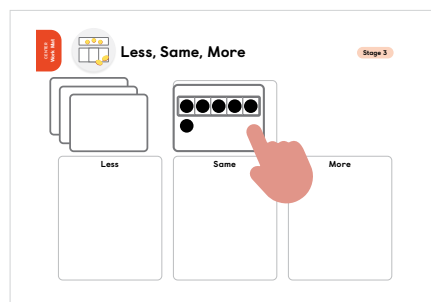
Draw groups to show *less*, *same*, and *more*.

3



Trade Work Mats with your partner, and check their work.

4

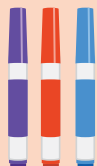


Play again with a new card.

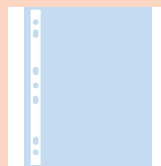
Let's draw groups to show less, more, and the same number.

**Pairs**

**You'll need . . .**



dry-erase  
markers



sheet  
protectors



Image Cards,  
Grade K



Work Mat



# Math Fingers



Students use their fingers to represent quantities and explore the relationships between numbers.

GRADE K

**Stage 1** Show and Say

**Stage 2** Fewer or More

**Stage 3** Add 2 Hands

**Stage 4** Make 10



| Stage                                            | Materials                                                                                                          | Differentiation                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stage 1</b><br>Show and Say<br><br>(GRADE K)  | <ul style="list-style-type: none"><li>Directions, Math Fingers Cards (<a href="#">Centers Resources</a>)</li></ul> | <b>Support</b><br>Have students work with the numbers 1–5.<br><br><b>Stretch</b><br>Have students write the number that is represented on the card.                                                                                                                                                                                         |
| <b>Stage 2</b><br>Fewer or More<br><br>(GRADE K) | <ul style="list-style-type: none"><li>Directions, Math Fingers Cards (<a href="#">Centers Resources</a>)</li></ul> | <b>Support</b><br>Have students work with the numbers 1–5.<br><br><b>Stretch</b><br>Have students show and say multiple numbers that are fewer or more than the number that is represented on the card.                                                                                                                                     |
| <b>Stage 3</b><br>Add 2 Hands<br><br>(GRADE K)   | <ul style="list-style-type: none"><li>Directions, Recording Sheet (<a href="#">Centers Resources</a>)</li></ul>    | <b>Support</b> <ul style="list-style-type: none"><li>Omit the Recording Sheet and instead have students say the total aloud.</li><li>Provide students with access to counters or cubes and 10-frames to represent the equations.</li></ul> <b>Stretch</b><br>Have each partner hold up some fingers on both hands, for a total of up to 20. |



| Stage                                                | Materials                                                                                                                             | Differentiation                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Stage 4</b><br/>Make 10<br/><br/>(GRADE K)</p> | <ul style="list-style-type: none"> <li>Directions, Recording Sheet, Number Cards, 0–10 (<a href="#">Centers Resources</a>)</li> </ul> | <p><b>Support</b></p> <ul style="list-style-type: none"> <li>Omit the Recording Sheet.</li> <li>Provide students with access to counters or cubes and 10-frames to represent the equations.</li> </ul> <p><b>Stretch</b></p> <p>Extend the activity to allow students to choose their own number (11–20).</p> |



| Stage                                                        | Materials                                                                                                                             | Differentiation                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Stage 4</b></p> <p>Make 10</p> <p><b>(GRADE K)</b></p> | <ul style="list-style-type: none"> <li>Directions, Recording Sheet, Number Cards, 0–10 (<a href="#">Centers Resources</a>)</li> </ul> | <p><b>Support</b></p> <ul style="list-style-type: none"> <li>Omit the Recording Sheet.</li> <li>Provide students with access to counters or cubes and 10-frames to represent the equations.</li> </ul> <p><b>Stretch</b></p> <p>Extend the activity to allow students to choose their own number (11–20).</p> |



# Math Fingers

Stages 1 and 2

CENTER  
Cards

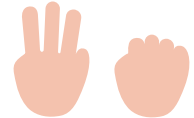
 **Directions:** Make one copy per pair of students. Pre-cut the cards and distribute them so that each pair of students receives one set of cards.



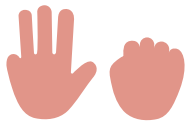
Math Fingers, Stages 1 and 2



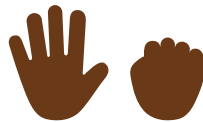
Math Fingers, Stages 1 and 2



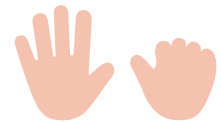
Math Fingers, Stages 1 and 2



Math Fingers, Stages 1 and 2



Math Fingers, Stages 1 and 2



Math Fingers, Stages 1 and 2



Math Fingers, Stages 1 and 2



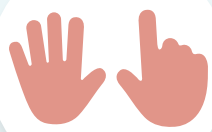
Math Fingers, Stages 1 and 2



Math Fingers, Stages 1 and 2



Math Fingers, Stages 1 and 2



# Math Fingers

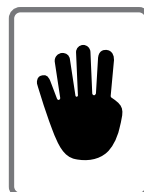
1



Draw a card.

2

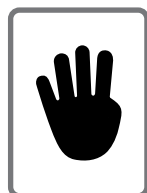
Fewer



Partner A: Use your fingers to show a quantity that is fewer.

3

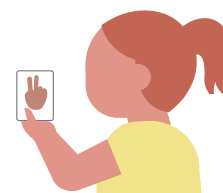
More



Partner B: Use your fingers to show a quantity that is more.

4

Take turns.



Let's use our fingers to show more and less.

Pairs 

You'll need . . .



Math Fingers Cards

# Math Stories

Students tell and solve math stories based on representations.



GRADE K

**Stage 1** How Many?

**Stage 2** Act It Out

**Stage 3** How Many of Each?

GRADE 1

**Stage 4** Add and Subtract

**Stage 5** Unknown Numbers



| Stage                                                | Materials                                                                                                                                                                                       | Differentiation                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stage 1</b><br>How Many?<br><br>(GRADE K)         | <ul style="list-style-type: none"><li>• Directions, Recording Sheet, Math Stories Pictures, Stages 1 and 4<br/>(Centers Resources)</li></ul>                                                    | <b>Support</b> <ul style="list-style-type: none"><li>• Provide students with access to math tools to support them in keeping track while counting.</li><li>• Prompt students to share what they notice about different groups in the picture to help them generate “how many?” questions.</li></ul> <b>Stretch</b> <p>Have students choose 2 groups in the picture and compare them.</p> |
| <b>Stage 2</b><br>Act It Out<br><br>(GRADE K)        | <ul style="list-style-type: none"><li>• Directions, Math Stories Pictures, Stages 2 and 5<br/>(Centers Resources)</li><li>• counters or connecting cubes<br/>(Manipulative Kit)</li></ul>       | <b>Support</b> <p>Demonstrate how to use the counters to act out the story.</p> <b>Stretch</b> <p>Offer pages of picture books to help students create stories.</p>                                                                                                                                                                                                                      |
| <b>Stage 3</b><br>How Many of Each?<br><br>(GRADE K) | <ul style="list-style-type: none"><li>• Directions, Recording Sheet, Math Stories Pictures, A–H<br/>(Centers Resources)</li><li>• counters or connecting cubes<br/>(Manipulative Kit)</li></ul> | <b>Support</b> <ul style="list-style-type: none"><li>• Demonstrate how to use the counters to act out the story.</li><li>• Give students 5 counters or cubes to act out their story; increase the number of counters as students progress.</li></ul> <b>Stretch</b> <p>Offer pages of picture books to help students create stories.</p>                                                 |

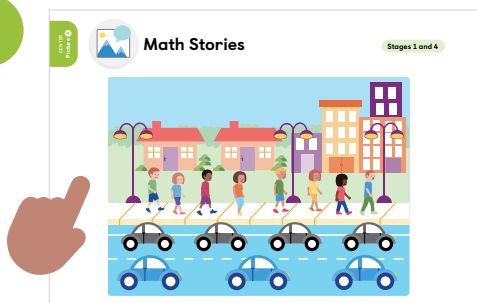


| Stage                                                  | Materials                                                                                                                                                                                                              | Differentiation                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stage 4</b><br>Add and Subtract<br><b>(GRADE 1)</b> | <ul style="list-style-type: none"> <li>Directions, Recording Sheet, Math Stories Pictures, Stages 1 and 4<br/>(Centers Resources)</li> </ul>                                                                           | <p><b>Support</b></p> <p>Have students work with only addition or subtraction equations.</p> <p><b>Stretch</b></p> <p>Offer pages of picture books to help students create stories.</p>                                                                                                                         |
| <b>Stage 5</b><br>Unknown Numbers<br><b>(GRADE 1)</b>  | <ul style="list-style-type: none"> <li>Directions, Equation Cards, Sets 1 and 2, Math Stories Pictures, Stages 2 and 5<br/>(Centers Resources)</li> <li>counters or connecting cubes<br/>(Manipulative Kit)</li> </ul> | <p><b>Support</b></p> <ul style="list-style-type: none"> <li>Have students work with only missing addend or missing sum equations.</li> <li>Demonstrate how to use the counters to act out the story.</li> </ul> <p><b>Stretch</b></p> <p>Have students make their own equation cards to use for the stage.</p> |



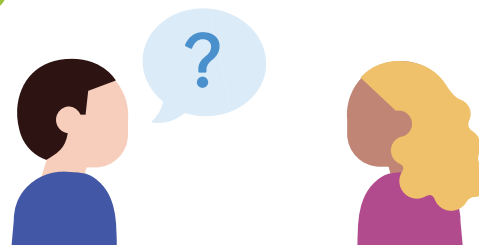
# Math Stories

1



Choose a picture.

2



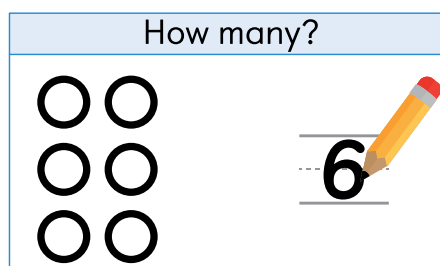
**Partner A:** Ask a *how many?* question about the picture.

3



**Partner B:** Answer the question. Check to see if your partner agrees.

4



Record how many by drawing a group and writing a number.

Let's ask and answer  
*how many?* questions.

**Pairs**

**You'll need . . .**



Math Stories Pictures,  
Stages 1 and 4



Recording  
Sheet

Name \_\_\_\_\_ Date \_\_\_\_\_



# Math Stories

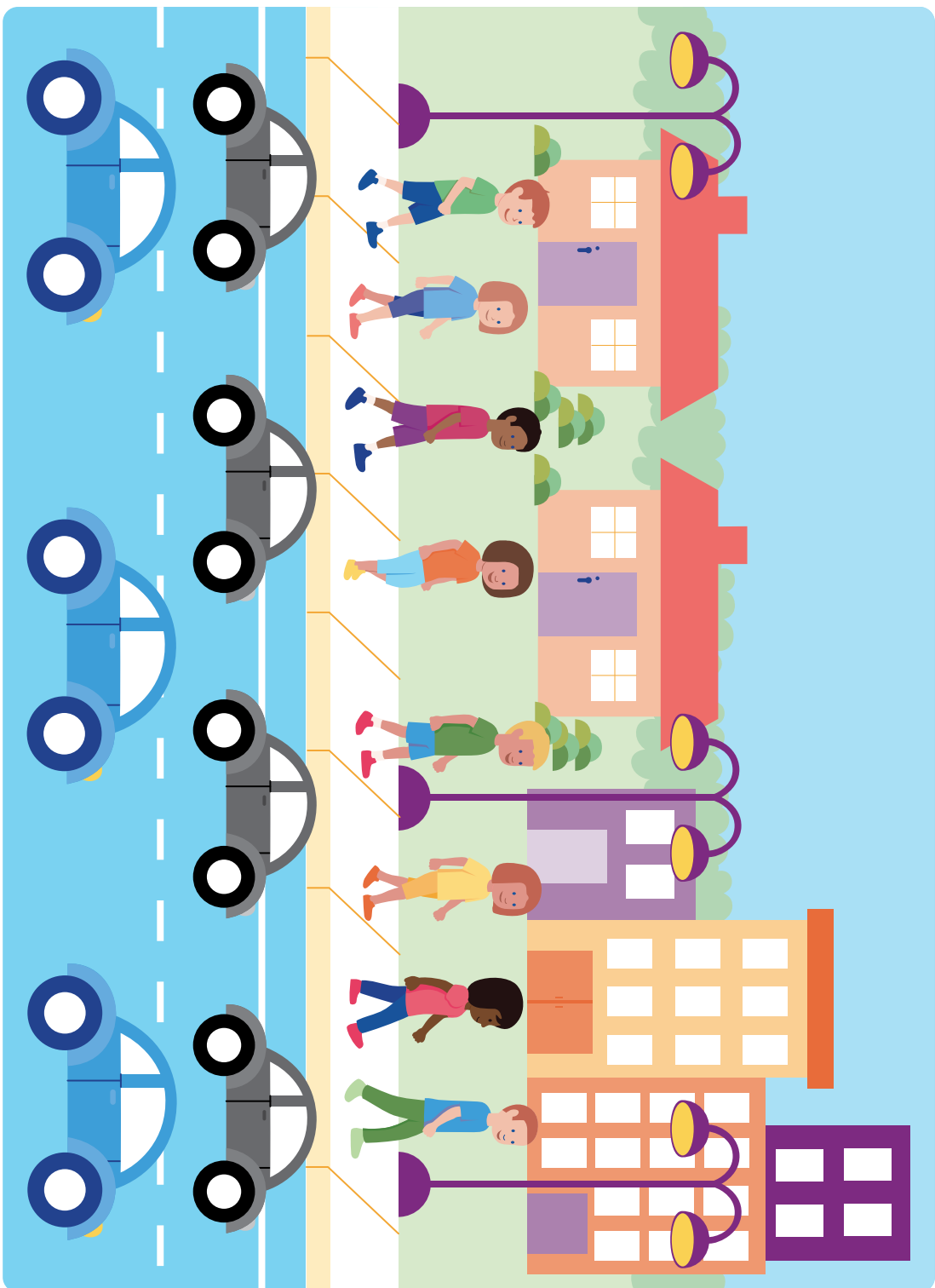
Stage 1

| How many? |                                     |
|-----------|-------------------------------------|
|           | <div></div> <div></div> <div></div> |
|           | <div></div> <div></div> <div></div> |
|           | <div></div> <div></div> <div></div> |
|           | <div></div> <div></div> <div></div> |
|           | <div></div> <div></div> <div></div> |



# Math Stories

Stages 1 and 4





# Math Stories

Stages 1 and 4

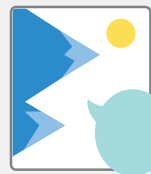




# Math Stories

Stages 1 and 4





# Math Stories

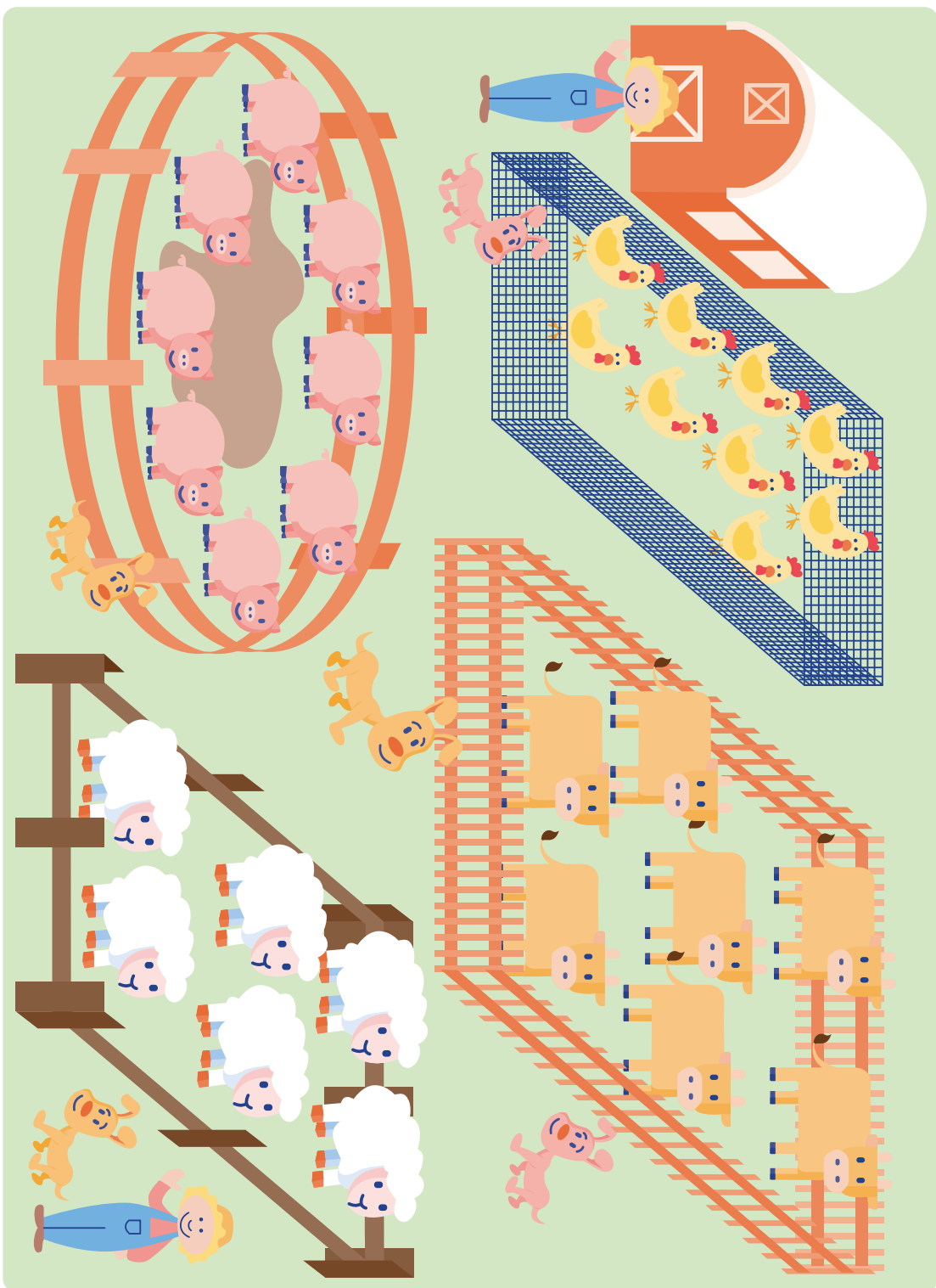
Stages 1 and 4

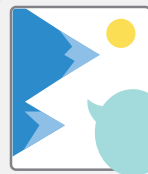




# Math Stories

Stages 1 and 4





# Math Stories

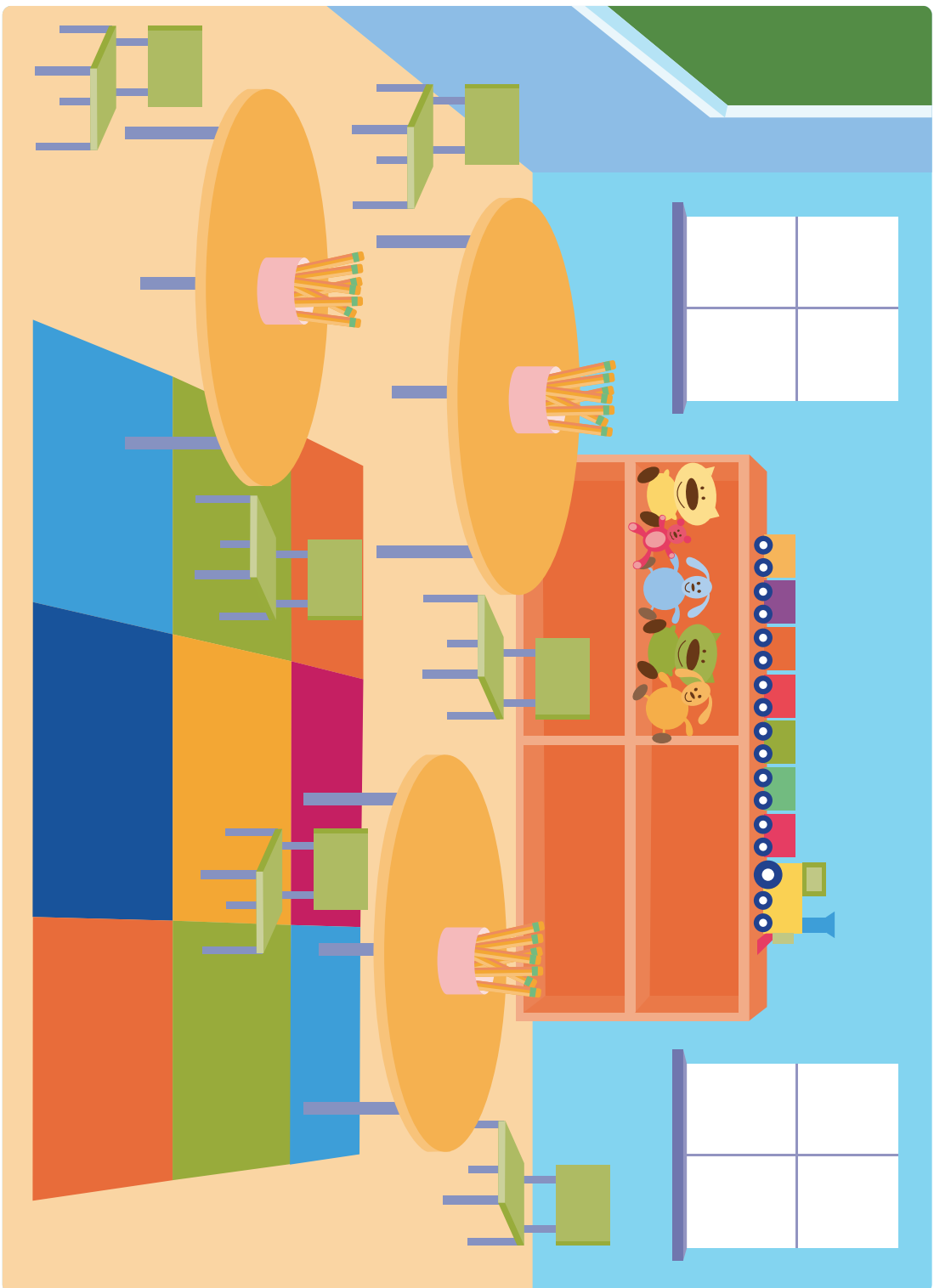
Stages 1 and 4





# Math Stories

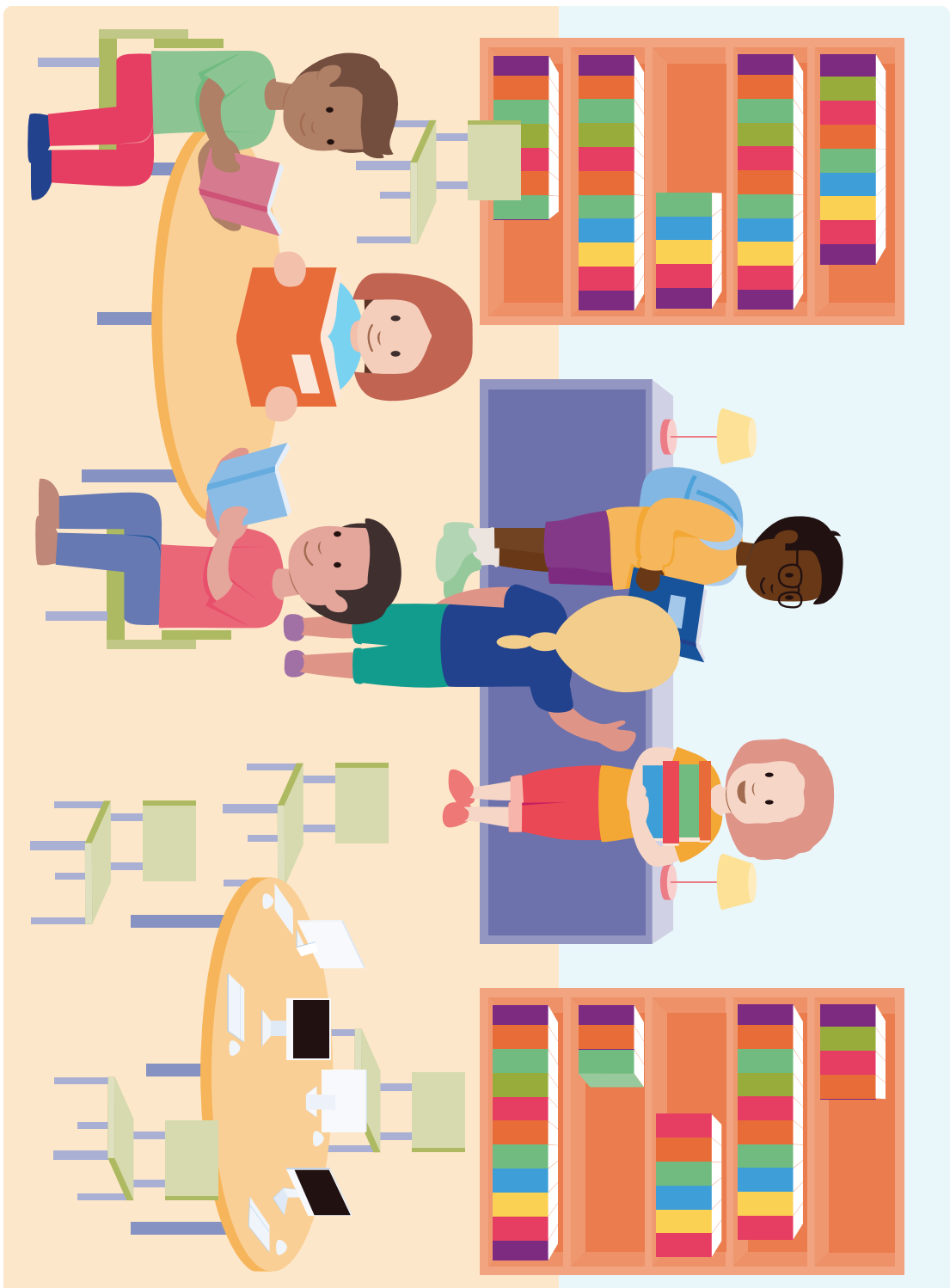
Stages 1 and 4





# Math Stories

Stages 1 and 4





## KINDERGARTEN

# Extensions

The following section includes a selection of Extensions. Extensions are 10–15-minute activities aligned to the most critical topics in a sub-unit. These are print-based, hands-on activities, structured on the principle of student choice and designed to be student-led. Extensions appear as part of lesson differentiation.

# Unit 2 Sub-Unit 2 Extension

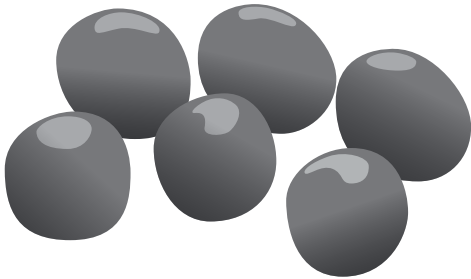
Name ..... Date .....



**You Choose!**

Pick any problem on this page to start with.

1



Avocado

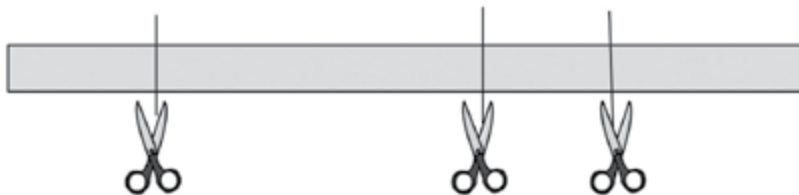
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**Directions:** Jada made guacamole from several avocados and left the pits. Figure out how many avocados Jada used. Explain how you know.

2



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**Directions:** Shawn is going to cut the ribbon in 3 places. Figure out how many pieces Shawn will get.

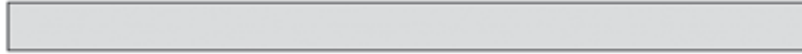
Name .....

Date .....

3



Show your thinking.



**Directions:** Priya has a ribbon and cuts it to get 7 pieces. Figure out how many cuts she needs to make.

# Unit 2

## Sub-Unit 2 Extension

Assign problems to students who want to extend their thinking.

Problems 1 and 2 can be solved in any order.

Assign Problem 3 to students who have solved Problem 2.

### Problem 1

**Students will extend their understanding of** connections between groups with the same number of elements.

**Provide students** with the following hints if additional scaffolding is needed.

- **Hint 1:** Ask how many pits would be left if Jada used only 1 avocado? What about 2 avocados?

**Sample response shown.**

**6 avocados. The number of avocados used is the same as the number of pits left.**

### Problem 2

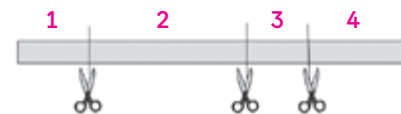
**Students will extend their understanding of** connections between similar groups and see an example where such a connection is broken.

**Provide students** with the following hints if additional scaffolding is needed.

- **Hint 1:** Ask how many pieces do you get if you make 1 cut? How many pieces do you get if you make 2 cuts?

**Sample response shown.**

**She will get 4 pieces, 1 more than the number of cuts.**



### Problem 3

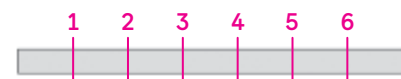
**Students will extend their understanding of** connections between similar groups and see an example where such a connection is broken.

**Provide students** with the following hints if additional scaffolding is needed.

- **Hint 1:** Say, "draw the cuts to check your answer."

**Sample response shown.**

**She needs to make 6 cuts, 1 less than the number of pieces.**





## Notes

[illegible]

## Notes

[illegible]

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