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**EUREKA
MATH²**

Getting Started Guide
Level 1 Module 1

Getting Started

This Getting Started Guide provides contextual information as you review *Eureka Math*². Follow along as we explore the contents of the *Teach*, *Learn*, and *Apply* books. The guide also highlights some **key components of the digital experience** that are seamlessly integrated into *Eureka Math*².

Exponentially More

Eureka Math[®] revolutionized math teaching in the United States. The curriculum has helped students understand the *why* behind the math, not just the *how*. It has become the most widely used K-5 math curriculum in the country—so why would we change it? Because we listened to feedback from our dedicated team of *Eureka Math* teachers throughout the country and studied the findings of current educational research. Armed with this knowledge, we decided to expand the accessibility and efficacy of our materials so that even more students can achieve greatness in math.

*Eureka Math*² is exponentially more efficient. Exponentially more engaging. Exponentially more accessible. And this adds up to exponentially more knowledge and joy for students and teachers alike.



$$\text{Teachability}^2 + \text{Engagement}^2 + \text{Accessibility}^2 = \text{Joy}^2$$

Thinking and Talking *About Math*

The teacher-writers who crafted *Eureka Math*² realize the value of student discourse. Starting in kindergarten, *Eureka Math*² students engage with the teacher and with one another to make their thinking visible. Students work in pairs and in groups as they engage in a variety of instructional routines and participate in whole class discussions to explore mathematical ideas. The Talking Tool, detailed on the inside cover of every *Learn* book, provides sentence frames and sentence starters to help guide student discourse.

Similar to the Talking Tool, the Thinking Tool, on the inside back cover of the *Learn* book, is a scaffold to support students in developing and applying metacognitive skills. It provides a set of questions students can ask themselves before, during, and after engaging in a task.

Thinking and talking about math helps students develop a deeper understanding of the topics they learn. These activities are key factors in creating an equitable classroom culture—and in helping students find the joy in mathematics.

How Students *Build Knowledge*

*Eureka Math*² is organized into three coherent stories that build from year to year: *A Story of Units*[®] for Grade Levels K–5, *A Story of Ratios*[®] for Grade Levels 6–8, and *A Story of Functions*[®] for Grade Levels 9–12.

Each grade level is organized into six modules. Within each module, related lessons are organized into topics.

A close look at the module map reveals that the major work of the grade level is delivered earlier in the school year. This allows students to have ample opportunities to establish strong foundational knowledge. *Eureka Math*² reinforces this knowledge later in the year by connecting supporting content to major grade-level work and providing students with real-world context.

| Talking Tool | |
|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| I Can Share My Thinking  | My drawing shows I did it this way because I think _____ because |
| I Can Agree or Disagree  | I agree because I disagree because I did it a different way. I |
| I Can Ask Questions  | How did you . . . ? Why did you . . . ? Can you explain . . . ? |
| I Can Say It Again  | I heard you say _____ said Can you say it another way? |

EUREKA MATH²

Implement with Fidelity and *Confidence*

The same team of teacher-writers who crafted *Eureka Math*² also developed an Implementation Guide to help educators bring the curriculum into their classrooms. The guide provides a detailed map of the resources built into the curriculum and offers advice on how to prepare to teach each module. [Access the full Grade Levels 1–2 Implementation Guide.](#)

Below we'll highlight some of the information covered in the Implementation Guide to help you explore *Eureka Math*² Level 1 Module 1.

An Intentional and Meaningful Integration of *Digital Learning*

The *Eureka Math*² writers strategically integrated digital components with K–5 lessons so that technology enhances instruction without the need for individual student devices. *Eureka Math*² *Equip*[™], a companion product to *Eureka Math*², is a digital diagnostic tool that offers a Pre-Module Assessment for every student. It identifies learning gaps and provides teachers with content tailored to address those gaps so that all students can access grade-level content. The curriculum's digital platform includes teacher facilitation slides that display lesson visuals such as mathematical representations, images, videos, or digital interactives. Every module includes at least one context video that shows an application of the module's math in real-life scenarios. Students also participate in a teacher-led class demo with interactive tools on the Great Minds[®] Digital Platform to visualize various mathematical models.

When students have their own devices, they can access the *Learn* book content and complete assignments digitally.

[Access the Great Minds Digital Platform](#) to review *Eureka Math*² assessments, digital interactives, context videos, and more.

Bringing Fine Art *into Math*

Among all math curricula, *Eureka Math*² is unique in its integration of fine art. The cover of each module features an impressive work of fine art that is visually or conceptually connected to the math. Level 1 Module 1 features the painting *Tables for Ladies* by Edward Hopper, and a note on the inside cover helps students understand how the artwork is connected to math they will learn.



A Map to the *Learning*

Every *Teach* book begins with an Overview. In Level 1 Module 1, the Overview begins on page 2. The Overview notes any previous knowledge students use and build upon in the module, summarizes the student learning taking place on each topic in the module, and shows where in the curriculum students will next access the module's learning to build new layers of understanding and more complex knowledge.

Following the Overview is the Why section. The Why section gives insight into the decisions made during the writing of the module, helping you understand the underlying structure of the module, the flow of the content, and the coherence of the different parts of the curriculum.

What Does Understanding *Look Like*?

Beginning on page 12, the *Teach* book highlights the Achievement Descriptors addressed in the module. Achievement Descriptors are clear, concise, standards-aligned descriptions that detail what students should know and be able to do based on the instruction. The first page of each lesson identifies the Achievement Descriptors aligned with that lesson. Proficiency Indicators for each Achievement Descriptor support teachers with interpreting student work in the module. The Proficiency Indicators begin on page 348 in the Level 1 Module 1 *Teach* book.

History of the Math

Math Past is another way that *Eureka Math*² helps students build knowledge—by telling the history of some of the big ideas that shape the mathematics in the module. Math Past frames mathematics as a human endeavor by telling the story of the discipline through artifacts, discoveries, and other contributions from cultures around the world. Math Past provides material that can inform your teaching and offers lesson-specific ideas about how to engage students in the history of mathematics. The Math Past summary for Level 1 Module 1 appears on page 362.

Math Past

Chinese Counting Rods

**How did the ancient Chinese use rods to count?
Did they make tally groups like we do?
Did they represent 5 in a special way like we do?**

Tally the students in your class. Just make one vertical mark for every student. Let's say your tally looks like this.

|||||


Can you tell at a glance that you have tallied 20 students?
Probably not! When there are 1, 2, 3, 4, or even 5 tally marks, most people can tell how many marks there are at a glance. After that, we need some way of grouping the marks to make it easier to count them.

Suppose you redo your tally, this time placing every fifth tally mark diagonally across the 4 preceding marks to make groups of 5. Then it would look like this.

|||||

Now how many students does the tally show? With groups of 5 we can easily count "5, 10, 15, 20."

Around 2,400 years ago, the Chinese represented numbers by arranging rods that looked like tally marks to form certain patterns. These rods were made from bamboo, iron, ivory, jade, or animal bones. In China, they were used for counting for almost 2,000 years, and their use also spread to Korea and Japan.





Here is how the Chinese formed numbers from rods.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | | | | | | |

The Chinese counted to 5 by using a single vertical rod for each 1. When they got to 5, they didn't lay the fifth rod diagonally across the other 4 like we do with tally marks. Instead, they did something special when they formed numbers greater than 5.

Ask your students to look at the rods that form the number 6. The Chinese used a horizontal rod to represent 5, and they put a vertical rod underneath it to represent 1. Point out to your students that when you add 5 and 1, you get 6. Then look at the rod numbers for 7, 8, and 9. Help students notice that the horizontal rod representing 5 is in each of these numbers too.

This leads to an interesting question. We've seen that the Chinese didn't use a diagonal rod to make a group of 5. But since they did use the horizontal rod to represent 5 in forming the numbers 6, 7, 8, and 9, why didn't they just use  instead of  to represent 5?

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Dive into a *Topic*

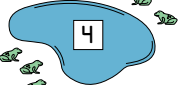
It's time to dive into a topic to better understand the *Eureka Math*² learning design. On page 178 in Level 1 Module 1, we begin Topic C: Count on to Add. Every topic begins with an overview that summarizes the development expected as students engage with the upcoming content. In the Topic C overview, the teacher can see that students will practice finding sums within 20. This learning will provide the students with an efficient addition strategy as well as practice with critical $10 + n$ facts. The teacher can also see how this learning will continue in the topic.

Each topic also includes a Progression of Lessons list on page 180. This list shows sample content from each lesson along with a student-friendly statement about the major learning.

1 • M1 • TC EUREKA MATH²


Progression of Lessons

Lesson 13
Count on from an addend in *odd to with result unknown* situations.



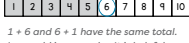
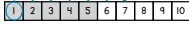
I don't have to show or count the first part. If I know 4 frogs are in the pond, I can just count on: Foouuur, 5, 6, 7, 8, 9.

Lesson 14
Count on to find the total of an addition expression.



I imagine holding 5 in my hand. Then I track on my fingers to count on 4 more: Fiiive, 6, 7, 8, 9.

Lesson 15
Use the commutative property to count on from the larger addend.



1 + 6 and 6 + 1 have the same total. I can add in any order. It is helpful, or more efficient, to start with the larger part.

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Lesson Structure *and Support*

Every Grade Level K–5 *Eureka Math*² lesson is organized into four sections, providing the teacher with a clear lesson plan for the day's learning.

- **Fluency** opens each lesson and provides distributed practice with previously learned material. This practice prepares students for new learning by activating prior knowledge and bridging small learning gaps.
- **Launch** creates an accessible entry point to the day's learning with activities that build context and create productive struggle, which helps build new knowledge.
- **Learn** presents new math concepts related to the lesson objective, usually through a series of instructional segments.
- **Land** provides time for teachers to facilitate a brief closing discussion and for students to complete the Exit Ticket.

Throughout the lesson, margin notes provide information about facilitation, differentiation, and coherence. The curriculum has six types of margin notes: Teacher Notes, Universal Design for Learning, Language Support, Differentiation, Promoting the Standards for Mathematical Practice, and Math Past.

Dive into a *Lesson*

The lesson overview on page 182 helps teachers prepare to teach Lesson 13.

- The **Lesson at a Glance** is a snapshot of the lesson framed through what students should know, understand, and do while engaging with the lesson.
- The **Key Question** helps focus instruction and classroom discourse.
- The **Achievement Descriptors** appear again, this time mapping what students should know and be able to do based on the instruction of the specific lesson to the standards covered.
- An image of the **Exit Ticket** from the end of the lesson shows what this formative assessment includes.

Finally, page 183 lays out the learning agenda as well as the materials list and lesson preparation notes. These are all shared up front to help teachers feel organized and ready for the lesson from the start.

During the Lesson 13 Fluency exercise on page 184, the teacher provides Hide Zero cards to student pairs. Student partners work through the fluency activity, practicing stating the numeral on one card and counting on the number of dots on the second card. Through this activity, students learn to trust the first part, or addend, as a unit and to find the total by counting on rather than counting all. Over the course of the other lessons in this topic students will use the cards again to note the efficiency of starting with the larger addend.

In Launch, students watch a math content video as they begin to make sense of an add to with result unknown situation. Each video in our *Eureka Math*² digital experience has been crafted with special care to ensure representation of students from different backgrounds and abilities. These videos do not include spoken words because we want to make them accessible to multilingual learners and striving readers so that the focus is on the math story and not the dialogue. You can access the video for this lesson on the webpage where you accessed this guide.

Margin notes throughout the *Teach* book provide teachers with instructional guidance and information about facilitation, differentiation, and coherence. Page 185 shows a margin note that suggests different ways the teacher can engage students in the topic if presenting the video is not an option.

Page 188 shows a margin note that explains how the work students do in the module arranges for them to build experience with the Standards for Mathematical Practice. Although most lessons offer opportunities for students to engage with more than one Standard for Mathematical Practice (MP), the margin notes identify a focus MP and provide prompts for how teachers can facilitate opportunities to help students apply the Standards for Mathematical Practice during a lesson.

After working through several word problems as a class, as well as going through a Share-Compare-Connect routine, students turn to their *Learn* books to work on a Problem Set. Before students begin this work, be sure to note the guidance provided to the teacher on page 190, and that the problems students will work through have been organized from simple to complex.

UDL: Engagement

If presenting a video is not an option or if students would benefit from a tactile experience, consider having them act out the story.

Partner students and provide each pair with 7 cubes and a cup or an opaque bag.

Have partner A represent Hope's rock collection before the walk by counting out 7 cubes and placing them out of sight in a bag or under the overturned cup.

Have partner B go for a "walk" to visit the teacher. Give partner B 3 cubes to take back.

Promoting the Standards for Mathematical Practice

When students choose how they will represent problems, they use appropriate tools strategically (MP5).

Ask the following questions to promote MP5:

- Why did you choose this tool to represent, or show, the problem?
- How was this tool helpful to you?
- What other tool might you use? Why?

The Student Experience:

Learn

On page 97 of the *Learn* book, students begin the problem set for Lesson 13. Notice the gears icon in the top corner of the page. This icon is used to indicate a Problem Set section. Other icons that may appear in lessons include a magnifying glass and a ticket with a check mark. The magnifying glass indicates a lesson page that students use during the guided or directed portion of the lesson, and a ticket with a check mark indicates that the page is the Exit Ticket for the lesson.

Let's look at readability. You will notice that the student materials are intentionally designed to be readable by young students while maintaining the rigor that you've come to expect from Great Minds curricula. We have reduced wordiness—eliminating unnecessary wording entirely—and we have been intentional in our language choices and sentence length. The Grade Level K–2 *Learn* books consistently use the same visuals paired with words that may still be beyond a student's decoding ability, and each problem has been written with guidance from our Great Minds phonics experts.

The image shows three overlapping pages from the Eureka Math curriculum. The top page is Lesson 13, titled "Listen to the story." It features a bee icon and a large number 13 in a red box. The text asks students to count on to find the total of 4 bees in a hive plus 2 more bees. The middle page is titled "Count on two ways." It shows two rows of fruit (apples and strawberries) and asks students to circle a part and write a number sentence. The bottom page is titled "Circle a part." It shows a tree with a sign that says 6 and asks students to circle a part and write a number sentence.

This page is from the Eureka Math curriculum, Lesson 13. It features a "Number Facts (Mel's Way)" section with the equation $7 + 3 = 10$ and a "Problem Set" section. The "Problem Set" section includes a "Land" section with a "Debrief" section. The "Debrief" section includes an objective: "Count on from an addend in add to with result unknown situations." and a student work example showing a number line with 4, 5, 6, and 7, and a circle around 7.

After students work independently on their Problem Set, the class comes back together for the Land portion of the lesson. For Lesson 13, this section begins on page 190 of the *Teach* book. In this portion of the lesson, the teacher facilitates a discussion by using suggested questions related to the lesson's objectives and guides students to synthesize the day's learning. Following the discussion, students complete the Exit Ticket on page 99 of their *Learn* book. This gives teachers a sense of what students understand so they can help make instructional decisions for the next lesson.

Continued Practice *at Home*

The final book in the module series is *Apply*. The *Apply* book offers students more practice with the concepts learned in class. It has three components that support students in deepening their understanding of the concepts covered in the daily lesson.

- **Family Math** is a letter to families that describes the major concepts in the current topic. The letter uses words and phrases that should be familiar to the students from the class lessons. It also includes visual supports that students can use to explain the concepts or strategies to their family or that can help adults at home understand a concept.
- **Practice** problems interleave and distribute practice, providing students with opportunities to discern and recall which knowledge, concepts, and strategies are appropriate for solving different problems.
- **Practice Partners** provide a unique kind of support. Students work through the thinking of an imagined partner who is solving problems like those in the Practice.

Module 1
Topic C

FAMILY MATH

Count On to Add


Dear Family,

Your student is learning to find the total of an addition expression, such as $8 + 3$. Your student counts on from a part to find the total just like they did when finding the total of a set of objects. They confirm that they can add in any order and come to recognize that counting on from the larger part is more efficient. When counting on, your student uses their fingers or a number path. They are also introduced to telling time on an analog clock. Your student will revisit telling time throughout the year.

Key Terms


expression
hour hand
minute hand
o'clock

$3 + 8$




"Eight, 9, 10, 11"

An expression is like a number sentence but there is no equal sign.



"I can start at 8 and hop 3 to find the total."



When the longer minute hand is pointing to 3, the shorter hour hand is pointing to 3.

EUREKA MATH[®] 1 • M1 • TC • Lesson 13

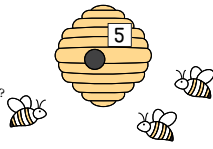
13

Name _____


1. Count on.

5 bees are in the hive.
3 more bees fly into the hive.
How many bees are in the hive now?


bees



I start with 5, then count on to find the total.



Fill in, 6, 7, 8.
There are 8 bees total.



EUREKA MATH[®] 1 • M1 • TC • Lesson 13

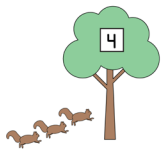
13

Name _____

1. Count on.

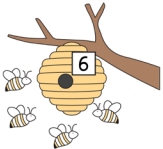
4 squirrels are in the tree.
3 more squirrels run up the tree.
How many squirrels are in the tree now?

squirrels



6 bees are in the hive.
4 more bees fly into the hive.
How many bees are in the hive now?

bees



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Assessment with *Eureka Math*²

The assessment system for Grade Levels 1 and 2 helps teachers understand student learning by generating data from many perspectives. The system includes four components.

- **Observational Assessments** are made in the provided Recording Sheet for every module in Grade Levels 1 and 2. This sheet comprises short checklists that summarize the module's Achievement Descriptors and Proficiency Indicators. Teachers use the Recording Sheet to make notes during any part of the lesson to inform their understanding of student performance.
- **Exit Tickets** are formative assessment opportunities that use at least one problem or question to assess whether a student has learned the basic skills and concepts needed for success in upcoming lessons. Items reflect the minimum that students must demonstrate to meet the lesson objective.

Students complete Exit Tickets independently on paper, with directions or problems read aloud as necessary, and they are not graded. Most students with a basic understanding of the math can finish within 3–5 minutes. Generally, teachers should strictly observe this time frame because a student's inability to finish within 5 minutes can be valuable proficiency information.

- **Topic Tickets** replace the Exit Ticket in the final lesson of each topic, serving as short sets of items that assess proficiency with the major concepts and skills from the topic.
- **Module Assessments** consist of 6–10 items that assess proficiency in the major concepts, skills, and applications taught in the module. Module Assessments represent the most important content, but they may not assess all the strategies and standards taught in the module.

In Grade Levels 1 and 2, students independently work Module Assessments on paper with the directions or problems read aloud as necessary.

In Level 1 Module 1, all assessment resources appear in the Resources section beginning on page 341 of the *Teach* book.

In addition to the assessments above, *Eureka Math*² Equip diagnostic assessments are available for print and digital administration.

[Click to review the *Eureka Math*² assessments](#) on the Great Minds Digital Platform.

EUREKA MATH² 1 • M1 • TC

Name _____

1. Add.

$4 + 0 = \square$ $7 + 1 = \square$

2. Circle the larger part.
Count on.

Fill in the number bond.

$3 + 5 = \square$

$5 + 3 = \square$

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EUREKA MATH² 1 • M1 • Module Assessment

Module Assessment Name _____

1. Color the totals.
Write the totals.

I Count

Totals

Which one has more?
Circle.

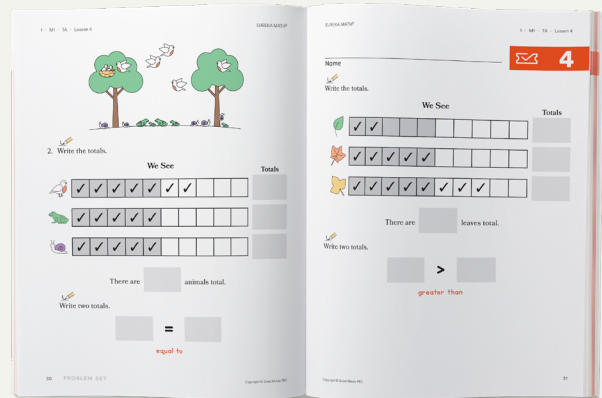
Write two totals.

$\square > \square$

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Raising the Bar to the *Second Power*

In the world of math curricula, *Eureka Math*² stands alone. Our curriculum invites student discourse, provides accessibility, and advances equity. Its combination of digital and print resources helps *all* students build a strong foundation of mathematical knowledge that they will build upon, module after module and year after year.



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