ZEARN Math

Grade 1

Lesson Sample Guide

ZEARNMath

MORE OPPORTUNITIES FOR EVERY STUDENT TO LEARN MATH

Students learn the same concepts digitally as they do with their teacher, creating multiple opportunities to engage with each lesson and build deep understanding.

SUPPORTS TEACHERS WITH DAILY DIFFERENTIATED INSTRUCTION

Designed by teachers to include the materials, data, and knowledge to plan and deliver daily, differentiated instruction that supports all learners.

ENGAGING, CHALLENGING, AND SUPPORTIVE FOR ALL STUDENTS

A learning experience where every student receives the exact support they need and believes in their capacity to grow as learners.

The only top-rated curriculum that connects digital learning to daily instruction

Watch Zearn Math Overview (15 Minutes) ⟶

PUBLISHED BY ZEARN

Zearn is a nonprofit curriculum publisher on a mission to ensure all children love learning math. We work with teachers nationwide to build inclusive classroom communities where all students have equal opportunities to belong and deeply learn the math content of their grade.

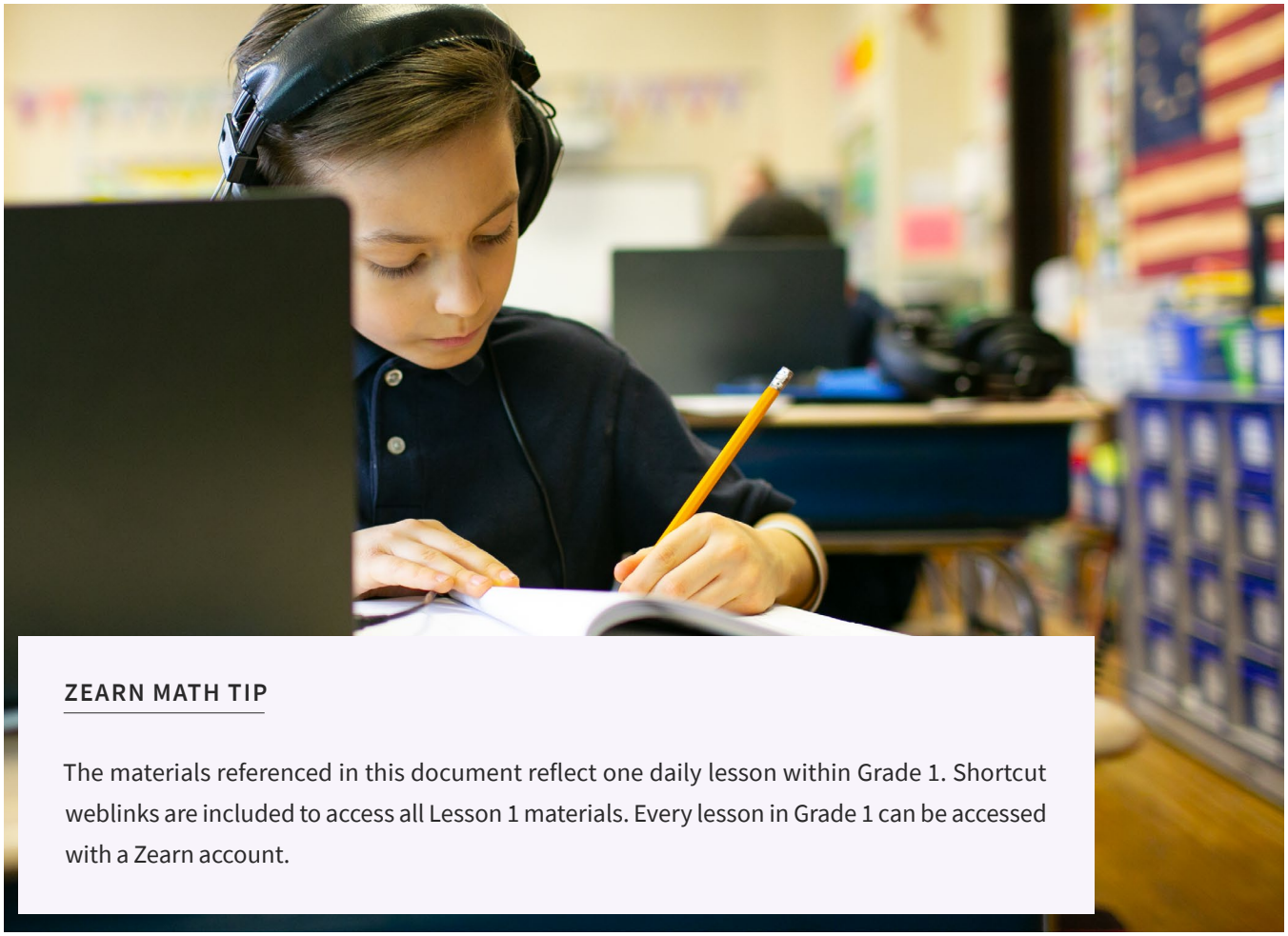
Want to learn how we can support your curriculum review?

Contact us ⟶

Sample Our Curriculum

IN THIS GUIDE YOU WILL FIND:

- **An orientation to Grade 1 curricular materials, from grade-level planning materials to lesson-level activities**
- **Teacher Materials for the first lesson of Grade 1, with links to access content**
- **Student Materials for the first lesson of Grade 1, with links to access content**
- **Step-by-step instructions on how to access all materials using a Zearn Math account**



ZEARN MATH TIP

The materials referenced in this document reflect one daily lesson within Grade 1. Shortcut weblinks are included to access all Lesson 1 materials. Every lesson in Grade 1 can be accessed with a Zearn account.

Zearn Math Curricular Materials

COMPREHENSIVE MATERIALS TO SUPPORT DAILY DIFFERENTIATED INSTRUCTION

Teacher Materials

OVERVIEW MATERIALS

Zearn Math offers grade- and unit-level overview materials that support teachers with planning and delivering differentiated instruction that meets the needs of all learners. These materials include pacing guidance, detail on the standards covered, summaries of the major work of the grade, and the learning objectives of each unit (which Zearn Math calls Missions). Zearn Math also provides comprehensive professional development designed to support grade-level teams in preparing for teaching each upcoming unit and planning daily instruction.

- **Grade 1 Overview**
- **Grade 1 Mission Overviews**
- **Curriculum Study Professional Development**

LESSON MATERIALS

Zearn Math provides comprehensive materials that build deep understanding of concepts and flexible problem solving skills through an emphasis on visualization, drawing to solve, and concrete representations of abstract concepts. Curricular materials can be used across a mix of instructional formats, including both small group and whole group learning. Class Reports provide visibility into student productivity and misconception data to inform instruction and support.

- **Whole Group Fluency**
- **Whole Group Word Problems**
- **Small Group Lessons**
- **Class Reports**

Student Materials

LESSON MATERIALS

Students learn the same concepts digitally as they do with their teacher, creating multiple opportunities to engage with each lesson and build deep understanding. During Independent Digital Lessons, students learn and practice new concepts at their own pace with digital manipulatives, interactive videos, paper-and-pencil transfer, and precise digital feedback at the moment of misconception. Each Independent Digital Lesson consists of an adaptive fluency, a lesson-aligned fluency, guided practice, and independent practice.

- **Independent Digital Lessons**
- **Student Notes**
- **Exit Tickets**
- **Optional Homework**
- **Optional Problem Sets**

ASSESSMENTS

Zearn Math offers formative, Mission-level assessments that consist of open response items that require students to show their work or explain their thinking in a variety of ways.

- **Mid-Mission Assessments**
- **End-of-Mission Assessments**

Zearn Math Grade 1

EACH GRADE CONSISTS OF MISSIONS, TOPICS, AND LESSONS

Introduction to Grade 1

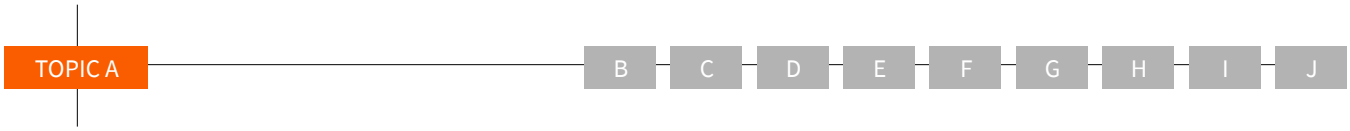
119 Lessons

Grade 1 mathematics is about: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20, (2) developing understanding of whole number relationships and place value, including grouping in tens and ones, (3) developing understanding of linear measurement and measuring lengths as iterating length units, and (4) reasoning about attributes of, and composing and decomposing geometric shapes

Each grade of Zearn Math consists of Missions (Zearn Math nomenclature for a unit), Topics, and Lessons.

Mission 1: Add and Subtract Small Numbers

In this first mission of Grade 1, students make significant progress towards fluency with addition and subtraction of numbers to 10 as they are presented with opportunities intended to advance them from counting all to counting on, which leads many students then to decomposing and composing addends and total amounts. In Kindergarten, students achieved fluency with addition and subtraction facts to 5. This means they can decompose 5 into 4 and 1, 3 and 2, and 5 and 0. They can do this without counting all. They perceive the 3 and 2 embedded within the 5.



Embedded Numbers and Decompositions

Topic A continues the work of developing this ability with all the numbers within 10 in put together situations, with a special focus on the numbers 6, 7, 8, and 9, since recognizing how much a number needs to make 10 is part of the Kindergarten standards and easier for most children.

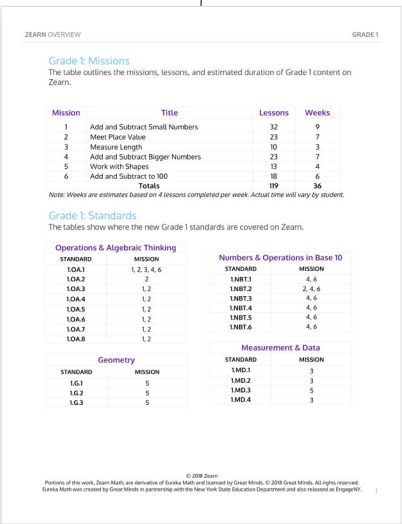
In this lesson, students analyze and describe embedded numbers (to 10) using 5-groups and number bonds. This organization allows students to quickly see, or perceptually subitize, the subset of 5. Building fluency with conceptual subitizing prepares students to count on from embedded numbers in future lessons.

Grade 1 Lesson 1 Teacher Materials

1 OF 32 LESSONS WITHIN THIS MISSION

LESSON 1

Please sign in to Zearn.org with the username and password provided to access materials. If you do not have these sign in credentials and are conducting a curriculum review, please contact us at info@zearn.org



ZEARN OVERVIEW GRADE 1

Grade 1: Missions

The table outlines the missions, lessons, and estimated duration of Grade 1 content on Zearn.

Mission	Title	Lessons	Weeks
1	Add and Subtract Small Numbers	32	9
2	Meet Place Value	23	7
3	Measure Length	10	3
4	Add and Subtract Bigger Numbers	23	7
5	Work with Shapes	13	4
6	Add and Subtract to 100	18	6
	Totals	119	36

Note: Weeks are estimates based on 4 lessons completed per week. Actual time will vary by student.

Grade 1: Standards

The tables show where the new Grade 1 standards are covered on Zearn.

Operations & Algebraic Thinking

STANDARD	MISSION
1.OA.1	1, 2, 3, 4, 6
1.OA.2	2
1.OA.3	1, 2
1.OA.4	1, 2
1.OA.5	1, 2
1.OA.6	1, 2
1.OA.7	1, 2
1.OA.8	1, 2

Numbers & Operations in Base 10

STANDARD	MISSION
1.NBT.1	4, 6
1.NBT.2	2, 4, 6
1.NBT.3	4, 6
1.NBT.4	4, 6
1.NBT.5	4, 6
1.NBT.6	4, 6

Geometry

STANDARD	MISSION
1.G.1	5
1.G.2	5
1.G.3	5

Measurement & Data

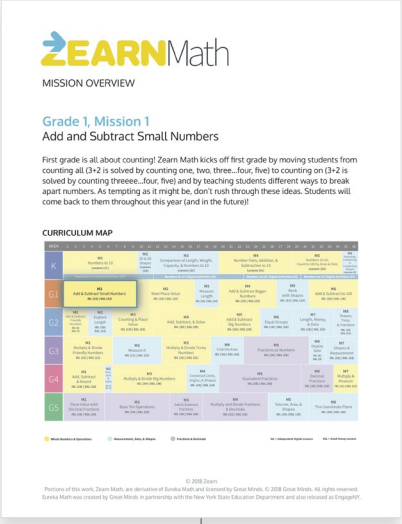
STANDARD	MISSION
1.MD.1	3
1.MD.2	3
1.MD.3	5
1.MD.4	3

Overview Materials

GRADE 1 OVERVIEW

Zearn Math Grade Overviews include pacing guidance, detail on the standards covered, and identification of the mathematical practices relevant to the Missions of the grade. Each Grade Overview also provides summaries of the major work of the grade and the learning objectives of each Mission. Grade Overviews are accessible through educator Zearn accounts.

Review Grade 1 Overview ⟶



ZEARNMath

MISSION OVERVIEW

Grade 1, Mission 1

Add and Subtract Small Numbers

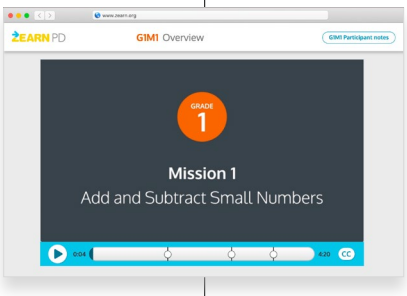
First grade is all about counting! Zearn Math kicks off first grade by moving students from counting all (3+2 is solved by counting one, two, three...four, five) to counting on (3+2 is solved by counting threeee...four, five) and by teaching students different ways to break apart numbers. As tempting as it might be, don't rush through these ideas. Students will come back to them throughout this year (and in the future)!

CURRICULUM MAP

GRADE 1 MISSION 1 OVERVIEW

Zearn Math Mission Overviews provide instructional information at a topic level, grouping lessons that teach the same concept. The overview includes a listing of lessons within the Mission (including optional lessons) and a listing of new and recently introduced terms.

Review G1M1 Mission Overview ⟶

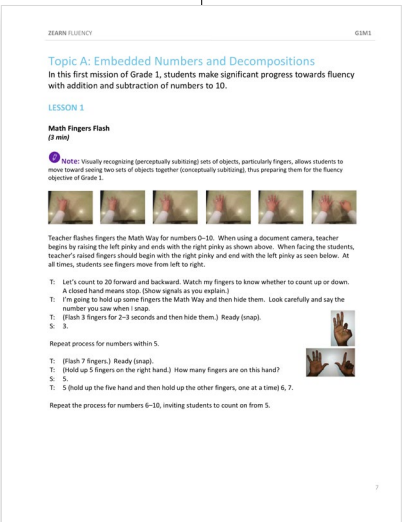


CURRICULUM STUDY PROFESSIONAL DEVELOPMENT (PD)

The purpose of Curriculum Study is to deepen understanding of each unit of the Zearn curriculum. Participants will collaboratively examine curricular materials, solving math problems using strategies from the mission, and analyze example student work.

Review Sample Curriculum Study (G3M1) ⟶

Lesson Materials



ZEARN FLUENCY G1M1

Topic A: Embedded Numbers and Decompositions

In this first mission of Grade 1, students make significant progress towards fluency with addition and subtraction of numbers to 10.

LESSON 1

Math Fingers Flash
(3 min)

Note: Visually recognizing (perceptually subitizing) sets of objects, particularly fingers, allows students to move toward seeing two sets of objects together (conceptually subitizing), thus preparing them for the fluency objective of Grade 1.

Teacher flashes fingers the Math Way for numbers 0–10. When using a document camera, teacher begins by raising the left pinky and ends with the right pinky as shown above. When facing the students, teacher's raised fingers should begin with the right pinky and end with the left pinky as seen below. At all times, students see fingers move from left to right.

T: Let's count to 20 forward and backward. Watch my fingers to know whether to count up or down. A closed hand means stop. (Show signals as you explain.)
T: I'm going to hold up some fingers the Math Way and then hide them. Look carefully and say the number you saw when I snap.
T: (Flash 3 fingers for 2–3 seconds and then hide them.) Ready (snap).
S: 3.

Repeat process for numbers within 5.

T: (Flash 7 fingers.) Ready (snap).
T: (Hold up 5 fingers on the right hand.) How many fingers are on this hand?
S: 5.
T: 5 (hold up the five hand and then hold up the other fingers, one at a time) 6, 7.

Repeat the process for numbers 6–10, inviting students to count on from 5.

7

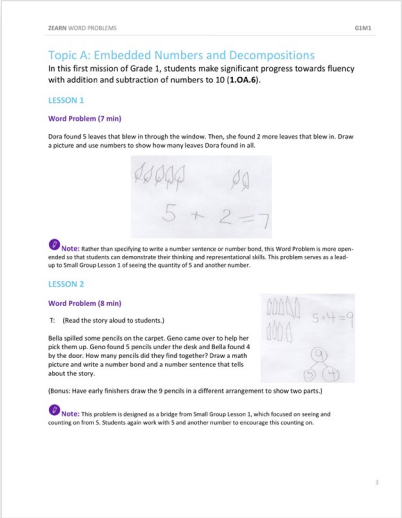
WHOLE GROUP FLUENCY

During the daily Whole Group Warm-Up, students have opportunities for fluency and application practice and are able to activate prior learnings in preparation for upcoming work. In the Whole Group activities for this Grade 1 Mission, students make significant progress towards fluency with addition and subtraction of numbers to 10.

In Lesson 1, teachers use "flash fingers" the Math Way for numbers 0-10 before hiding their fingers and asking students to recall the number. Visually recognizing (perceptually subitizing) sets of objects, particularly fingers, allows students to move toward seeing two sets of objects together (conceptually subitizing), thus preparing them for the fluency objective of Grade 1.

This document includes all Whole Group Fluencies for the Mission.

Review Whole Group Fluency (See Page 7) ⟶



ZEARN WORD PROBLEMS G1M1

Topic A: Embedded Numbers and Decompositions

In this first mission of Grade 1, students make significant progress towards fluency with addition and subtraction of numbers to 10 (**1.OA.6**).

LESSON 1

Word Problem (7 min)

Dora found 5 leaves that blew in through the window. Then, she found 2 more leaves that blew in. Draw a picture and use numbers to show how many leaves Dora found in all.

Note: Rather than specifying to write a number sentence or number bond, this Word Problem is more open-ended so that students can demonstrate their thinking and representational skills. This problem serves as a lead-up to Small Group Lesson 1 of seeing the quantity of 5 and another number.

LESSON 2

Word Problem (8 min)

T: (Read the story aloud to students.)

Bella spilled some pencils on the carpet. Geno came over to help her pick them up. Geno found 5 pencils under the desk and Bella found 4 by the door. How many pencils did they find together? Draw a math picture and write a number bond and a number sentence that tells about the story.

(Bonus: Have early finishers draw the 9 pencils in a different arrangement to show two parts.)

Note: This problem is designed as a bridge from Small Group Lesson 1, which focused on seeing and counting on from 5. Students again work with 5 and another number to encourage this counting on.

3

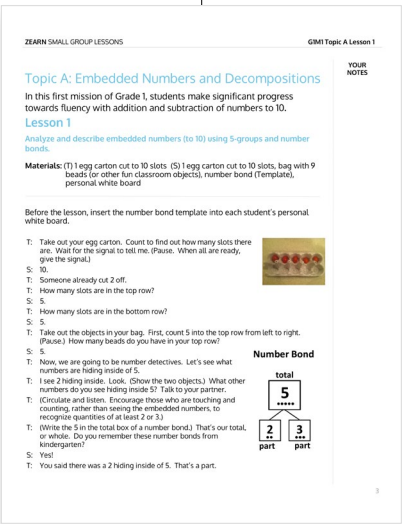
WHOLE GROUP WORD PROBLEMS

Students share their own thinking aloud and discuss classmates' problem-solving strategies throughout daily whole-group problem solving. During this time, teachers facilitate thoughtful mathematical discussions between students that allow learners to refer to and build on each other's ideas. As students share their reasoning, are exposed to other perspectives, and engage in mathematical sense-making, they are able to deepen their own understanding and become more creative and effective problem solvers.

In Lesson 1, students are presented with a word problem intended to serve as a lead-up to Small Group Lesson 1 of seeing the quantity of 5 and another number. The problem is open-ended so that students can demonstrate their thinking and representational skills.

This document includes all Whole Group Word Problems for the Mission.

Review Whole Group Word Problems (See Page 3) ⟶



ZEARN SMALL GROUP LESSONS G1M1 Topic A Lesson 1

YOUR NOTES

Topic A: Embedded Numbers and Decompositions

In this first mission of Grade 1, students make significant progress towards fluency with addition and subtraction of numbers to 10.

Lesson 1

Analyze and describe embedded numbers (to 10) using 5-groups and number bonds.

Materials: (T) 1 egg carton cut to 10 slots (S) 1 egg carton cut to 10 slots, bag with 9 beads (or other fun classroom objects), number bond (Template), personal white board

Before the lesson, insert the number bond template into each student's personal white board.

T: Take out your egg carton. Count to find out how many slots there are. Wait for the signal to tell me. (Pause. When all are ready, give the signal.)
S: 10.
T: Someone already cut 2 off.
T: How many slots are in the top row?
S: 5.
T: How many slots are in the bottom row?
S: 5.
T: Take out the objects in your bag. First, count 5 into the top row from left to right. (Pause.) How many beads do you have in your top row?
S: 5.
T: Now, we are going to be number detectives. Let's see what numbers are hiding inside of 5.
T: I see 2 hiding inside. Look. (Show the two objects.) What other numbers do you see hiding inside 5? Talk to your partner.
T: (Circulate and listen. Encourage those who are touching and counting, rather than seeing the embedded numbers, to recognize quantities of at least 2 or 3.)
T: (Write the 5 in the total box of a number bond.) That's our total, or whole. Do you remember these number bonds from kindergarten?
S: Yes!
T: You said there was a 2 hiding inside of 5. That's a part.

Number Bond

total 5

2 part 3 part

3

SMALL GROUP LESSON

Each Small Group Lesson is designed to support teachers in planning and delivering instruction that helps students build deep understanding of new concepts. During each Small Group Lesson, students model math with concrete manipulatives, represent their work on paper, discuss their reasoning aloud, and receive direct feedback from their teacher and classmates. This provides all learners with the opportunity to construct physical models of abstract mathematical ideas and test and confirm their thinking.

Throughout the materials, teachers are supported with guiding questions they can use as opportunities to give feedback, debrief questions to summarize the lesson, and important guidance on how to adjust the lesson to meet the needs of all learners. Each lesson also provides concrete materials to use to help students model math.

This Grade 1 lesson starts by using concrete manipulatives to identify embedded numbers within ten as students are prompted to find five and its partner within 6, 7, 8 and 9. Each problem guides students to represent these embedded numbers on a number bond template as identifying embedded numbers (or subitizing) is the beginning of counting on and prepares students for later lessons.

This document includes all Small Group Lessons for the Mission.

Review Small Group Lesson (See Page 3) ⟶

ZEARN MATH TIP

During Small Group Lessons, students have opportunities to work with concrete manipulatives. This provides all learners with the opportunity to construct physical models of abstract mathematical ideas and test and confirm their thinking.

Recommended Concrete Materials by Grade ⟶

Grade 1 Lesson 1 Student Materials

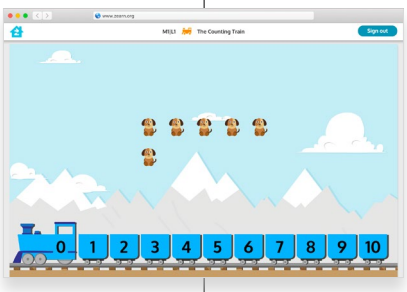
1 OF 32 LESSONS WITHIN THIS MISSION

LESSON 1

Please sign in to Zearn.org with the username and password provided to access materials. If you do not have these sign in credentials and are conducting a curriculum review, please contact us at info@zearn.org

ZEARN MATH TIP

When students log in, they are directed to their personal Student Feed, where they see the current activity in their assigned Independent Digital Lesson. Students can only access the next digital activity in the sequence once they complete their currently assigned activity.

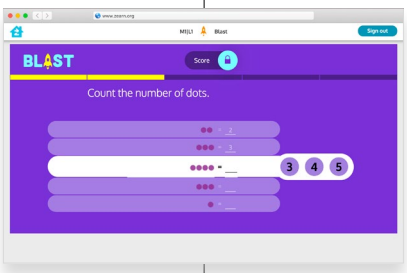


ADAPTIVE FLUENCY

Every Independent Digital Lesson begins with an individually adaptive fluency activity designed to bridge K–2 math foundations, reinforce previously learned skills, and address areas of unfinished learning.

Types of activities include: Addition Magician, Next Stop Top, Hop Skip Splash!, Count the Cosmos, and Number Gym

Try Adaptive Fluency ⟶



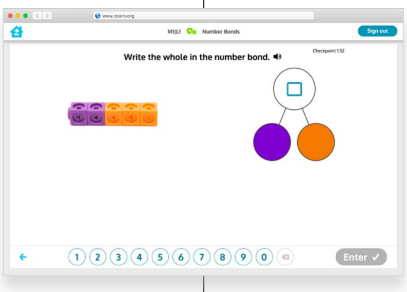
LESSON ALIGNED FLUENCY

Each Independent Digital Lesson includes a fluency activity aligned to the specific lesson the student is working on. These activities support ongoing grade-level learning by developing students' procedural fluency and preparing them for upcoming content. All software-based fluency work complements teacher-led whole-group fluencies, and the combination strengthens students' math understanding and learning retention.

This Grade 1 Blast reviews counting to 10 by prompting students to count the number of dots organized in 5-groups, preparing students to explore put together situations and counting on for all numbers within 10 in the upcoming Mission.

Types of activities include: Sprint, Multiply Mania, Pair Compare, and Discovery Canyon

Try Lesson Aligned Fluency ⟶



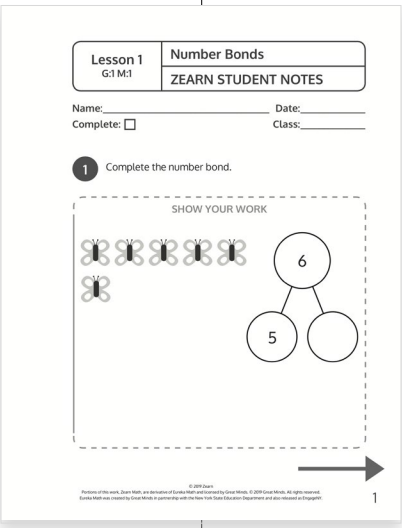
GUIDED PRACTICE

Students learn new concepts and extend their understanding during the guided practice portion of Independent Digital Lessons. Each guided practice activity creates a rich learning environment for students through interactive and multi-sensory videos featuring real on-screen teachers, digital manipulatives, and paper-and-pencil Student Notes.

Guided Practice activities are aligned to the small group lesson and reinforce the objectives of the lesson. For this lesson, an on-screen teacher helps students count the total number of linking cubes using sets of digitally represented purple and orange linking cubes. Students continue by identifying the whole and the two parts and record in interactive number bonds, deepening understanding of decomposing numbers into two sets.

Types of guided practice include: Math Chat, Story Time, Z-Squad, and Learning Lab

Try Guided Practice →



STUDENT NOTES

During the guided practice portion of Independent Digital Lessons, students are prompted to complete problems in their paper Student Notes to transfer their software-based learning and strengthen knowledge retention. After solving an un-scaffolded problem in their notes, students are also prompted to check and correct their work.

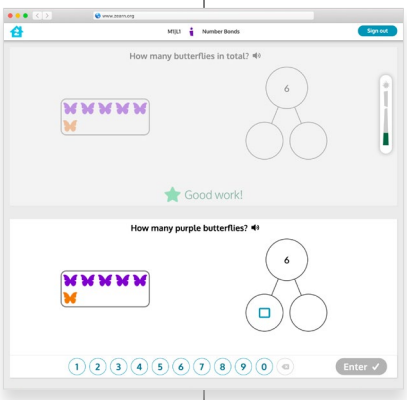
Review Student Notes →

Our workbooks and answer keys put all critical paper materials, including student notes, needed for daily teaching and learning in one, easy-to-use place.

Review Student Workbook →

ZEARN MATH TIP

Embedded support in Independent Digital Lessons precisely address misconceptions in real time and give all students opportunities to visualize problems in multiple ways and try again. As you explore the digital lessons, make sure to get a few answers incorrect to experience the embedded remediation and precise feedback.



INDEPENDENT PRACTICE

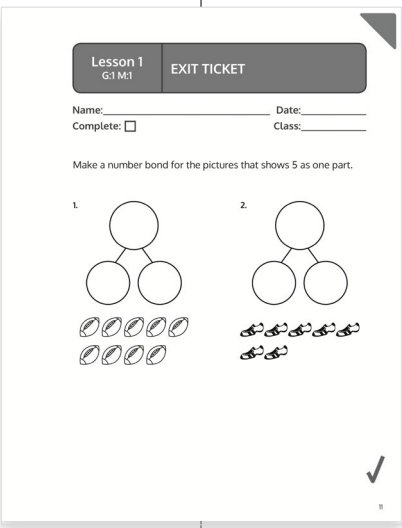
The Tower of Power, the independent practice portion of an Independent Digital Lesson, is a scaffolded assessment, administered automatically at the end of each Independent Digital Lesson. The Tower of Power is focused on the content of a single lesson and allows students to demonstrate their new understanding. If students make a mistake, they receive real-time remediation at the point of misconception, allowing them to correct their understanding and continue through the assessment. If students continue to struggle in the Tower of Power after multiple remediation paths, their teacher receives an alert in the Tower Alerts Report, enabling them to provide differentiated support for that student. All students have a rich learning experience throughout the assessment as they engage with the digital manipulatives and interactive visuals that are part of the Zearn Math software-based student experience.

In this Independent Practice, students demonstrate their understanding of counting and decomposing numbers within 10. Students work through multiple stages, solving problems that prompt students to decompose numbers into two sets and record in interactive number bonds. Each stage becomes less scaffolded as students demonstrate understanding - for example, the visual scaffold of color-coding digital objects across different 5-groups is removed in later stages.

Try Independent Practice ⟶

ZEARN MATH TIP

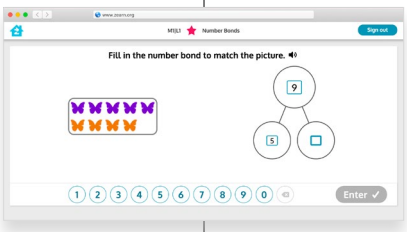
After students complete a Tower of Power, they earn a badge to mark their hard work and progress. Students then automatically progress to the next lesson in the curriculum and are assigned to the appropriate Number Gym activity.



EXIT TICKET

After finishing the Tower of Power, students must also complete a paper-and-pencil Exit Ticket as the last step of an Independent Digital Lesson. Exit Tickets are un-scaffolded practice problems that allow students to transfer their learning to paper and demonstrate their understanding of the content of the lesson. Teachers can use Exit Tickets as formative assessments to identify students who may need extra help with a particular concept and provide appropriate support. Exit Tickets are included in Zearn Student Workbooks.

Review Exit Ticket (See Page 11) ⟶



BONUS

Digital Bonuses are challenging problems students can work on after they complete an Independent Digital Lesson. Teachers can assign students to work on bonuses during weekly flex time to enrich and extend learning.

Try Bonus →

ZEARN MATH TIP

As students work through Independent Digital Lessons, Zearn Math Class Reports provide teachers with real-time data and insights into student pace, progress, and areas of struggle during software-based learning. Class Reports are available to all teachers through their Teacher Accounts.

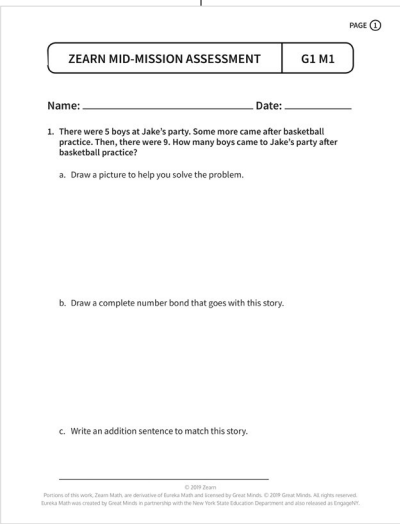
OPTIONAL HOMEWORK

If teachers choose to assign homework, printable paper homework aligned to each Mission is available.

OPTIONAL PROBLEM SET

Problem Sets are optional practice because the Problem Set is translated into the Tower of Power, which is the independent practice experience in the Independent Digital Lessons. Parts of the Problem Sets could be used as practice if students need it.

Grade 1 Additional Student Materials


PAGE 1

ZEARN MID-MISSION ASSESSMENT | G1 M1

Name: _____ Date: _____

1. There were 5 boys at Jake's party. Some more came after basketball practice. Then, there were 9. How many boys came to Jake's party after basketball practice?

   a. Draw a picture to help you solve the problem.

   b. Draw a complete number bond that goes with this story.

   c. Write an addition sentence to match this story.

_____

ASSESSMENTS

Mid-Mission and End-of-Mission assessments are formative assessments administered roughly halfway through the Mission and at the conclusion of the Mission respectively. These paper assessments consist of open response items that require students to show their work or explain their thinking in a variety of ways, including drawing models and writing explanations. The assessment items vary in their focus, ranging from items that highlight a student's understanding of a big mathematical idea to items that are more focused on students' procedural fluency. Assessments are available as part of a Zearn School Account.

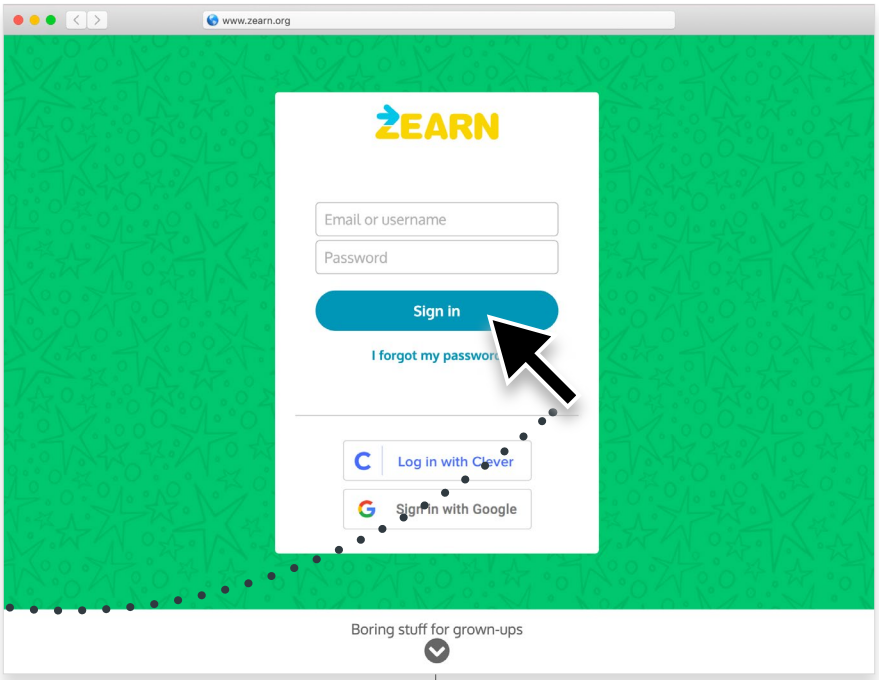
Review G1M1 Assessment →

Review G1M1 Assessment Answer Key →

Quickstart to navigating Zearn Math online

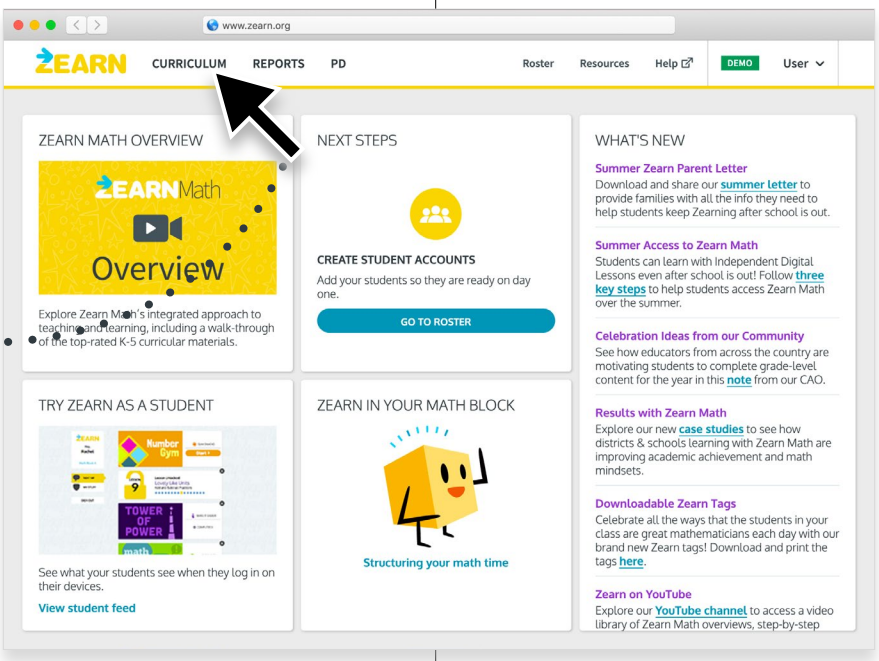
HOW TO ACCESS ALL ZEARN MATH LESSONS AND MATERIALS

Go to zearn.org →

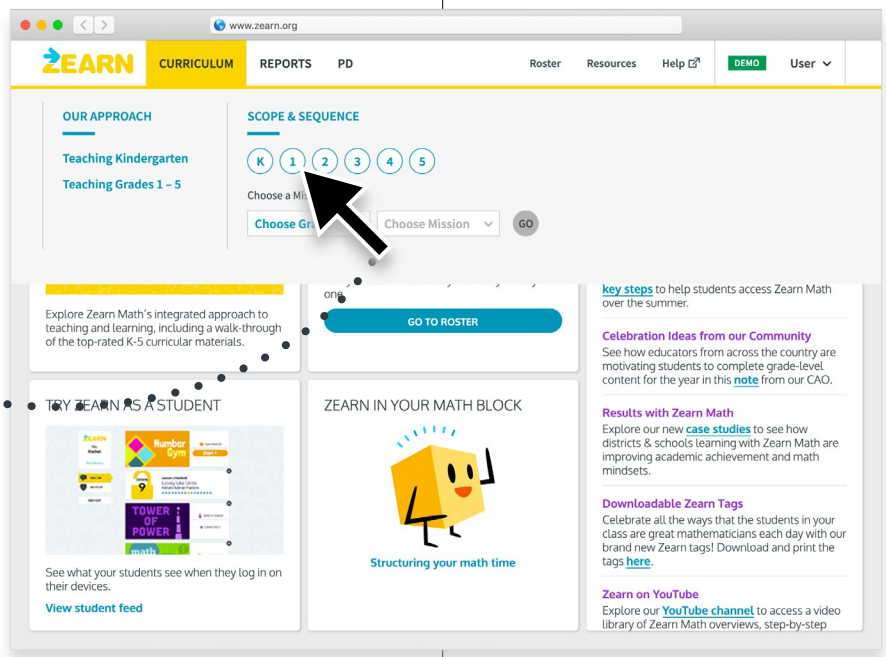


Type in username and password

Move mouse cursor to Curriculum tab in top navigation bar

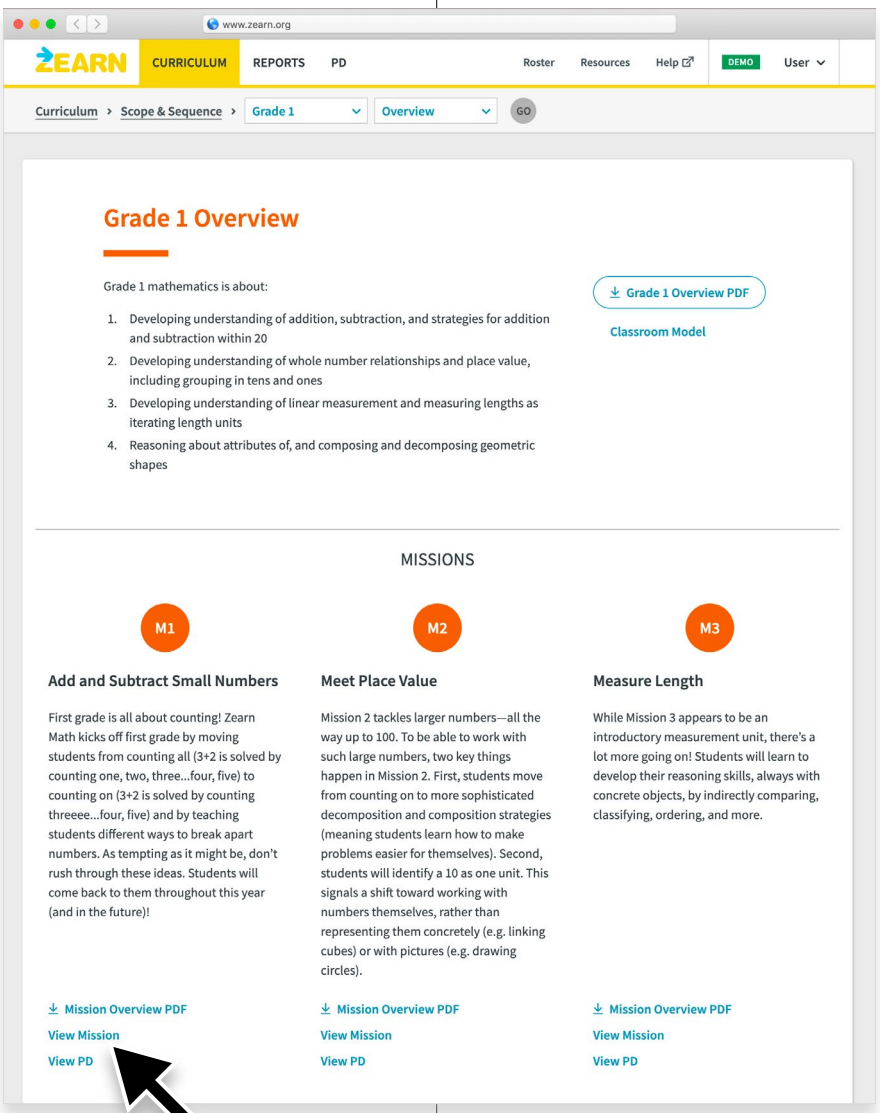


Select Grade 1 for "Scope & Sequence"



On Grade 1 Overview screen, scroll down and select "View Mission" for Mission 1

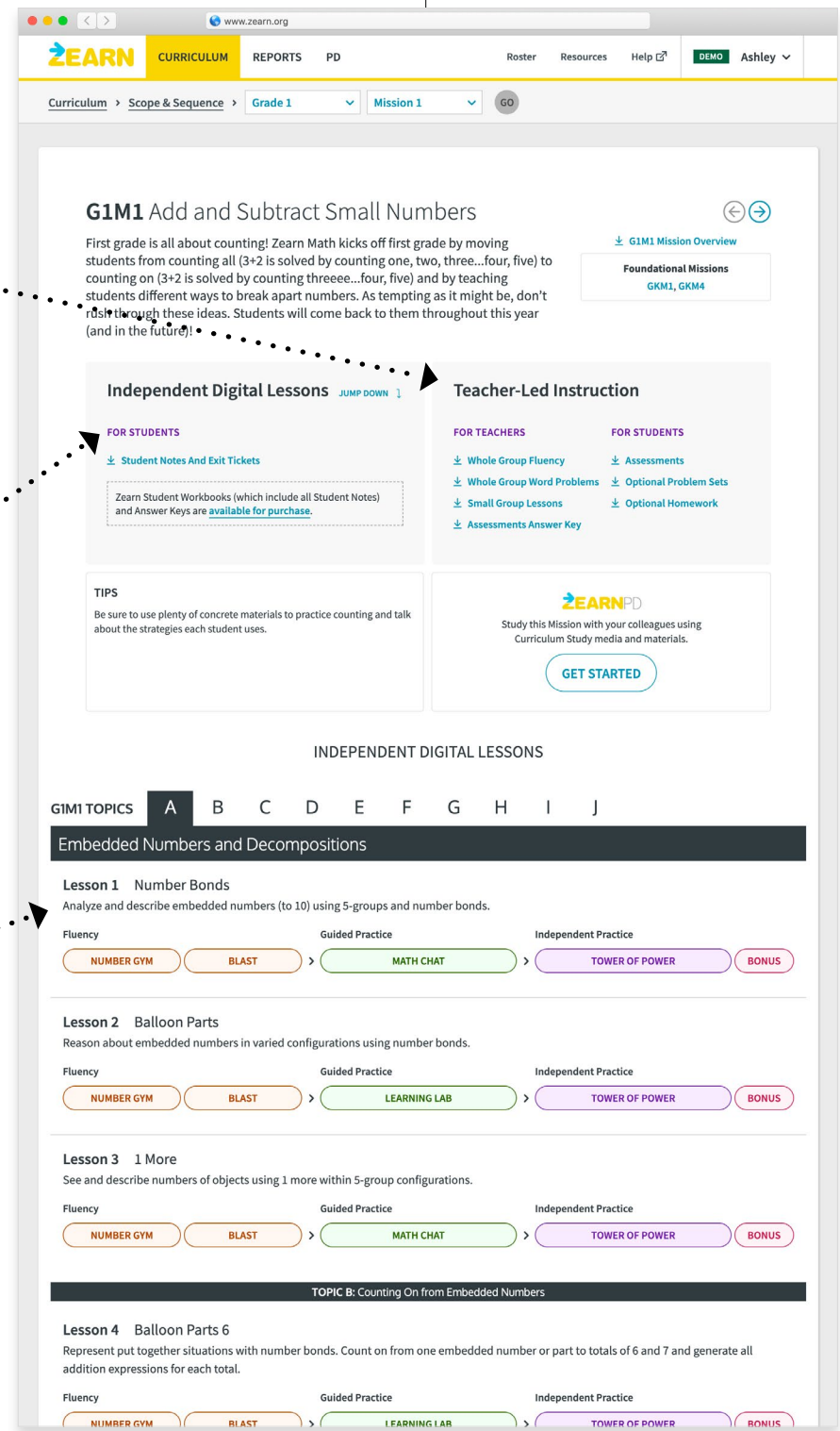
M1



1. Teacher Materials for each lesson of M1

2. Printed Student Materials for each Independent Digital Lesson of M1

3. Digital Student Materials for each Independent Digital Lesson of M1



Scroll down to see all lessons in this Mission

32 lessons total

EARNMath

Want to learn how we can support your curriculum review? Contact us →