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.

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 2 curricular materials, from grade-level planning materials to lesson-level activities
- Teacher Materials for the first lesson of Grade 2, with links to access content
- Student Materials for the first lesson of Grade 2, 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 2. Shortcut weblinks are included to access all Lesson 1 materials. Every lesson in Grade 2 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.

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.

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.

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.
Introduction to Grade 2

133 Lessons

Grade 2 mathematics is about: (1) Extending understanding of base-ten notation, (2) building fluency with addition and subtraction, (3) using standard units of measure, and (4) describing and analyzing shapes.

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

Mission 1: Add and Subtract Friendly Numbers

Mission 1 sets the foundation for students to master sums and differences to 20. Students subsequently apply these skills to fluently add one-digit to two-digit numbers at least through 100 using place value understanding, properties of operations, and the relationship between addition and subtraction. In Grade 1, students worked extensively with numbers to gain fluency with sums and differences within 10 and became proficient in counting on (a Level 2 strategy). They also began to make easier problems to add and subtract within 20 and 100 by making ten and taking from ten (Level 3 strategies).

In Mission 1, students advance from Grade 1’s subtraction of a multiple of ten to a new complexity, subtracting single-digit numbers from both multiples of ten (e.g., 40 – 9) and from any two-digit number within 100 (e.g., 41 – 9).

Foundations for Fluency with Sums and Differences Within 100

Topic A’s two lessons are devoted solely to the important practice of fluency, the first lesson working within 20 and the second extending the same fluencies to numbers within 100.

In this lesson, students engage in targeted fluency work to review ways to make and take from ten, and to decompose ten in different ways. These foundational skills are critical to composing and decomposing more complex numbers in later lessons.
Overview Materials

GRADE 2 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 2 Overview ➔

GRADE 2 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 G2M1 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) →
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 others’ 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 the first Grade 2 Word Problem (found in Topic B), students practice subtracting within 100 and are encouraged to use tape diagrams and number sentences to represent their ways of thinking. Students’ tape diagrams from this word problem will be used in the following lesson, when students are asked to combine rather than subtract parts.

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

Review Whole Group Word Problems (See Page 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.

Students spend the first two lessons of the Mission practicing fluency with numbers within 20 and then within 100. Then in Lesson 3, students practice adding and subtracting like units (ones and tens) to solve problems within 100. This work relates deeply to the Related Facts Sprint students complete before the lesson, which primes them to recognize patterns that will help in solving more complex addition and subtraction problems in later lessons.

This document includes all Small Group Lessons for the Mission.

Review Small Group Lesson (See Page 6) →
Grade 2 Lesson 1 Student Materials

1 OF 8 LESSONS WITHIN THIS MISSION

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 2 Sprint reviews addition within 20 by prompting students to practice tens plus sums, refreshing make ten facts and preparing students to solve problems with larger numbers 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 add and subtract within ten and guides students through completing a number bond to match each addition and subtraction number sentence. Students continue by then making ten plus sums using number bonds, building a foundation for fluency with sums and differences to 100.

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. Student Notes are included in Zearn Student Workbooks.

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 supports 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 adding and subtracting within 10 and completing ten plus sums. Students work through multiple stages, solving problems that prompt students to solve addition and subtraction equations and complete a matching number bond. Each stage becomes less scaffolded as students demonstrate understanding. For example, the scaffold of having multiple number sentences to help students complete a matching number bond 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 9) ➔
**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 2 Additional Student Materials**

**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 G2M1 Assessment ➔**

**Review G2M1 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

Go to zearn.org →

Type in username and password

Move mouse cursor to Curriculum tab in top navigation bar
Select Grade 2 for “Scope & Sequence”

On Grade 2 Overview screen, scroll down and select “View Mission” for Mission 1
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

8 lessons total
Want to learn how we can support your curriculum review? Contact us