

2 Math Unit 06: Numbers to 1000/Add & Subtract Within 1000

Content Area: **Mathematics**
Course(s):
Time Period: **March**
Length: **6 Weeks**
Status: **Published**

Unit Overview

A major task for Grade 2 is learning the counting sequence from 100 to 1,000. As part of learning and using the base-ten structure, students count by ones within various parts of this sequence, especially the more difficult parts that “cross” tens or hundreds. Building on their place value work, students continue to develop proficiency with mental computation. They extend this to skip-counting by 5s, 10s, and 100s to emphasize and experience the tens and hundreds within the sequence and to prepare for multiplication.

Comparing magnitudes of two-digit numbers uses the understanding that 1 ten is greater than any amount of ones represented by a one-digit number. Comparing magnitudes of three-digit numbers uses the understanding that 1 hundred (the smallest three-digit number) is greater than any amount of tens and ones represented by a two-digit number. For this reason, three-digit numbers are compared by first inspecting the hundreds place (e.g. $845 > 799$; $849 < 855$). Drawings help support these understandings.

This topic focuses on subtraction of up to 3-digit numbers using strategies and models.

How does place value help me record numbers and understand their value?

How do you use place value understanding to compare numbers within 1000?

How can use place value understanding and properties of operations to add within 1000?

How can use place value understanding and properties of operations to subtract within 1000?

Students will be able to...

- to read and write numbers to 1,000
- use place value, or the value of each digit in a number, to identify and record 3-digit numbers in expanded, standard, and word form
- learn how to skip count by 5s, 10s, and 100s on a number line
- compare numbers using place value and a number line.
- use mathematical reasoning involving place value to solve problems
- add numbers with up to 3 digits using strategies and models.
- subtract numbers with up to 3 digits using strategies and models.

Standards

MA.2.NBT.A.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
MA.2.NBT.A.1a	100 can be thought of as a bundle of ten tens — called a “hundred.”
MA.2.NBT.A.1b	The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
MA.2.NBT.A.2	Count within 1000; skip-count by 5s, 10s, and 100s.
MA.2.NBT.A.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
MA.2.NBT.A.4	Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.
MA.2.NBT.B.7	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
MA.2.NBT.B.8	Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.
MA.2.NBT.B.9	Explain why addition and subtraction strategies work, using place value and the properties of operations.

Materials

- [EnVision Math](#)

9.1 Understand Hundreds

9.2 Models and 3-Digit Numbers

9.3 Name Place Values

9.4 Read and Write 3-Digit Numbers

9.5 Different Ways to Name the Same Number

9.6 Place-Value Patterns with Numbers

9.7 Skip Count by 5s, 10s, 100s, to 1,000

9.8 Compare Numbers Using Place Value

9.9 Compare Numbers on the Number Line

9.10 Look For and Use Structure

10.1 Add 10 and 100

10.2 Add on an Open Number Line

10.3 Add Using Mental Math

10.4 Add Using Partial Sums

10.5 Use Models to Add

10.6 Explain Addition Strategies

10.7 Repeated Reasoning

11.1 Subtract 10 and 100

11.2 Count Back to Subtract on an Open Number Line

11.3 Add Up to Subtract on an Open Number Line

11.4 Subtract Using Mental Math

11.5 Use Models to Subtract

11.6 Explain Subtraction Strategies

11.7 Make Sense and Persevere

- [ST Math](#)
- [Happy Numbers](#)
- [3 Act Lessons](#)
- [Building Fact Fluency Kit](#)
- [Brainiaccamp Manipulatives](#)
- [Nearpod Lessons](#)
- [Brainpop Resources](#)
- [Math Diagnosis and Intervention System](#)
- [Online Resources](#)

Technology

8.1.2.A.2,4,5,7 (word processing and spreadsheets)

8.1.2.E.1 (Internet to explore questions with support)

8.2.2.A.1,2,3,4,5 (design products, understand systems)

8.2.2.C.1.2.3 (design and improve products/systems)

Assessment

Formative Assessment

- Teacher Observation
- Daily Quick Checks
- Quizzes

- Exit Tickets

Summative Assessment

- Topic Tests
- Benchmark Tests
- Alternative Assessments: Performance Tasks & Projects

Accommodations & Modifications

Special Education

- Follow IEP Plan which may contain some of the following examples...
- In class/pull out support with special ed teacher
- Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Limit number of questions
- Scribe
- Manipulatives
- Calculators
- Reteach pages
- Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System
- Another look homework video
- Practice buddy

504

- In class/pull out support with special ed teacher
- Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Limit number of questions
- Scribe
- Manipulatives
- Calculators
- Reteach pages
- Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System
- Another look homework video
- Practice buddy

ELL

- Translation device/dictionary
- In class/pull out support with ESL teacher
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives
- Math Diagnosis & Intervention System

At-risk of Failure

- Additional time during intervention time
- Questions read aloud
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives
- Calculators
- Reteach pages
- Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System
- Another look homework video
- Practice buddy

Gifted & Talented

- Independent projects
- Enrichment pages
- Online games
- Leveled Homework
- Extension Activities
- Today's Challenge

Interdisciplinary Connections

Topic 1 Math and Science Project - Using different presentations tools, students will collect different types of paper. Talk about the uses of paper. Tell how strong each type of paper is. Tell how the paper feels. Tell if the paper can soak up water.

ELA:

RI.2.10. Read and comprehend informational texts, including history/social studies, science, and technical texts, at grade level text complexity proficiently with scaffolding as needed.

Science:

K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

21st Century Life Literacies & Key Skills

Critical Thinking and Problem Solving:

Problem-solving activities starting with the lesson “Solve and Share” and ending with higher order thinking questions that utilize the mathematical practices

Communication and Collaboration:

Throughout the lesson, students are provided with opportunities to discuss their ideas as they investigate mathematical concepts.

Creativity:

Students have opportunities to express their creativity by solving problems their own way, participating in performance tasks, and group projects.

Career Ready Practices

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP12. Work productively in teams while using cultural global competence.