Englewood Public School District Mathematics Grade 2 First Marking Period

Unit – Numbers to 1,000

Overview: During this unit, students will learn about numbers to 1,000, addition to 1,000, and subtraction to 1,000.

Time Frame: Chapter 1 - 12 days, Chapter 2 - 12 days. Chapter 3 - 12 days (Pacing includes 1 day for Chapter Opener pages if needed.)

Enduring Understandings:

Count and compare numbers to 1000. Three-digit numbers can be added with and without regrouping. Three-digit numbers can be subtracted with and without regrouping.

Essential Questions:

How do base ten blocks help you to understand place value? Why is place value important in adding numbers? What is the relationship between addition and subtraction?

Standards	Topics and Objectives	Activities	Resources	Assessments
Chapter 1				
 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: a. 100 can be thought of as a bundle of ten tens—called a "hundred." The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, 	TopicsCounting and comparing numbers to 1,000.Twenty-First Century Themes and Skills include:• Creativity and Innovation• Critical Thinking and Problem Solving• Communication and Collaboration	2.NBT.A.1 Making 124 2.NBT.A.1 Largest Number Game 2.NBT.A.3 Looking at Numbers Every Which Way 2.NBT.A.4 Ordering 3-digit numbers 2.MD.B.6 Frog and Toad on the Number Line	 SE-2A: 6-33 Workbook 2A: 1-24 Common Core Focus Lesson Appendix Think Central: Online access to all Math in Focus materials listed above and Virtual Manipulatives Professional Resources: The Model Method from the 	 Formative Assessments: Do Now Exit Ticket Math Journal Entries (CRP4) Math notebook (NJSLSA.W2.) Calendar skills Observations Discussions: in groups, have students explain

five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

2.NBT.A.2. Count within 1000; skip-count by 5s, 10s, and 100s.

2.NBT.A.3. Read and write numbers to 1000 using baseten numerals, number names, and expanded form.

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.

2.MD.B.6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

Mathematical Practices MP.1, MP.2, MP.3, MP.4, MP.5, MP.6, MP.7

Objectives

Students will be able to:
Use base-ten blocks to recognize, read and write

- numbers to 1,000.
- Count by 1's, 10's and 100 to 1,000.
- Use base-ten blocks and a place value chart to read, write and represent numbers to 1,000.
- Read and write numbers to 1,000 in standard form, expanded form, and word form.
- Use base-ten blocks to compare numbers.
- Compare numbers using terms greater than and less than.
- Compare numbers using symbols > and <.
- Order three-digit numbers.
- Identify the greatest number and the least number.
- Identify number patterns.

Math Playground

http://www.mathplayground. com/

Math Coach – Fact Fluency <u>http://schoolwires.henry.k1</u> <u>2.ga.us/Page/21865</u>

Math Wire – Basic Facts Link http://mathwire.com/numb

ersense/bfactslinks.html

Math Fact Practice http://www.playkidsgames. com/games/mathfact/math Fact.htm Critical Thinking and Problem Solving p.32: Put on Your Thinking Cap!

Activities based on learning standards: http://www.insidemathema tics.org/common-coreresources/mathematicalcontentstandards/standards-bygrade/2nd-grade (CRP2, CRP4, CRP8)

Children's books: https://www.the-bestchildrens-books.org/mathfor-kids.html

More additional texts:

Ministry of Education Singapore and Bar Modeling: A Bar Modeling Tool by Yeap Ban Har, PhD.

Lesson and Component Walkthrough: www.hmhelearning.com

Technology Resources

- Math in Focus eBooks
- Math in Focus Teacher Resources CD

North Carolina Dept of Ed. Wikispaces: http://maccss.ncdpi.wikispaces. net/Elementary

Arizona Flip Book http://www.azed.gov/azccrs/fil es/2013/11/2flipbookedited.pd f

Delaware DOE Common Core Item Bank for Mathematics – Grade 2 http://www.doe.k12.de.us/cms /lib09/DE01922744/Centricity /Domain/111/Math_Grade_2-Nov.pdf

Standards Solution Lessons: CCSS Lesson Plan: Understanding Hundreds

Worksheets, games, lesson plans: <u>https://www.education.com/re</u> <u>sources/second-grade/math/</u> (8.1.2.E.1) different ways of solving problems (CRP4, 8.2.2.E.1)

Summative Assessments:

Math in Focus Assessments

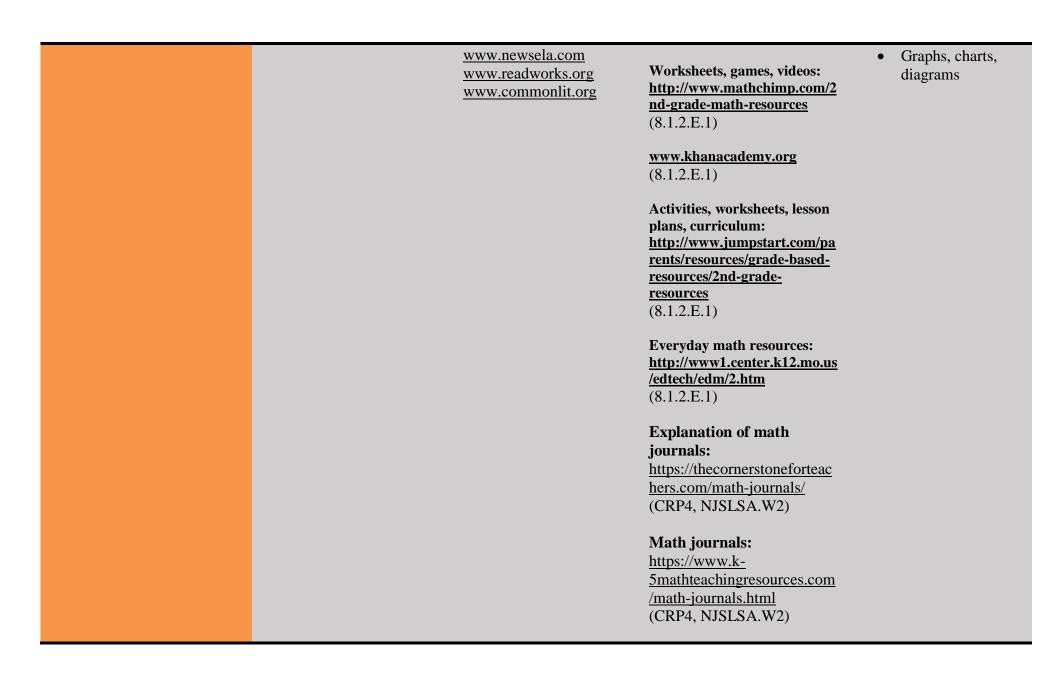
- Chapter Review/Test – p 33
- Assessments 2 pp. 4-6
- ExamView Assessment Suite – Test and Practice Generator
- Short answer / multiple choice assessments (8.2.2.E.1)

Benchmark Assessments:

- Exact Path
- Common Formative Assessment

Alternative Assessments:

- Online assessments: https://www.opened. com/search?area=m athematics&grade=2 &resource_type=ass essment (CRP2, CRP4, CRP8)
- Learning centers: each learning center focuses on a different type of problem (8.2.2.E.1)



Chapter 2

Chapter 2				
2.NBT.A.1. Understand that	Topics	2.NBT.B.6 Toll Bridge	SE-2A: 38-55	Formative Assessments:
the three digits of a three-digit		Puzzle	Workbook 2A: 25-48	Do Now
number represent amounts of	Addition up to three-digit			• Exit Ticket
hundreds, tens, and ones; e.g.,	numbers with and without	2.NBT.B.7 How Many Days	Common Core Focus Lesson	Math Journal
706 equals 7 hundreds, 0 tens,	regrouping.	Until Summer Vacation?	Appendix	Entries (CRP4)
and 6 ones. Understand the				 Math notebook
following as special cases:	Twenty-First Century Themes	2.NBT.B.9 Peyton and	Think Central: Online access	
a. 100 can be thought of as a	and Skills include:	Presley Discuss Addition	to all Math in Focus materials	(NJSLSA.W2.)
bundle of ten tens—called	• Creativity and Innovation		listed above and Virtual	• Calendar skills
a "hundred."	• Critical Thinking and		Manipulatives	 Observations
The numbers 100, 200, 300,	Problem Solving	Math Playground		• Discussions: in
400, 500, 600, 700, 800, 900	Communication and	http://www.mathplayground.	Professional Resources: The	groups, have
refer to one, two, three, four,	Collaboration	<u>com/</u>	Model Method from the	students explain
five, six, seven, eight, or nine			Ministry of Education	different ways of
hundreds (and 0 tens and 0	Objectives	Math Coach – Fact	Singapore and Bar Modeling: A	solving problems
ones).	U	Fluency	Bar Modeling Tool by Yeap	(CRP4, 8.2.2.E.1)
. <u></u>	Students will be able to:	http://schoolwires.henry.k1	Ban Har, PhD.	(CIU 1, 0.2.2.1.1)
2.NBT.A.3. Read and write	• Use base-ten blocks to add	2.ga.us/Page/21865		Summative
numbers to 1000 using base-	numbers without		Lesson and Component	Assessments:
ten numerals, number names,	regrouping.	Math Wire – Basic Facts	Walkthrough:	Math in Focus
and expanded form.	• Add up to three-digit	Link	www.hmhelearning.com	
	numbers without	http://mathwire.com/numb		Assessments
2.NBT.B.5. Fluently add and	regrouping.	<u>ersense/bfactslinks.html</u>	Technology Resources	• Chapter
subtract within 100 using	• Solve real-world addition		• Math in Focus eBooks	Review/Test – pp 45-48
strategies based on place value,	problems.	Math Fact Practice	• Math in Focus Teacher	
properties of operations,	• Use base-ten blocks to add	http://www.playkidsgames.	Resources CD	• Assessments 2 –
and/or the relationship	numbers with regrouping.	com/games/mathfact/math		pp.9-11
between addition and	• Add up to three-digit	<u>Fact.htm</u>	North Carolina Dept of Ed.	• ExamView
subtraction.	numbers with regrouping.	Critical Thinking and	Wikispaces:	Assessment Suite – Test and Practice
2.NBT.B.6. Add up to four		Critical Thinking and Problem Solving p 54.:	http://maccss.ncdpi.wikispaces.	Generator
two-digit numbers using		Put on Your Thinking Cap!	net/Elementary	Short answer /
strategies based on place value		Tut on Tour Thinking Cap:	Aninono Elin Doole	• short answer / multiple choice
and properties of operations		Activities based on	Arizona Flip Book http://www.azed.gov/azccrs/fil	assessments
and properties of operations		learning standards:	es/2013/11/2flipbookedited.pd	(8.2.2.E.1)
2.NBT.B.7. Add and subtract		http://www.insidemathema	f	 Performance Task
within 1000, using concrete		tics.org/common-core-	±	• renonnance rask
models or drawings and		resources/mathematical-	Delaware DOE Common	Alternative Assessments:
strategies based on place value,		<u>content-</u>	Core Item Bank for	• Online assessments:
properties of operations,		standards/standards-by-	Mathematics – Grade 2	https://www.opened.

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.

2.NBT.B.9. Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by drawings or objects.)

Mathematical Practices MP.1, MP.4

grade/2nd-grade

Children's books: https://www.the-bestchildrens-books.org/mathfor-kids.html

- The mission of addition: *by Brian Clearly*
- Mission Addition: by Loreen Leedy
- The 512 Ants on Sullivan Street: by Carol A. Losi
- 1+1=5 and other unlikely additions: by David LaRochelle

More additional texts: www.newsela.com www.readworks.org www.commonlit.org

http://www.doe.k12.de.us/cms /lib09/DE01922744/Centricity /Domain/111/Math_Grade_2-Nov.pdf

Worksheets, games, lesson plans: <u>https://www.education.com/re</u> <u>sources/second-grade/math/</u>

Worksheets, games, videos: <u>http://www.mathchimp.com/2</u> <u>nd-grade-math-resources</u> (8.1.2.E.1)

www.khanacademy.org (8.1.2.E.1)

Activities, worksheets, lesson plans, curriculum: <u>http://www.start.com/parents/</u> <u>resources/grade-based-</u> <u>resources/2nd-grade-</u> <u>resources</u> (8.1.2.E.1)

Everyday math resources: http://www1.center.k12.mo.us /edtech/edm/2.htm (8.1.2.E.1)

Explanation of math journals: https://thecornerstoneforteac hers.com/math-journals/ (CRP4, NJSLSA.W2)

Math journals: https://www.k-5mathteachingresources.com /math-journals.html <u>com/search?area=m</u> <u>athematics&grade=2</u> <u>&resource_type=ass</u> <u>essment</u> (CRP2, CRP4, CRP8)

- Learning centers: each learning center focuses on a different type of problem (8.2.2.E.1)
- Graphs, charts, diagrams

Chapter 3

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:

a. 100 can be thought of as a bundle of ten tens—called a "hundred."

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).

2.NBT.A.3. Read and write numbers to 1000 using baseten numerals, number names, and expanded form.

2.NBT.B.5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

2.NBT.B.6. Add up to four

Topics

Subtraction up to 3-digit numbers with and without regrouping.

Twenty-First Century Themes and Skills include:

- Creativity and Innovation
- <u>Critical Thinking and</u> <u>Problem Solving</u>
- <u>Communication and</u> <u>Collaboration</u>

Objectives

Students will be able to:

- Use base-ten blocks to subtract numbers without regrouping.
- Subtract from a three-digit number without regrouping.
- Solve real-world subtraction problems.
- Use base-ten blocks to subtract numbers with regrouping.
- Subtract from a three-digit number with regrouping.
- Apply the inverse operations of addition and

2.NBT.B.5 Saving Money 1

2.NBT.B.5 Saving Money 2

Math Playground http://www.mathplayground. com/

Math Coach – Fact Fluency <u>http://schoolwires.henry.k1</u> 2.ga.us/Page/21865

Math Wire – Basic Facts Link http://mathwire.com/numb ersense/bfactslinks.html Math Fact Practice http://www.playkidsgames. com/games/mathfact/math Fact.htm

Critical Thinking and Problem Solving p.88-89: Put on Your Thinking Cap!

Activities based on learning standards: http://www.insidemathema tics.org/common-coreresources/mathematicalcontent-

SE-2A: 61-91 **Workbook 2A:** 49-72

Common Core Focus Lesson Appendix

Think Central: Online access to all Math in Focus materials listed above and Virtual Manipulatives

Professional Resources: The Model Method from the Ministry of Education Singapore and Bar Modeling: A Bar Modeling Tool by Yeap Ban Har, PhD.

Lesson and Component Walkthrough: www.hmhelearning.com

Technology Resources

- Math in Focus eBooks
- Math in Focus Teacher Resources CD

North Carolina Dept of Ed. Wikispaces:

http://maccss.ncdpi.wikispaces. net/Elementary

Formative Assessments:

- Do Now
- Exit Ticket
- Math Journal Entries (CRP4)
- Math notebook (NJSLSA.W2.)
- Calendar skills
- Observations
- Discussions: in groups, have students explain different ways of solving problems (CRP4, 8.2.2.E.1)

Summative Assessments: Math in Focus Assessments

- Chapter Review/Test – pp 90-91
- Assessments 2 pp. 14-16
- ExamView Assessment Suite – Test and Practice Generator
- Short answer /

two-digit numbers using	subtraction.	<u>standards/standards-by-</u>	Arizona Flip Book	multiple choice
strategies based on place value		grade/2nd-grade	http://www.azed.gov/azccrs/fil	assessments
and properties of operations			es/2013/11/2flipbookedited.pd	(8.2.2.E.1)
		Children's books:	f	Performance Task
2.NBT.B.7. Add and subtract		https://www.the-best-		
within 1000, using concrete		childrens-books.org/math-	Delaware DOE Common	Alternative Assessments:
models or drawings and		for-kids.html	Core Item Bank for	• Online assessments:
strategies based on place value,		• If you were a	<u>Mathematics – Grade 2</u>	https://www.opened.
properties of operations,		minus sign	http://www.doe.k12.de.us/cms	com/search?area=m
and/or the relationship		e	/lib09/DE01922744/Centricity	athematics&grade=2
between addition and		(mathfun)	/Domain/111/Math_Grade_2-	<u>&resource_type=ass</u>
subtraction; relate the strategy		Elevator Magic	<u>Nov.pdf</u>	essment
to a written method.		(mathfun)		(CRP2, CRP4,
Understand that in adding or		• The Hershey	Worksheets, games, lesson	CRP8)
subtracting three-digit		Kisses Subtraction	plans:	• Learning centers:
numbers, one adds or subtracts		Book: <i>by Jerry</i>	https://www.education.com/re	each learning
hundreds and hundreds, tens		Pallotta	sources/second-grade/math/	center focuses on a
and tens, ones and ones; and		• The Action of		different type of
sometimes it is necessary to		Subtraction: by	Worksheets, games, videos:	problem
compose or decompose tens or		Brian P. Cleary	http://www.mathchimp.com/2	(8.2.2.E.1)
hundreds.		2	nd-grade-math-resources	
		• Math-terpieces,	(8.1.2.E.1)	• Graphs, charts,
2.NBT.B.9. Explain why		The art of problem		diagrams
addition and subtraction		solving: by Greg	www.khanacademy.org	
strategies work, using place		Tang	(8.1.2.E.1)	
value and the properties of				
operations. (Explanations may be supported by drawings or			Activities, worksheets, lesson	
objects.)		More additional texts:	plans, curriculum:	
objects.)		www.newsela.com	http://www.jumpstart.com/pa	
2.MD.B.6. Represent whole		www.readworks.org	rents/resources/grade-based-	
numbers as lengths from 0 on a		www.commonlit.org	resources/2nd-grade-	
number line diagram with			resources	
equally spaced points			(8.1.2.E.1)	
corresponding to the numbers			Enound on modk	
0, 1, 2,, and represent			Everyday math resources:	
whole-number sums and			http://www1.center.k12.mo.us	
differences within 100 on a			/edtech/edm/2.htm	
number line diagram.			(8.1.2.E.1)	
			E-mlanation of 41	
Mathematical Practices			Explanation of math	
MP.1, MP.2, MP.4, MP.5,			journals:	
······································				

MP.7, MP.8	https://thecornerstoneforteac
	hers.com/math-journals/
	(CRP4, NJSLSA.W2)
	Math journals:
	https://www.k-
	5mathteachingresources.com
	/math-journals.html
	(CRP4, NJSLSA.W2)

Key Vocabulary:

Chapter 1 –

hundred, hundreds, thousand, standard form, word form, expanded form, greater than (>), less than (<), greatest, least, more than, less than

Chapter 2 – add, place-value chart, regroup

Chapter 3 – subtract

NJ Learning Standards Vocabulary:

2.NBT.A.1, 2, 3, & 4 Understand place value. hundreds, tens, ones, skip count, base-ten, *number names to 1,000* (e.g., one, two, thirty, etc.), expanded form, greater than (>), less than (<), equal to (=), digit, compare

2.NBT.B.5, 6, 7 & 9

Use place value understanding and properties of operations to add and subtract. fluent, compose, decompose, place value, digit, ten more, ten less, one hundred more, one hundred less, add, subtract, sum, equal, addition, subtraction

2.MD.B.5 & 6

Relate addition and subtraction to length.

inch, foot, yard, centimeter, meter, ruler, yardstick, meter stick, measuring tape, estimate, length, equation, number line, equally spaced, point, addition, subtraction, unknown, sums, differences, measure, standard units, customary, metric, units, sums, differences

Accommodations and Modifications:

Students with special needs: Support staff will be available to aid students related to IEP specifications. 504 accommodations will also be attended to by all instructional leaders. Modifications, alternative assessments, and scaffolding strategies will be used to support this learning. The use of Universal Design for Learning (UDL) will be considered for all students as teaching strategies are considered. Additional staff should be included so all students can fully participate in

the standards associated with this curriculum.

ELL/ESL students: Students will be supported according to the recommendations for "can do's" as outlined by WIDA - https://www.wida.us/standards/CAN_DOs/

Students at risk of school failure: Formative and summative data will be used to monitor student success at first signs of failure. Student work will be reviewed to determine support. This may include parent consultation, basic skills review and differentiation strategies. With considerations to UDL, time may be a factor in overcoming developmental considerations. More time will be made available with a certified instructor to aid students in reaching the standards.

Gifted and Talented Students: Students excelling in mastery of standards will be challenged with complex, high level challenges.

English Language Learners:	Special Education:	At-Risk:	Gifted and Talented:
 Teaching modeling Peer modeling Word walls Give directions in small steps and in as few words as possible Provide visual aids Group similar problems together Repeat directions when necessary 	 Utilize modifications & accommodations delineated in the students' IEP Work with paraprofessional Work with a partner Shorten assignments to focus on mastery or key concepts Maintain adequate space between desks Keep workspaces clear of unrelated materials Provide fewer problems to attain passing grades Tape a number line to the students desk Create a math journal that they can use during class, on assignments and (if teacher allows) on assessments Provide extra time to complete a task when needed Provide definitions of 	 Use visual demonstrations, illustrations and models Give directions / instructions verbally and in simple written format Peer support Increased one – on – one time Teachers may modify instructions by modeling what the student is expected to do Instructions may be printed out in large print and hung up for the students to see during the time of the lesson Review behavior expectations and made adjustments Create a math journal that they can use during class, on assignments and (if teacher allows) on assessments 	 Inquiry based instruction Independent study Higher order thinking skills Adjusting the pace of the lessons Real world scenarios Student driven instruction

	different graphs / charts with illustrations		
Interdisciplinary Connections: ELA			
textual evidence when writing or speak RI.2.3. Describe the connection betwee RI.2.7. Explain how specific illustration	ting to support conclusions drawn fro en a series of historical events, scientions and images (e.g., a diagram showi natory texts to examine and convey c content at what a speaker says in order to clar hen appropriate to task and situation i	m the text. ific ideas or concepts, or steps in ing how a machine works) contr complex ideas and information c rify comprehension, gather addit in order to provide requested det	ribute to and clarify a text clearly and accurately through the effective tional information, or deepen etail or clarification
Integration of Technology Standards 8.1.2.E.1: Use digital tools and online 8.2.2.E.1: List and demonstrate the ste	resources to explore a problem or iss	ue	
21 st Century standards			
9.1.4.B.1 Differentiate between financi	al wants and needs.		

CRP2: Apply appropriate academic and technical skills **CRP4:** Communicate clearly and effectively and with reason

CRP6: Demonstrate creativity and innovation

CRP8: Utilize critical thinking to make sense of problems and persevere in solving them

Major Supporting Additional (Identified by PARCC Model Content Frameworks)