

# PROBLEM SOLVING FOR 2 1<sup>ST</sup> CENTURY

BUILT FOR THE

NYS NEXT GENERATION LEARNING STANDARDS

Illustrative Math Alignments
Grade 2



- 1. Login to Exemplars Library: library.exemplars.com with your school e-mail and password
- 2. Select the Grade 2 Unit you are working on:
  - Unit 1: Adding, Subtracting, and Working with Data
  - Unit 2: Adding and Subtracting within 100
  - Unit 3: Measuring Length
  - Unit 4: Addition and Subtraction on the Number Line
  - Unit 5: Numbers to 1,000
  - Unit 6: Geometry, Time, and Money
  - Unit 7: Adding and Subtracting within 1,000
  - Unit 8: Equal Groups
  - Unit 9: Putting It All Together
- 3. Once you are in the correct Unit, click on the task name, which is directly linked to the Exemplars Library where you can download a printer-friendly PDF and lesson planning sheet for the corresponding task.
- \*\* Note: You must be logged into the Exemplars Library to access the tasks in this document.



Unit 1: Adding, Subtracting, and Working with Data

Section A: Add and Subtract Within 20	Section B: Ways to Represent Data	Section C: Diagrams to Compare
*The first section of lessons focus on the strategy of making ten for adding and subtracting in order to help students gain fluency with facts within 20 as well as to support work with larger numbers. This allows the teacher to gather information about students' skills and understanding before entering into more complex tasks.	Painting or Drawing	Continue with tasks from Unit 1 Section B.
	Painting a Room	
	Picnic Drink	
	Favorite Season	
	Summative Assessment Task: <u>Choosing a Paint Color</u>	



Unit 2: Adding and Subtracting within 100

Section A: Add and Subtract	Section B: Decompose to Subtract	Section C: Represent and Solve Story Problems
<u>Autumn Leaves</u> (Take From, Result Unknown)	Use tasks from Unit 2 Section A.	<u>Ladybugs and Spiders</u> (Put Together, Total Unknown)
<u>Selling Flowers</u> (Take From, Result Unknown)		Mom's Purse (Add to, Result Unknown; Take From, Change Unknown)
Longer Than a Year (Put Together/Take Apart, Addends Unknown)		Oh, Nuts! (Put Together/Take Apart, Addend Unknown)
Summative Assessment Task: <u>Barnyard</u> <u>Buddies</u> (Put Together, Total Unknown)		Anthony's Pennies (Add to, Start Unknown)
		<u>Helping Grandmother</u> (Put Together, Total Unknown; Take From, Result Unknown)
		Buying Beads (Put Together/Take Apart, Total Unknown)
		Summative Assessment Task: On the Beach (Put Together, Total Unknown; Put Together, Addend Unknown)



Unit 3: Measuring Length

Section A: Metric Measurement	Section B: Customary Measurement	Section C: Line Plots
Growing Sunflowers	Catching Fish	Use tasks from Unit 1 Section B or tasks from earlier in Unit 3.
Pencils and Markers	Summative Assessment Task: <u>Paper Clip</u> <u>Chains</u>	
	Racing Snails	
	A New Yellow Pencil	
	Making Bookmarks With Ribbon	
	Making Necklaces	
	A Windy Day	
	Fred D. Croaker	
	Summative Assessment Task: Name Tags	



Unit 4: Addition and Subtraction on the Number Line

Section A:	Section B:	
The Structure of the Number Line	Add and Subtract on a Number Line	
See tasks from Unit 2. (Students will be able to begin to apply the number line as a representation.)	See tasks from Unit 2. (Students will be able to begin to apply the number line as a representation.)	



Unit 5: Numbers to 1,000

Section A: The Value of Three Digits	Section B: Compare and Order Numbers within 1,000
See tasks from previous units.	A Big Backyard Bird Count
	How Much Is a Name Worth?
	<u>Jonah's Pages</u>
	Same or Different?
	Summative Assessment Task: Routes to the City
	Reading About Motorcycles
	A Lot of Pages
	Earning a Box of Markers
	Reading Aloud
	Summative Assessment Task: <u>Singing Many Songs</u>
	Reading a Dinosaur Book



Unit 6: Geometry, Time, and Money

Section A: Attributes of Shapes	Section B: Halves, Thirds, and Fourths	Section C: Time on the Clock	Section D: The Value of Money
Paper Clips and Cubes	Bird House Building	See tasks from previous units.	Buying Gumballs
Craft Stick Shapes	Sharing Cornbread with Friends		Two Coins in Each Hand
Pasta and Gumdrops	Paint Clean Up		Winter Coat Pockets
A Design of 29	Blueberry Pie for Sale		Matching Money
Summative Assessment Task: Sticks and Pebbles	Summative Assessment Task: Sharing Two Fruit Bars		Summative Assessment Task: <u>Comparing Coins</u>



Unit 7: Adding and Subtracting within 1,000

Section A: Add and Subtract within 1,000 without Composition or Decomposition	Section B: Add within 1,000 using Place Value Strategies	Section C: Subtract within 1,000 using Place Value Strategies
A New Video Game (Put Together, Total Unknown; Put Together/Take Apart, Addend Unknown)	Use tasks from Unit 7 Section A.	Apples for Students (Put Together, Total Unknown; Put Together/Take Apart, Addend Unknown)
Collecting Postage Stamps (Put Together, Total Unknown; Put Together/Take Apart, Addend Unknown)		Stuffed Animal Collection (Put Together, Total Unknown; Put Together/Take Apart, Addend Unknown)
Packets of Daisy Seeds (Put Together, Total Unknown; Put Together/Take Apart, Addend Unknown)		<u>Car Trip</u> (Put Together/Take Apart, Addend Unknown)
Summative Assessment Task: One Thousand Seashells (Put Together, Total Unknown; Put Together/Take Apart, Addend Unknown)		Beanbag Toss (Put Together, Both Addends Unknown)
		Feather Collection (Add to, Start with Unknown)



Unit 7: Adding and Subtracting within 1,000 (continued)

Section A: Add and Subtract within 1,000 without Composition or Decomposition	Section B: Add within 1,000 using Place Value Strategies	Section C: Subtract within 1,000 using Place Value Strategies
		How Many Students? (Put Together, Total Unknown; Put Together/Take Apart, Addend Unknown)
		<u>Sharing Stickers</u> (Put Together/Take Apart, Addend Unknown)
		Summative Assessment Task: Puzzle Pieces (Put Together, Total Unknown; Put Together/Take Apart, Addend Unknown)
		Summative Assessment Task: A Food Drive (Put Together/ Take Apart, Addend Unknown)
		Summative Assessment Task: Snack Bars for School (Put Together, Total Unknown; Put Together/Take Apart, Addend Unknown)



Unit 8: Equal Groups

Section A: Odd and Even	Section B: Rectangular Arrays
<u>Go Fish</u>	Nickels for a Treat
Oops!	Sarah's Garden
Helping a Friend	Beads for Pins
Correcting the Teacher!	Books About Dinosaurs
Summative Assessment Task: Cars and Trucks	Cars in a Case
	Summative Assessment Task: Dimes for a Basketball
	Cages for Sick Dogs
	Square Earring Boxes
	Sixteen Paper Squares
	A Case for Arrowheads
	Summative Assessment Task: Square Tiles on a Box Top



Illustrative Math: Grade 2
Unit 9: Putting It All Together

Section A: Fluency Within 20 and Measurement	Section B: Numbers to 1,000	Section C: Create and Solve Story Problems
See tasks from Unit 3.	Use tasks from Unit 7 Section C or below.	Use tasks from Unit 7 Section C.
	SUMthing Fun!	
	Addition Puzzle	
	Tricky Math	
	<u> A Homework Problem</u>	
	Solve It!	