

PROBLEM SOLVING

BUILT FOR THE NYS NEXT GENERATION LEARNING STANDARDS

Illustrative Math Alignments Grade 5



- 1. Login to Exemplars Library: library.exemplars.com with your school e-mail and password
- 2. Select the Grade 5 Unit you are working on:
 - <u>Unit 1: Finding Volume</u>
 - Unit 2: Fractions as Quotients and Fraction Multiplication
 - Unit 3: Multiplying and Dividing Fractions
 - Unit 4: Wrapping Up Multiplication and Division with Multi-Digit Numbers
 - Unit 5: Place Value Patterns and Decimal Operations
 - Unit 6: More Decimal and Fraction Operations
 - <u>Unit 7: Shapes on the Coordinate Plane</u>
 - Unit 8: 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.



Illustrative Math: Grade 5

Unit 1: Finding Volume

| Section A: Unit Cubes and Volume | Section B: Expressions for Finding Volume | Section C: Volume of Solid Figures | |
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| Students begin this unit with many hands on experiences that allow them to make sense of volume as a measurement of three- dimensional figures by building objects with unit cubes and counting the cubes. This will provide them with a foundation in which to problem solve about volume in the upcoming sections. | <u>Making Taffy</u> | <u>Fudge Display</u> | |
| | <u>A Box for Candy</u> | Pyramid of Tissue Boxes | |
| | <u>Box Problem</u> | Summative Assessment Task: <u>Cereal Box</u> <u>Display</u> | |
| | Summative Assessment Task: <u>Building Boxes</u> | | |



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Unit 2: Fractions as Quotients and Fraction Multiplication

| Section A: Fractions as Quotients | Section B: Fractions of Whole Numbers | Section C: Area and Fractional Side Lengths |
|--------------------------------------|---|--|
| Use tasks from Unit 1. | <u>Planning a Party</u> | Newspaper Layout |
| | Painting Classrooms | Summative Assessment Task: Park Play Area |
| | Favorite Sport | |
| | Pond Critters | |
| | Summative Assessment Task: <u>Time for</u> <u>Exercise</u> | |



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Unit 3: Multiplying and Dividing Fractions

| Section A: Fraction Multiplication | Section B: Fraction Division | Section C: Problem Solving with Fractions |
|---------------------------------------|---|--|
| Use tasks from Unit 2. | Relay Race for Charity | Squirrel Babies |
| | Strawberry Shortcake | For the Birds |
| | <u>Ribbon Bookmarks</u> | Summative Assessment Task: <u>Prize Ribbons</u> <u>With Sequins</u> |
| | Packages of Chocolate | |
| | Summative Assessment Task: <u>Bows for Gift</u> <u>Baskets</u> | |



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Unit 4: Wrapping Up Multiplication and Division with Multi-Digit Numbers

| Section A: Multi-digit Multiplication Using the Standard Algorithm | Section B: Multi-digit Division Using Partial Quotients | Section C: Let's Put it to Work |
|--|---|--|
| Use tasks from Unit 3. | Beads for Everyone | A Box for Base-10 Blocks |
| | <u>A Field Trip Challenge</u> | <u>A New Aquarium</u> |
| | <u>A Border for Mr. Gomez's Kitchen</u> | Perfect Attendance |
| | Baseball Equipment | Crayons for Fifth Grade |
| | | <u>An Egg Farm</u> |
| | | Buttons for a Craft Project |
| | | Summative Assessment Task: <u>Popsicle Party</u> |
| | | Summative Assessment Task: <u>Feathers for Frames</u> |



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Unit 5: Place Value Patterns and Decimal Operations

| Section A: Numbers to Thousandths | Section B: Add and Subtract Decimals | Section C: Multiply Decimals | Section D: Divide Decimals |
|---|---|---|-------------------------------|
| Bamboo and the Botanist | Snack Bars | <u>Muffins</u> | <u>A Celebration</u> |
| A Fifth Grade Competition | <u>Rainfall</u> | Phoning New Friends | Buying Plastic Plates |
| Summative Assessment Task: <u>Crab Walk Relay</u> <u>Race</u> | Laundry Dilemma | Collecting Insects | <u>Sport Jerseys</u> |
| Aquarium Temperatures | | New Balls for Recess | Wheels for Inline Skates |
| <u>A Good Night's Sleep</u> | | <u>Calling Plans</u> | Paulo's Monthly Salary |
| New Equipment | | Summative Assessment Task: <u>Ms. Harley Rides to School</u> | |
| Training for a Race | | | |
| Gymnastic Championship | | | |
| Summative Assessment Task: Football Players | | | |



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Unit 6: More Decimal and Fraction Operations

| Section A: Measurement Conversions and Powers of 10 | Section B: Add and Subtract Fractions with Unlike Denominators | Section C: The Size of Products |
|--|---|------------------------------------|
| Dimes and Dollars | Lots of Cake | <u>Three Pig Home Builders</u> |
| <u>Digit Dilemma</u> | <u>A Necklace Challenge</u> | |
| Shh! It's a Secret | <u>Pizza by the Slice</u> | |
| The Number Game | Working | |
| Summative Assessment Task: Money in Banks | <u>Ribbon for a Project</u> | |
| Which Choice? | Summative Assessment Task: Stuffed with Pizza | |
| <u>Termite Homes</u> | Sorting Metal Fasteners | |
| Seashells for Lydia | <u>Scrapbooking</u> | |
| <u>Flying Home</u> | Hungry Newborn Lion Cubs | |
| Summative Assessement Task: <u>A Light For Mike</u> | <u>Thursday Night, Friday Morning</u> | |
| Bella's Homecoming | Summative Assessment Task: Cargo Barges | |
| Hanging Model Airplanes | | |
| Filling an Old Swimming Pool | | |
| Filling a Fish Tank | | |
| Weighing Pennies | | |
| Chocolate Chip Cookies for Relatives | | |
| Summative Assessment Task: Watering Plants | | |



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Unit 7: Shapes on the Coordinate Plane

| Section A: The Coordinate Plane | Section B: The Hierarchy of Shapes | Section C: Numerical Patterns |
|--|---------------------------------------|--|
| <u>A Carnival</u> | Classifying Geometric Figures | Cans and Bottles |
| Planning a Soccer Field | Charting Geometric Figures | A Chickadee and a Cardinal |
| <u>At the Mall</u> | | Collecting Basketball Cards |
| Going Out to Eat | | Plants and Insects |
| Summative Assessment Task: <u>Herds</u> of Cattle | | <u>Stars</u> |
| | | Summative Assessment Task: <u>A</u> <u>Stone Wall</u> |



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Unit 8: Putting It All Together

| Section A: Multiply and Divide Whole Numbers | Section B: Apply Volume Concepts | Section C: Fraction and Decimal Operations | Section D: Creation and Design |
|--|--|--|-----------------------------------|
| Use tasks from Unit 4. | Use tasks from Unit 1 as well as Unit 4 Section C | Use tasks from Unit 2; Unit 3; Unit 5 Section B and C; Unit 6 Section B and C. | Use tasks from previous units. |