

SWALLOW SCHOOL DISTRICT CURRICULUM GUIDE

Curriculum Area: Math

Course Length: Full Year

Grade: 3rd

Date Last Approved: March 15, 2018; **Reviewed** Spring 2021

Stage 1: Desired Results

Course Description and Purpose:

In Grade 3, instructional time should focus on four critical areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) application of problem solving strategies.

Enduring Understanding(s):

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Essential Question(s):

1. How can I represent and solve problems involving multiplication and division, and understand properties of multiplication and the relationship between them within 100?
2. How can I solve problems involving the four operations, and identify and explain patterns in arithmetic?
3. How can I use place value understanding and properties of operations to perform multi-digit arithmetic?
4. How can I develop understanding of fractions as numbers?
5. How can I solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects?
6. How can I represent and interpret data?
7. How can I understand concepts of area and perimeter relate area to multiplication and to addition, and distinguish between linear and area measures
8. How can I reason with shapes and their attributes?

Learning Targets:

1. Students can analyze proportional relationships. (Skill)
2. Students can solve and support their knowledge of operations with rational numbers to demonstrate number sense. (Skill)
3. Students can develop problem solving strategies to persevere in solving real-world mathematical problems. (Skill)
4. Students can distinguish between geometric figures and apply appropriate formulas to solve geometric problems. (Reasoning / Skill)
5. Students can solve problems involving measurement and can produce graphs that represent and interpret data. (Product)

Stage 2: Learning Plan

I. Place Value and Patterns

- A. Count up and back by 1s, 2s, 5s, 10s, and up to 1,000(unit 4)
- B. Use multiple ways to reach number amounts

Standards: CCSS: 3.MD 1 3.OA 9

Learning Targets Addressed:

- Target 2
Target 3

- C. Know the values of money and be able to represent and solve stories (calculate, read and write in decimal notation – unit 5)
- D. Demonstrate fact fluency of addition and subtraction to 95%
- E. Read and write time to the nearest minute and calculate elapsed time

Key Unit Resources

- Everyday Math 4th Edition
- IXL

Assessment Map:

Type	Level	Assessment Detail
Practice	Knowledge	<ul style="list-style-type: none"> • Journal • Home links • Timed Fact Fluency
Formative	Skill	<ul style="list-style-type: none"> • Math boxes • Differentiated skill development pages
Summative	Skill	<ul style="list-style-type: none"> • Unit Assessment Place Value and Patterns: counting and comparing money, telling time, addition and subtraction, number patterns • Open Response

II. Adding and Subtracting Whole Numbers

- A. Recognize and show that digits have different values in different places
- B. Show understanding of addition and subtraction extensions
- C. Solve double digit addition and subtraction problems w/ and w/out regrouping
- D. Write equivalent number sentences
- E. Solve number stories with addition and subtraction

Standards: CCSS: 3.NBT 2, 3.OA 8

Learning Targets Addressed:

Target 2

Target 3

Key Unit Resources

- Everyday Math 4th Edition
- IXL

Assessment Map:

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Practice	Knowledge	<ul style="list-style-type: none"> • Journal • Home links
Formative	Skill	<ul style="list-style-type: none"> • Math Boxes • Differentiated skill development pages • Cathy Fosnot "The Big Dinner"
Summative	Skill	<ul style="list-style-type: none"> • Unit Assessment Adding and Subtracting Whole Numbers: Number patterns, addition and subtraction, telling time, word problems • Open Response

III. Linear Measurement and Area

- A. Estimate to solve multi-digit problems
- B. Measure line segments to the nearest inch, $\frac{1}{2}$ inch, cm and $\frac{1}{2}$ cm
- C. Calculate area and perimeter of a polygon

Standards: CCSS: 3.MD 8, 3.NBT 1, 3.MD 4, 3. MD 5

Learning Targets Addressed:

Target 2
Target 3
Target 5

Key Unit Resources

- Everyday Math 4th Edition
- IXL

Assessment Map:

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Practice	Knowledge	<ul style="list-style-type: none">• Journal• Home Links
Formative	Skill	<ul style="list-style-type: none">• Math Boxes• Differentiated skill development pages
Summative	Skill	<ul style="list-style-type: none">• Unit Assessment Linear Measurement and Area: Estimating, addition and subtraction, measurement, graphing, maximum, minimum, range, median, probability,• Open Response

IV. Multiplication and Division

- A. Draw a rectangle and find the area
- B. Figure out fact families with multiplication and division
- C. Figure out 100 more and less with numbers up to 10,000
- D. Properties of multiplication

Standards: CCSS: 3. OA 1, 2, 3, 4, 6, 7, 8, 3.MD 5,

Learning Targets Addressed:

Target 2
Target 3

Key Unit Resources

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- IXL

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V. Place Value in Whole Numbers and Decimals A. Work with extended facts up to thousands B. Read and write numbers under 100,00 and identify place value C. Compare four and five digit numbers using <, >, = D. Read, write and identify place value in decimals to the tenths place E. Demonstrate fact fluency with 0, 1, 2, 5, and 10 F. Shade 100 grid to match decimal to hundredths (unit 6) G. Read, compare and order decimals through hundredths (unit 6)	Standards: CCSS: 3. NBT 3 Learning Targets Addressed: Target 2 Target 3 <table><tr><th colspan="2">Key Unit Resources</th></tr><tr><td colspan="2"><ul style="list-style-type: none">Everyday Math 4th EditionIXL</td></tr></table> Assessment Map: <table><tr><th>Type</th><th>Level</th><th>Assessment Detail</th></tr><tr><td>Practice</td><td>Knowledge</td><td><ul style="list-style-type: none">JournalHome Links</td></tr><tr><td>Formative</td><td>Skill</td><td><ul style="list-style-type: none">Math BoxesDifferentiated skill development pages</td></tr><tr><td>Summative</td><td>Skill</td><td><ul style="list-style-type: none">Unit Assessment Place Value and Decimals: place value, comparing numbers, extend facts, decimals, estimate perimeter and areaOpen Response</td></tr></table>	Key Unit Resources		<ul style="list-style-type: none">Everyday Math 4th EditionIXL		Type	Level	Assessment Detail	Practice	Knowledge	<ul style="list-style-type: none">JournalHome Links	Formative	Skill	<ul style="list-style-type: none">Math BoxesDifferentiated skill development pages	Summative	Skill	<ul style="list-style-type: none">Unit Assessment Place Value and Decimals: place value, comparing numbers, extend facts, decimals, estimate perimeter and areaOpen Response
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VI. Geometry A. Identify, draw and label parallel and intersecting lines, rays and segments B. Identify and draw right angles C. Draw line segments to form polygons D. Identify and draw lines of symmetry E. Identify 2 and 3 dimensional figures F. Complete other half of 2 dimensional designs G. Identify bases, faces, vertices and edges of 3 dimensional figures	Standards: CCSS: 3.G 1 Learning Targets Addressed: Target 3 Target 4 Target 5 <table><tr><th colspan="2">Key Unit Resources</th></tr><tr><td colspan="2"><ul style="list-style-type: none">Everyday Math 4th EditionIXL</td></tr></table>	Key Unit Resources		<ul style="list-style-type: none">Everyday Math 4th EditionIXL													
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<div>H. Draw a rectangle with a given perimeter</div> <div>I. Give an approximate measurement of angles in degrees</div>	<div>Assessment Map:</div> <table><tr><th>Type</th><th>Level</th><th>Assessment Detail</th></tr><tr><td>Practice</td><td>Knowledge</td><td><div><div></div><div>Journal</div><div>Home Links</div></div></td></tr><tr><td>Formative</td><td>Skill</td><td><div><div></div><div>Math Boxes</div><div>Differentiated skill development pages</div></div></td></tr><tr><td>Summative</td><td>Skill</td><td><div><div></div><div>Unit Assessment Geometry: line segments, parallel, intersecting, geometric figures, decimals, symmetry, rotations</div><div>Open Response</div></div></td></tr></table>	Type	Level	Assessment Detail	Practice	Knowledge	<div><div></div><div>Journal</div><div>Home Links</div></div>	Formative	Skill	<div><div></div><div>Math Boxes</div><div>Differentiated skill development pages</div></div>	Summative	Skill	<div><div></div><div>Unit Assessment Geometry: line segments, parallel, intersecting, geometric figures, decimals, symmetry, rotations</div><div>Open Response</div></div>
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<div>VII. Multiplication and Division</div> <div>A. Estimate and solve three digit addition and subtraction problems</div> <div>B. Solve multiplication and division number stories in various situations using counters, arrays and number models</div> <div>C. Solve multiplication fact extension problems</div> <div>D. Order of operations (Parentheses)</div>	<div>Standards: CCSS: 3.NBT 3, 3.OA 5, 7, 8</div> <div>Learning Targets Addressed:</div> <div>Target 2</div> <div>Target 3</div> <div>Key Unit Resources</div> <div><div></div><div>Everyday Math 4th Edition</div><div>IXL</div></div> <div>Assessment Map:</div> <table><tr><th>Type</th><th>Level</th><th>Assessment Detail</th></tr><tr><td>Practice</td><td>Knowledge</td><td><div><div></div><div>Journal</div><div>Home Links</div></div></td></tr><tr><td>Formative</td><td>Skill</td><td><div><div></div><div>Math Boxes</div><div>Differentiated skill development pages</div></div></td></tr><tr><td>Summative</td><td>Skill</td><td><div><div></div><div>Unit Assessment Multiplication and Division: Multiplication, word problems, parentheses, parallel and intersecting lines, estimating, adding and subtracting</div><div>Open Response</div></div></td></tr></table>	Type	Level	Assessment Detail	Practice	Knowledge	<div><div></div><div>Journal</div><div>Home Links</div></div>	Formative	Skill	<div><div></div><div>Math Boxes</div><div>Differentiated skill development pages</div></div>	Summative	Skill	<div><div></div><div>Unit Assessment Multiplication and Division: Multiplication, word problems, parentheses, parallel and intersecting lines, estimating, adding and subtracting</div><div>Open Response</div></div>
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<div>VIII. Fractions</div> <div>A. Calculate time conversions</div> <div>B. Find fractional part of a region or set and name the fraction</div> <div>C. Find equivalents to 1/2</div> <div>D. Compare fractions</div>	<div>Standards: CCSS: 3.G 2 3.NF 1, 2, 3</div> <div>Learning Targets Addressed:</div> <div>Target 1</div> <div>Target 2</div> <div>Target 3</div>												

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<p>IX. Multiplication and Division</p> <p>A. Solve multiplication and division problems using parentheses</p> <p>B. Solve multiplication extension problems and number stories</p> <p>C. Make reasonable estimates with money</p> <p>D. Solve multiplication number stories</p> <p>E. Use computation strategies for multi-digit multiplication problems up to 3 digits by 1 digit</p>	<p>Standards: CCSS: 3.OA 1, 2, 3, 4, 7</p> <p>Learning Targets Addressed:</p> <p>Target 2</p> <p>Target 3</p> <table><tr><th colspan="3">Key Unit Resources</th></tr><tr><td colspan="3"><ul style="list-style-type: none">Everyday Math 4th EditionIXL</td></tr></table> <p>Assessment Map:</p> <table><tr><th>Type</th><th>Level</th><th>Assessment Detail</th></tr><tr><td>Practice</td><td>Knowledge</td><td><ul style="list-style-type: none">JournalHome Links</td></tr><tr><td>Formative</td><td>Skill</td><td><ul style="list-style-type: none">Math BoxesDifferentiated skill development pages</td></tr><tr><td>Summative</td><td>Skill</td><td><ul style="list-style-type: none">Unit Assessment Multiplication and Division: multiplication, ordering fractions, word problems, parentheses, perimeter, areaOpen Response</td></tr></table>	Key Unit Resources			<ul style="list-style-type: none">Everyday Math 4th EditionIXL			Type	Level	Assessment Detail	Practice	Knowledge	<ul style="list-style-type: none">JournalHome Links	Formative	Skill	<ul style="list-style-type: none">Math BoxesDifferentiated skill development pages	Summative	Skill	<ul style="list-style-type: none">Unit Assessment Multiplication and Division: multiplication, ordering fractions, word problems, parentheses, perimeter, areaOpen Response
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<p>X. Measurement and Data</p> <p>A. Calculate length relationships</p>	<p>Standards: CCSS: 3.OA 1, 2, 3, 4, 7</p> <p>Learning Targets Addressed:</p>																		

- B. Find median and mode of a data set
C. Use data to create frequency table, line plot, or bar graph

Target 2
Target 3
Target 5

Key Unit Resources

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XI. Probability

- A. Determine probability of events
B. Use fractions to describe and/or draw parts of a spinner
C. Predict and test outcomes of a spinner
D. Read and write numbers up to 1,000,000 and identify values

Standards: CCSS: 3.NF.1-2, 3.NF.3, 3.NF.4, 3NF.5

Learning Targets Addressed:

Target 2
Target 3

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