

Swedesboro-Woolwich School District's Mathematics Curriculum Guidance Document

GRADE 5– Unit 1

Mission Statement

The primary goal of the Swedesboro-Woolwich School District is to prepare each student with the real life skills needed to compete in a highly competitive global economy. This will be achieved by providing a comprehensive curriculum, the integration of technology, and the professional services of a competent and dedicated faculty, administration, and support staff.

Guiding this mission will be Federal mandates, including No Child Left Behind, the New Jersey Core Curriculum Content Standards, and local initiatives addressing the individual needs of our students as determined by the Board of Education. The diverse resources of the school district, which includes a caring PTO and active adult community, contribute to a quality school system. They serve an integral role in supporting positive learning experiences that motivate, challenge and inspire children to learn.

Unit/Module Overview

Students will be working on:

- place value system from the thousandths place in decimals to the millions place in whole numbers
- rounding decimals
- multiplying whole numbers
- evaluate expressions with symbols
- multiplying decimals

Standards Covered in Current Unit/Module

CCS Priority Standard

Learning Goals

Learning Targets

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MA 5.NBT.A.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.	<ul style="list-style-type: none"> • -Students will be able to recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. 	<ul style="list-style-type: none"> • -I can understand the relationship between place value positions. (1-1) • -I can write multi-digit numbers in different forms and compare the values of digits. (1-2) • -I can decimals in different forms and compare the values of digits. (1-5)
MA 5.NBT.A.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.	<ul style="list-style-type: none"> • -Students will be able to use a whole-number exponents to denote powers of 10 • -Students will be able to explain patterns in the number of zeros of the product when multiplying a number by powers of 10. 	<ul style="list-style-type: none"> • -I can write numbers using exponents. (1-3) • -I can find products involving multiples of 10 and powers of 10. (4-1) • -I can use rounding and compatible numbers to estimate products. (4-2) • -I can find products involving decimals and powers of 10. (5-1)
MA .5.NBT.A.3 Read, write, and compare decimals to thousandths	<ul style="list-style-type: none"> • -Students will be able to read, write, and compare decimals to thousandths. 	<ul style="list-style-type: none"> • -I can write thousandths as fractions and decimals. (1-4) • -I can write decimals in different forms and compare the values of digits. (1-5) • I can compare decimals to the thousandths place. (1-6)
MA 5.NBT.A.4 Use place value understanding to round decimals to any place	<ul style="list-style-type: none"> • -Students will be able to use place value understanding to round decimals to any place 	<ul style="list-style-type: none"> • I can use place value to round decimals. (1-7) • -I can use rounding or compatible numbers to estimate sums and differences of decimals. (3-1) • -I can use rounding and compatible numbers to estimate products of decimals and whole numbers. (5-1)

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<p>MA 5.NBT.B.5 Fluently multiply multi-digit whole numbers using the standard algorithm.</p>	<ul style="list-style-type: none"> • -Students will be able to fluently multiply multi-digit whole numbers using the standard algorithm. 	<ul style="list-style-type: none"> • -I can multiply multi-digit numbers by one-digit numbers. (4-3) • -I can multiply multi-digit numbers by two-digit numbers.(4-4) • -I can multiply multi-digit whole numbers. (4-5)
<p>MA .5.OA.A.1</p> <p>Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</p> <p>MA 5.OA.A.2</p> <p>Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.</p>	<ul style="list-style-type: none"> • -Students will be able to use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. • -Students can write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. 	<ul style="list-style-type: none"> • -I can use number properties. (2-1) • -I can use order of operations to evaluate numerical expressions. (2-2) • -I can write numerical expressions. (2-3) • -I can use order of operations to evaluate expressions with grouping symbols. (2-4)
<p>MA .5.NBT.B.7</p> <p>Add, subtract, multiply, and divide decimals to hundredths, 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 and explain the reasoning used.</p>	<ul style="list-style-type: none"> • -Students will be able to add decimals. • -Students will be able to subtract decimals. • -Students will be able to multiply decimals. 	<ul style="list-style-type: none"> • -I can use models to add or subtract decimals. (3-2) • -I can add decimals and check whether the sum is reasonable. (3-3) • -I can subtract decimals and check my answer. (3-4) • -I can use addition and subtraction to evaluate expressions involving decimals.(3-5) • -I can use mental math to add or subtract decimals.(3-6) • I can solve multi-step word problems involving money. (3-7) • -I can use models to multiply decimals and whole numbers. (5-3) • -I can multiply decimals and whole numbers. (5-4) • -I can use models to multiply decimals (5-5) • -I can use partial products to multiply decimals. (5-6) • -I can estimation and properties to multiply decimals. (5-7) • -I can multiply decimals. (5-8)

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- -I can solve multi-step word problems involving money. (5-9)

Essential Questions

What patterns occur in our number system?
 How do we round decimals?
 How do we compare decimals?
 What can affect the relationship between numbers?
 How do we solve problems with whole numbers and decimals?

Weekly Learning Activities and Pacing Guide

Topic & # Days	NJ Standards	Critical Knowledge & Skills	Possible Resources & Activities
Big Ideas Chapter 1 (11 days total)	5.NBT.A.1 5.NBT.A.1 5.NBT.A.2 5.NBT.A.1 5.NBT.A.3a 5.NBT.A.1 5.NBT.A.3a 5.NBT.A.3b 5.NBT.A.4	Obj. We are learning to: <ul style="list-style-type: none"> • Understand the relationship between place value positions. • Write multi-digit numbers in different forms and compare the values of digits. • Write numbers using exponents. • Write thousandths as fractions and decimals. • Write decimals in different forms and compare the values of digits. • Compare decimals to the thousandths place. • Use place value to round decimals. Suggested Formative Assessment(s): <ul style="list-style-type: none"> • Performance Task Preview & Vocabulary • Day 1 Performance Task • Day 2 Centers 	Activities: Chapter 1 Opener: Place Value Concepts Lesson 1.1: Place Value Patterns Lesson 1.2: Place Value with Whole Numbers Lesson 1.3: Patterns and Powers of 10 Lesson 1.4: Decimals to Thousandths Lesson 1.5: Place Value with Decimals Lesson 1.6: Compare Decimals Lesson 1.7: Round Decimals End of Chapter 1: Place Value Concepts End of Chapter 1: Place Value Concepts End of Chapter 1: Place Value Concepts Materials *Big Ideas Materials *Stop watches/timers Place value charts (from millions to thousandths) *Multiplication and division charts *Manipulatives (cubes, money, coins, counters)

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		<ul style="list-style-type: none"> • Day 3 Chapter Assessment • Big Ideas assessments • iReady . 	<p>Index cards</p> <p>*Paper (chart, graph, lined, and blank)</p> <p>Base ten blocks</p> <p>Calculators</p> <p>Colored pencils, markers, crayons</p> <p>*Dry erase boards</p> <p>Google Classroom Math</p> <p>Iready Math</p> <p>Reflex Math</p> <p>SplashLearn</p> <p>Khan Academy</p> <p>Math Aids Place Value: http://www.math-aids.com/Place_Value/</p> <p>http://www.commoncoresheets.com/Values.php</p> <p>http://www.printable-math-worksheets.com/place-value-chart.html</p> <p>https://www.teacherspayteachers.com/FreeDownload/Decimal-Place-Value-Review-Shuffle-431957 .</p>
Big Ideas Chapter 2 (8 days total)	<p>5.OA.A.1</p> <p>5.OA.A.1</p> <p>5.OA.A.1</p> <p>5.OA.A.2</p> <p>5.OA.A.1</p> <p>5.OA.A.2</p>	<p>Obj. We are learning to:</p> <ul style="list-style-type: none"> • Use number properties. • Use order of operations to evaluate numerical expressions. • Write numerical expressions. • Use order of operations to evaluate expressions with grouping symbols. <p>Suggested Formative Assessment(s):</p> <ul style="list-style-type: none"> • Performance Task Preview & Vocabulary • Day 1 Performance Task • Day 2 Centers • Day 3 Chapter Assessment • Big Ideas assessments • iReady . 	<p>Activities:</p> <p>Chapter 2 Opener: Numerical Expressions</p> <p>Lesson 2.1: Number Properties</p> <p>Lesson 2.2: Order of Operations</p> <p>Lesson 2.3: Write Numerical Expressions</p> <p>Lesson 2.4: Evaluate Expressions with Grouping Symbols</p> <p>End of Chapter 2: Place Value Concepts</p> <p>End of Chapter 2: Place Value Concepts</p> <p>End of Chapter 2: Place Value Concepts</p> <p>Materials</p> <p>*Big Ideas Materials</p> <p>*Stop watches/timers</p> <p>Place value charts (from millions to thousandths)</p> <p>*Multiplication and division charts</p> <p>*Manipulatives (cubes, money, coins, counters)</p> <p>Index cards</p> <p>*Paper (chart, graph, lined, and blank)</p> <p>Base ten blocks</p> <p>Calculators</p> <p>Colored pencils, markers, crayons</p> <p>*Dry erase boards</p> <p>Google Classroom Math</p>

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			Iready Math Reflex Math SplashLearn Khan Academy Math Aids Place Value: http://www.math-aids.com/Place_Value/ http://www.commoncoresheets.com/Values.php http://www.printable-math-worksheets.com/place-value-chart.html https://www.teacherspayteachers.com/FreeDownload/Decimal-Place-Value-Review-Shuffle-431957
Big Ideas Chapter 3 (10 days total)	5.NBT.A.4 5.NBT.B.7 5.NBT.B.7 5.NBT.B.7 5.NBT.B.7 5.NBT.B.7 5.NBT.B.7 5.NBT.B.7	<p>Obj. We are learning to:</p> <ul style="list-style-type: none"> • Use rounding or compatible numbers to estimate sums and differences of decimals. • Use models to add or subtract decimals. • Add decimals and check whether the sum is reasonable. • Subtract decimals and check my answer. • Use addition and subtraction to evaluate expressions involving decimals. • Use mental math to add or subtract decimals. • Solve multi-step word problems involving money. <p>Suggested Formative Assessment(s):</p> <ul style="list-style-type: none"> • Performance Task Preview & Vocabulary • Day 1 Performance Task • Day 2 Centers • Day 3 Chapter Assessment • Big Ideas assessments • iReady 	<p>Activities:</p> <p>Chapter 3 Opener: Add and Subtract Decimals</p> <p>Lesson 3.1: Estimate Sums and Differences</p> <p>Lesson 3.2: Use Models to Add or Subtract Decimals</p> <p>Lesson 3.3: Add Decimals</p> <p>Lesson 3.4: Subtract Decimals</p> <p>Lesson 3.5: Add and Subtract Decimals</p> <p>Lesson 3.6: Use Mental Math to Add or Subtract Decimals</p> <p>Lesson 3.7: Problem Solving: Money</p> <p>End of Chapter 3: Add and Subtract Decimals</p> <p>End of Chapter 3: Add and Subtract Decimals</p> <p>Review multiplication skills for Chapter 4</p> <p>Materials</p> <p>*Big Ideas Materials</p> <p>*Stop watches/timers</p> <p>Place value charts (from millions to thousandths)</p> <p>*Multiplication and division charts</p> <p>*Manipulatives (cubes, money, coins, counters)</p> <p>Index cards</p> <p>*Paper (chart, graph, lined, and blank)</p> <p>Base ten blocks</p> <p>Calculators</p> <p>Colored pencils, markers, crayons</p> <p>*Dry erase boards</p> <p>Google Classroom Math</p> <p>Iready Math</p> <p>Reflex Math</p> <p>SplashLearn</p> <p>Khan Academy</p>

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			<p>Math Aids Place Value: http://www.math-aids.com/Place_Value/ http://www.commoncoresheets.com/Values.php http://www.printable-math-worksheets.com/place-value-chart.html https://www.teacherspayteachers.com/FreeDownload/Decimal-Place-Value-Review-Shuffle-431957 .</p>
<p>Big Ideas Chapter 4 (8 days total)</p>	<p>5.NBT.A.2 5.NBT.A.2 5.NBT.B.5 5.NBT.B.5 5.NBT.B.5</p>	<p>Obj. We are learning to:</p> <ul style="list-style-type: none"> Find products involving multiples of 10 and powers of 10. Use rounding and compatible numbers to estimate products. Multiply multi-digit numbers by one-digit numbers. Multiply multi-digit numbers by two-digit numbers. Multiply multi-digit whole numbers. <p>Suggested Formative Assessment(s):</p> <ul style="list-style-type: none"> Performance Task Preview & Vocabulary Day 1 Performance Task Day 2 Centers Day 3 Chapter Assessment Big Ideas assessments iReady . 	<p>Activities:</p> <p>Chapter 4 Opener: Multiply Whole Numbers Lesson 4.1: Multiplication Patterns Lesson 4.2: Estimate Products Lesson 4.3: Multiply by One-Digit Numbers Lesson 4.4: Multiply by Two-Digit Numbers Lesson 4.5: Multiply Multi-Digit Whole Numbers End of Chapter 4: Multiply Whole Numbers End of Chapter 4: Multiply Whole Numbers</p> <p>Materials</p> <p>*Big Ideas Materials *Stop watches/timers Place value charts (from millions to thousandths) *Multiplication and division charts *Manipulatives (cubes, money, coins, counters) Index cards *Paper (chart, graph, lined, and blank) Base ten blocks Calculators Colored pencils, markers, crayons *Dry erase boards Google Classroom Math Iready Math Reflex Math SplashLearn Khan Academy Math Aids Place Value: http://www.math-aids.com/Place_Value/ http://www.commoncoresheets.com/Values.php http://www.printable-math-worksheets.com/place-value-chart.html https://www.teacherspayteachers.com/FreeDownload/Decimal-Place-Value-Review-Shuffle-431957 .</p>

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<p>Big Ideas Chapter 5 (10 days total)</p>	<p>5.NBT.A.2 5.NBT.B.7 5.NBT.A.4 5.NBT.B.7 5.NBT.B.7 5.NBT.B.7 5.NBT.B.7 5.NBT.B.7 5.NBT.B.7 5.NBT.B.7</p>	<p>Obj. We are learning to:</p> <ul style="list-style-type: none"> Find products involving decimals and powers of 10. Use rounding and compatible numbers to estimate products of decimals and whole numbers. Use models to multiply decimals and whole numbers. Multiply decimals and whole numbers. Use models to multiply decimals. Use partial products to multiply decimals. Use estimation and properties to multiply decimals. Multiply decimals. Solve multi-step word problems involving money. Multiply decimals. <p>Suggested Formative Assessment(s):</p> <ul style="list-style-type: none"> Performance Task Preview & Vocabulary Day 1 Performance Task Day 2 Centers Day 3 Chapter Assessment Big Ideas assessments iReady . 	<p>Activities:</p> <p>Lesson 5.1: Multiplication Patterns with Decimals Lesson 5.2: Estimate Products of Decimals and Whole Numbers Lesson 5.3: Use Models to Multiply Decimals and Whole Numbers Lesson 5.4: Multiply Decimals and Whole Numbers Lesson 5.5: Use Models to Multiply Decimals Lesson 5.6: Use Partial Products to Multiply Decimals Lesson 5.7: Use Strategies to Multiply Decimals Lesson 5.8: Multiply Decimals Lesson 5.9: Problem Solving: Multiply with Money End of Chapter 5: Multiply Decimals</p> <p>Materials</p> <p>*Big Ideas Materials *Stop watches/timers Place value charts (from millions to thousandths) *Multiplication and division charts *Manipulatives (cubes, money, coins, counters) Index cards *Paper (chart, graph, lined, and blank) Base ten blocks Calculators Colored pencils, markers, crayons *Dry erase boards Google Classroom Math Iready Math Reflex Math SplashLearn Khan Academy Math Aids Place Value: http://www.math-aids.com/Place_Value/ http://www.commoncoresheets.com/Values.php http://www.printable-math-worksheets.com/place-value-chart.html https://www.teacherspayteachers.com/FreeDownload/Decimal-Place-Value-Review-Shuffle-431957 .</p>
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Technology Integration	Interdisciplinary Connections	21st Century Life and Career Skills
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<ul style="list-style-type: none"> ● Google Classroom ● Prodigy to help review skills ● http://www.abcya.com/fifth_grade_computers.htm ● http://www.mathchimp.com/5th-grade-math-resources ● https://www.illustrativemathematics.org/5 ● https://www.khanacademy.org/commoncore/grade-5-NBT ● http://www.learningfarm.com/web/practicePassThrough.cfm?TopicID=636 ● Big Ideas Exit Ticket ● Iready Math ● SplashLearn 	<p>Next Gen Science Standards (5. Structure and Properties of Matter Unit have connections to 5.NBT.A.1; 5.NF.B.7; 5.MD.A.1; 5.MD.C.3; 5.MD.C.4)</p> <p>Next Gen Science Standards (5. Matter and Energy in Organisms and Ecosystems Unit have connections to 5.MD.A.1)</p> <p>Next Gen Science Standards (5. Space Systems: Stars and the Solar System Unit have connections to 5.NBT.A.2 and 5.G.A.2)</p> <p>Reading Connection: RI.MF.5.6. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, or interactive elements on web pages) and explain how the information contributes to an understanding of the text in which it appears.</p> <p>L.VL.5.2. Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.</p>	<ul style="list-style-type: none"> ● 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. ● CRP11. Use technology to enhance productivity.
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[Link to Additional Components including Cross Curricular Connections, Accommodations, Assessments, Etc](#)

[ELA Enduring Understanding Statements](#)