Swedesboro-Woolwich School District's Mathematics Curriculum Guidance Document

GRADE 5– Unit 2

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: • Long Division • Dividing Decimals • Adding & Subtracting Fractions • Multiplying Fractions • Dividing Fractions

Standards Covered in Current Unit/Module		
CCS Priority Standard	**Learning Goals**	**Learning Targets**

NBT.B.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	• -Students will be able to find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors.	• -I can use multiplication to divide. (6-1) • -I can use place value and division facts to find quotients.(6-2) • -I can use division facts and compatible numbers to estimate quotients. (6-3) • -I can divide multi-digit numbers by one-digit numbers. (6-4) • -I can use an area model and partial quotients to divide (6-5) • -I can use partial quotients to divide with a remainder. (6-6) • -I can divide three-digit numbers by two-digit numbers. (6-7) • -I can divide four-digit numbers by two-digit numbers. (6-8) • -I can solve word problems involving division of whole numbers. (6-9)
5.NBT.B.7 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.	• -Students will be able to divide decimals.	• -I can find quotients involving decimals and power of 10 (7-1) • -I can use compatible numbers to estimate quotients involving decimals. (7-2) • -I can use models to divide decimals by whole numbers. (7-3) • I can divide decimals by one‑digit whole numbers. (7-4) • I can divide decimals by two‑digit whole numbers. (7-5) • I can use models to divide decimals by decimals. (7-6) • I can divide decimals by decimals. (7-7) • I can insert zeros in the dividend when dividing with decimals and whole numbers. (7-8) • I can solve word problems involving decimals. (7-9)

NF.A.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)	• -Students will be able to add and subtract fractions with unlike denominators.	• I can write fractions in simplest form. • I can estimate sums and differences of fractions. • I can write fractions using a common denominator. • I can add fractions with unlike denominators. • I can subtract fractions with unlike denominators. • I can add mixed numbers with unlike denominators. • I can subtract mixed numbers with unlike denominators. • I can solve multi-step word problems involving fractions and mixed numbers.
5.NF.A.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2.	• -Students will be able to solve word problems involving addition and subtraction of fractions.	• I can estimate sums and differences of fractions. (8-2) • I can add fractions with unlike denominators. (8-4) • I can subtract fractions with unlike denominators.(8-5) • I can add mixed numbers with unlike denominators. (8-6) • I can subtract mixed numbers with unlike denominators. (8-7) • I can solve multi-step word problems involving fractions and mixed numbers. (8-8)

5.NF.B.4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.	• -Students will be able to multiply a fraction or whole number by a fraction.	• -I can multiply whole numbers by fractions. (9-1) • -I can multiply fractions by whole numbers. (9-2 & 9-3) • -I can use models to multiply a fraction by a fraction.(9-4) • -I can multiply a fraction by a fraction. (9-5) • -I can find areas of rectangles. (9-6)
NF. B.6 Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.	• Students will be able to solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.	• I can multiply whole numbers by fractions. (9-1) • I can multiply fractions by whole numbers. (9-2 & 9-3) • I can use models to multiply a fraction by a fraction.(9-4) • I can multiply a fraction by a fraction. (9-5) • I can find areas of rectangles. (9-6) • I can multiply a mixed number by a mixed number (9-7)
5.NF.B.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.1	• -Students will be able to apply their understanding of division to divide unit fractions by whole numbers and whole numbers by unit fractions.	• I can divide whole numbers by unit fractions. (10-3) • I can divide unit fractions by whole numbers. (10-4) • I can solve multi-step word problems involving division with fractions. (10-5)

Essential Questions
How do we find whole number quotients of whole number with up to four digit dividends? How do we solve problems with whole numbers and decimals? How do we add, subtract, multiply and divide with fractions? How do we solve real world problems involving multiplication of fraction and mixed numbers?

Weekly Learning Activities and Pacing Guide			
Topic & # Days	**NJ Standards**	**Critical Knowledge & Skills**	**Possible Resources & Activities**
Big Ideas Chapter 6 (13 days total)	5.NBT.B.6 5.NBT.B.6 5.NBT.B.6 5.NBT.B.6 5.NBT.B.6 5.NBT.B.6 5.NBT.B.6 5.NBT.B.6 5.NBT.B.6 5.NF.B.3	**Obj. We are learning to**: ● Use multiplication to divide. ● Use place value and division facts to find quotients. ● Use division facts and compatible numbers to estimate quotients. ● Divide multi-digit numbers by one-digit numbers. ● Use an area model and partial quotients to divide. ● Use partial quotients to divide with a remainder. ● Divide three-digit numbers by two-digit numbers. ● Divide four-digit numbers by two-digit numbers. ● Solve word problems involving division of whole numbers. **Suggested Formative Assessment(s)**: ● Performance Task Preview & Vocabulary ● Day 1 Performance Task ● Day 2 Centers ● Day 3 Chapter Assessment ● Big Ideas assessments ● iReady .	**Activities:** Chapter 6 Opener: Divide Whole Numbers Lesson 6.1: Relate Multiplication and Division Lesson 6.2: Division Patterns Lesson 6.3: Estimate Quotients Lesson 6.4: Divide by One-Digit Numbers Lesson 6.5: Use Partial Quotients to Divide by Two-Digit Numbers Lesson 6.6: Use Partial Quotients with a Remainder Lesson 6.7: Divide Three-Digit Numbers by Two-Digit Numbers Lesson 6.8: Divide Four-Digit Numbers by Two-Digit Numbers Lesson 6.9: Problem Solving: Division End of Chapter 6: Divide Whole Numbers End of Chapter 6: Divide Whole Numbers End of Chapter 6: Divide Whole Numbers **Materials** *Big Ideas Materials *Stop watches/timers *Multiplication and division charts *Manipulatives (cubes, money, coins, counters) *Paper (chart, graph, lined, and blank) *Dry erase boards Menus from a restaurant Base 10 blocks 10x10 grids Index cards (blank and numbers 0-9) Dominos Shopping catalogs Play money Number cubes Google Classroom Math Iready math Reflex Math Fraction Strips

			Fraction Circles Prodigy (free online games) https://www.prodigygame.com/ Education (printable sheets) Math Worksheets http://www.mathworksheetsland.com/5/ Lumos Learning http://www.lumoslearning.com/llwp/resources/common-core-parcc-practice-tests-and-sample-questions/sample-questions.html?cur=555&id=7607 LearnZillion (free online games) https://learnzillion.com/p/ Purchase games and activities from TpT for Daily 3 Math centers .
Big Ideas Chapter 7 (12 days total)	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 5.NBT.B.7	**Obj. We are learning to**: ● Find quotients involving decimals and powers of 10. ● Use compatible numbers to estimate quotients involving decimals. ● Use models to divide decimals by whole numbers. ● Divide decimals by one-digit whole numbers. ● Divide decimals by two-digit whole numbers. ● Use models to divide decimals by decimals. ● Divide decimals by decimals. ● Insert zeros in the dividend when dividing with decimals and whole numbers. ● Solve word problems involving decimals. **Suggested Formative Assessment(s)**: ● Performance Task Preview & Vocabulary ● Day 1 Performance Task ● Day 2 Centers ● Day 3 Chapter Assessment ● Big Ideas assessments ● iReady .	**Activities:** Chapter 7 Opener: Divide Decimals Lesson 7.1: Division Patterns with Decimals Lesson 7.2: Estimate Decimal Quotients Lesson 7.3: Use Models to Divide Decimals by Whole Numbers Lesson 7.4: Divide Decimals by One-Digit Numbers Lesson 7.5: Divide Decimals by Two-Digit Numbers Lesson 7.6: Use Models to Divide Decimals Lesson 7.7: Divide Decimals Lesson 7.8: Insert Zeros in the Dividend Lesson 7.9: Problem Solving: Decimal Operations End of Chapter 7: Divide Decimals End of Chapter 7: Divide Decimals **Materials** *Big Ideas Materials *Stop watches/timers *Multiplication and division charts *Manipulatives (cubes, money, coins, counters) *Paper (chart, graph, lined, and blank) *Dry erase boards Menus from a restaurant Base 10 blocks 10x10 grids Index cards (blank and numbers 0-9) Dominos Shopping catalogs Play money

			Number cubes Google Classroom Math Iready math Reflex Math Fraction Strips Fraction Circles Prodigy (free online games) https://www.prodigygame.com/ Education (printable sheets) Math Worksheets http://www.mathworksheetsland.com/5/ Lumos Learning http://www.lumoslearning.com/llwp/resources/common-core-parcc-practice-tests-and-sample-questions/sample-questions.html?cur=555&id=7607 LearnZillion (free online games) https://learnzillion.com/p/ Purchase games and activities from TpT for Daily 3 Math centers .
Big Ideas Chapter 8 (12 days total)	5.NF.A.1 5.NF.A.1 5.NF.A.2 5.NF.A.1 5.NF.A.1 5.NF.A.2 5.NF.A.1 5.NF.A.2 5.NF.A.1 5.NF.A.2 5.NF.A.1 5.NF.A.2 5.NF.A.1 5.NF.A.2	**Obj. We are learning to**: ● Write fractions in simplest form ● Estimate sums and differences of fractions. ● Write fractions using a common denominator. ● Add fractions with unlike denominators. ● Subtract fractions with unlike denominators. ● Add mixed numbers with unlike denominators. ● Subtract mixed numbers with unlike denominators. ● Solve multi-step word problems involving fractions and mixed numbers. **Suggested Formative Assessment(s)**: ● Performance Task Preview & Vocabulary ● Day 1 Performance Task ● Day 2 Centers ● Day 3 Chapter Assessment ● Big Ideas assessments ● iReady .	**Activities:** Chapter 8 Opener: Add and Subtract Fractions Lesson 8.1: Simplest Form Lesson 8.2: Estimate Sums and Differences of Fractions Lesson 8.3: Find Common Denominators Lesson 8.4: Add Fractions with Unlike Denominators Lesson 8.5: Subtract Fractions with Unlike Denominators Lesson 8.6: Add Mixed Numbers Lesson 8.7: Subtract Mixed Numbers Lesson 8.8: Problem Solving: Fractions End of Chapter 8: Add and Subtract Fractions End of Chapter 8: Add and Subtract Fractions End of Chapter 8: Add and Subtract Fractions **Materials** *Big Ideas Materials *Stop watches/timers *Multiplication and division charts *Manipulatives (cubes, money, coins, counters) *Paper (chart, graph, lined, and blank) *Dry erase boards Menus from a restaurant Base 10 blocks

			10x10 grids Index cards (blank and numbers 0-9) Dominos Shopping catalogs Play money Number cubes Google Classroom Math Iready math Reflex Math Fraction Strips Fraction Circles Prodigy (free online games) https://www.prodigygame.com/ Education (printable sheets) Math Worksheets http://www.mathworksheetsland.com/5/ Lumos Learning http://www.lumoslearning.com/llwp/resources/common-core-parcc-practice-tests-and-sample-questions/sample-questions.html?cur=555&id=7607 LearnZillion (free online games) https://learnzillion.com/p/ Purchase games and activities from TpT for Daily 3 Math centers .
Big Ideas Chapter 9 (11 days total)	5.NF.B.4a 5.NF.B.6 5.NF.B.4a 5.NF.B.6 5.NF.B.4a 5.NF.B.6 5.NF.B.4a 5.NF.B.6 5.NF.B.4a 5.NF.B.6 5.NF.B.4b 5.NF.B.6 5.NF.B.6 5.NF.B.5a 5.NF.B.5b	**Obj. We are learning to**: ● Multiply whole numbers by fractions. ● Multiply fractions by whole numbers. ● Multiply fractions and whole numbers. ● Use models to multiply a fraction by a fraction. ● Multiply a fraction by a fraction. ● Find areas of rectangles. ● Multiply a mixed number by a mixed number. ● Compare a product to each of its factors. **Suggested Formative Assessment(s)**: ● Performance Task Preview & Vocabulary ● Day 1 Performance Task ● Day 2 Centers ● Day 3 Chapter Assessment	**Activities:** Chapter 9 Opener: Multiply Fractions Lesson 9.1: Multiply Whole Numbers by Fractions Lesson 9.2: Use Models to Multiply Fractions by Whole Numbers Lesson 9.3: Multiply Fractions and Whole Numbers Lesson 9.4: Use Models to Multiply Fractions Lesson 9.5: Multiply Fractions Lesson 9.6: Find Areas of Rectangles Lesson 9.7: Multiply Mixed Numbers Lesson 9.8: Compare Factors and Products End of Chapter 9: Multiply Fractions End of Chapter 9: Multiply Fractions **Materials** *Big Ideas Materials *Stop watches/timers *Multiplication and division charts *Manipulatives (cubes, money, coins, counters)

		● Big Ideas assessments ● iReady .	*Paper (chart, graph, lined, and blank) *Dry erase boards Menus from a restaurant Base 10 blocks 10x10 grids Index cards (blank and numbers 0-9) Dominos Shopping catalogs Play money Number cubes Google Classroom Math Iready math Reflex Math Fraction Strips Fraction Circles Prodigy (free online games) https://www.prodigygame.com/ Education (printable sheets) Math Worksheets http://www.mathworksheetsland.com/5/ Lumos Learning http://www.lumoslearning.com/llwp/resources/common-core-parcc-practice-tests-and-sample-questions/sample-questions.html?cur=555&id=7607 LearnZillion (free online games) https://learnzillion.com/p/ Purchase games and activities from TpT for Daily 3 Math centers .
Big Ideas Chapter 10 (7 days total)	5.NF.B.3 5.NF.B.3 5.NF.B.7b 5.NF.B.7c 5.NF.B.7a 5.NF.B.7c 5.NF.B.7c	**Obj. We are learning to**: ● Understand how fractions relate to division. ● Understand how mixed numbers relate to division. ● Divide whole numbers by unit fractions. ● Divide unit fractions by whole numbers. ● Solve multi-step word problems involving division with fractions. **Suggested Formative Assessment(s)**: ● Performance Task Preview & Vocabulary ● Day 1 Performance Task ● Day 2 Centers	**Activities:** Lesson 10.1: Interpret Fractions as Division Lesson 10.2: Mixed Numbers as Quotients Lesson 10.3: Divide Whole Numbers by Unit Fractions Lesson 10.4: Divide Unit Fractions by Whole Numbers Lesson 10.5: Problem Solving: Fraction Division End of Chapter 10: Divide Fractions End of Chapter 10: Divide Fractions **Materials** *Big Ideas Materials *Stop watches/timers *Multiplication and division charts *Manipulatives (cubes, money, coins, counters)

		• Day 3 Chapter Assessment • Big Ideas assessments • iReady .	*Paper (chart, graph, lined, and blank) *Dry erase boards Menus from a restaurant Base 10 blocks 10x10 grids Index cards (blank and numbers 0-9) Dominos Shopping catalogs Play money Number cubes Google Classroom Math Iready math Reflex Math Fraction Strips Fraction Circles Prodigy (free online games) https://www.prodigygame.com/ Education (printable sheets) Math Worksheets http://www.mathworksheetsland.com/5/ Lumos Learning http://www.lumoslearning.com/llwp/resources/common-core-parcc-practice-tests-and-sample-questions/sample-questions.html?cur=555&id=7607 LearnZillion (free online games) https://learnzillion.com/p/ Purchase games and activities from TpT for Daily 3 Math centers .

Technology Integration	Interdisciplinary Connections	21st Century Life and Career Skills
• 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	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) Next Gen Science Standards (5. Matter and Energy in Organisms and Ecosystems Unit have connections to 5.MD.A.1)	• 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.

• https://www.khanacademy.org/commoncore/grade-5-NBT • http://www.learningfarm.com/web/practicePassThrough.cfm?TopicID=636 • Big Ideas Exit Ticket • Iready Math • SplashLearn	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) 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. 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.	

Link to Additional Components including Cross Curricular Connections, Accommodations, Assessments, Etc

ELA Enduring Understanding Statements