Grade 5 Mathematics – Unit 3: Fractions

Phoenixville Area School District

Stage 1 Desired Results		
PA Core Standards: CC.2.1.5.C.1 - Use the understanding of equivalency to add and subtract fractions. CC.2.1.5.C.2 - Apply and extend previous understandings of multiplication and division to multiply and divide fractions **PSSA Assessment Anchors:** M05.A-F.1.1 - Solve addition and subtraction problems involving fractions (straight computation or word problems). M05.A-F.2.1 - Solve multiplication and division problems involving fractions and whole numbers (straight computation or word problems).	*Transfer*	
	TRANSFER GOALS *Students will be able to independently use their learning to…* • *Number Sense*: Develop a sound foundation to demonstrate the value of numbers by describing their various representations, relationships, and patterns. • *Fluency*: Demonstrate automatic recall of addition, subtraction, multiplication and division facts. • *Problem-Solving*: Persistently apply various problem-solving strategies and organized approaches to accurately understand and solve problems. • *Mathematical Vocabulary*: Interpret mathematical vocabulary and apply proper terminology to engage in meaningful oral and written expression that communicates mathematical thinking, problem-solving methods, and rationale.	
	Meaning	
	UNDERSTANDINGS *Students will understand that…* • Depending on the situation, problems may be solved using a variety of tools and strategies. • Estimation helps determine the reasonableness of an answer. • Mathematical ideas interconnect and build on one another to produce a coherent whole. • Various mathematical representations are useful for problem solving and communicating a solution.	ESSENTIAL QUESTIONS *Students will keep considering...* • How are the basic operations related to one another? How do numerical properties assist in computation? • What do effective problem solvers do, and what do they do when they get stuck? • What counts as an adequate solution? Does my answer make sense?
	Knowledge and Skills Acquisition	
	KNOWLEDGE *Students will know…*	SKILLS *Students will be skilled at…*

- Equivalent fractions can represent the same portion of the whole, and simplifying is one way to create an equivalent fraction - Finding Least Common Denominator (LCD) and Greatest Common Factor (GCF) are necessary to create equivalent fractions - Fractions are parts of a whole that can be added and subtracted - Real-world situations can involve fractions and problem-solving strategies help us make sense of those situations - Fractions can be multiplied and divided with other fractions and with whole numbers - Mixed numbers are ways to represent wholes and parts, and they can be added/subtracted, and converted to improper fractions VOCABULARY - Equivalent Fraction - Mixed Number - Reciprocal - Greatest Common Factor - Least Common Multiple	- Creating equivalent fractions using multiplication and division with open-ended questions. - Identifying LCD and GCF for the purposes of simplifying fractions and finding equivalent fractions. - Performing operations involving fractions and whole numbers with open-ended questions. - Solving real-world problems involving fractions using open-ended and constructed response questions. - Converting fractions from improper form to mixed number form and vice versa.

Stage 2 – Evidence

Code A/M/T	Evaluative Criteria	Assessment Evidence	
M/T	*What criteria will be used in each assessment to evaluate attainment*	PERFORMANCE TASK(S) *Students will demonstrate understanding (meaning-making and transfer) through complex performance by...* **Trip to Disneyland Performance Task (Addition/Subtraction of fractions only)** ***High level of difficulty – use for enrichment or to determine score of "4"**	Differentiation Considerations: [Work on this section after

	of the desired results?	Students will add and subtract fractions to determine amount of gas used, and a reasonable schedule for visiting the attraction sites. • *Goal:* Your task is to figure out how much gas will be used for various parts of your journey to Disneyland. You will also figure out a schedule for visiting different attraction sites. • *Role/Audience:* You are a traveler is California going to Disneyland. • *Situation/Product:* You will use fraction strategies (pictorial & equation) to demonstrate solution. • *Success Criteria:* Your solutions and explanations are accurate and clearly represent the steps you took to answer each question. **Math in Focus: Chapter 2 Performance Task** <u>M05.A-F.1.1</u> • MIF Student Edition Pages 175-179 • *Use problems 1-2 only for assessment, 3-4 for enrichment **Math in Focus: Chapter 3 Performance Task** <u>M05.A-F.2.1</u> • MIF Student Edition Pages 283-286 • *Use problems 1-2 only for assessment, 3-4 for enrichment. (#3 on PT is similar to #12 on Canvas test)	completing Stages 1-2 of all units]
A/M	*What criteria will be used in each assessment to evaluate attainment of the desired results?*	OTHER EVIDENCE **Unit Test A: MIF Ch 2 Fractions and Mixed Numbers for Standard** <u>M05.A-F.1.1</u> • *See Math in Focus Chapter 2 Test *Already created in Canvas* • Multiple Choice • Open-Ended Response • Constructed Response Prompts (TBD) **Unit Test A - MIF Chapter 2 Test Cover Sheet** • Used 2021-2022 **Canvas Math in Focus Chapter 2 Test used 2020-2021** • Search "Math in Focus: 5th grade Chapter 2 Test" **Unit Test B: MIF Ch 3 Multiplying and Dividing Fractions and Mixed Numbers** <u>M05.A-F.2.1</u>	Differentiation Considerations: [Work on this section after completing Stages 1-2 of all units]

| | | *See Math in Focus Chapter 3 Test *Already created in Canvas* Multiple Choice Open-Ended Response Constructed Response Prompts (TBD) **Canvas Math in Focus Chapter 3 Test used 2020-2021** Search "Math in Focus: 5th grade Chapter 3 Test" | |