Established Goals:	**Transfer**
Standards **6.NS.1** Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because ¾ of 8/9 is 2/3. In general, (a/b) ÷ (c/d) = (ad/bc) How much chocolate will each person get if 3 people share 1`/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length ¾ mi and area ½ square mi.? **6.NS.2** Fluently divide multi-digit numbers using the standard algorithm. **6.NS.3** Fluently add, subtract, multiply, and divide multi-digit decimals using the standards algorithm for each operation. **6.NS.5** Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts explaining the meaning of 0 in each situation. **6.SP.1** Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages. **6.SP.2** Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape. **6.SP.3** Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number. **6.SP.5c,d** Summarize numerical data sets in	*Students will be able to:* ● Compute quotients of fractions. ● Construct visual fraction models to represent quotients and explain the relationship between multiplication and division of fractions. ● Solve real-world problems involving quotients of fractions and interpret the solutions in the context given. ● Fluently add, subtract, multiply and divide multi-digit decimals and whole numbers using standard algorithms. ● Use positive and negative numbers to describe quantities in real-world situations. ● Calculate, compare, and interpret measures of center and variability in a data set to answer a statistical question. (Including median, mean, interquartile range, mean absolute deviation and overall pattern).

Meaning	
ENDURING UNDERSTANDING	ESSENTIAL QUESTIONS
● When you multiply a whole number and a proper fraction the product is less than the whole number. ● The product of a fraction, x/y, and a whole can be interpreted as dividing the whole into y parts and then taking x of those parts. ● The product of two fractions can be found by writing the product of the numerators over the product of the denominators ● In order to perform calculations involving mixed numbers, you must transform then into improper fractions ● A division expression containing fractions can be changed to an equivalent multiplication expression to solve ● Rewrite division of mixed numbers as multiplication problems using improper fractions and the reciprocal of the divisor.	How do I find the reciprocal of a fraction? What is the process for dividing fractions? What does a negative number represent? What does the measures of center tell you about a data set?

Acquisition	
KNOWLEDGE	SKILLS
Students will know how to…	*Students will be skilled at…*

relation to their context, such as by: c. Giving quantitative mesures of center (mean and/or median) and variability (interquartile range and/or mean absolute deviation) as well as describing any overall pattern with reference to the context the data gathered. d. Relating the choice of measures of center and variabiity to the shape of the data distribution and the context in which the data were gathered.	Compute quotients of fractions. Construct visual fraction models to represent quotients Solve real-world problems involving quotients of fractions and interpret the solutions Fluently add, subtract, multiply and divide multi-digit decimals and whole numbers Use positive and negative numbers to describe quantities in real-world situations. Calculate, compare, and interpret measures of center and variability in a data set to answer a statistical questions.	Dividing Fractions Add and subtraction whole numbers and decimals Multiply and Divide whole numbers and decimals Calculate mean, median, interquartile range, and mean absolute deviation

Vocabulary	Instruction and Pacing	
	Addition and Subtraction of multi digit decimals and whole numbers	**1 ½ weeks**
	Multiplication and Division of multi digit decimals and whole numbers	**1 ½ weeks**
Greatest Common Factor Inverse	**Compute quotients of fractions**	**2 weeks**
Quotient	**Use positive and negative numbers to describe real world situations**	**1/2 week**
Reciprocal Median Mean Interquartile Range Mean Absolute Deviation	**Calculate, compare, and interpret measures of center and variability in data sets**	**2 weeks**
Resources		
Textbook: EnvisonMath Sections 8.1, 8.3, 8.4, 9.1,9.2,9.3,9.5 **Wesbsites: Math-Aids.com, mathworksheetsland.com, www.k5learning.com, worksheetworks.com, commoncoresheets.com** **Other textbooks**		

Differentiation and Accommodations
Provide graphic organizers Provide additional examples and opportunities for additional problems for repetition Provide tutoring opportunities Provide retesting opportunities after remediation (up to teacher and district discretion) Teach for mastery not test Teaching concepts in different modalities Adjust pace and homework assignments
ELL Modifications ●

21st Century Skills	Critical Thinking, Creative Thinking, Collaborating, Communicating, and Technology Literacy
Instructional Strategies	Fairfield School recognizes the importance of the varying methodologies that may be successfully employed by teachers within the classroom and, as a result, identifies a wide variety of possible instructional strategies that may be used effectively to support student achievement. These may include, but not be limited to, strategies that fall into categories identified by the Framework for Teaching by Charlotte Danielson: ● Communicating with students ● Using questioning and discussion techniques ● Engaging students in learning ● Using assessment in instruction ● Demonstrating Flexibility and Responsiveness
Interdisciplinary Connections	

Common Misconceptions	Proper Conceptions
Using the reciprocal of the wrong fraction when dividing fractions.	The second fraction gets reciprocated when dividing fractions
Confusing the mean and median of a data set	Mean is the average of the data and median is the middle value of the data
Negative numbers are not below zero	Negative numbers are to the left of zero on a number line.

Performance Task
A farmer receives a shipment of 121 ½ pounds of animal food. The animal food comes in bags weighing 40 ½ pounds each. Part A: How many bags of food did the farmer receive? Part B: If each bag of food costs $31.50, how much does the farmer need to pay?

Part C: If the animals eat 4½ pounds of food per day, how many days will the food last?

Rubric

1 point for each correct answer

Suggested Formative Assessment

Problem of the Day

Lesson Quizzes

Exit Ticket

Anecdotal Records (Topic Observation Checklist)

Suggested Summative Assessment

Grade level developed Unit/Envisions Topic Tests

Ed-Connect Express Tests /State Unit Benchmark Assessment/Performance Task