Teacher(s): Mrs. Breazeale (Ms. DeBLanc) & Mr. Contreras (Ms. Moran)
Subject/Grade: 7th /Grade Math
Week of: Aug 28, 2023
Domain: The Number System
Lesson Plan Title: UNIT RATE

	MATHEMATICS - Mississippi College and Career Readiness Standards for 7th Grade
Numbers & Operations	7.NS. 1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addi... 7.NS.1a Describe situations in which opposite quantities combine and make 0. 7.NS.1b Understand that p + q is the number located a distance from the absolute value of q from p, in the positive or negative directi... 7.NS.1c Understand subtraction of rational numbers as adding the additive inverse. Show that the distance between two rational nu... 7.NS.1d Apply properties of operations as strategies to add and subtract rational numbers. 7.NS.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational nu... 7.NS.2a Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to sati... 7.NS.2b Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero ... 7.NS.2c Apply properties of operations as strategies to multiply and divide rational numbers. 7.NS.2d Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in ... 7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers.
Ratios & Proportions	**7.RP Analyze proportional relationships and use them to solve real-world and mathematical problems.** **7.RP.1 Compute unit rates associated with ratios and fractions, including ratios or lengths, areas and other quantities measured in li...**

ESSENTIAL QUESTION(S): How do I analyze proportional relationships and use them to solve real-world and mathematical problems?

Date	Day	Objective	Focus Question	I will...
	M	TSWBAT **identify, set up, and solve real-world problems involving unit rates with rational numbers?**	How do I compute unit rates involving ratios with a fraction in both the numerator and denominator?	-Identify unit rate -Set up rates based on real world problems -Calculate unit rates with rational numbers.

	T	TSWBAT **complete an iReady math lesson** by **taking notes on key vocabulary and at least three example problems** with 80% accuracy by the end of the lesson.	How do mathematicians use iReady to enhance their mathematical skills?	Use iReady to enhance my mathematical skills.
	W	TSWBAT **examine, analyze, and correct their current mixed practice test (MPT)** by **reviewing resources provided by the teacher, consulting with peers, and/or asking the teacher for help** with 100% accuracy by the end of the lesson.	How do mathematicians analyze and correct their graded tests in order to reflect on knowledge needed to master 7th grade math standards?	-Differentiate between silly mistakes and lack of knowledge. -In writing, explain the silly mistake and rework the problems that contain silly mistakes. -Use resources to help correct mistakes where mastery is not yet obtained.
	Th	TBA based on MPT data.	TBA based on MPT data.	TBA based on MPT data.
	F	TSWBAT solve real-world problems involving calculating ratios with fractions by completing 30 questions on math prodigy.	How do I solve real-world problems involving calculating ratios with fractions?	-Identify what is being compared. -Set up equivalent ratios to calculate the missing value. -Multiply and divide rational numbers.

MONDAY_ Aug 28, 2023

BELL RINGER: TSW complete 4 division problems that include negative numbers. TTW review.

ANTICIPATORY SET

Hook: Did you know there is a connection to proportion and beauty? Discuss. Before I show you this video, keep in mind that this is just a theory that I found interesting and it doesn't apply to you all since you are still growing. Show the video
https://www.youtube.com/watch?v=dfxgdfjTkhI

Real World Connection: Understanding how ratios and proportions work, will help you solve some real world problems easily.

Importance/Relevance: Say, "Ratios are used to compare values. They tell us how much of one thing there is compared to another."

TEACHER INPUT

The teacher will…

- Tell students to open RCC workbook to page 31 and gently tear out the family letter.
- Choose students to read through page 31.
- Introduce lesson vocabulary—unit rate compares two quantities where the second quantity is 1. A unit rate tells you how many units of the first quantity correspond to one unit in the second quantity. Complex fraction is a fraction where the numerator is a fraction, the denominator is a fraction, or both the numerator and the denominator are fractions.

GUIDED PRACTICE:

The student will…

- Complete pages 33-34
- Record an answer to "Reflect."
- Discuss.

CLOSURE

The student will…

- Complete a paper exit.
- Pass out homework during this time.

MATERIALS: student workbooks, exit tickets, bell ringers, lesson presentation

ASSESSMENT: Exit tickets and teacher observation

TUESDAY_ Aug 29, 2023

MPT 1.5 will be given this morning.

WARM-UP/HOOK: *The student will* login to iReady and choose "Unit Rates for Ratios with Fractions Part 1." Take notes on lesson vocabulary and lesson goals. **(5 minutes)**

TEACHER INPUT: **(5 minutes)**

The teacher will …

- Present the lesson objectives.
- Review the requirements to receive help on the lesson quiz - all vocabulary with definitions must be written down, at least 3 examples recorded from the lesson, and I need to see evidence that the students attempted to work out the current problem on paper.

INDEPENDENT PRACTICE: **(30 minutes)**

The student will …

- Listen and complete the assigned lesson to the best of their ability.
- Complete the lesson quiz with 80% or higher accuracy.

STUDENT REFLECTION/EXIT TICKET: *The student will* complete an exit ticket based on today's learning target. The teacher will use this data to determine which students need extra support. **(5 minutes)**

MATERIALS: notebook paper or "iReady Notes template," computers, projector, exit tickets

ASSESSMENT(S): Teacher observation, exit tickets, iReady lesson quiz results

WEDNESDAY_ Aug 30, 2023

WARM-UP/HOOK: *The student will* grab a data analysis sheet and a class set of Tuesday's test. Write their name, date, etc. *The teacher* will pass back their Tuesday tests. **(5 minutes)**

TEACHER INPUT: **(2 minutes)**

The teacher will …

- Direct student to mark an "X" on the questions that the students missed.

- Explain that they will use the class set of the test that includes "Teacher Notes" to rework the problems and/or explain what silly mistake they made.

INDEPENDENT PRACTICE: (30 minutes)

The student will ...

- Rework problems on their test paper.
- Justify why they missed certain problems.
- Compare their graded test to the teacher's class set/guided notes and questions.
- Identify careless mistakes and correct them.
- Use the UNRAVEL test taking strategy for math for questions not understood.
- Use the videos under the topic "Helpful Videos" in Google classroom recommended by the teacher for each question not understood.
- Notify the teacher when they think they are finished for feedback/review.
- Staple data analysis sheet to the top of their test.
- Get it signed by their parents or guardian and return the following day

Meanwhile...

TEACHER CONFERENCES: The teacher will invite individual students to her desk to discuss their most recent MPT and clear up any misconceptions and offer support. **(30 minutes)**

EARLY FINISHERS: The student will get iReady or Math Prodigy and wait patiently to be called to the teacher's desk to discuss the test and any misconceptions.

TEACHER INPUT: (10 minutes)

The teacher will ...

- Review the most missed problems or take any questions the students have.
- Check over student work and provide feedback.
- Choose a student to staple the remainder of the student's paper.
- Explain that it is mandatory to bring their tests back signed by tomorrow.

STUDENT REFLECTION/EXIT TICKET: *The student will* complete an exit ticket based on the most missed question(s). The teacher will use this data to determine which students need extra support. **(5 minutes)**

MATERIALS: graded Tuesday tests, test analysis sheets, stapler, staples, exit tickets
ASSESSMENT(S): Teacher observation, exit tickets, Tuesday test

THURSDAY_ Aug 31, 2023

To Be Announced based on the most recent MPT Math data.

Most Missed Standard(s)	Objective(s)	Activity
	TSWBAT	
	TSWBAT	
	TSWBAT	

FRIDAY_ Sep 1, 2023

WARM-UP/HOOK: *The student will* login to Prodigy . Take notes on lesson vocabulary and lesson goals. **(5 minutes)**

TEACHER INPUT: (5 minutes)

The teacher will ...

- Present the lesson objectives.
- Review the requirements to receive help on a question - I need to see evidence that the students attempted to work out the current problem on paper.

INDEPENDENT PRACTICE: (30 minutes)

The student will ...

- Complete practice problem on 7.NS.3.
- Correctly answer 30 questions or more correctly.

STUDENT REFLECTION/EXIT TICKET: *The student will* complete an exit ticket based on today's learning target. The teacher will use this data to determine which students need extra support. **(5 minutes)**

MATERIALS: computers, projector, scratch paper

ASSESSMENT(S): Teacher observation, exit tickets, iReady lesson quiz results

MPT 1.5 Results

Class	0% - 49% (Critical)	50% - 69% (Emerging)	70% - 100% (Proficient)
1st			
3rd			
4th			
5th			
7th			

MISSISSIPPI STATE STANDARDS ACROSS CURRICULUM

Math Standards

Numbers & Operations:

7.NS. 1 Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.

7.NS.1a Describe situations in which opposite quantities combine and make 0.

7.NS.1b Understand that p + q is the number located a distance from the absolute value of q from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0. Interpret sums of rational numbers by describing real-world contexts.

7.NS.1c Understand subtraction of rational numbers as adding the additive inverse. Show that the distance between two rational numbers on a number line is the absolute value of their difference, and apply this principle in real-world contexts.

7.NS.1d Apply properties of operations as strategies to add and subtract rational numbers.

7.NS.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.

7.NS.2a Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (-1)(-1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.

7.NS.2b Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-p/q = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts.

7.NS.2c Apply properties of operations as strategies to multiply and divide rational numbers.

7.NS.2d Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.

7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers.

Ratios & Proportions:

7.RP Analyze proportional relationships and use them to solve real-world and mathematical problems.

7.RP.1 Compute unit rates associated with ratios and fractions, including ratios or lengths, areas and other quantities measured in likeness of different units.