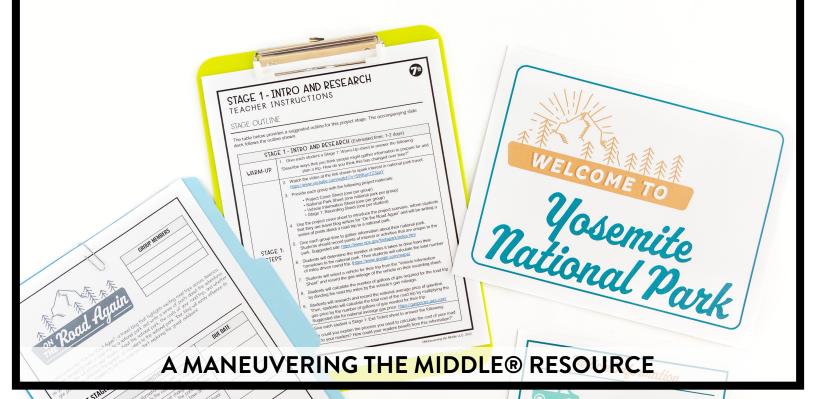
RATIONAL NUMBERS collaborative project



CCSS: 7.NS.3, 7.RP.3 | TEKS: 7.3B, 7.4D

The problem: You are writers for the travel blog "On the Road Again" and are taking a road trip to a national park to write a series of posts about the adventures on your trip.

The investigation: Students will use operations with rational numbers to determine the cost of a road trip to a national park. Students will calculate the percent change in park attendance and gas prices over time to determine if changes in gas prices affect park attendance.



RATIONAL NUMBERS 5 collaborative project



TIME FRAME: 3-5 DAYS



how is this project organized?

materials needed:

computer

+ internet access

STAGE	DESCRIPTION	TIME FRAME
1: Intro and Research	Students will learn the project scenario and will research information about a national park. Then, students will calculate the cost of gas for a road trip to the national park.	1-2 days
2: Investigation	Students will investigate whether changes in gas prices affected the number of visitors to their national park. Students will calculate the percentage change of gas prices and the number of visitors to the park over time.	1 day
3: Summarize and Post	Students will write a series of short posts summarizing information about their national park and the costs of their road trip.	1-2 days

RATIONAL NUMBERS 2 collaborative project



WHAT IS THE FINISHED PRODUCT?



7 th GRADE PRO		Total Points						
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	APOVE							
	STANDARD Calculates the cost of the ro	On the Road Again		Name				
MATHEMATICAL CONTENT	trip and percent change value without errors	7th Grade Project Rubr	ric	Name Date	Pd			
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THINKING	offecting park attendance		APOVE STANDARD	MET STANDARD	PELOW STANDARD			
	Participates fully		Calculates the cost of	Calculates the cost of	Calculates the cost of			
PARTICIPATION			the road trip and	the road trip and	the road trip and			
	15 points	MATHEMATICAL	percent change values without errors	percent change values with few errors	percent change value with multiple errors			
FOLLOWS TEACHER INSTRUCTIONS AND	Follows directions and criter fully	CONTENT	Willout errors	will rew errors	with multiple errors			
PROJECT CRITERIA	15 points		40 points	30 points	20 points			
	Final product is well organize		Provides appropriate	Provides some	Does not provide			
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FINAL PRODUCT		MATHEMATICAL	reasoning for conclusions about gas	reasoning for conclusions about gas	reasoning for conclusions about gas			
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	and includes all required deta		reasoning for conclusions about gas prices affecting park attendance	reasoning for conclusions about gas prices affecting park attendance	reasoning for conclusions about gas prices affecting park attendance			
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rubrics are provided to streamline grading



RATIONAL NUMBERS collaborative project



PLANNING IS DONE FOR YOU

STAGE 2 - INVESTIGATION TEACHER INSTRUCTIONS



STAGE OUTLINE

The table below provides a suggested outline for this project stage. The accompanying slide deck follows the outline shown.

	STAGE 2 - INVESTIGATION (Estimated time: 1 day)
WARM-UP	Give each student a Stage 2: Warm-Up handout to answer the following: "Do you think gas prices affect where people choose to travel? Explain your thinking." **Thinking** Thinking** Thinking*
MINI- LESSON	Give each student a copy of Stage 2: Recording Sheet. Tell students they will attend a brief training called "Road Trip Stops" to practice calculating percent change. Inform students they will need to utilize the skills learned in this training to write one of their blog posts. Use the examples on the slide deck to discuss calculating the percent change in prices over time.
	4. Provide each group with a "Historic Gas Prices Table". Inform students that they will be calculating the percent change in park attendance and gas prices over time to determine if changes in gas prices appear to have affected park attendance. 5. Students will record the year and the number of visitors to the park when
STAGE 2: STEPS	attendance was a Suggested site: h in-the-us/#topicH visitors to [their N 6. Students will calc park between the

each of the three stages includes teacher lesson plans



STAGE 2

Travel costs are often a consideration when travelers decide where to go on a road trip, and gasoline is the main expense of a road trip. Today, your group will investigate whether changes in gas prices appear to have affected the number of visitors to your national park.



@Maneuvering the Middle LLC, 2022

and a slide deck to present the material

7. Students will use the corresponding Students will com

> and conclude who those years.

Note: Please note the

data from 2008-2021 same time period. If g

other websites will ne

9. Give each studer

"What did you find r

EXIT

TICKET

RATIONAL NUMBERS collaborative project



EVERYTHING YOU NEED TO KEEP STUDENTS ON TRACK

what did you tind most interesting in yogas prices or park attendance? ON THE ROAD AGAIN: STAGE 2 EXITTICKET	ur research? Did anything surprise you abou	g the Middle LLC, 2022		warm exit t	
Nar What did you find most interesting in yas prices or park attendance?	STAGE 2: WARM-UP No. Do you think gas prices affect where			e: thinking.	
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gas prices or park attendance?	ON THE ROAD AGAIN: STAGE 2 WARM-UP	-			
	STAGE 2: WARM-UP No Do you think gas prices affect where		YEAR	NUMBER OF VISITORS	AVERAGE GAS PRICE
as prices or park attendance?	STAGE 2: WARM-UP	P F	ENT CHANGE	NUMBER OF VISITORS	AVERAGE GAS PRICE