## Rounding Around Town

Summary
Students will problem solve and round the milage for planning grade level field trips. They can travel up to 400 miles.

## Main Core Tie

Mathematics Grade 3
Strand: OPERATIONS AND ALGEBRAIC THINKING (3.OA) Standard 3.OA.8
Time Frame
1 class periods of 60 minutes each
Group Size
Pairs

## Life Skills

Thinking \& Reasoning, Communication

Materials
Paper
pencil
map of area
mileage chart

## Background for Teachers

Teachers will need to make sure students know how to read a map. Print off a map of the local area and make a list of places that students would love to go for a field trip. That information would help determine distances for the field trips.

## Student Prior Knowledge

Students should have already learned how to round. They should be able to add 3 digit numbers up to 1,000.

## Intended Learning Outcomes

Students will be able to determine distances for field trips - to and from- up to 400 miles. Students should be able to round to determine the mileage.
Mathematical Practice \#1 - Make sense of problems and persevere in solving them.
Mathematical Practice \#5 - Model with mathematics.
Instructional Procedures

## Introduce task:

If our school was given extra money for some field trips where would you go? Today you will determine some field trips you would like to go on. The trips cannot be more than 400 miles. You may go on one or more than one field trip. The places are never exact so we must use our rounding skills. You will need to explain why you chose the destinations and share them with the class.
Teachers can ask the following questions to get students to think without giving them the answers.

How many places do you want to visit?
Have you gone to any of these place?
Can you goto the 2 farthest places?
What does the legend key tell you?
After students have worked a bit you may want to ask some of these questions:
How far is it one way?
Do you need to count both ways?
Is there an easier way?
How do you know if it is a round trip?
Does rounding make it easier?
What is the most number of field trips possible?
What is the least number of field trips possible?
What field trip/s would you take if the miles we could go were doubled?

## Strategies for Diverse Learners

For struggling learners

- have them begin with rounding the mileage. Then add the trips together.

To challenge students - have students determine the most number of field trips possible.

## Extensions

Give students a map of Utah and access to the internet. They should be able to find some other places they could visit or go to for field trips.

## Bibliography

Core Academy task lesson - 2012
Adapted from: Smith, Margaret Schwan, Victoria Bill,and Elizabeth K. Hughes. "Thinking Through a Lesson Protocol: Successfully Implementing High-Level Tasks." Mathematics Teaching in the Middle School 14 (October 2008): 132-138

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