TASK 1

Get Started on the Culminating Project

Objectives

You will be able to

- Use ratios to describe connections between two quantities.
- Collaborate with peers.

How can ratios help us create maps and tours of our communities?

Evaluation and Feedback

To evaluate your work, you will

- Evaluate yourself on your ability to understand your partner's categories of objects.
- Complete a check for understanding about ratios.

Learning Task 1: Get Started on the Culminating Project

As a group:

- Choose a location in your community that will be the focus of your Culminating Project.
- Write ratios about artifacts (objects) you might see on your tour.

Vocabulary

- category
- location
- part
- ratio
- stride length
- walking rate

Connect to the Culminating Project

- Choose your tour location.
- Research information about your location.
- Select important places that you might find inside or around your location.
- Locate artifacts that might be related to your location.

TASK 1

Get Started on the Culminating Project

LESSON 1

CHOOSE LOCATION

Community Tour Culminating Project

Name: _____

Teammates: _____

1. Where is your tour location, and who is your target audience for the tour?
2. Your team may create your Tour Guide as a website, brochure, book, video, or other idea (check with your teacher).
3. **Make sure your Tour Guide includes**
   - ❑ A statement explaining why you chose your location
   - ❑ A scaled map of your tour location (label the ratio, or scale, that you use)
   - ❑ Labels or a key to show the important places or points of interest at your tour location (include descriptions of these places; for example, "What happened at this place?" "Why is this place important to the community?" "What is this place used for?" "How does this place represent the community?") (done in Learning Task 1)
   - ❑ Labels for the distances between at least three points of interest at your tour location (done in Learning Task 2)
   - ❑ Labels for the stride lengths of each team member (done in Learning Task 3)
   - ❑ Labels for the walking rates of each team member (done in Learning Task 3)
   - ❑ How you estimated your team's walking times between at least three points of interest at your tour location (done in Learning Task 3)
     (Optional: Estimation of biking, skateboarding, or razor time between your tour location, your school, and your neighborhood; keep in mind that you will need to calculate your biking, skateboarding, or razor speed)
   - ❑ How you estimated your team's number of steps taken between at least three points of interest at your tour location (done in Learning Task 3)
4. Practice your presentation with your teammates. (Your teacher will tell you whether or not you will be able to give the tour during class time.)

Community Tour Rubric

MATHEMATICAL PRACTICE	MASTERS	ACHIEVES	APPROACHES	NOT YET
Construct viable arguments (MP3) Show why your location matters	We give evidence and supporting details to support our claim about why we chose our location.	We give some evidence to support our claim about why we chose our location.	We explain why we chose our location but do not support our claim with evidence.	We do not explain why we chose our location.
Model with mathematics (MP4) Scaled map	We include a scale that shows the ratio between our map and real life. It has labeled units. The distances on our map are labeled and consistent with the distances in real life. We use labels or a key to identify important places.	We include a scale that shows the ratio between our map and real life. It has labeled units. The distances on our map are labeled and **mostly** consistent with the distances in real life. We use labels or a key to identify important places.	We include a scale that shows the ratio between our map and real life, but it is incorrect or mislabeled. The distances on our map are mislabeled or inconsistent with the real distances. We use labels or a key to identify important places.	We do not include a scale or we do not include a map.
Reason abstractly and quantitatively (MP2) Walking rate	We show the walking rate (with labels) for each person in our team. We show how long it would take each person in our team to walk three distances. We show and explain how we found out this information.	We show the walking rate (with labels) for each person in our team. We show how long it would take each person in our team to walk three distances. We **partially** show how we found this information.	We show the walking rate for each person in our team. We show how long it would take each person in our team to walk three distances, but there are some errors in our reasoning.	We do not show each person's walking rate or how long it would take them to walk three distances.
Reason abstractly and quantitatively (MP2) Stride length	We show the stride length (with labels) for each person in our team. We show how many steps each person would take to walk three distances. We show and explain how we found out this information.	We show the stride length (with labels) for each person in our team. We show how many steps each person would take to walk three distances. We **partially** show and explain how we found out this information.	We show the stride length for each person in our team. We show how many steps each person in our team would take to walk three distances, but there are some errors in our reasoning.	We do not show each person's stride length or how many steps they would take to go three distances.
Attend to precision (MP6)	We accurately label all quantities with meaning and units.	We accurately label most quantities with meaning and units.	We accurately label some quantities with meaning and units.	We do not use labels.

TASK 1 Get Started on the Culminating Project

LESSON 1 • CHOOSE LOCATION

WARM-UP

First Three Things

Write down the first three things you think of when you consider the community you live in.

PROJECT ACTIVITY

Choose Your Community Tour Location

You and your classmates are going to create a community tour of a specific location. You will create a Tour Guide (brochure, website, etc.) and give a presentation to another class, other teachers, parents, community members, and so on.

1. In your team, decide on one tour location. Some ideas are listed below
    - Neighborhood where you live
    - School
    - Home
    - Religious institution (church, temple, synagogue)
    - Sports facility
    - Library
    - Grocery store/shopping area
    - Park/playground
    - Bookstore
    - Clubs (Boys and Girls Clubs of America, Big Brothers Big Sisters)

    Our tour location:

Get Started on the Culminating Project

LESSON 1 • CHOOSE LOCATION

2. Choose four to eight important places or points of interest (one to two places per team member) to highlight inside or around your chosen tour location.

1.	5.
2.	6.
3.	7.
4.	8.

3. Research some details and information about the important places you listed in the previous step. These are things you would tell someone who was taking your tour.

Important Place	Details (and Links)
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

Get Started on the Culminating Project

LESSON 1 • CHOOSE LOCATION

4. Decide on the target audience, or who the tour is for (parents? teachers? sixth graders? someone else?).

   Target Audience:

5. Try to find an online map of your chosen tour location. Consult with your teacher for guidance. Community maps may help illustrate the boundaries of the community, as well as show the locations of historic events, landmarks, and resources.

   Put a link to your map here:

LESSON 2

SHOW AND TELL AND SORT

WARM-UP

Team Builder: Favorites

As a team, decide on one answer for each of the following questions.

1. What is our favorite movie?

2. What is our favorite food?

3. Who is our favorite celebrity (movie star, singer, etc.)?

PROJECT ACTIVITY

Show and Tell and Sort

You have been looking at how places in your community can be a part of who you are. Artifacts can also show important parts of a community. Take a look at the example collection of artifacts your teacher has provided.

Part A

1. Why are these artifacts important? What do they have to do with your community?

2. What are some different categories you could use to sort the artifacts? How many artifacts are in each category?

Categories			
Number of Artifacts			

3. Ratios are relationships between two quantities or amounts. You can use them to compare how many times larger or smaller one quantity is than the other. Use these sentence starters to compare connections between some of the categories.

   There are _number_ of _category_ for every _number_ of _category_.

   The ratio of _category_ to _category_ is _number_ to _number_.

   The ratio of _category_ to _category_ is _number_ : _number_.

   The ratio of _category_ to _category_ is _number_ /_number_.

LESSON 2 • SHOW AND TELL AND SORT

Part B

Use one of the artifact collections that you or your teammates brought.

1. Why are these artifacts important? What do they have to do with your community?

2. Think about some categories you could use to group this collection of artifacts, but don't say them out loud. Then, fill out **only the number spaces** in the table below. Leave the category spaces blank.

Player 1	Player 2
The ratio of _category_ to _category_ is _number_ to _number_.	The ratio of _category_ to _category_ is _number_ to _number_.
The ratio of _category_ : _category_ is _number_ : _number_.	The ratio of _category_ : _category_ is _number_ : _number_.
The ratio of _category_ / _category_ is _number_ / _number_.	The ratio of _category_ / _category_ is _number_ / _number_.
The ratio of _category_ to _category_ is _number_ to _number_.	The ratio of _category_ to _category_ is _number_ to _number_.
The ratio of _category_ : _category_ is _number_ : _number_.	The ratio of _category_ : _category_ is _number_ : _number_.
The ratio of _category_ / _category_ is _number_ / _number_.	The ratio of _category_ / _category_ is _number_ / _number_.

3. Work with a partner. Player 1 will figure out what categories Player 2 was thinking of. Player 2 will figure out what categories Player 1 was thinking of. When both players have agreed on the categories, they can start a new round.

CHECK FOR UNDERSTANDING

Test your knowledge of ratios using the Check for Understanding • Write Ratios.