√GEO⊕MATH

Measuring the Travels of Two Adventurers: Marco Polo and Ibn Battuta

Author	Cheryl Wiens
Grade Level	6
Duration	1-2 class periods

National Standards

GEOGRAPHY
Element 1: The World in Spatial Terms
1. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information
Element 4: Human Systems
11. The patterns and networks of economic interdependence on the Earth's surface
Element 6: The Uses of Geography
17. How to apply geography to interpret the past

AZ Standards

ELA
Reading
Key Ideas and Details
6.RI.1 Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.

MATHEMATICS
Ratios and Proportional Relationships
6.RP.3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

Arizona Social Science Standards

GEOGRAPHY
The use of geographic representations and tools helps individuals understand their world.
6.G1.1 Use and construct maps, graphs, and other representations to explain relationships between locations of places and regions.
Examining human population and movement helps individuals understand past, present, and future conditions on Earth's surface.
6.G3.1 Analyze how cultural and environmental characteristics affect the distribution and movement of people, goods, and ideas. Key concepts include but are not limited to language, land and sea transportation and trade routes

HISTORY
The development of civilizations, societies, cultures, and innovations have influenced history and continue to impact the modern world.
6.H1.1 Compare the development and characteristics of historical cultures and civilizations from different global regions within designated time periods.
Economic, political, and religious ideas and institutions have influenced history and continue to shape the modern world.
7.H3.4 Explain the influence of individuals, groups, and institutions on people and events in historical and contemporary settings.

Overview

It is important that students are able to make comparisons and convert between the U.S. customary and the metric system. Students will find that most other countries use the metric system.

Purpose

Students will learn about two medieval explorers, the Venetian Marco Polo, and the Moroccan Ibn Battuta, and how their travels affected Asian trade and migration. Students will use maps of their travels to compare and convert distances covered by Polo and Battuta.

Materials

ARIZONA GEOGRAPHIC ALLIANCE

- The Travels of Ibn Battuta 1325-1354 map
  https://geoalliance.asu.edu/sites/default/files/maps/Ibn_Battuta_Route.pdf
- The Travels of Marco Polo 1271-1295 map
  https://geoalliance.asu.edu/sites/default/files/maps/Marco_Polo_Route.pdf
- *Traveling Man: The Journey of Ibn Battuta, 1325-1354;* by James Rumford
- *Marco Polo: A Journey Through China* by Fiona Macdonald
- Two Great Adventurers, Battuta and Polo, Affect the Medieval World reading
- Practice with Miles & Kilometers worksheet and Answer Key
- Rulers and or string or chenille stems
- Assessment and Answer Key

Objectives

The student will be able to:

1. Convert and compare measurements in both US customary and metric units.
2. Explain the influences and effects of Ibn Battuta's and Marco Polo's travels.
3. Interpret maps using scale.

Procedures

Background Knowledge: Students understand that *1 mile is equal to 1.6 kilometers. 1 kilometer is equal to .6 miles. To convert km to miles, multiply the number by .6. (Km x .6 = Miles) OR to convert miles to km, multiply the number by 1.6. (Miles x 1.6 = Km)*

Consider this Prior to the Lesson: The maps for this lesson feature routes that have curves to them. While using a ruler is one way to measure on a map, it might be difficult on these maps. The use of a non-stretchy string might work better or perhaps use chenille stems.

SESSION ONE

1. Introduce the lesson by reading aloud highlights from the two books: *Traveling Man: The Journey of Ibn Battuta, 1325-1354* and *Marco Polo: A Journey Through China.* (Choose parts that emphasize the motivation behind the travels and distances traveled.)
2. Project and distribute the Ibn Battuta and the Marco Polo maps. Review how to locate places, measure with a scale, and convert distances (miles and kilometers).
3. Distribute Two Great Adventurers, Battuta and Polo, Affect the Medieval World reading. Read aloud.

4. Brainstorm strategies on how to measure curved routes on a map. Distribute string, chenille stems, and/or rulers. Then distribute the Practice with Miles & Kilometers worksheet. If students do not finish in class, it can be homework.

SESSION TWO

5. Have students grade their Session One worksheet.
6. Distribute the Assessment.

Assessment

Mathematics and Social Sciences
The Practice with Miles & Kilometers worksheet can be graded for accuracy. Mastery is considered a score of 80% or higher.

ELA and Social Sciences
The Assessment can be graded. Mastery is considered a score of 80% or higher.

Extensions

Ask students to estimate how long it would take to walk one kilometer. Have students walk a kilometer (which is just over 0.6 mile). How long would it take to walk 10 kilometers? Students should time how long it takes to walk the kilometer.

Discuss with students whether the United States should convert entirely to the metric system.

Sources

Traveling Man: The Journey of Ibn Battuta, 1325-1354; by James Rumford; Houghton Mifflin Company, New York, 2001. ISBN 0-618-08366-9

Marco Polo: A Journey Through China; by Fiona Macdonald; Franklin Watts, 1997.
Calliope, World History; "Ibn Battuta;" Cobblestone Publishing Company, Peterborough, NH   ISBN 0-531-15340-1

Calliope, World History; "Silk Road;" Cobblestone Publishing Company, Peterborough, NH.

"Marco Polo," *Kids Discover*, Vol. 11, Issue 12, December 2001; Kids Discover, New York, New York

ARIZONA GEOGRAPHIC ALLIANCE