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

Students learn about two Medieval travelers, the effects of their writings, and use maps of their travels to compare estimations in U.S. customary and metric systems.

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Grade Level: 6
Duration: 2 class periods

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.

National Geography Standards

ELEMENT ONE: THE WORLD IN SPATIAL TERMS
1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.

Arizona Geography Strand

CONCEPT 1 World in Spatial Terms
PO 3 Interpret maps, charts and geographic databases using geographic information.

CONCEPT 2 Places and Regions
PO 3 Describe the interactions of people in different places and regions.

CONCEPT 4 Human Systems
PO 2 Describe the environmental, economic, cultural, and political effects of human migrations and cultural diffusion on places and regions.

Other Arizona Standards

Strand 2 World History
Conceot 3: World in Transition
PO 6. Describe the trade routes that established the exchange of goods (e.g., silk, salt, spices, gold) between eastern and western civilizations during the 15th and 16th centuries.
PO 7. Describe how trade routes lead to the exchange of ideas (e.g., religion, scientific advances, literature) between Europe, Asia, Africa and the Middle East during the 15th and 16th centuries.

ELA Common Core Standards
Reading
Key Ideas and Details
6-8.RH.1 Cite specific textual evidence to support analysis of primary and secondary sources.

Math Common Core Standards
Ratios and Proportional Relationships (RP)
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.

Standards for Mathematical Practice
6.MP.5. Use appropriate tools strategically.
Measuring the Travels of Two Adventurers

**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 estimate distances covered by Polo and Battuta.

**Materials**
- Battuta’s and Polo’s Travels maps
- Two books: *Traveling Man* and *Marco Polo: A Journey Through China*
- Handout 1, “Miles to Go Before I Sleep”
- Handout 2, Worksheet Practice with Miles & Kilometers
- Key for Handout 2 Worksheet Practice with Miles & Kilometers
- Rulers
- Handout 3 Assessment Questions based on map skills and reading about Battuta and Polo
- Key for Handout 3 Assessment

**Objectives**
The student will be able to:

1. Estimate and compare measurements in both US customary and metric units.
2. Convert within a single measurement system; convert a measurement from US customary to metric, and vice versa.
3. Explain the influences and effects from Ibn Battuta’s and Marco Polo’s travels on Asian trade and migration in medieval times.
4. Interpret maps using scale.

**Procedures**
**Background Knowledge:**

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)

**SESSION ONE**
1. Teacher will read 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. Give each student a copy of both maps and familiarize the class in locating and comparing distances traveled by both men in miles and kilometers.
3. Distribute Handout 1, “Miles to Go Before I Sleep”, a reading about the effects of Marco Polo’s and Ibn Battuta’s travels. Read aloud or have the class share in the reading of the text. Brainstorm strategies on how to estimate curved routes. Then emphasize that the students should be estimating the distance by following the routes drawn on the maps (as opposed to as the crow flies).
4. Distribute Handout 2 to be used for homework practice.

**SESSION TWO**
5. Using the maps and Handout 2 check for understanding of comparison, estimation, and conversion in kilometers and miles.
6. Have students complete the assessment, Handout 3.

**Assessment**
Students will use the maps to compare and estimate distances and answer multiple-choice questions about the effects of Battuta’s and Polo’s travels. Geography is assessed by
Measuring the Travels of Two Adventurers

Handout 3 questions 1-5; math is assessed by Handout 3 questions 6-12. Handout 2 – Worksheet Practice with Miles & Kilometers can also be used as an assessment. Mastery is considered 80% or higher for math and geography concepts.

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.

Select a few modern-day cities that were on the itineraries of Marco Polo and Ibn Battuta. (Examples: Cairo, Baghdad, and Jerusalem). Use the daily temperatures from these cities in both Celsius and Fahrenheit in comparisons and estimations.

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

There are some excellent Web sites for other extension lessons:

http://www.sfusd.k12.ca.us/schwww/sch618/islam/nbLinks/Ibn_Battuta_map_sites.html
http://score.rims.k12.ca.us/activity/a_journey_battuta/
http://cnn.com/nature/9911/02/asia.quest/
http://project.edtech.sandi.net/memorial/MarcoPolo/

Sources


Marco Polo: A Journey Through China; by Fiona Macdonald; Franklin Watts, 1997.

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


http://www.nationalgeographic.com/xpeditions/activities/10/marcopolo.html