**It’s A Long Way To Tipperary, But Just How Far?**

Students learn to use a map scale to figure distance between points on a map.

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<th>Author</th>
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<td>Duration</td>
<td>2 class periods</td>
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<td><strong>ELEMENT ONE:</strong> THE WORLD IN SPATIAL TERMS**</td>
<td>CONCEPT 1 World in Spatial Terms**</td>
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<td><strong>GRADE 6</strong></td>
<td>PO 1 Construct maps, charts and graphs to display geographic information. PO 3 Interpret maps, charts, and geographic databases using geographic information.</td>
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<td>PO4 Determine the equivalency between and among fractions, decimals, and percents in contextual situations.</td>
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**Overview**
Every map has a different scale that is used to measure distance. By learning how to use a map scale, students will better understand the true distance between points on the Earth’s surface.

**Purpose**
In this lesson, students will use a map scale to measure and calculate distance in order to gain a better appreciation of the size of our planet.

**Materials**
- South America’s Capital Cities map (transparency and student copies)
- Capital Cities of Central and Eastern Europe map (transparency and student copies)
- Student Practice Sheet

**Objectives**
The student will be able to:
1. Answer questions concerning map scales.
2. Measure distance on a map using the map scale of that map.

**Materials**
- Student Assessment (may be made into transparency)
- Student Practice Answer Key (Due to printer and copy machine variations, you will need to calculate the answers to the worksheets.)
- Student Assessment Answer Key (Due to printer and copy machine variations, you will need to calculate the answers to the worksheets.)
- Rulers
Procedures

Prior Knowledge: Students should know how to read a ruler in both standard and metric units. Teacher will need to determine the answers to the worksheets using the same rulers provided for the students.

SESSION ONE

1. The teacher will explain that a map scale is used to measure distance on a map.

2. The teacher will ask students to find the map scale on the South America’s Capital Cities map.

3. The teacher will ask students to measure how many miles and kilometers are in 1 inch on the map scale.

4. The teacher will demonstrate on the South America transparency map how to use a ruler to measure the distance between two points. Then ask students to use a ruler to measure distance between two points that the teacher selects. Tell students to go to the nearest tenth of an inch when necessary.

5. The teacher will explain how to convert the inches to miles or kilometers. Use either method below depending on ability level of your students:
   a. Multiply the whole number or mixed number by the miles per inch, for instance 750. (Remember to convert any mixed numbers to improper fractions before multiplying and to convert back.)
      Example: \(1 \frac{1}{2} \times 750 = \frac{3}{2} \times \frac{750}{1} = \frac{2250}{2} = 1125\) miles
   b. Convert mixed number to a decimal number and multiply by 750 (miles per inch) to get answer.

6. Use the distances measured in Step 4 and figure actual distance in miles and kilometers.

7. The students will complete the practice sheet. Go over the answers with students to insure process is clear.

SESSION TWO

1. Students will complete the assessment.

Assessment

Students will use the map of Capital Cities of Central and Eastern Europe to answer ten questions about how to use a map scale. Mastery for geography is 4 or more questions correct from questions 1, 2, 3, 4, and 6. Mastery for math is 4 or more questions correct from questions 5, 7, 8, 9, and 10.

Extensions

Students could plan a trip in their own state, country, or overseas and figure the mileage. This could include sights they wish to visit, the distance between them, and total mileage for the trip.