



Overview of *Map It*

The *Map It* unit builds skills in math and geography. This developmentally appropriate project for grades K-2 integrates offline reading of math and geography based children's literature, hands on related activities, and cutting edge technology tools. Students will use Connections Academy groupware technology called **LiveLesson™** (based on Breeze). Word processing, presentation software, and chat are also integrated into this unit. *Map It* instruction includes real time visual and verbal communication, teacher to students and student to student discussion in a small group setting. At the culmination of this unit, the students will create an original map that will demonstrate the mastery of both the content and the ILT Benchmarks associated with this project.

Map It engages students in activities that connect what they do and see everyday with real world mathematical and geographical experiences. This unit builds skills in measurement with non-standard units. As the unit progresses, the students will learn that maps are tools that incorporate mathematical skills, demonstrate spatial relationships, and principles of navigation. Students will develop an understanding of mathematics and apply these understandings to measurement and spatial relationships as evidenced by the students' performance (creation an original map).

LESSON SEQUENCE

- Synchronous lessons are highlighted in yellow

LESSON TITLE
How Big Is a Foot?
<i>LiveLesson</i>™_Measurement
How Big Are the Beds in Your House?
Measuring with Animal Shapes
<i>LiveLesson</i>™_Standard vs. Non-Standard Measurement
What Measurement Tool Did You Choose?
Mapping Penny's World
<i>LiveLesson</i>™ – Measurement and Mapping
Create a Rough Map Sketch
<i>LiveLesson</i>™ – Reviewing First Draft Maps
<i>LiveLesson</i>™ – Putting It All Together

Lesson 1-How Big is a Foot?

Objectives

- The student will be able to recognize and use the attributes of length with a non-standard measure.
- The student will be able to understand the importance of standard measurement.
- The students will be able to use reading skills to gather data, define problems and apply problem solving skills.

Materials

- *How Big is a Foot?* by Rolf Myller
- Reproducible Study Guide (Student Resource Packet –Lesson 1-Study Guide for *How Big is a Foot?*)
- Ruler

Lesson Description

The student and learning coach will read the book *How Big is a Foot?* The student will use the study guide reproducible to make notes and answer questions about the book. The questions are geared to help the student understand why standard measurement is so important. Once the student has completed the study guide they can go into the message board and post their ideas for the teacher and other students to see.

Lesson Focus

The student will understand the importance of using a standard measuring tool to measure a common object. The literature will help to reinforce the importance of using a standard measuring tool.

Application/Enrichment

At the end of the week the teacher will convene students in small virtual groups using **LiveLesson™**, for a discussion of the book and initial instruction/review on measurement.

Teacher Discussion Questions -Lesson 2- LiveLesson™ Measurement

LiveLesson™

Teacher led lesson and discussion questions for small virtual groups “How Big is a Foot?” and non-standard measurement

Students will be divided into groups. Teachers will schedule the times for the LiveLesson™ at the beginning of each course.

Activate Prior Knowledge

Activate prior knowledge by asking the student what other tools the King could have used for measurement. List the students’ responses on the white board.

Discussion

Discuss the questions the student answered in the study guide for *How Big is a Foot?* Lead the discussion by reviewing the book. Start the discussion by asking what the problem was in the book. Students should be able to state that since beds were not yet invented the king did not know how big the bed should be.

Elicit responses from the student to see if they understand that the bed was too small because two different size objects were being used to measure how big the bed needed to be.

Key Concept

Help the student understand how to use a measurement tool correctly. It is important to know where to begin and end each measure. The student must measure the length with *the foot* heel to toe or with a ruler without any overlapping. Explain to the student that when counting the number of feet of the object to be measured, if the last measurement is less than half a foot, the student should disregard the half and keep the last whole number that they counted. If the last measurement is more than half of the foot, the student should add to the next whole number. Demonstrate on the white board.

Learning Experience

The student will be instructed to measure the length of his computer screen, mouse and keyboard using both the ‘foot’ non-standard measure and the Connections Academy ruler. The student will document their findings and report their findings to the group using Breeze technology.

The teacher will record the measurements. If there are differences in the measurements, the teacher will discuss with the students why they might not have equal measurements (i.e. different size screens, not measuring correctly from end to end, etc)

Follow Up

The student will be given verbal instructions for next week's lesson on how to measure his bed and how to record the measurement. After measuring his bed and other beds in the household, the student will complete the chart ***How Big Are the Beds in Your House?*** and post the measurements on the message board. The teacher will prepare a table demonstrating the different measurements that were posted on the message board to display during the real time discussion.