



NCEA Math Lesson Plan

Grade: 1

Subject: Mathematics

Domain: Measurement and Data
Standard Number(s) and Description: 1.MD.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.
Vocabulary to be Highlighted: Standard, non-standard units of measurement
Mathematical Practices (#): 5. Use appropriate tools strategically. 6. Attend to precision. 8. Look for and express regularity in repeated reasoning. Essential Questions: How can measurement help us see how big things are?
Materials/Tools (include technology): Ruler Paper (scrap paper is OK) Scissors Bible Colored chalk Access to large space (playground/parking lot/gym/hall) Book: <u>How Big is My Foot?</u> By Rolf Mylier Optional: Noah's Ark song
Connections to Other Math Domains: 1.NBT.1: Numbers and Operations in Base Ten (1): Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
Connections to Other Subject Areas: Religion – Old Testament
Catholic Identity Component: Old Testament Scripture: Focus on Noah's Ark
Resources (attachments): Parent volunteers for building day

Activities/Timeline:**Day 1**

Activation/Hook: Whole Group -Teacher will read How Big Is My Foot? By Rolf Myller

Teacher will discuss the concept of non-standard units.

Independent/Small Group: Students will trace their foot.

Exploration: Students will measure items from classroom using their “foot” measuring tool. Discuss results. (What can they tell you about the measurements with larger verses smaller feet?)

Students will also measure with other non-standard units found throughout the classroom.

Day 2

Whole Group: Students will be introduced to the ruler (inches/centimeters). Teacher will go back to the book How Big Is My Foot?

Independent: In their math journals answer the question: How would the apprentice’s job have been easier if he had a ruler?

Independent/Small Group: Students will explore and do activities with standard ruler measurements.

Students will make a foot that is exactly 12 inches. They will compare the “foot” to their feet. In journals: “How does your foot compare to a standard foot?”

Day 3

Connection to faith: Essential Question- How big was Noah’s Ark?

Whole Group: Teacher will read the Bible passages about Noah’s Ark (specifically the size of the ark). Teacher can use <http://www.usccb.org/bible/genesis/6> for information.

Using standard feet, (made on paper, cut out prior to activity), go out to large space as a class and make the ark. Lay 450 feet for the length and 75 feet for the width. Discuss the importance of precision in measuring, (end to end).

Then trace with chalk (adult helper) to make the shape of the ark.

Fill the ark with chalk animals! (Just is fun!) Finish with an exit journal.

“What did you learn about measuring Noah’s ark?” (Use math vocabulary).

Formative Assessment (what to look for, how/when to look):

Observation of students using non-standard and standard measurement
Journals

Summative Assessment:

Students can model their understanding of standard verses non-standard units of measurement.