Measuring UP!

Summary

Students will be able to use inchworm measuring tools to measure the lengths of several classroom objects.

Main Core Tie

Mathematics Kindergarten

Strand: MEASUREMENT AND DATA (K.MD) Standard K.MD.3

Additional Core Ties

Mathematics Kindergarten

Strand: MEASUREMENT AND DATA (K.MD) Standard K.MD.1

Mathematics Kindergarten

Strand: MEASUREMENT AND DATA (K.MD) Standard K.MD.2

Materials

Book: *Inch by Inch* by Leo Lionni, ISBN 0-590-47991-1
Book: *How Big is a Foot?*, by Rolf Myller, ISBN: 0-440-4049509
Pencils
Inchworm connectors
Crayons

- Measuring collection sheet (pdf)

Background for Teachers

Prior to this lesson, the students will need to know numbers 1-20, and how to correctly identify a starting and ending point.
After being introduced to the concept of measuring length, students will be able to use inchworm measuring tools to measure the lengths of several classroom objects.
Vocabulary that will be taught:
Shorter, longer, above, near, far, between

Instructional Procedures

Invitation to Learn:
Launch: 10-20 minutes
Introduce the book *Inch by Inch* by Leo Lionni (ISBN 0-590-47991-1) and tell students to listen and watch carefully for how the inchworm measures throughout the story. Read the story, and afterward ask students to recall some of the objects that the inchworm measured. (Example: Discuss how the inchworm measured different parts of the birds.)
Instructional Procedures:
Explore: 10-15 minutes
After reading the book, pair the students up.
Give each pair of student a bag of inchworm manipulatives.
Have each pair if students measure their feet, their arms, their legs, and their hands.
Discuss (Whole Group Discussion): 5-7 minutes
Gather the students back at the carpet.
Discuss with the students their findings.
Who had the biggest foot? Who had the longest arm, etc.?

Solidify (Closure): 10 minutes

Use questioning to solidify learning.
What worked and what didn't?
Were there spaces between the inchworms? (Make sure that the inchworms are connected together so you can have a true measurement.)
Would it make a difference if the inchworms weren't connected?

Practice: 30 Minutes

Pair up the students again and give them the bag of inchworm manipulatives. (unifix cubes work just as easy if you don't have enough).
Pass out the measuring collection sheet (blackline attached).
Have each pair of students go around the room and record how many inches each object is.
Gather the students back on the carpet.
Review with students what it means to measure the length of an object. Have each group share a few of their recorded measurements with the rest of the class. Display some of the measurements on the board and ask students to compare the measurements.

Additional Lesson Activities:

How Big is a Foot?

Read the book *How Big Is a Foot?* by Rolf Myller (ISBN: 0-440-40495-9). After reading the book, give each child his/her own foot (blackline attached) and have them measure objects in the classroom and record their findings on the measuring collection sheet (blackline attached (pdf)).

Snake Imprints

Materials:

Play dough
Stapler
Ruler
Book
Paper clip
Piece of Yarn
Scissors

Give each student a piece of play dough.
Set out random objects (stapler, ruler, book, scissors, etc.).
Have the students at their table measure each object with their play dough. Leave the play dough in front of each object.
Have the student press the paper clips into the play dough, making an imprint. Making sure that the paper clips touch but don't overlap.
Have the student put the objects in order from shortest to longest.
Have a discussion with the class to see which object was the longest and which was the shortest.

See How Much I've Grown

Give each student a picture of a dog (blackline attached (pdf)).
Pair the students up and have one student lie down on a white piece of chart paper the length of a student on the ground, while the other person traces him/her . Repeat with the second partner.
Have the students cut out the picture of the dog and measure how tall they are using the dog as a measurement tool. This is a fun lesson to do at the beginning of the year and again at the end of the year to see how much each student has grown over the year.

Extensions

For students who are higher-level thinkers, have them predict how many inchworm manipulatives it will take to measure additional objects around the room and then test their hypothesis.

For students who struggle, pair them with students who will be able to help the student gain an understanding of how to measure the objects accurately.

Literacy connections: Have the students measure the length of their names, the words on the word wall. Have students look for measurement words in the books they read at home and at school.

Family Connections:

Assignments to do with parents:

As a homework assignment, have students take some paperclips home to measure items in their homes. The next day, students should share what they measured.

Assessment Plan

Measuring collection sheet

Observation

Authors

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