

# STEMT Lab Assistant: Measuring with Cubie

**Common Core State Standards: Grade 1 » Measurement & Data**

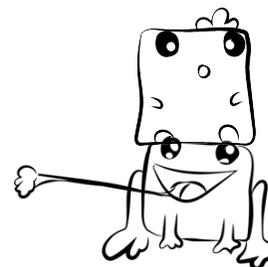


**CCSS.MATH.CONTENT.1.MD.A.1:** Order three objects by length; compare the lengths of two objects indirectly by using a third object.

**CCSS.MATH.CONTENT.1.MD.A.2:** Express the length of an object as 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.

## Lab materials needed:

- Kea Crate – One Mezzie Measuring Tape per student
- Cubie Measurement Koa – 10 or more Cubie Blocks per student
- One Student STEM Lab Tray per student
- One small box wrapped like a present



## Running the Lab Activity:

1. **Introduce measurement with a short discussion** (5 Minutes). You can relate the need to be able to measure things to engineering. It is important to be able to measure when building things like houses, airplanes, space shuttles, cars, and computers.
2. **Introduce and play the in-class movie:** Story time with Beth: “Mesha Measures with Cubie (7 Minutes).” Students will listen to a story about Mesha the elf in Santa’s workshop, and then they will be able to measure things just like Mesha did.  
*(Note: This story time movie introduces the students to an elf named Mesha who is given her very own measuring tape by her father who is an engineering elf in Santa’s Workshop. Mesha is very excited and starts measuring everything in the workshop. She accidentally makes messes, and consequently gets her measuring tape taken away. She is sad for a moment, but soon discovers that she can measure with just as well with the cube shaped wood scraps from the workshop; the Cubie Blocks.)*
3. **Students practice measuring with Mezzie Measuring Tape** (10 minutes): Give one Mezzie Measuring Tape to each student and ask them to practice measuring things in the classroom. Assist students in learning to measure. When finished, collect the measuring tapes.
4. **Students practice measuring with Cubie Blocks** (15 minutes): Pass out 10 or more Cubie blocks on a tray to each student. To satisfy **CCSS.MATH.CONTENT.1.MD.A.2**, Assist students in measuring objects by stacking the blocks end to end with no gaps. Ask students to count the cubie blocks to express the measurement in Cubies.
5. **Students use Cubie Blocks to find objects in the classroom that fit in a present box** (7 minutes). Tell students that Mesha the elf wants to give a present to her little brother and they can use their measurements to choose something that will fit in the box. Measure the present box with the students so they know how to choose their object. Emphasize that their object must be equal to or smaller than the box dimension to fit. To satisfy **CCSS.MATH.CONTENT.1.MD.A.1**, order the box and two of the student’s selected objects by length and compare the lengths of their selected objects indirectly to the box.