Lesson 5: Measure with Connecting Cubes

Standards Alignments

Addressing	1.MD.A.1, 1.MD.A.2, 1.NBT.C.4, 1.NBT.C.5, 1.OA.C.5, 1.OA.C.6
Building Towards	1.MD.A.2

Teacher-facing Learning Goals

- Measure objects in connecting cube side lengths using connecting cube towers.
- Understand that a connecting cube tower with x cubes in it can be described as being "x cubes long."

Student-facing Learning Goals

- Let's use connecting cubes to measure length.

Lesson Purpose

The purpose of this lesson is to understand that a connecting cube tower with x cubes in it can be described as being "x cubes long" and to measure objects in connecting cube side lengths using connecting cube towers.

In previous lessons, students ordered a set of three objects by length. Students also compared lengths of objects indirectly by using a third object.

The purpose of this lesson is for students to describe lengths of objects in terms of connecting cubes. Students measure by using connecting cube towers because the units are lined up without gaps or overlaps, a concept they will explore in future lessons. In the first activity, students use connecting cube towers to measure the length of different animals. Students build towers that are exactly the same length as the animals and make a comparison statement ("The grasshopper is the same length as a tower of 7 cubes"). In the second activity, students use connecting cube towers to measure the length of more animals and describe the length as "___ cubes long." Even though the side-length of the cube is the unit, it's appropriate for students to describe length in terms of "x cubes long." This transition in language helps students understand that the length of objects can be described as a number of length units (MP6). In this lesson, the length unit is the length of a single connecting cube.

Access for:

Students with Disabilities

- Engagement (Activity 2)

English Learners

- MLR8 (Activity 2)

Instructional Routines

Notice and Wonder (Warm-up)

Materials to Gather

- Connecting cubes: Activity 1, Activity 2
- Materials from previous centers: Activity 3

Materials to Copy

- Lengths of Creepy, Crawly Things (groups of 1): Activity 1
- More Creepy, Crawly Things (groups of 1): Activity 2

Lesson Timeline

Warm-up	10 min
Activity 1	15 min
Activity 2	10 min
Activity 3	15 min
Lesson Synthesis	10 min

Teacher Reflection Question

Reflect on who participated in math class today. What assumptions are you making about those who did not participate? How can you leverage each of your students' ideas to support them in being seen and heard in tomorrow's math class?

Cool-down (to be completed at the end of the lesson) 0 min

Unit 6, Section B Checkpoint

Standards Alignments

Addressing 1.MD.A.2

Student-facing Task Statement

Lesson observations

Student Responses

- Measure length by iterating length units.