Lesson 3: Dibujos y volúmenes de prismas

Standards Alignments

Building On   3.OA.C.7
Addressing   5.MD.C.4
Building Towards   5.MD.C.5

Teacher-facing Learning Goals

- Find the volume of a rectangular prism using its layered structure.

Student-facing Learning Goals

- Usemos capas para encontrar el volumen.

Lesson Purpose

The purpose of this lesson is for students to find the volume of a rectangular prism using its layered structure.

In previous lessons, students built objects, including rectangular prisms, with unit cubes and counted the number of cubes. In this lesson, students continue to count the number of unit cubes needed to build a rectangular prism, but now they are presented with images of prisms instead of the objects themselves. To encourage students to develop a systematic way to count the cubes, they are shown prisms made from larger numbers of cubes. As students use horizontal or vertical layers to measure the volume, they make use of the layered structure of prisms (MP7).

Math Community

Tell students that, at the end of the lesson, they will be asked to identify specific actions from their "Doing Math" list (both teacher and student sections) they personally experienced.

Access for:

♿ Students with Disabilities

- Representation (Activity 2)

🌐 English Learners

- MLR8 (Activity 1)

Instructional Routines

Number Talk (Warm-up)

Materials to Gather

- Connecting cubes: Activity 1
- Connecting cubes: Activity 2

Materials to Copy

- Card Sort Rectangular Prism Cards (groups of 2): Activity 1

Lesson Timeline

Warm-up	10 min
Activity 1	20 min
Activity 2	15 min
Lesson Synthesis	10 min
Cool-down	5 min

Teacher Reflection Question

What connections did students make between the different strategies they used to build the prisms and determine the volume? What questions did you ask to help make the connections more visible?

Cool-down (to be completed at the end of the lesson)   ⏱ 5 min

El prisma de Jada
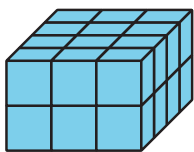
Standards Alignments

Addressing   5.MD.C.4

Student-facing Task Statement

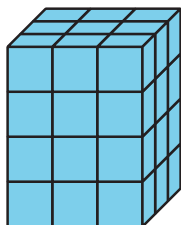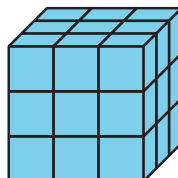El prisma de Jada tiene 4 capas y cada capa tiene 9 cubos.

1. Marca el prisma de Jada.

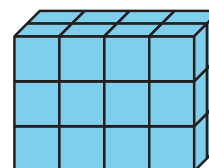**A**   **B**   **C**   **D**

2. Encuentra el volumen del prisma de Jada. Explica o muestra tu razonamiento.

Student Responses

1. B

2. 36 cubes. There are 4 layers with 9 cubes in each layer so there are 36 cubes, $4 \times 9 = 36$.