



**Description**

- Design a cereal box that meets certain specifications (a fixed volume).
- Apply volume and surface area formulas for rectangular prisms.
- Present their designs to the class.

**Materials**

- cereal boxes
- construction supplies: Bristol board, markers, etc.

**Assessment Opportunities**

**Minds On ...**

**Pairs → Conferencing**

Students meet to share their final package designs and to make any suggestions for changes in design and/or use of colour.

**Action!**

**Individual → Model Making**

Students use Bristol board to create the net for their cereal box, using the dimensions determined on Day 27.

Students' transfer their designs to Bristol board before they construct the box.

Students may need several days to create the cereal box.

**Consolidate Debrief**

**Whole Class → Student Presentations**

Students present their final product to the class. Provide some guidance concerning their presentation “what to present,” e.g., actual model; measurements and resulting volume, surface area; highlight one design decision and provide reasons.

Alternatively, a math fair could be set up displaying all designs with a written response.

**Home Activity or Further Classroom Consolidation**

Both the following sequences show growth patterns:

Sequence A: 1, 2, 4, 8, 16, ...

Sequence B: 2, 4, 6, 8, 10, ...

Discuss similarities and differences between these sequences.

The next unit targets exponents. This activity is meant to help students re-orient their thinking, activating prior knowledge from lessons on Days 5 to 8.

*Exploration*