

Rectangular Prisms and Parfleche Bags

Subject: Mathematics
Strand: Shape and Space

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Grade: 4

Content (topic)	
Exploring Prisms	
Outcomes	Indicators
SS 4.3: Demonstrate an understanding of rectangular and triangular prisms by: <ul style="list-style-type: none">Identifying common attributesComparingConstructing models	SS 4.3a: Identify and name common attributes of rectangular prisms from sets of rectangular prisms. SS 4.3f: Construct rectangular prisms from their nets. SS 4.3h: Construct nets for rectangular or triangular prisms.
Mathematical Processes: <ul style="list-style-type: none">ConnectionsMental MathematicsSpatial SenseReasoningVisualization	
Lesson Preparation	
Equipment/materials: <ul style="list-style-type: none">One piece of simulated rawhide for each studentOne sheet of legal size (8.5 in by 14 in) paper for each studentOne copy of the rectangular prism net for each student1 centimeter grid printed on various colored paper for the students to shareScissorsPhotographs of parfleche containers in the shape of rectangular prismsHole punchYarnGlue sticks	
Advanced Preparation: <ul style="list-style-type: none">Prepare one simulated rawhide sheet for each student using the instructions providedPrint a copy of the rectangular prism net for each studentPrint the one-centimeter grid on colored paper. Make sufficient copies for the students to share in making their parfleche bags.	
Presentation	
Set (3 min) <ul style="list-style-type: none">This lesson follows Area, Symmetry and Parfleche Bags	

- Explain to the students that some parfleche containers have the shape of a rectangular prism and show them the photographs below.



Development

- Ask students to make a list of common attributes of these prisms, for example the shape of the faces, the number of faces, the fact that they come in pairs, as well as the number of edges and vertices.
- Hand out the nets for the rectangular prism and have each student cut out the net and construct a rectangular prism. Have each student expand his or her net somewhat, draw it on the legal sized sheet of paper and cut it out to form another rectangular prism. Have each student trace this new net onto the simulated rawhide, cut it out, and fold to form a simulated parfleche container. Use the hole-punch to punch holes in the parfleche container at the point indicated in the net.
- As in the lesson [Area, Symmetry and Parfleche Bags](#), have the students use the colored grid paper to create a symmetrical design on their parfleche bags. Fold up the bag in the shape of a rectangular prism and use the yarn to tie it closed in a fashion similar to the photographs above.