



The Symmetry Of Hub Caps

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Cornell Center for Materials Research

Lesson Plan: Symmetry of Hub Caps

Grade Level: 4 – 9

Lesson Type: Math – Symmetry

Time Period: 3 45-minute periods

Objective: At the end of the lesson, the students will be able to demonstrate their knowledge of symmetry by determining the symmetry of hub caps.

Standards: x

Materials: Computer Lab, Projection device, Internet connection
Excel, Symmetry Data Collection Handout

Procedures:

1. Prior to class put graph data file on all computers
2. Use Power Point Symmetry Presentation to present lesson and explain symmetry.
3. Explain field study and how to collect data.
4. Explain how to graph the data collected
5. Discuss the results of the field study (students will interpret the data from the graph.)

Evaluation: The students will demonstrate their knowledge of symmetry by graphing observed data of various hub cap symmetries.

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Frequency Data Sheet		
Type Of Symmetry	Frequency	
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Frequency Data Sheet

Symmetry Frequency

3	10
4	3
5	7
6	12
7	0
8	4
9	2
10	3
11	0
12	5
13	0
14	1
15	1

