

More Using^V Math on Mars

Purpose

The purpose of this activity is to reinforce recognition of basic geometric shapes, improve spatial awareness, and gain a greater overall understanding of basic geometry.

Students will be able to

1. Define/assign attributes to geometric shapes.
2. Use 'virtual manipulatives' (puzzles) to improve spatial skills.

Important Vocabulary/Key Terms (essential terms in bold)

Mars Exploration Rover (MER)

rectangle

sphere

trapezoid

cube

circle

parallelogram

cone

square

quadrilateral

cylinder

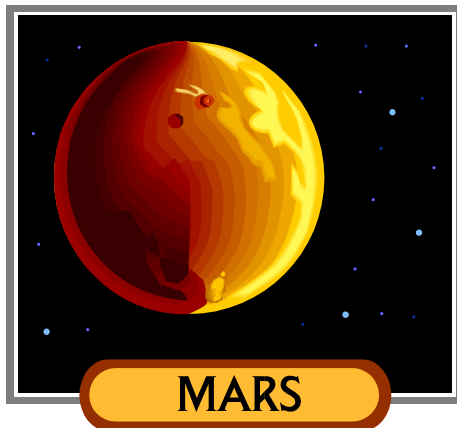
triangle

plane

Space Shapes (Basic Geometry Review)

A lot of geometric thinking goes into a mission such as the one that the Mars Exploration Rovers have been assigned. Can you think geometrically? See if you can identify the shapes below. Choose the best answer from the choices given.

1. **circle** **sphere** **cube**



Space Shape Puzzles (Basic Geometry Review)

Can you complete these puzzles correctly? Is there more than one way to solve them?

Defining Space (Vocabulary Review)

Do you know how to distinguish between different shapes? If someone asked you to describe a shape, could you do it? Match each word with its correct definition and picture.

- | | |
|-------------------|---|
| 1. Trapezoid | a. a plane figure with 3 straight sides |
| 2. Square | b. a quadrilateral figure with 2 sides parallel |
| 3. Plane | c. a quadrilateral with opposite sides parallel |
| 4. Rectangle | d. a plane figure with 4 straight sides |
| 5. Triangle | e. a closed curve or ring with all points equidistant from the center |
| 6. Cube | f. a solid with 6 square faces, at right angles |
| 7. Circle | g. a parallelogram with 4 right angles |
| 8. Sphere | h. a flat, level surface |
| 9. Parallelogram | i. a plane figure with 4 equal sides and 4 equal angles |
| 10. Cone | j. a solid generated by the revolution of a rectangle on 1 of its sides |
| 11. Cylinder | k. a round, solid body; globe |
| 12. Quadrilateral | l. a solid generated by a straight line passing through a fixed point and a plane curve |

13. **Build A Rover** (Basic Geometry Review)

Can you design and build your very own Mars Rover? You can print and cut out the shapes below and try it! Send us a picture of your creation; we'd love to see what you accomplish when you put your imagination to work!

