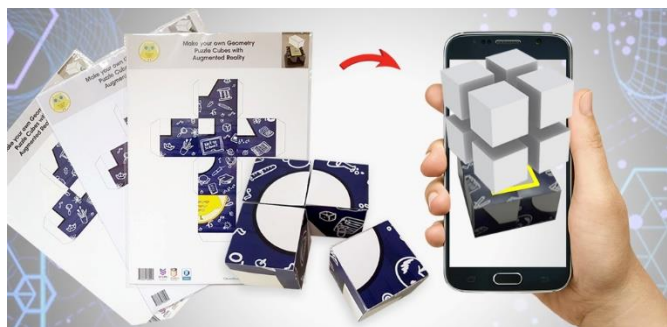


TITLE: Exploring 3D shapes using CleverBooks Geometry and 3DBear

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Timeframe of activity: 45 min

Tags: Mathematics

Grade Level: 3

App/Tech Tools: CleverBooks Geometry, 3DBear, Mobile device (tablet or mobile phone)

Additional material: CleverBooks Geometry Building Blocks or Geometry Workbook, Lego blocks, 3D Models

Learning Objectives:

In this lesson, students will use Augmented reality with CleverBooks Geometry App and 3D Bear App, to explore the solid figures, and to write and discover the number of faces, edge, vertices and name the solid figures using the tools and technology.

Lesson Activity:

- Teacher will divide the class into 4 groups. (Sphere group, Cylinder group, Cube group and Cone group)
- Each group will be given CleverBooks shape marker of a solid figure.
- Students will explore their solid figure using the AR Geometry app, 3DBear App to write the number of faces, edges, and vertices.
- Teacher will discuss answers and their work with them.
- Students will observe the 2D outline for each 3D figure.
- Each Group will be invited to the front of the class and speak to the class about their figure.
- The teacher will distribute the rest of solid figure cards among the class.
- Students will observe different solid figures and name them.

Questions outline:

- If I want to pick two solids that will roll, neither of them has vertices? Which solid figure I will choose?
- Sara chooses two solids with more than one square faces. Which the two solids did she choose?
- How are sphere, cylinder, and cone alike? How are they different?
- What dimension does a solid figure have that a plane figure does not?