Buildings Begin with Basic Shapes

Objectives

Students will:
- Review basic shapes.
- Discover that architects use basic shapes to design buildings.
- Observe basic shapes on the City and County Building.
- Create their own building with basic shapes.

Setting the Stage

1. Show Basic Shapes Review. Ask students to name each of the shapes.
2. Play an observation game. Divide students into groups. Ask each group to identify and record the shapes they observe in your classroom. Have groups report their findings to the class. Who found the most different shapes?

Student Instruction

1. Show overhead of City and County Building Line Drawing. Explain that building designers or “architects” use basic shapes as the building blocks for designing buildings whether they are small and simple or large and complex. Architects can create a complex building by combining different shapes or parts of different shapes. They can also create patterns by using the same shape over and over.
2. Explain that students will be looking for basic shapes in the City and County Building. Demonstrate activity by placing a blank transparency over the City and County Building Line Drawing overhead. Show how to find shapes by outlining the triangle that makes up the roof of the clock tower. Show students that even though the top of the triangle is hidden underneath the base that supports the statue, the basic shape of the roof is a triangle.
3. Hand out a copy of the City and County Building Line Drawing, a blank transparency, and 4-5 different color crayons or non-permanent markers to each student. Tell students to choose a different color for each kind of shape (i.e., red for triangles, blue for circles, green for arches, etc.). Ask students to outline and identify as many shapes on the City and County Building as they can and look for patterns. Emphasize that students should not just trace the building.
4. When students are finished, have them remove the drawing from behind their transparency. **Ask the class:** How many different shapes did you find? Which shape did you find most often? Did you notice any patterns?

**Student Activity**
Distribute copies of Building Blocks Student Handouts to students. (Students may want additional copies.) Instruct students to create their own building using basic shapes. Students may cut up the picture of the City and County Building, the Building Blocks, and/or cut out their own shapes. They should create their building by gluing the basic shapes they have cut out on another piece of paper.

**Extension**
Using blocks or an architecture kit, have students create buildings with three-dimensional shapes.