

## Piece It Together

### Level E

You work for a sporting goods manufacturer and you are finding that soccer is becoming more and more popular. The top-selling soccer ball is made by **Everkick**. The design pattern of this ball is composed of regular pentagons and hexagons. The **GoalScorer** ball is second on the list of best-selling soccer balls. It has a different design pattern. The design pattern of this ball is composed of pentagons, triangles, and squares.



Everkick



GoalScorer

The executive board has assigned you the task of creating a new design pattern for the company's new soccer ball. Use various polygons to create a spherical-shaped object. Build a design model using construction paper and tape. Draw a blueprint design of the ball showing at least three different views of the soccer ball. List the types of polygons used in the design. For each polygon, state the quantity needed to construct a ball.

Prepare a design specification report for a size 5 soccer ball. State the volume, diameter, circumference, and surface area of the ball. Also, list the dimensions of each polygon used in your design, including the length of the sides, the measure of interior angles, the perimeter, and the area of the polygons.

