

Shape Assessment Protocol: Additional Tasks

Here are some tasks that can be used in conjunction with, or in addition to, the tasks in the *Shape Assessment Protocol* (<http://prek-math-te.stanford.edu/spatial-relations/shape-assessment-protocol>). Select video examples of assessment items are available in *Shape Assessment Videos* (<http://prek-math-te.stanford.edu/spatial-relations/shape-assessment-videos>).

by Colleen Oppenzato and Herbert P. Ginsburg

Attributes of Two-Dimensional Shapes

Draw a shape Ask the child to draw a shape, such as a triangle. "Can you draw a different triangle? How do you know that your pictures are triangles? What if you had to teach a really little kid about shapes, what would you tell him or her about a triangle?"

Identify examples and non-examples Show the child a page with many shapes on them, some prototypical, some non-prototypical, and some that are not the shape you are exploring. You can use the materials Triangle Sheet or Rectangle Sheet, or create your own. Ask the child to mark, such as by circling, or crossing out, or coloring, all of the shapes that are really triangles (or whatever shape you have chosen). As you see the child coloring a shape, ask the child why that shape is a triangle (or whatever shape you have chosen). You can also show the child two shapes that the child has designated as triangles, but which differ in important ways. For example, one can be a skinny scalene and the other right angle, or one can be scalene and the other not a triangle. In both cases, ask the child to explain why they are triangles. Watch Patchett: Color Triangles in *Shape Assessment Videos*.

Sort plane figures by attribute Give the child a collection of shapes and have the child sort them based on attributes. You can assign the categories, such as three-sided figures and four-sided figures, or ask the child to sort and then explain the basis for the sorting. If you assign categories, you can give the child figures that do not fit either category to see if the child tries to sort them. You might also ask the child at some point to compare shapes that all have four sides but are nevertheless different, like rectangle, square, parallelogram, rhombus, and trapezoid. Watch Laura Jane: Sort Shapes in *Shape Assessment Videos*.

Three-Dimensional (Solid) Figures

Match two-dimensional shapes to solids Give the child a collection of solids and place several two-dimensional shapes on the table that are faces of the solids. Ask: (point to a face on the solid) "What shape is this?" Point to the flat shapes on the table: "Can you find the shape on the table?" If the child is struggling, give only two choices and point to them, asking: "Is it more like this one or this one?"

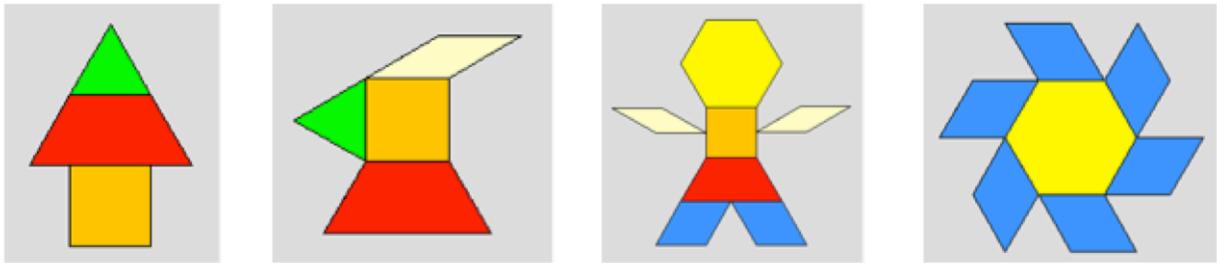
Sort solid figures by attribute Give the child a collection of solids and have the child sort them using key attributes. You can assign the categories solids with pointed parts and solids with curved parts (or both). Another approach is open-ended. You ask a child to sort in any way desired and see what

attributes are used, perhaps by type of figure, color, size, shape or number of faces. If the child says a particular solid doesn't fit into any category, ask why.

Provide a child with wooden solids of different shapes Challenge the child to build something such as a tower using three different solids. "Why did you choose the solids you chose? Why is this solid good for the bottom (base) of the tower? Why is this solid good for the top?"

Compose and Decompose Shapes

Make pictures out of shapes Provide a child with pattern blocks or cut-outs of pattern blocks or cut-out shapes. Show a "picture" made with pattern blocks. Ask the child: "Can you make this picture? What shapes will you need?" Watch Laura Jane: Pattern Block Pictures in *Shape Assessment Videos*.



Show a child some shapes and encourage them to predict what pictures could be made with them. Allow the child to reshape them to make their own pictures. Watch Veronica: Reshape in *Shape Assessment Videos*.

Draw and describe a picture Provide a child with paper, pencil and colored crayons or markers. Have the child draw a picture of a person (or of another familiar object). Ask the child to describe the shapes used in the picture. "Why did you use those shapes to draw this picture?" (e.g., a circle/oval for her face.) "Could you have used different shapes?"