Level 1   Recognition. A student recognizes the shape as a whole. The student is not aware of specific parts or properties of that shape. The student identifies, names, compares and operates on geometric figures according to their appearance.

At this level, students may think that the two shapes in Figure 1 are different because they look different, not focusing on the sides or angles. Children may call the second shape a diamond rather than a square, because they look different.
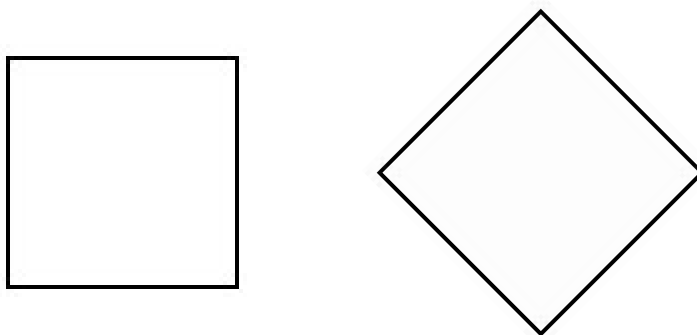
Figure 1

Level 2   Analysis of properties. A student can analyze figures in terms of their components, describe its parts and list its properties. Descriptions are used instead of definitions. Student discovers/proves properties or rules empirically (for example by folding, measuring, using a grid, or a diagram).

At this level, a student may realize that both shapes in figure 1 are squares, because they have four equal sides and four right angles.