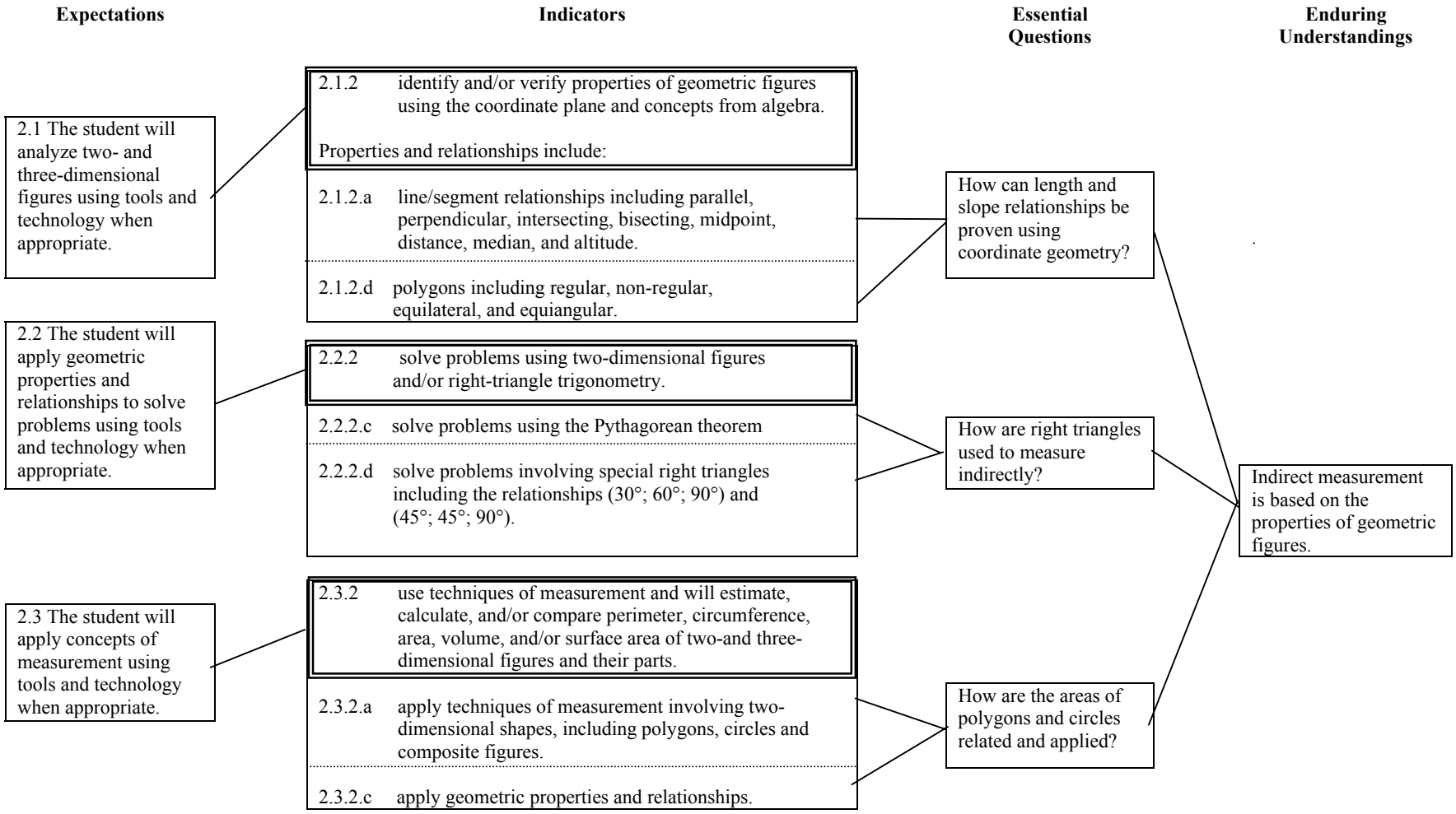
Expectations
Indicators
Essential Questions
Enduring Understandings
2.1 The student will analyze two- and three-dimensional figures using tools and technology when appropriate.
2.1.2 identify and/or verify properties of geometric figures using the coordinate plane and concepts from algebra.
Properties and relationships include:
2.1.2.a line/segment relationships including parallel, perpendicular, intersecting, bisecting, midpoint, distance, median, and altitude.
2.1.2.d polygons including regular, non-regular, equilateral, and equiangular.
How can length and slope relationships be proven using coordinate geometry?
2.2 The student will apply geometric properties and relationships to solve problems using tools and technology when appropriate.
2.2.2 solve problems using two-dimensional figures and/or right-triangle trigonometry.
2.2.2.c solve problems using the Pythagorean theorem
2.2.2.d solve problems involving special right triangles including the relationships (30°; 60°; 90°) and (45°; 45°; 90°).
How are right triangles used to measure indirectly?
2.3 The student will apply concepts of measurement using tools and technology when appropriate.
2.3.2 use techniques of measurement and will estimate, calculate, and/or compare perimeter, circumference, area, volume, and/or surface area of two-and three-dimensional figures and their parts.
2.3.2.a apply techniques of measurement involving two-dimensional shapes, including polygons, circles and composite figures.
2.3.2.c apply geometric properties and relationships.
How are the areas of polygons and circles related and applied?
Indirect measurement is based on the properties of geometric figures.