

# DragonBox Elements: Key Standards Supported

## GEOMETRY

Use: DragonBox Elements is a digital manipulative. It is designed to be used as a teaching tool together with classroom instruction and discussion. The following standards are covered combined with classroom instruction and discussion. See [wewanttoknow.com/teachers](http://wewanttoknow.com/teachers) for teacher manuals and worksheets.

3.G: Reason With Shapes And Their Attributes.	
<b>3.G.1</b>	Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
4.G: Draw And Identify Lines And Angles, And Classify Shapes By Properties Of Their Lines And Angles.	
<b>4.G.1</b>	Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
<b>4.G.2</b>	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.
5.G: Classify Two-Dimensional Figures Into Categories Based On Their Properties.	
<b>5.G.3</b>	Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right

	angles and squares are rectangles, so all squares have four right angles.
7.G: Draw, Construct, And Describe Geometrical Figures And Describe The Relationships Between Them.	
<b>7.G.2</b>	Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.
8.G: Understand Congruence And Similarity Using Physical Models, Trans- Parencies, Or Geometry Software.	
<b>8.G.2</b>	Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
<b>8.G.5</b>	Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.