Common Core Collaborative Cards – Geometry (G)
Correlation to the Common Core State Standards

		CARDS								
		1 – 4	5 – 8	9 – 12	13 – 16	17 – 20	21 – 24	25 – 28	29 – 32	33 – 36
Grade 6 Deck										
Geometry										
Solve real-world and mathematical problems involving area, surface area, and volume.										
6.G.1.	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	✕		✕	✕	✕		✕	✕	
6.G.2.	Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = lwh$ and $V = bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.	✕	✕		✕	✕	✕			✕
6.G.3.	Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.		✕		✕	✕		✕		✕
6.G.4.	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.				✕	✕	✕	✕	✕	✕
Measurement and Data										
Convert like measurement units within a given measurement system.										
5.MD.1.	Convert among different-sized standard measurement units within a given measurement system, and use these conversions in solving multi-step, real-world problems.		✕							

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		1 – 4	5 – 8	9 – 12	13 – 16	17 – 20	21 – 24	25 – 28	29 – 32	33 – 36
Grade 7 Deck										
Geometry										
Draw, construct, and describe geometrical figures and describe the relationships between them.										
7.G.1.	Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	×			×		×			
7.G.2.	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.		×					×	×	
7.G.3.	Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.		×			×			×	
Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.										
7.G.4.	Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.			×	×	×			×	×
7.G.5.	Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.	×					×	×	×	×
7.G.6.	Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.		×	×	×	×	×	×		×

		CARDS								
		1 – 4	5 – 8	9 – 12	13 – 16	17 – 20	21 – 24	25 – 28	29 – 32	33 – 36
Grade 8 Deck										
Geometry										
Understand congruence and similarity using physical models, transparencies, or geometric software.										
8.G.1.	Verify experimentally the properties of rotations, reflections, and translations:	✕								
	a. Lines are taken to lines, and line segments to line segments of the same length.									
	b. Angles are taken to angles of the same measure.									
	c. Parallel lines are taken to parallel lines.									
8.G.2.	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.	✕						✕	✕	
8.G.3.	Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.	✕		✕				✕	✕	
8.G.4.	Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.		✕			✕			✕	
8.G.5.	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.		✕		✕	✕				✕
Understand and apply the Pythagorean Theorem.										
8.G.6.	Explain a proof of the Pythagorean Theorem and its converse.					✕				
8.G.7.	Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.				✕	✕		✕		
8.G.8.	Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.				✕	✕		✕		✕
Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.										
8.G.9.	Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.				✕	✕	✕			