

Breaking Down a Mathematics Standard

KAS: KY.1.G.2

What is the domain/conceptual category/big idea?	Geometry
Standards for Mathematical Practice	

<p><u>MP.1.</u> Make sense of problems and persevere in solving them.</p> <p><u>MP.2.</u> Reason abstractly and quantitatively.</p> <p><u>MP.3.</u> Construct viable arguments and critique the reasoning of others.</p> <p><u>MP.4.</u> Model with mathematics.</p>	<p><u>MP.5.</u> Use appropriate tools strategically.</p> <p><u>MP.6.</u> Attend to precision.</p> <p><u>MP.7.</u> Look for and make use of structure.</p> <p><u>MP.8.</u> Look for and express regularity in repeated reasoning.</p>
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Cluster: What is the broader understanding that the standard plays a role in building? Reason with shapes and their attributes.

Standards	Clarifications
<ul style="list-style-type: none"> Identify the target of the standard: <ul style="list-style-type: none"> ✓ conceptual understanding o procedural skill/fluency o application <p>Consider how the target of the standard will have an impact on instruction and assessment. (For more information, refer to p. 7, 10 and 15 of <i>KAS for Mathematics</i>.)</p> <p>Students conceptually compose two-dimensional shapes to create composite shapes. Students also conceptually compose three-dimensional shapes to create composite shapes.</p> <ul style="list-style-type: none"> What key mathematics should students know and be able to do? Students should understand what a composite shape means, for example a shape that can be divided into more than one basic shape. 	<ul style="list-style-type: none"> What are the specific representations/strategies that will need to be considered when planning instruction? <u>Having students use pattern blocks to make units of a unit; meaning they make a square or rectangle from 2 identical right triangles, then they make pictures or patterns</u> What are the possible misconceptions that will need to be addressed during instruction? <u>This standard is more than knowing the names of shapes. Students may need additional experiences flipping, turning and rotating shapes to compose a new composite shape</u> <p>Coherence: Previous Grade → Current Standard → Upcoming Grade</p> <ul style="list-style-type: none"> How does this standard build off of prior learning? <u>KY.K.G.6 Compose simple shapes to form larger shapes.</u> How does this standard support future learning? <u>KY.2.G.2 students compose rectangle arrays or see it as partitioning a rectangle</u> How does this standard connect to other standards (or even other clusters or domains)? <u>KY.1.G.1 and KY.1.G.3 both deal with building, drawing and partitioning shapes.</u>

Attending to the Standards for Mathematical Practice

How are students engaging in the mathematical practices as they learn this content? (For more information, refer to p. 12-15 of *KAS for Mathematics*.)

MP.4 Students model with mathematics by making pictures 2D or structures 3D. They gradually become more elaborate as they build mental visualizations that enable them to move from trial and error rotating shapes.

practice