

Mini-Map for M.EE.HS.G.CO.6-8

Subject: Mathematics

Geometry—Congruence (G.CO)

Grade: 11

Learning Outcome

DLM Essential Element	Grade-Level Standard
M.EE.HS.G.CO.6-8 Identify corresponding congruent and similar	M.G.CO.6 Use geometric descriptions of rigid motions to
parts of shapes.	transform figures and to predict the effect of a given rigid
	motion on a given figure; given two figures, use the definition of
	congruence in terms of rigid motions to decide if they are
	congruent.
	M.G.CO.7 Use the definition of congruence in terms of rigid
	motions to show that two triangles are congruent if and only if
	corresponding pairs of sides and corresponding pairs of angles
	are congruent.

Linkage Level Descriptions

Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
Recognize "same" as	Match two 3-	Recognize two shapes	Communicate	Communicate
the object that shares	dimensional shapes	that are congruent with	understanding that	understanding that two
all of the same	(e.g., spheres,	or without rotation or	congruent figures have	shapes are congruent if
attributes as other	rectangular prisms,	reflection. Recognize	the same shape and size	the second can be
objects in a group.	cubes, pyramids) or 2-	two-dimensional and	and that similar figures	obtained from the first
Recognize "different" as	dimensional shapes	three-dimensional	have the same shape	by a sequence of
the object that shares	(e.g., squares,	shapes that are similar.	but different sizes.	rotations, reflections,
some or none of the	rectangles, triangles)			and translations.
attributes as other	that are the same size			Communicate
objects in a group.	and have either the			understanding that two
	same or different			shapes are similar if the
	orientation. Match two			second can be obtained
	3-dimensional shapes			from the first by a
	(e.g., spheres,			sequence of dilations,

Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
	rectangular prisms,			rotations, reflections, or
	cubes, pyramids) or 2-			translations.
	dimensional shapes			
	(e.g. squares,			
	rectangles, triangles)			
	that are different sizes			
	and have either the			
	same or different			
	orientation.			

Initial Precursor and Distal Precursor Linkage Level Relationships to the Target

How is the Initial Precursor related to the Target?

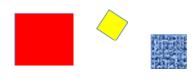
Recognizing congruent and similar parts of a shape requires a student to first recognize when basic objects and shapes are the same or different. Work on this understanding by providing students with a shape and naming it (e.g., "this is a square"). Then, provide multiple examples of the same shape so students can make comparisons, focusing student attention on the characteristics that make this a particular shape (e.g., a square has 4 sides that are the same size). As students explore shapes, label them and describe them as same or different.

NOTE: When presenting the same shape for comparison, do use shapes with different colors, textures, sizes, and orientation so that students understand the attribute that makes it that shape (e.g., 4 sides that are the same size).

How is the Distal Precursor related to the Target?

As students develop an understanding of same and different shapes, provide opportunities for students to match or group the same shapes based on the shape size (e.g., "this is a big square", "this is a little square"). As students progress with identifying the size of shapes, the educator can begin to introduce different orientations of the shape as well as three-dimensional shapes.

NOTE: As new attributes (e.g., size, orientation, three-dimensional) are introduced, be sure to support the student in remembering that the attribute doesn't change the name of the shape.



Instructional Resources

Released Testlets

See the Guide to Practice Activities and Released Testlets.

Using Untested (UN) Nodes

See the document <u>Using Mini-Maps to Plan Instruction</u>.

Link to Text-Only Map

M.EE.HS.G.CO.6-8 Identify corresponding congruent and similar parts of shapes.

