

Mini-Map for M.EE.8.G.2 Subject: Mathematics

Geometry (G) Grade: 8

Learning Outcome

DLM Essential Element	Grade-Level Standard
M.EE.8.G.2 Identify shapes that are congruent.	M.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.

Linkage Level Descriptions

Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
Recognize "same" as	Match a familiar shape	Describe attributes or	Recognize two shapes	Communicate
the object that shares	(e.g., square, circle,	characteristics of the	that are congruent with	understanding that two
all of the same	triangle, rectangle) to a	shape (e.g., size,	or without rotation or	shapes are congruent if
attributes as other	congruent shape (i.e.,	orientation, the number	reflection.	the second can be
objects in a group.	the shape with same	of sides). Compare		obtained from the first
Recognize "different" as	size and orientation), or	shapes and identify		by a sequence of
the object that shares	match a familiar shape	attributes shared by the		rotations, reflections,
some or none of the	(e.g., square, circle,	two shapes (e.g., a		and translations.
attributes as other	triangle, rectangle) to a	rectangle and a square		Describe a sequence of
objects in a group.	similar shape (i.e., the	each have four sides).		transformations that
	shape shown in a			would result in one
	different size but same			figure being
	orientation).			superimposed precisely
				over the other figure.

Initial Precursor and Distal Precursor Linkage Level Relationships to the Target

How is the Initial Precursor related to the Target?

Being able to recognize congruent figures requires a student to 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 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.

NOTE: As new attributes (e.g., size and orientation) 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

Recognize Recognize different same DP DP Match the same Match the same two-dimensional shape with (two-dimensional shape with) different sizes and same same size and same orientation orientation UN UN Match the same Match the same two-dimensional shape two-dimensional shapes with different size and with same sizes and different orientations different orientation UN UN Classify same Classify same two-dimensional shapes two-dimensional shapes with different size and/or with same size and UN different orientation same orientation Recognize Recognize rectangles squares UN Recognize Recognize triangles circles Explain attribute Analyze shapes to Describe relationships between identify common attributes of attributes shapes shapes Map Key IΡ Initial Precursor Recognize

M.EE.8.G.2 Identify shapes that are congruent.

Use a sequence of

transformations to describe

congruence of 2 given

figures

congruent figures

S

Explain the relationship

between congruent figures

and transformation

Distal Precursor

Target Successor

Untested

Boxes indicate tested

Т

nodes

Proximal Precursor