Grade 6 Unit 1: Area and Surface Area
Lesson 1–3 Reasoning to Find Area

Explore, Play, and Discuss

- I can articulate the meaning of "area."
- I can explain how to find the area of a figure that is composed of other shapes.

Activity Suggestions:

- ➢ Lesson 1, Activities 1 and 2
- ➢ Lesson 2, Activity 2

Assessment Suggestions:

- ➢ Lesson 1 cool-down
- ➢ Possible reflection question: "Does breaking up parts of a shape and putting them back together change the area?"
- ➢ Check Your Readiness assessment: Administer all 6 items within the first day or two of this section. Use the guidance provided with each problem to adjust instruction so that students can access the math in the unit.

Deep Dive

- I know what it means for two figures to have the same area.

Activity Suggestions:

- ➢ Lesson 2, Activity 3
- ➢ Lesson 3, Activity 2: Hone in on finding area by decomposing and rearranging pieces

Assessment Suggestions:

- ➢ Students can reflect on the different methods used to find areas in the lesson

Synthesize and Apply

- I can use different reasoning strategies to find the area of shapes.
- I know how to find the area of a figure by decomposing it and rearranging the parts.

Activity Suggestions:

- ➢ Lesson 3, Activity 3

Assessment Suggestions:

- ➢ Lesson 3 cool-down

Ongoing Practice	
	• Assign one or more of the distributed practice problem sets from Lessons 1, 2, or 3 to be completed over the time period that the section is being worked on. • These could also be lagging, so that students are working on practice problems from the previous section or unit during this section or unit. • Specify which problems students should submit, or let them choose.

Anytime Resources	
	• Practice problems from the chapter spiraled as appropriate.

Lessons 4–6: Parallelograms

Explore, Play, and Discuss

- I can use reasoning strategies and what I know about the area of a rectangle to find the area of a parallelogram.
- I know how to describe the features of a parallelogram using mathematical vocabulary.

Activity Suggestions:

- ➢ Lesson 4, Activity 1
- ➢ Lesson 4, Activity 2
- ➢ Lesson 4, Activity 3: Emphasize the connecting of area with the base and height

Assessment Suggestions:

- ➢ Students can reflect in their journal about strategies for finding areas of parallelograms.
- ➢ Lesson 4 cool-down

Deep Dive

- I can identify base and height pairs of a parallelogram.
- I can write and explain the formula for the area of a parallelogram.
- I know what the terms “base” and “height” refer to in a parallelogram.

Activity Suggestions:

- ➢ Lesson 5, Activity 1
- ➢ Lesson 5, Activity 2: Focus on defining attributes of a parallelogram
- ➢ Lesson 5, Activity 3

Assessment Suggestions:

- ➢ Tell students to submit their own parallelogram, identify a base and height pair, then find the area of the parallelogram.
- ➢ Lesson 5 cool-down

Synthesize and Apply

- I can use the area formula to find the area of any parallelogram.

Activity Suggestions:

- ➢ Lesson 6, Activity 2: Focus on parallelograms with different pairs of bases and heights that lead to the same area.

Assessment Suggestions:

- ➢ Lesson 6 cool-down

Ongoing Practice	
	• Assign one or more of the distributed practice problem sets from Lessons 4–10 to be completed over the time period that the section is being worked on. • These could also be lagging, so that students are working on practice problems from the previous section or unit during this section or unit. • Specify which problems students should submit, or let them choose.

Anytime Resources	
	• Practice problems from the chapter spiraled as appropriate.

Lesson 7–10: Triangles

Explore, Play, and Discuss

- I can explain the special relationship between a pair of identical triangles and a parallelogram.

Activity Suggestions:

- ➢ Lesson 7, Activity 1. The warm-up connects parallelograms to triangles.
- ➢ Lesson 7, Activity 2. Emphasize how a quadrilateral can be decomposed into two triangles.

Assessment Suggestions:

- ➢ Students can reflect on how they know that the two triangles from the decompositions are identical.
- ➢ Lesson 7, Activity 3, Question 1

Deep Dive

- I can describe (orally and in writing) ways in which two identical triangles can be composed, that is, into a parallelogram or into a rectangle.

Activity Suggestions:

- ➢ Lesson 7, Activity 2: Activity synthesis
- ➢ Lesson 7, Activity 3: Focus on connecting the area of a triangle with the area of a parallelogram.
- ➢ Lesson 9, Activity 2

Assessment Suggestions:

- ➢ Lesson 7 cool-down

Synthesize and Apply

- I can write and explain the formula for the area of a triangle
- I can use the area formula to find the area of any triangle.

Activity Suggestions:

- ➢ Lesson 8, Activity 2: Focus on students finding a method of area that works for them.
- ➢ Lesson 9, Activity 3

Assessment Suggestions:

- ➢ Mid-Unit Assessment
- ➢ Lesson 9 cool-down

Ongoing Practice	
	• Assign one or more of the distributed practice problem sets from Lessons 4–10 to be completed over the time period that the section is being worked on. • These could also be lagging, so that students are working on practice problems from the previous section or unit during this section or unit. • Specify which problems students should submit, or let them choose.

Anytime Resources	
	• Practice problems from the chapter spiraled as appropriate. • Lesson 10

Lessons 11–19: Surface Areas, Squares, and Cubes

Explore, Play, and Discuss

- I can compare and contrast (orally) different strategies for finding the area of a polygon.
- I can describe (orally and in writing) the defining characteristics of polygons.
- I know what the surface area of a three-dimensional object means.

Activity Suggestions:

- ➢ Lesson 12, Activity 1
- ➢ Lesson 12, Activity 2: Focus students on examining the area of each face.
- ➢ Lesson 13, Activity 2: Consider providing a visual example of folding a net into a solid or linking students to the applet provided in the launch.

Assessment Suggestions:

- ➢ Lesson 11 cool-down

Deep Dive

- Use a net with gridlines to calculate the surface area of a prism or pyramid and explain (in writing) the solution method.

Activity Suggestions:

- ➢ Lesson 14: For Activity 2, display the solids assembled from the nets and ask students to match them to the nets provided and explain their reasoning. Then as students to find the surface areas using the nets.
- ➢ Lesson 17, Activity 3: Review the concept of volume before doing the activity

Assessment Suggestions:

- Lesson 14 cool-down
- Lesson 15, Activity 2

Synthesize and Apply

- I understand the relationship between a polyhedron and its net.

Activity Suggestions:

- ➢ Lesson 18, Activities 2 and 3: Focus on student understanding of notation.

Assessment Suggestions:

- ➢ Lesson 18 cool-down.

Ongoing Practice	
	• Assign one or more of the distributed practice problem sets from Lessons 11–19 to be completed over the time period that the section is being worked on. • These could also be lagging, so that students are working on practice problems from the previous section or unit during this section or unit. • Specify which problems students should submit, or let them choose.

Anytime Resources	
	• Practice problems from the chapter spiraled as appropriate. • Lesson 19