

May Gr. 3 Perim. and Area

Content Area: **Math**
Course(s):
Time Period: **May**
Length: **4-5 Weeks**
Status: **Obsolete**

Unit Overview

Students will understand how to find the perimeter of a figure, how to find the area of a figure, how to use tiling to find area, how to use a formula to find area and how to find area for composite figures.

Enduring Understandings

Perimeter is the length around a figure, while area is measured in square units.

The dimensions of a rectangle are called length and width.

You can decompose a composite figure to find area.

Essential Questions

How are perimeter and area related and how are they different?

Instructional Strategies & Learning Activities

- **Pacing Guide**
Suggested Pacing

Instruction	12 days
Review/Assessment	2 days
Total*	14 days

- *Includes additional time for remediation and differentiation.
-

Lesson	Objective	Material & Manipulatives	Vocabulary	Standard
Lesson 1 <i>pp.</i> 753-758 Hands On: Find Perimeter	Explore finding the perimeter of a figure.	<ul style="list-style-type: none">• masking tape or sidewalk chalk• centimeter ruler• inch ruler• base-ten cubes	perimeter	3.MD.8 Additional Cluster

Lesson 2 <i>pp. 759-764</i> Perimeter	Find the unknown when solving problems involving perimeter.	<ul style="list-style-type: none"> • pattern blocks • a piece of string • centimeter ruler 	perimeter	MP 1, 2, 3, 6, 8 3.MD.8 Additional Cluster MP 2, 3, 4, 6, 7, 8 3.MD.5, 3.MD.5a, 3.MD.5b, 3.MD.6, 3.MD.8 Major Cluster
Lesson 3 <i>pp. 765-770</i> Hands On: Understand Area	Count unit squares to find the area of a figure.	<ul style="list-style-type: none"> • 10-by-10 grid paper • color tiles • geoboard • rubber bands 	area unit square square unit	MP 1, 4, 6, 8 3.MD.5, 3.MD.5a, 3.MD.5b, 3.MD.6, 3.MD.7, 3.MD.8 Major Cluster
Lesson 4 <i>pp. 771-776</i> Measure Area	Use addition to measure the area of a figure.	<ul style="list-style-type: none"> • color tiles • 10-by-10 grid paper 	area	MP 1, 4, 6, 8 3.MD.5, 3.MD.5a, 3.MD.5b, 3.MD.6, 3.MD.7, 3.MD.8 Major Cluster
Check My Progress Lesson 5 <i>pp. 779-784</i> Hands On: Tile Rectangles to Find Area	Use tiling to find the area of rectangles.	<ul style="list-style-type: none"> • 10-by-10 grid paper 		MP 1, 2, 5, 6, 8 3.MD.5, 3.MD.5a, 3.MD.5b, 3.MD.6, 3.MD.7, 3.MD.7a, 3.MD.7b Major Cluster
Lesson 6 <i>pp. 785-790</i> Area of Rectangles	Use the formula for area to find the area of rectangles.	<ul style="list-style-type: none"> • centimeter dot paper 	formula	MP 1, 2, 4, 5, 8 3.MD.5, 3.MD.5a, 3.MD.5b, 3.MD.6, 3.MD.7, 3.MD.7a, 3.MD.7b, 3.MD.8 Major Cluster
Lesson 7 <i>pp. 791-796</i> Hands On:	Use the Distributive Property to find area.	<ul style="list-style-type: none"> • color tiles 		MP 1, 2, 3, 4, 5, 8 3.MD.5, 3.MD.7,

Area and the Distributive Property

3.MD.7c

Major Cluster

Lesson 8 *pp. 797-802* **Area of Composite Figures**

Find the area of composite figures.

- 10-by-10 grid paper
- scissors

composite figure

MP 2, 3, 5, 7
3.MD.5, 3.MD.7,
3.MD.7b,
3.MD.7d

Major Cluster

MP 1, 4, 6, 7, 8

Check My Progress Lesson 9 *pp. 805-810* **Area and Perimeter**

Recognize the relationship between area and perimeter.

- color tiles

3.MD.5, 3.MD.7,
3.MD.7b,
3.MD.8

Additional Cluster

MP 1, 2, 3, 4, 6, 8
3.MD.5, 3.MD.7,
3.MD.7b,
3.MD.8

Lesson 10 *pp. 811-816* **Problem-Solving Investigation: Draw a Diagram**

Draw a diagram to solve problems.

- counters

Additional Cluster

MP 1, 4, 5, 6

My Review and Reflect

Integration of Career Readiness, Life Literacies and Key Skills

WRK.9.2.5.CAP.1	Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
WRK.9.2.5.CAP.2	Identify how you might like to earn an income.
WRK.9.2.5.CAP.3	Identify qualifications needed to pursue traditional and non-traditional careers and occupations.
WRK.9.2.5.CAP.4	Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements.
TECH.9.4.8.CT	Critical Thinking and Problem-solving
TECH.9.4.8.TL.2	Gather data and digitally represent information to communicate a real-world problem (e.g., MS-ESS3-4, 6.1.8.EconET.1, 6.1.8.CivicsPR.4).
TECH.9.4.8.TL.3	Select appropriate tools to organize and present information digitally. An essential aspect of problem solving is being able to self-reflect on why possible solutions for solving problems were or were not successful.

Multiple solutions often exist to solve a problem.

Technology and Design Integration

Students will interact with Smartboard, Chromebooks and document camera.

CS.3-5.8.1.5.DA.1	Collect, organize, and display data in order to highlight relationships or support a claim.
CS.3-5.DA	Data & Analysis
	Data can be organized, displayed, and presented to highlight relationships.

Interdisciplinary Connections

LA.RI.3.1	Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
LA.RI.3.4	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.
LA.RI.3.7	Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
LA.RI.3.10	By the end of the year, read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed.

Differentiation

Each My Math unit throughout the series offers "approaching level", "on level" and "Beyond level" differentiated instructional hands-on choices, as well as ELL differentiated support. Please refer to the teacher edition for the activities.

Modifications & Accommodations

IEP and 504 accommodations will be followed.

Benchmark Assessments

Aimsweb Assessment, Chapter Pretests, Dreambox

Formative Assessments

Teacher observation

Student conferences

Discussion

Activities

games

homework

Summative Assessments

My Math chapter assessments

Instructional Materials

See materials listed above

Standards

MA.3.MD.C.5	Recognize area as an attribute of plane figures and understand concepts of area measurement.
MA.3.MD.C.6	Measure areas by counting unit squares (square cm, square m, square in, square ft, and non-standard units).
MA.3.MD.C.7	Relate area to the operations of multiplication and addition.
MA.3.MD.C.5a	A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.
MA.3.MD.C.5b	A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.
MA.3.MD.C.7a	Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
MA.3.MD.C.7b	Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

MA.3.MD.C.7c	Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.
MA.3.MD.C.7d	Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.
MA.3.MD.D.8	Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.