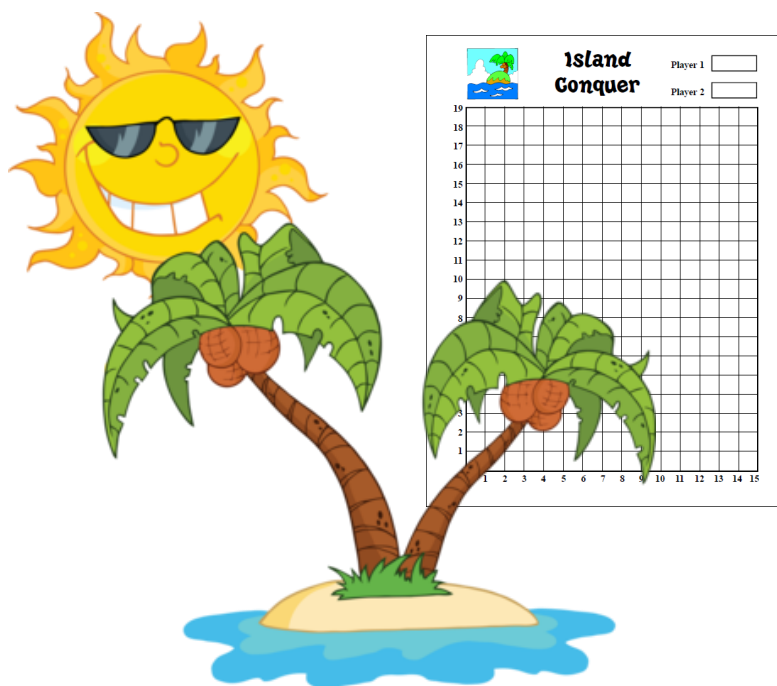




Island Conquer

Area & Perimeter

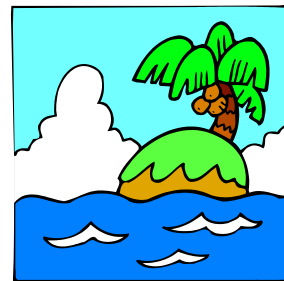
Math Game for Exploring Area and Perimeter on a Coordinate Grid



Common Core Aligned
Math Content 3.MD.5,
3.MD.6, and 3.MD.7

Laura Candler
©2012 Teaching Resources
www.lauracandler.com

Island Conquer Area & Perimeter

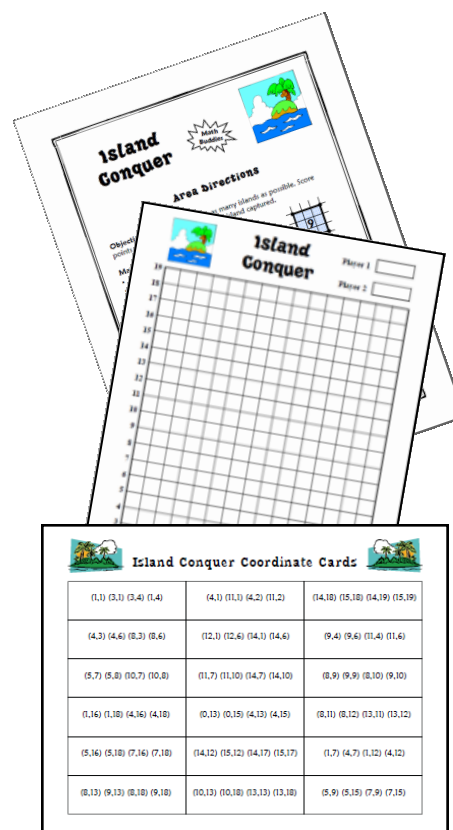


Created by Laura Candler

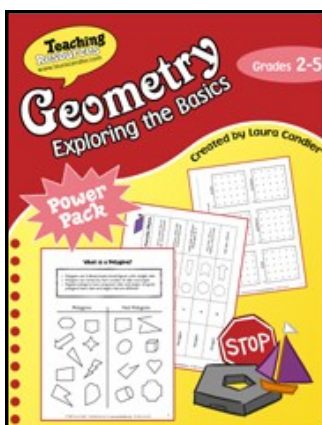
Island Conquer is a set of two math games in which students explore area and perimeter concepts on a coordinate grid. Both games use the same game board and the same set of coordinate task cards, but the directions for the Area Island Conquer are different from Perimeter Island Conquer. You may want to duplicate the two sets of directions on different colored paper to keep your students from confusing them.

The object of each game is to capture "islands" on the game board by plotting the points on the coordinate cards and finding each rectangle's area or perimeter. Students take turns plotting points and capturing islands. At the end of the game, they add up the total area or perimeter of all islands they have captured to determine the winner.

Before placing the games in a center, introduce each one to your class in a whole-group or small-group lesson. You'll need to one game board and one set of task cards per pair. The game boards can only be used one time since your students will be coloring directly on them, but the task cards can be laminated and used over and over.

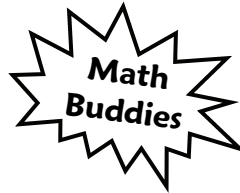


Island Conquer Coordinate Cards		
(1,1) (3,1) (3,4) (1,4)	(4,1) (11,1) (4,2) (11,2)	(14,18) (15,18) (14,19) (15,19)
(4,3) (4,6) (8,3) (8,6)	(12,1) (12,6) (14,1) (14,6)	(9,4) (9,6) (11,4) (11,6)
(5,7) (5,8) (10,7) (10,8)	(11,7) (11,10) (14,7) (14,10)	(8,9) (9,9) (8,10) (9,10)
(1,16) (1,18) (4,16) (4,18)	(0,13) (0,15) (4,13) (4,15)	(8,11) (8,12) (13,11) (13,12)
(5,16) (5,18) (7,16) (7,18)	(14,12) (15,12) (14,17) (15,17)	(1,7) (4,7) (1,12) (4,12)
(8,13) (9,13) (8,18) (9,18)	(10,13) (10,18) (13,13) (13,18)	(5,9) (5,15) (7,9) (7,15)



If you enjoy this freebie, you may also enjoy Geometry: Exploring the Basics or Polygon Explorations. Both ebooks can be purchased from my TeachersPayTeachers store or from Teaching Resources at www.lauracandler.com. I invite you to explore both locations where you'll find more freebies and teaching strategies! ~ Laura Candler

Island Conquer

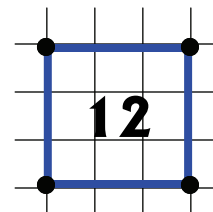


Perimeter Directions

Objective: Create and conquer as many islands as possible. Score points according to the perimeter of each island captured.

Materials:

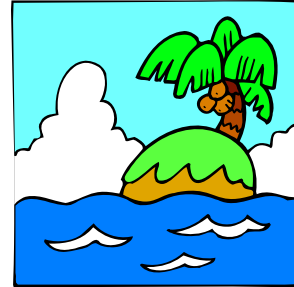
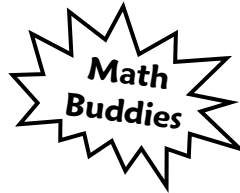
- Island Conquer Game Board
- two crayons
- Coordinate Cards



Directions:

1. Each player chooses one color to use on the game board. Color the key at the top of the board accordingly. Cut apart the Coordinate Cards and stack them face down near the game board.
2. Player 1 draws out a card and plots the 4 points according to the coordinates on the card. Player 1 uses his or her crayon to connect the points and form a rectangle or square. Player 1 finds its perimeter and writes that number inside the figure, thereby conquering the island. (Player 2 checks Player 1's work.)
3. Player 2 draws out another card and repeats Step 2 using his or her crayon. (Player 1 checks Player 2's work.)
4. Players continue taking turns creating and conquering islands, finding the perimeter of each figure.
5. At the end of the game, players add up their points by tallying the total perimeters of their islands. The player with the most points becomes Island King or Queen!

Island Conquer

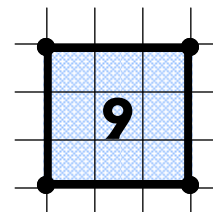


Area Directions

Objective: Create and conquer as many islands as possible. Score points according to the area of each island captured.

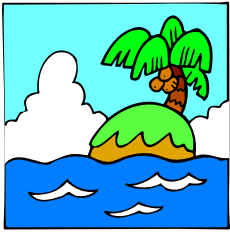
Materials:

- Island Conquer Game Board
- two crayons
- Coordinate Cards



Directions:

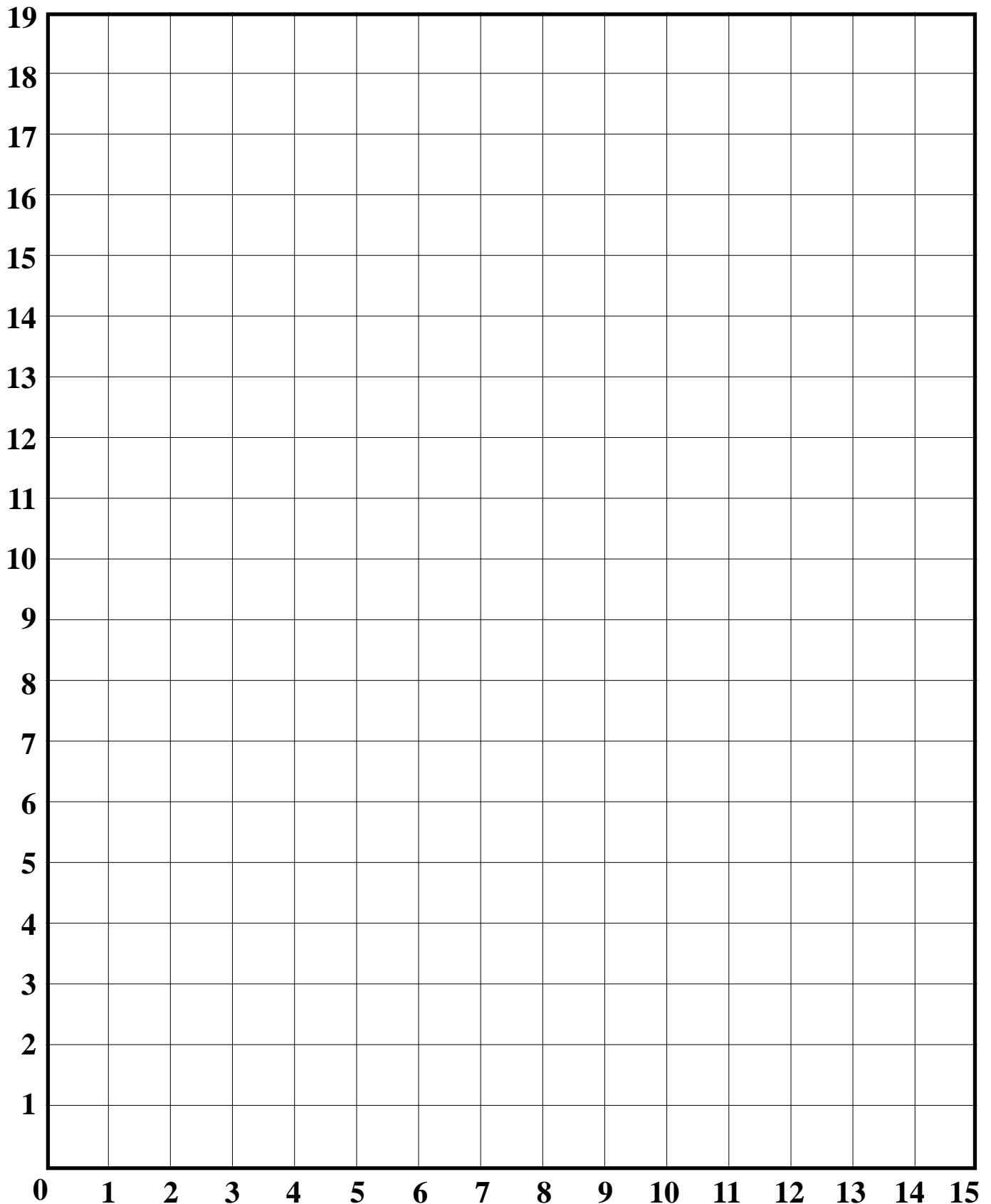
1. Each player chooses one color to use on the game board. Color the key at the top of the board accordingly. Cut apart the Coordinate Cards and stack them face down near the game board.
2. Player 1 draws out a card and plots the 4 points according to the coordinates on the card. Player 1 uses his or her crayon to connect the points and form a rectangle or square. He or she then calculates the area of the figure, writes that number inside, and colors the island to capture it. (Player 2 checks Player 1's work.)
3. Player 2 draws out another card and repeats Step 2 using his or her crayon. (Player 1 checks Player 2's work.)
4. Players continue taking turns creating and conquering islands, finding the area of each rectangle or square.
5. At the end of the game, players add up their points by tallying the total area of their captured islands. The player with the most points becomes Island King or Queen!



Island Conquer

Player 1

Player 2





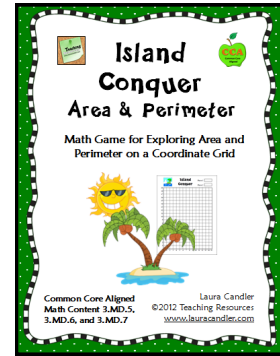
Island Conquer Coordinate Cards



(1,1) (3,1) (3,4) (1,4)	(4,1) (11,1) (4,2) (11,2)	(14,18) (15,18) (14,19) (15,19)
(4,3) (4,6) (8,3) (8,6)	(12,1) (12,6) (14,1) (14,6)	(9,4) (9,6) (11,4) (11,6)
(5,7) (5,8) (10,7) (10,8)	(11,7) (11,10) (14,7) (14,10)	(8,9) (9,9) (8,10) (9,10)
(1,16) (1,18) (4,16) (4,18)	(0,13) (0,15) (4,13) (4,15)	(8,11) (8,12) (13,11) (13,12)
(5,16) (5,18) (7,16) (7,18)	(14,12) (15,12) (14,17) (15,17)	(1,7) (4,7) (1,12) (4,12)
(8,13) (9,13) (8,18) (9,18)	(10,13) (10,18) (13,13) (13,18)	(5,9) (5,15) (7,9) (7,15)



Common Core Aligned Math Standards



Activities in *Island Conquer* are aligned with the Math Content standards listed below.

Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

3.MD.5. Recognize area as an attribute of plane figures and understand concepts of area measurement.

- 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.
- 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.

3.MD.6. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).

3.MD.7. Relate area to the operations of multiplication and addition.

- 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.
- 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.
- Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

Grades 4 and 5

None of the 4th or 5th grade standards are directly addressed by the activities in *Island Conquer*. However, the activities can provide an excellent review of area and perimeter for these grades.



Laura Candler's Teaching Resources

If you enjoyed this free teaching resources pack, you might also enjoy some of my popular ebooks and lessons. You can purchase them from my store on TeachersPayTeachers.com by clicking the links below or by visiting my Teaching Resources website: www.lauracandler.com.



Laura Candler

Teaching Multiple Intelligence Theory

Bingo Showdown:

Confusing Words Review

Character Bio Reports

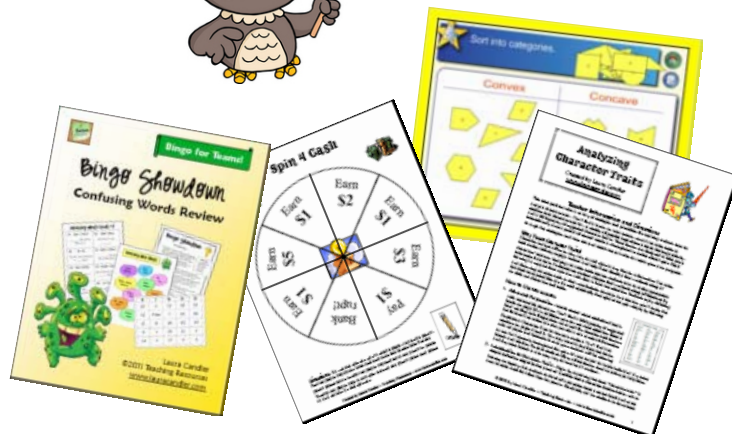
Analyzing Character Traits

Powerful Poetry Combo

Plural Noun Showdown

Sentence Go Round

Writing Powerful Poetry



Geometry: Exploring the Basics

Math Stations for Middle Grades (3-8)

Mastering Math Facts

Polygon Explorations

Polygon Explorations (Smartboard)

Place Value Spinner Games

Fraction Spinner Games

Simplify and Snap Fraction Game

Order of Operations Bingo

Seasonal Teaching Packs

October

November

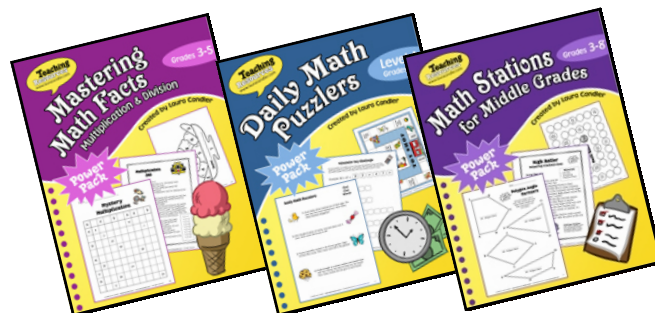
December

January

February (Free!)

March

April

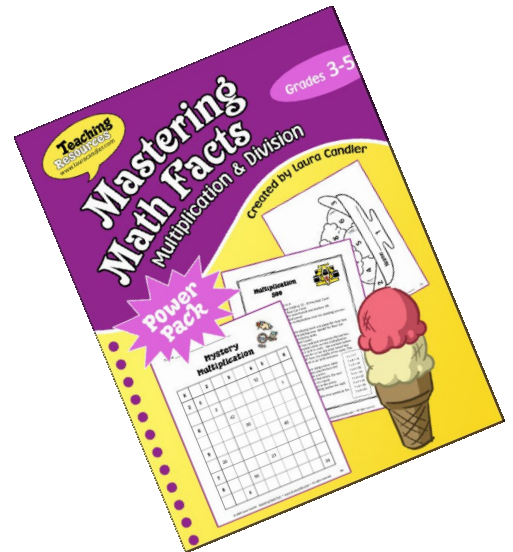


Teaching Resources Website

www.lauracandler.com

Ready-to-Use Resources for Teachers!

- Free printables and activity sheets
- Lesson plans and teaching strategies
- Cooperative learning methods
- Classroom management and motivation
- Literacy & Reading Workshop strategies
- Mathematics instructional resources
- Weekly Newsletters



Are you on **Facebook**? If so, check out Teaching Resources for new ideas:
www.facebook.com/TeachingResources

Discover Laura's Teaching Resources . . .

- Digital eBooks and lessons you can download from www.lauracandler.com and print or use on a Smartboard!
- Each book, ebook or lesson pack includes ready-to-use directions, printables, and teaching tips!
- Popular titles include:
 - **Mastering Math Facts**
 - **Daily Math Puzzler Series**
 - **Math Stations for Middle Grades**
 - **Laura Candler's Power Reading Workshop**



Created by
Laura Candler
Milken Educator