

# LESSON PLAN – Google Maps Activity

## Overview

SUBJECT: Algebra 2  
TOPIC: Modeling Mathematics: Measuring “Roughness”  
GRADE: 9 - 12

Students will use Google Maps and Spreadsheets to investigate the relationship between using an ever-increasing number of points to define the outline of an object and the distance around the object. This introduces the topic of fractal geometry as a measurement of “roughness,” as described by Benoit Mandelbrot. Students will choose their own object on a Google map to measure (with some guidance).

## Materials

Access to the Internet and the class Google drive.

[Google Maps Activity spreadsheet](#) (available to students on the Google drive)

## Instructions

Make sure all students have the ability to access the Internet using their own devices and/or arrange for computer time. See the spreadsheet for specific instructions to students. All materials can/should be delivered electronically to students.

## Resources

See “Materials,” above.

## Rubric

None developed at this time.

## Common Core Cluster/Standard

Modeling with Functions: This hits just about every standard in the [MTCC \(Unit 3\)](#).



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