

Project – Calculating large spaces to determine population size using Google Earth.

Learning Goal – Students will know how to create and calculate large spaces and determine estimate many people can fit inside the large space using a 2.5 sq ft density rate.

*Instructions: Download “Google Earth”. Each student will work independently. All work must be completed and saved on a Word document, if possible. All work must be completed by the **end of today’s class period**. 25 point deduction if work is not submitted by end of class. You may collaborate with earth for support and guidance only. We are a team. However, most of time will be exploring and navigating Google Earth. Various resources are listed below. Most importantly, have fun!! **WORTH 50 POINTS***

- a) Download Google Earth – an app will display on your desktop. You may also use smartphone (laptop allow larger workspace and visual).
- b) Explore and learn how the use the polygon tool in google earth to calculate how many square feet of grass in your (or a relative’s) backyard and front yard.
- c) Explore how to name and create new folders to save your work. Name each folder accordingly. That is, if you are placing a polygon shape around your front yard then name new folder *Front Yard*.)
- d) Explore and learn how to use the polygon tool in google earth to estimate the grid size of a major or famous metropolitan city in the United States or another country. **No two students should be estimating the same metropolitan area.** Ask your peers who is selecting which metropolitan area and note this on the whiteboard to prevent overlapping cities.
- e) Explore how to use <http://www.earthpoint.us/Shapes.aspx> (this website will be used to calculate the actual area of your saved google earth polygons). You should have three saved folders in google earth (named front yard, backyard, and metropolitan city), Use right click of folder to save.
- f) Use right click and paste one folder at a time to calculate the actual size of your polygons. Record the data for each.
- g) Using the density space of 2.5 square feet, estimate how many people can fit into each space.
- h) Send your work to my **google email** ([yvonne.mears@henry.k12.ga.us](mailto:yvonne.mears@henry.k12.ga.us)) by end of class period.
- i) Be READY Tuesday, Jan 24 to discuss your travels and estimation.
- j) **Extra Points** – Study the Million Man March, 1995, Obama’s 1st inauguration of 2009, March on the Pentagon, 1967. Who and the methods that were used to determine the crowd size came under mass public outcry. Why?

Resources:

<https://www.youtube.com/watch?v=bgiMSBXsFZQ>

[https://www.youtube.com/watch?v=fnuRQE0\\_cIU](https://www.youtube.com/watch?v=fnuRQE0_cIU)

<https://www.youtube.com/watch?v=OGGpTqkbCWo>

<https://www.youtube.com/watch?v=40Ybn-BXWFA>

[https://www.youtube.com/watch?v=fnuRQE0\\_cIU](https://www.youtube.com/watch?v=fnuRQE0_cIU) (How to save/copy your polygons inside earthpoint.us)

<http://www.earthpoint.us/> (Be sure to scroll down and click open “Calculate Polygon Area”)

<https://www.youtube.com/watch?v=BzLtlFUjPbE&list=PLFD708B289C411B43><https://www.youtube.com/watch?v=bepRkkBfic0> (How to create line paths inside google earth)