Latitude and Longitude using Google Maps

9th Grade Earth Science

SOL’s Covered: ES 1b, d

Time Frame: One 90 Minute Block plus it will serve as a daily warm-up lasting 5-10 minutes.

Objectives:

Students will explore the concepts of latitude and longitude using Google Maps as an experimentation tool.

Strategies:

Latitude and longitude are two earth science concepts that students often have trouble gaining an understanding of. Placing a hypothetical set of lines in the “real world” requires higher levels of thinking than simple memorization. Google maps provides an excellent tool to explore latitude and longitude on the local, regional, and global level.

One daily activity will be exploring a specific latitude and longitude point. In Google maps you can enter a set of coordinates and the program will “fly” to it. This will serve as a daily review of mapping concepts as well as increase students’ knowledge of significant local and environmental landmarks.

The lab will consist of a discussion on what lines of latitude and longitude are and how they are placed on the globe. After the discussion the students will work in pairs using Google maps to complete a worksheet. To begin, students will be given 10-15 minutes to explore the features of the application. After that they will be given specific lat and long points and need to determine why they are significant and vice versa. Given a landmark, what are its coordinates? Also, students can explore latitude and longitude separately and examine their similarities and differences. Google maps is an extremely powerful educational tool and as these activities prove, can be used on a daily basis.

Assessment:

Formative assessment will occur as I help students complete the lab and summative assessment occurs when students complete the worksheet for a lab grade.