## Assignment 10.1: Chapter Questions

1. What is spatial thinking and what does this kind of thinking require?

“Spatial thinking is a cognitive skill that we use in everyday life to structure problems, find answers, and express solutions using properties of space” (National Research Council, 2006). It requires having an awareness of space and the ability to visualize objects in space.

1. Why is spatial thinking so important for everyone?
   1. Spatial thinking is a concept that is required by nearly every career and in everyday life as well.
2. What are at least six benefits for students when they use geospatial technologies in the classroom?
   1. Allows for practice in mastering spatial thinking skills.
   2. Allows for practice of geographic skills to better understand geography while studying various topics.
   3. Promotes critical thinking, decision making, and inquiry skills by means of practice.
   4. Engages multiple intelligences, including logical-mathematical, bodily-kinesthetic, interpersonal, communication, and collaboration skills.
   5. Fosters a mindset of exploration by allowing students to explore the world from the seat of their chair.
   6. Is an effective tool for research and information literacy by means of files.
3. Describe four ways that Google Earth™ and GPS can enhance teaching. Include examples in your answer.
   1. Offers a multidisciplinary approach to education – students in a religion class can see the temples, mosques and churches as well as the scenery described in their books as if they were actually there.
   2. Encourages creative instruction that build connections – students can use GPS technology to geocache, building on their geospatial and mathematical skills.
   3. Offers real-world problem solving – students could study the growth and decline of cities and determine, based on information gained from Google Earth, what may cause the change in population density.
   4. Provides tools to make learning active and collaborative – give students the GPS coordinates to battle sites from the unit’s lesson and have them give the name of the area each coordinate belongs to, as well as a description of the battle.