

## Spatial Thinking

1. What is Spatial Thinking?
  - a. Spatial thinking uses the properties of space as a vehicle for structuring problems, for finding answers, and for expressing solutions.
2. Concepts of Spatial Thinking
  - a. Scale
    - i. Level of detail in considering, collecting, analyzing, and depicting information
  - b. Location
    - i. Everything is somewhere! Relative vs Absolute
  - c. Distance
    - i. Methods for measuring – time/distance, as the crow flies, Manhattan distance, network etc
  - d. Vector/Raster
    - i. Discrete vs continuous phenomena
  - e. Networks
    - i. How things are connected in time, space, and method
  - f. Adjacency
    - i. Binary equivalent of distance – zero distance between two things or greater than zero distance
  - g. Neighborhood
3. Methodologies of Spatial Thinking
  - a. Pattern Recognition
  - b. Multi-dimensional
  - c. Space / Time
  - d. Navigation / Movement
  - e. Multi-Criteria / Overlays