

Topographic Maps

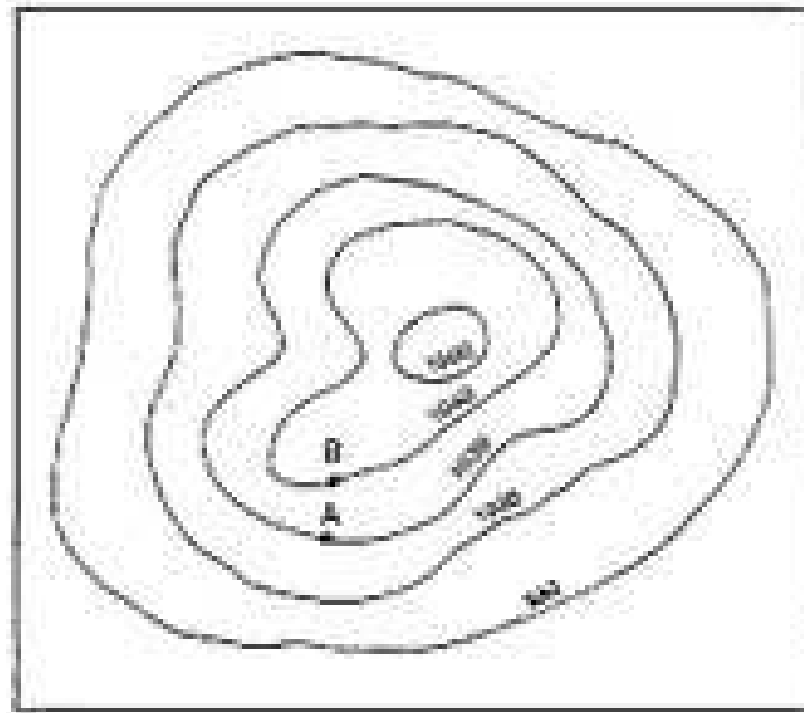


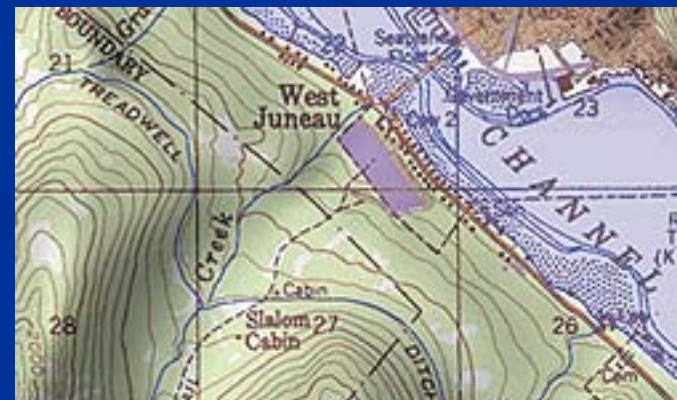
Figure E-1: Isolated Hill

Standard

- Students will know how to interpret and recognize a topographic map.

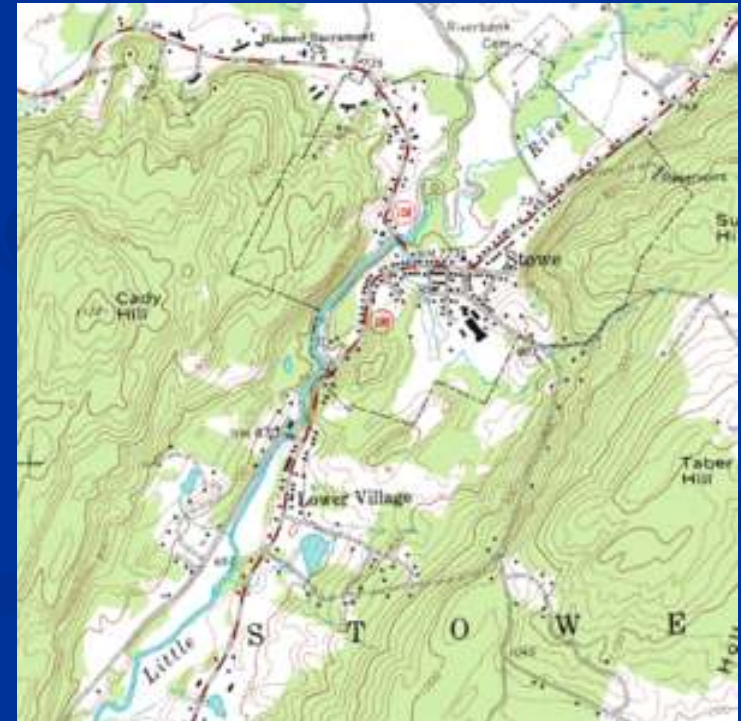
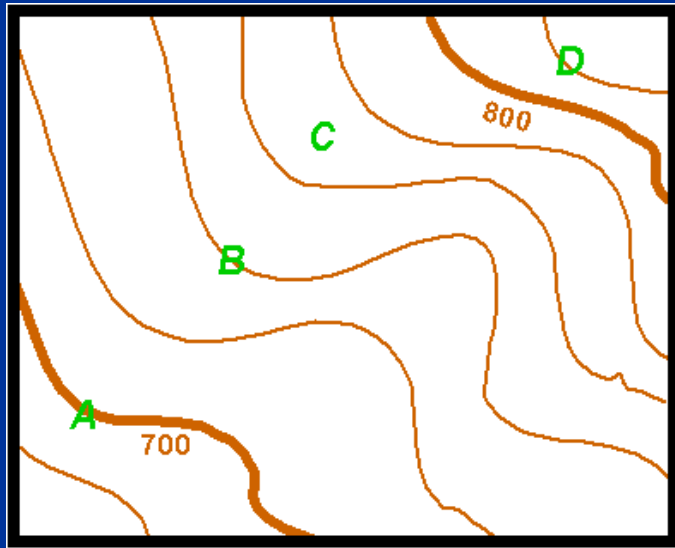
What is a Topographic Map?

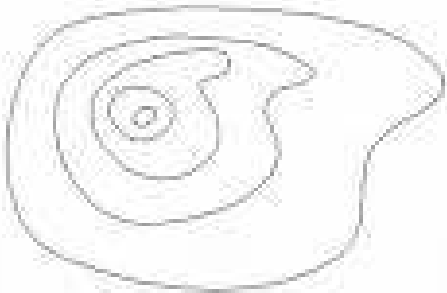
- Detailed map showing the hills and valleys of an area.
- Shows changes in elevation.
- Shows mountains, rivers, forests, bridges, etc.
- Lines, symbols, and colors are used to represent changes in elevation and features on Earth's surface



Contour Lines in a Topographic Map

- Contour lines connect points of equal elevation
- Elevation refers to the distance of a location above or below sea level
- Lines never cross



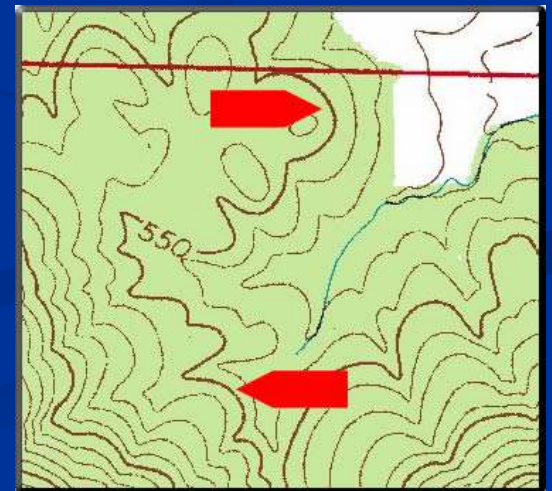


Contour Intervals

- Contour lines = change in elevation
- And contour intervals show the difference in elevation between two side-by-side lines
- Contour intervals are dependent on the terrain.
- *For example: For mountains, the interval might be as great as 100 m and indicate that the terrain is quite steep because there is a large change in elevation between lines.*

Index Contours

- Index contours, used along with contour intervals, are markings by numbers representing elevations.
- *Example: If a contour interval on a map is 5 m, you can determine the elevations represented by other lines around the index contour by adding or subtraction 5 m from the elevation indicated on the index contour.*



Depression Contour Lines

- Depression contour lines are used to show the different elevation features, which are lower than the surrounding landscape. (volcanic craters or mines)
- Hachures or short lines at right angles are used to show the depressions.

Map Legends & Map Scales

- Map legends explain what the symbols represent on a map. It is like a key.
- Map Scales is the ratio between distances on a map and the actual distances on the surface of Earth.

Map Scale

Map Legend

Sea to Sea Trail

Side Trail or Alternate Route

Access Points



unexplored side trail — ?



Parking Lot



construction and possible closure



no bicycles



closed trail

Graphic Scale



Viewgraph 26

3 Types of Map Scales

■ Verbal Scales

- Expresses distance as a statement, “One centimeter is equal to a one kilometer”

■ Graphic Scales

- Uses broken lines that represent a certain distance, such as 5 km or 5 miles

■ Fractional Scales

- Distance is expressed as a ratio