

INS 2 - Absolute Time Exercise

This assignment will help you to understand the vast time spans of the geologic periods by relating distances to the framework of geologic time & the associated biological events.

Materials you will need:

- Calculator
- Ruler, Pencil, colored pencils & Pen
- Map or Aerial Photo of the Downtown Denver Area with scale. Download and print using Google Maps, Google Earth, Mapquest or similar.
- Ages of geologic time periods (Book: p.612 & 615)
- Small pictures (cartoons; no more than 1" tall) of predominant life-forms for each of the Geologic Periods

Procedure:

1. Create a distance / time equivalent line: Starting at the MSCD Campus on the Map/Aerial Photo which will represent present time. Go backwards in time (any direction... but stay on the map) by using the following equivalents:
 - a. 1" = 10,000 years. Which means, one inch in the REAL world equals 10,000 years time...
 - b. Therefore, a yard stick would be 1yd = 3 ft = 36 in = 360,000 years...
 - c. The distances from the present for each Geologic Time Period will become very large in a hurry and we would have to pace all over downtown Denver to outline the time. This is where the map comes in. We will just transpose the calculated distances as accurately as possible unto the map !
 - d. RECORD YOUR CALCULATED DISTANCES FOR EACH TIME PERIOD IN TABLE FORMAT. You must use miles or km as your final answer column, otherwise the scale on the aerial photo would be useless!
 - e. You may cut a white paper strip (no wider than 1/4 inch) for your time line. Glue it to the map, instead of drawing the line, to make it more visible!
2. Identify each Geologic Period on your time line with NAME, DISTANCE, & AGE!
3. Find or create a picture of representative life forms for each of the Geologic Periods. Color, cut out and paste them standing up (as in a pop up book) next to the correct Period on your time line on the photo.

End Product (what to present with this activity):

- Completed Map /Aerial Photo with:
 - Time line showing Period Names, Geologic Times, Calculated Distances from campus
 - Representative "stand-up" Life form for each Period in color
- Table that shows the result of your time - distance calculations