EDGE STUDENT SKILL SETS August 2006

High School

DNR Garmin

- Upload-Download waypoints and tracks between GPS receiver and computer (Geocache and Mendenhall Glacier Hike tracks)

GOOGLE Earth

Locate sites and mark points of interest. Identify the latitude, longitude, elevation, and map scale (eye elevation) of a site.

Identify landscape features

ARCGIS-

- Create an ARCGIS project by combining raster and vector data in ARCMAP
- Browse with ARC Catalogue to find data files on computer
  (Raster files Juneau Landsat image and Miller Surficial Geology map,
  Vector files waypoint and glacier terminus shape files)
- Create map in map view with all map elements
- Title, Name, Date, Legend, scale bar, north arrow
- Export map from ARCMAP and save as a jpg

MS Office

Excel

- Create a data table (recessional moraine/ice positions through time)
- Use data above to calculate recession rates (Mendenhall Glacier 1769-2004)

MS PowerPoint

- Create research poster with PowerPoint template suitable for printing on large plotter.

UAS Online

- Post assignments in UAS Online Portfolio

Field Skills

GPS

- Collect waypoints and tracklines
- USE receiver to navigate to existing waypoints
- Follow a trackline collected by someone else.

Hydrology

- Collect stream velocity data with flowmeters
- Measure channel dimensions
- Calculate stream discharge from your area and velocity measurements

Middle School

DNR Garmin

Upload-Download waypoints and tracks between gps receiver and computer (Geocache and Mendenhall Glacier Hike tracks)

ARCGIS

- Create a GIS project by combining raster data and vector data.
  (e.g. UAS Campus IKONOS image/ GEOCACHE waypoints)
- Complete the GIS exercise in *Mapping our World*

Microsoft Office

PowerPoint

- Create digital diagrams in powerpoint using drawing tools (Glacier System Diagram)

Field work

GPS

- Collect waypoints and tracklines
- USE receiver to navigate to existing waypoints
- Follow a trackline collected by someone else.

Hydrology

- Collect stream velocity data with flowmeters
- Measure channel dimensions
- Use your findings to determine stream discharge in a group