

## **GEOSPATIAL**

The name and county of each Science, Engineering and Technology exhibitor should appear separately on the back of each board, poster or article and on the front cover of the notebooks. One exhibit per class unless otherwise noted. Several classes require a display board which should be a height of 24" and not exceed 1/4" in thickness. A height of 23 7/8" is acceptable to allow for the saw kerf (width) if two 24" boards are cut from one end of a 4'x8' sheet of plywood. Nothing should be mounted within 3/4" of the top or bottom of the board. Fabricated board such as plywood, composition board, or particle-type lumber may be used for display boards. Display boards should be sanded and finished to improve their appearance. The finish on a display board will be judged as a woodworking exhibit. Display boards should include an overall title for the display, plus other necessary labeling. All reports should be computer generated, enclosed in a clear, plastic cover, and attached securely to the display. Reports should be written using the scientific method whenever possible (background, the question or hypothesis, what you plan to do and what you did, method used and observations, results, what you learned).

### **Division 880: Geospatial**

Youth enrolled in Geospatial or GEAR TECH 21 may exhibit in any class within this division.

**H880001 - Poster** (not to exceed 14"x22") communicating a GPS theme such as How GPS or GIS works, Careers that use GPS or GIS, How to use GPS, What is GIS, GPS or GIS in Agriculture, Precision Agriculture, or a geospatial topic of interest.

**H880002 - Favorite Places or Historical Site Poster** – The 4-H exhibitor identifies a favorite place or historical site (including grave sites) in Nebraska. Exhibit should include latitude and longitude, digital picture, and local area map. Poster size should not exceed 14"x22".

**H880003 - GPS Notebook** Keep a log of at least 5 places visited using a GPS enabled device. At least one site should be from a community other than where you live. For each site, record the latitude, longitude and elevation. Also include a description of the site, a paragraph explaining what was interesting about the site or finding it. Photos of each site and/or cache are optional but encouraged.

**H880004 - Geocache** Assemble a themed geocache. Each geocache should be a water-tight container. It should include a log book and pencil for finders to log their visits and may include small trinket, geocoins, etc. for the finders to trade. Documentation should include a title, teaser description and the geographic coordinates of intended placement. Register the site at [geocaching.com](http://geocaching.com), include a print-out of its registry. The entry may include a photograph of the cache in its intended hiding place.

**H880005 – Agriculture Precision Mapping** assemble a notebook containing a) a minimum of two digital copies of various data layers that can be used in precision agriculture to identify spatial patterns and/or correlations (printed copies of websites where applications can be purchased is acceptable), and b) a report of how the analysis of the various data will be used to make a management decision.

**Greeley County** • Box 290 • Greeley NE 68842-0290 • 308-428-2835 • [Greeley-County@unl.edu](mailto:Greeley-County@unl.edu)  
**Howard County** • 612 Indian Street Suite 1 • Saint Paul NE 68873-1642 • 308-754-5422 • [Howard-County@unl.edu](mailto:Howard-County@unl.edu)  
**Sherman County** • Box 459 • Loup City NE 68853-0459 • 308-745-1518 • [Sherman-County@unl.edu](mailto:Sherman-County@unl.edu)  
**Valley County** • 801 S Suite 1 • Ord NE 68862-1857 • 308-728-5071 • [Valley-County@unl.edu](mailto:Valley-County@unl.edu)

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**H880007 – 4-H History Map** nominate a point of interest for the 4-H History Map Project. Include copy of submitted form in folder or notebook. To nominate a site for the 4-H history map go to <http://arcg.is/1bvGogV>. For more information about 4-H history, go to [http://4hhistorypreservation.com/History\)Map/](http://4hhistorypreservation.com/History)Map/). For a step by step video on nominating a point, go to <http://tinyurl.com/nominate4h>. Write a brief description of the historical significance of 4-H place or person (minimum of one paragraph).

**H880010 - Careers Interview** – Interview someone who is working in a geospatial field and include research that career. Interviews can either be written or in a multimedia format (CD/DVD). Written interviews should be in a notebook. Written reports should be 3 to 5 pages, double spaced, 12 point font, and 1” margins. Multimedia reports should be between 3 to 5 minutes in length.

\*class exhibited at county fair only – not eligible for state fair