MINNESOTA 4-H PROJECT EVALUATION
GEOLOGY

4-Her Name: ____________________________________________ Grade: ___________

County or Club: ___________________ Years in 4-H: ________ Years in Project: ____

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<th>Purple</th>
<th>Blue</th>
<th>Red</th>
<th>White</th>
<th>Other</th>
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Comments:
- Strengths/accomplishments
- Skills learned
- Areas to work on
- Possible new challenges
- Questions to think about

### 50% of Score

**Learning Involved:**
- Has general knowledge of various types of rocks and minerals.
- Did new information/learning occur?
- Can explain the importance of geology related to their exhibit.
- Can clearly explain how knowledge/skills were shared with others.
- Can express appreciation for geology as a hobby or form of recreation or has explored careers related to geology.

### 50% of Score

**Workmanship & Techniques of Project:**
- Information used is accurate.
- Exhibitor is able to identify resources.
- Exhibit is well organized and easy to view.

**General Appearance and Design**
- Points are easily understood by the audience.
- Does it help others learn?
- Does the message flow from beginning to end?
- Are modern display techniques (such as the hands-on components) used to teach about the topic?
- Are familiar examples and experiences used to make points?
- Is the message conveyed using a display of objects and or specimens (example – 3 ring binder that supports the display)?
Rules
- Attach specimens to a backboard in a glass-topped case. Case should be approximately 19” x 16.5” x 3”.
- Secure the specimens so that they will not fall off if case is set on its edge.

Check for specific county requirements.

Guidelines
Three-dimensional displays and posters should be consistent with those recommended by Minnesota 4-H.
- Poster exhibits should not exceed 22” wide by 28” high
- Three-dimensional exhibits should not exceed 12” deep x 36” high.

Resources should be credited and documented in the exhibit (e.g., books, internet, 4-H or Extension publications, person with special knowledge, magazine articles, etc.).

Project Ideas
- Research what type of equipment geologists use.
- Locate a unique geologic feature in your county or area and research it.
- Collect iron ore samples from the iron range.
- Explain the process of turning iron ore into taconite or taconite to steel.
- Do a display on the hydrologic cycle.
- Polish rocks that you collect and explain the process.
- Conduct a project meeting on rock classification.
- Do a poster or exhibit on glaciers, fossils, jewelry, or some specific aspect of geology.
- Contact a geologist and find out about geology as a career choice.
- Demonstrate how a volcano works, or how glaciers shaped the landscape.
- Join the Minnesota Geological Society.
- Make a glass display case for your exhibit.
- Collect rock and mineral samples.
- Other ideas related to geology.

Resources Available:

Web site for Minnesota 4-H resources:
www.mn4-H.umn.edu/projects

Web sites for National 4-H resources:
http://www.4-hdirectory.org/ (Click Browse)
http://www.4-hmall.org/Curriculum.aspx

Other web sites resources:
www.Geogem.com
www.usgs.gov Geology

Other resources:
- History of Minnesota Rivers by Herb Wright
- Glaciers of North America: A Field Guide by Sue A. Ferguson
- Rocks and Minerals, A Golden Book Series by Herbert Zin and Paul R. Shaffer
- Minnesota’s Geology by Ojakangas and Matsch