

## Minnesota 4-H Exhibit Evaluation Natural Resources: Geology

	Grade:
Years in 4-H:	Years in Project:
	About your exhibit
	Comments:
<ul> <li>Learning Involved:</li> <li>Has general knowledge of various types of rocks and minerals.</li> <li>Did new information/learning occur?</li> <li>Can explain the importance of geology related to their exhibit.</li> <li>Can clearly explain how they shared knowledge/skills with others.</li> <li>Can express appreciation for geology as a hobby or form of recreation or has explored careers related to geology.</li> </ul>	
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	of rocks and minerals.  ated to their exhibit.  Alledge/skills with  a hobby or form of

(over)

Area	Details
Guidelines	<ul> <li>Poster exhibits may not exceed 22" wide x 28" high. Three dimensional displays may not exceed 12" deep x 24" wide x 36" high.</li> <li>Exhibits are not limited to three dimensional displays or posters. They may be actual models, games or technology related exhibits.</li> <li>If doing a rock collection display; 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 the case is set on its edge.</li> <li>Creativity is encouraged.</li> <li>Resources should be credited and documented for written aspects of the project (e.g., books, websites, 4-H or Extension publications, mentors, magazine articles, etc.).</li> </ul>
Exhibit Ideas	<ul> <li>Display of rocks, minerals, gemstones, a rock plate; can be displayed in an egg carton for younger youth, or in a display case as youth progresses in the project; include in the display, labels of specimen name and location collected.</li> <li>Rocks, minerals, or fossils from within Minnesota or on a definite theme such as metamorphism, weathering, quartz minerals, ores, or a theme of your own choosing.</li> <li>Polished rock specimen; include an unpolished specimen of each rock type for comparison.</li> <li>Educational exhibit showing the "science how's and why's" dealing with the principles of geology and natural earth sciences.</li> <li>Exhibit explaining the three main rock types (Igneous, Metamorphic, Sedimentary) include examples of each.</li> <li>Model of a geologic earth structure or feature such as volcano, mountain range, plate tectonics, earthquake, cave, glacier.</li> <li>Timeline of geological time scale.</li> </ul>

Revised March 2023

Available resources

## Minnesota 4-H resources

4-H Geology Project

## **National 4-H resources**

Browse National 4-H resources at https://shop4-h.org/

## Other resources

MN Geological Survey at https://www.usgs.gov/

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

