

# GEOLOGY

**PLEASE NOTE: Any changes/updates from the previous year will be *BOLDED and ITALICIZED!* Pay special attention to any projects with *BOLD, ITALICIZED WORDS* because they have changed from last year.**

Geology involves studying the earth's crust, its layers, and their history. Youth learn to identify Indiana rocks, minerals, and fossils.

Completion, exhibition participation, and State Fair information for Geology			
Division/Level	Grades (suggested)	Completion Activities Needed*	Maximum State Fair Entries
Beginner	Grades 3-5	Complete 6 Activities*	1 Entry
Intermediate	Grades 6-8	Complete 6 Activities*	1 Entry
Advanced	Grades 9-12	Complete 6 Activities*	1 Entry

\*"Activities" are defined as project manual activities and/or Hendricks County 4-H Workshops related to this topic. Members must be able to prove attendance by getting a signature from 4-H Leader/Project Advisor that conducts the workshop. Activity sheets available in the Extension Office with Geology Project Manuals. Fair Exhibit guidelines are listed below.

**Remember:** All posters, notebooks, and display boards **MUST** include a reference list indicating where information was obtained, giving credit to the original author, to complete the 4-H member's exhibit. This reference list should/might include web site links, people and professionals interviewed, books, magazines, etc. It is recommended this reference list be attached to the back of a poster or display board, be the last page of a notebook, or included as part of the display visible to the public. A judge is not to discredit an exhibit for the way references are listed. Reference Sheets are available at the Extension Office for use if needed. For personal safety, do not include personally identifiable information such as mailing address or phone numbers on posters/displays/exhibits.

## GUIDELINES

1. Refer to the Hendricks County 4-H Policies, Entry & Exhibit Guidelines for poster and general display guidelines.
2. Specimens may also be displayed in a 24" x 18" x 3" collection box, displayed horizontally.
3. You may purchase your specimens and may display rocks, fossils, and minerals. If you purchase a specimen, indicate when and where you purchased it and the location where you would expect to find the specimen. If you collect a specimen, indicate the county and township where you found it.
4. Posters and display boxes will be exhibited "standing up" at the Indiana State Fair and may be exhibited this way at the county fair. Therefore, you need to mount your specimens securely. Subject matter experts suggest the following methods: soaking ½ cotton ball in Elmer's glue, hot glue, or clear tub sealant. Place the cotton ball in your box and put your rock (or fossil or mineral) on the cotton ball and let sit. It will take 1-2 weeks for Elmer's glue to fully harden. Specimens mounted with Elmer's glue can be removed by soaking the cotton ball in water. Glue remaining on the rock may be brushed off with an old, damp toothbrush.
5. When exhibiting rocks show a fresh surface (recently cracked or broken surface) to help judges identify the rock.
6. Labels - Include the specific geographical location where you would expect to find any specimens as well as where you actually acquired it (found, purchased, etc.).
7. Do not identify your specimens any further than phylum and class. There is one exception to this for fossils which are identified to phylum OR class. Class should only be used for fossils of mollusks, backboned animals, and arthropods.

## EXHIBIT CLASSES

### **Beginner: Grades 3-5 (suggested)**

Create an educational poster, notebook, or display about any manual activity or on any geology topic of choice.

### **Intermediate: Grades 6-8 (suggested)**

Create an educational poster, notebook, or display about any manual activity or on any geology topic of choice that is age/grade appropriate, or collection of 8-16 minerals and/or fossils.

### **Advanced: Grades 9-12 (suggested)**

Create an educational poster, notebook, or display about any manual activity or on any geology topic of choice that is age/grade appropriate, or collection of 15-25 minerals and/or fossils and/or jewel stones. Youth can also design and complete an independent study activity.