

# LEAVENWORTH COUNTY FAIR 2026

## 4-H GEOLOGY

Superintendent: Open

Exhibit Check In: Tuesday, July 28<sup>th</sup>, 10:30am – 1pm; East End Administration Building

Exhibit Judging: Tuesday, July 28<sup>th</sup>; 1:00pm; East End Administration Building (non - consultation)

In this project, you will learn the difference between rocks and minerals, learn how to identify fossils, describe and identify rocks, understand stages of the rock cycle, and use the scientific method to solve problems.

### Rules

1. Read General Rules. Violation of any of the following rules may result in disqualification. All decisions will be made by a county agent and their decision is final.
2. The exhibit box's outside dimensions should be 18" x 24" x 3½". Plexiglas covers are required. Boxes with glass covers WILL NOT be accepted. All specimens are to be arranged across the narrow (18") dimension of the exhibit box, making the exhibit 18" across the top and 24" deep exactly. If a box has a sliding Plexiglas cover, it must be removable from the top. Screws, locks, or other devices that would prevent judges from removing the cover should not be used. For Lapidary classes 5300-5304 only, the dimensions of the box should be appropriate for the display, but outside dimensions should not exceed 18"x24"x31/2".
3. Each exhibitor is required to identify each display box by placing an identification label bearing their whole name or first initial with last name, county, and number of specimens in the upper left-hand corner of the Plexiglas cover and by attaching a label with the same information on the lower right corner of the box (outside).
4. Exhibitor may enter in both geology and lapidary classes. Exhibitor may show in only one of the first four geology classes (5200, 5201, 5202 or 5203). Exhibitor may also show in geology class 5204, Geology Educational Exhibit, 5205 Mineralogy, 5206 Paleontology, 5207 Petrology and in one lapidary class.
5. Geology specimens should be labeled with the number of the specimen, date collected, specimen name or description, and locality (county only) where collected.
6. All specimens must be collected in the state of Kansas (only exception-see #8). New specimens must be collected during the current 4-H year, which will be allowed starting on the day after the conclusion of the State Fair.
7. For the geology classes 5200, 5201, 5202 and 5203, specimens should be mounted in the box by proper groups: rocks, minerals, fossils. Fossils must be identified to the Phylum, Class and Genus level (if possible, or part if Genus cannot be determined). The Genus specimen name is to begin with a capital letter and the whole specimen's name must either be italicized or underlined, not both. Species name is not required however, if a species name is used it must be all lowercase and either italicized or underlined, not both. . The words "Phylum, Class, Genus" on labels are to be spelled out, not abbreviated. More than one specimen of the same kind of rock or mineral or species of a fossil may be exhibited if this duplication represents different geological formations. Specimen label must show this distinction (Fort Hays limestone, not just limestone; calcite from the Greenhorn Formation, not just calcite; Phylum:

Brachiopoda Class: Articulata Genus: Composita from the Morrill Limestone Member, not just Phylum: Brachiopoda Class: Articulata Genus: Composita).

8. For geology classes 5200, 5201, 5202, 5203, 5305, 5206, and 5207, all specimens must be collected by the participant (not purchased) from locations in Kansas, with the exception of Tri-State Mining Area specimens collected from these three adjacent counties: Ottawa County, OK; Newton and Jasper Counties, MO. Other out of state specimens will not count in the minimum number for the class, nor will they be considered in the judging.
9. “Exhibits are entered and displayed at the risk of the exhibitor.” For projects displayed in box-style exhibits—such as Entomology or Geology—that must be opened for judging, exhibitors may choose to include a closure mechanism on the box. While closures are not required, their use will not result in a ribbon deduction. Acceptable options include Velcro strips or hook-style fasteners. Closures should not interfere with the box’s ability to be displayed on a shelf and must not be lockable.

## Scoresheets, Forms, and Contest Study Materials

[Geology Scoresheet](#)

[Lapidary Scoresheet](#)

### Classes

**5200 Geology.** Display at least 15 rocks, minerals, and fossils collected during the current 4-H year. Exhibitor is limited to one exhibit box. Only those exhibiting at State Fair for the first time may enter this class.

**5201 Geology.** Display at least 30 different rocks, minerals, or fossils, at least 5 of each. **Fifteen must be collected during the current 4-H year.** Exhibitor is limited to one exhibit box. This class is open to those exhibiting either second or third time at State Fair.

**5202 Geology.** Display at least 45 rocks, minerals, or fossils, at least 5 of each. **Fifteen must be collected during the current 4-H year.** Exhibit limited to two boxes. This class is open to those exhibiting either the fourth or fifth time at the State Fair. Identify the rocks as igneous, metamorphic or sedimentary. These rock types must be spelled out on labels or have a legible key.

**5203 Geology.** Display at least 60 rocks, minerals, or fossils, at least 5 of each. **Fifteen must be collected during the current 4-H year.** Exhibit limited to two boxes. This class is open to those exhibiting the sixth time or more at the State Fair. Identify the rocks as igneous, metamorphic or sedimentary. These rock types must be spelled out on labels or have a legible key.

**5204 Geology Educational Exhibit:** Exhibit relating to everyday living; or to a mineral test, a rock formation, geological history, species of a fossil, forms of one mineral, a variation of one kind of rock, archaeological artifacts, or Indian artifacts. Digital formats are accepted. Please make arrangements for the judge to view your exhibit and have a hard copy for display. List your sources used (example – web address or books reviewed as a citation list). Exhibit limited to 4 feet of table space. **Care should be taken to use durable materials that will withstand State Fair conditions.** Exhibitor may show in the class regardless of

number of times he or she has exhibited at State Fair or whether exhibitor has entries in classes 5200, 5201, 5202 or 5203. Exhibitor may also exhibit in lapidary class.

**5205 Mineralogy.** Display a minimum of 15 mineral specimens collected in Kansas, at least 5 of which have been collected during the current 4-H year. The minerals are to be grouped by mineral class (i.e.: Carbonates, Oxides, Silicates) and at least 3 classes must be represented. The member must use one standard display box (see #1). The specimens must be labeled with the number of the specimen, date collected, name of specimen, county where collected and chemical composition (ie: CaCO<sub>3</sub> for calcite) if known.

**5206 Paleontology.** Display a minimum of 15 fossil specimens collected by the participant in Kansas, at least 5 of which have been collected during the current 4-H year. The fossils are to be grouped by Phylum and Class, and at least 3 phyla must be represented (Brachiopoda, Chordata, Mollusca, etc.) The member must use one standard display box (see #1). The specimens must be labeled with the number of the specimen; date collected; county where collected; formation, member, or source; phylum, class, and genus or part; and geologic age (Cretaceous, Permian, Pennsylvanian, etc.) See #6 for additional fossil labeling expectations.

**5207 Petrology.** Display a minimum of 15 rock specimens collected in Kansas, at least 5 of which have been collected during the current 4-H year. Rocks are to be grouped by the 3 rock classes (Sedimentary, Igneous, and Metamorphic). You must display at least one specimen from each of the three classes. The specimens must fit in one standard display box (see #1). Specimen labels must include a specimen number, the date collected, name of specimen, and the county where collected. All rocks must be identified by the formation and member name (Examples: Fort Hays Limestone, Member of the Niobrara Chalk Formation) or source (Examples: Rocky Mountain Outwash, glacial till).

## LAPIDARY CLASSES

The lapidary will be judged on the following criteria:

- Workmanship and Content 60 points
- Presentation and Showmanship 30 points
- Accuracy of Information 10 points

The dimensions of the box should be appropriate for the display but [outside dimensions](#) should not exceed 18" x 24" x 3½". The work (polishing/tumbling) must be done by the exhibitor as this is part of the learning process.

All lapidary specimens should be labeled with the following information:

- Specimen name
- Place of origin (country, state, or county; county required for Kansas specimens)
- Purchased or self-collected
- Date lapidary treatment began
- Date lapidary treatment completed (Treatment completed after the State Fair is considered a new year specimen).

- 5300 Lapidary.** Display at least 5 varieties of polished (tumbled) specimens and 5 varieties of unpolished specimens that have not yet received lapidary treatment. These do not have to be an example of “before and after”, nor do they have to be self-collected. Locales must be identified. Only those exhibiting lapidary at the State Fair for the first time may exhibit in this class.
- 5301 Lapidary.** Display before-and-after examples of at least 3 varieties of specimens, at least 2 tumble-polished and 2 unpolished of each. There is no requirement that the 4-H member collect any of these. Locales must be identified. Lapidary work should be done during the current 4-H year.
- 5302 Lapidary.** Display before-and-after examples of at least 6 varieties of specimens, at least 2 tumble-polished and 2 unpolished of each. At least two varieties should be collected from the native site by the 4-H member, at least one of which comes from Kansas. Locales must be identified. Lapidary work on at least three varieties should be done during the current 4-H year.
- 5303 Lapidary.** Display before-and-after examples of at least 9 varieties of specimens, at least 2 tumble-polished and 2 unpolished of each. At least three varieties should be collected from the native site by the 4-H member, at least two of which comes from Kansas. Locales must be identified. Lapidary work on at least three varieties should be done during the current 4-H year.
- 5304 Lapidary.** Exhibit at least 6 specimens that have not previously been exhibited, which have received lapidary treatment. Lapidary treatment may consist of polishing, and end, face, or flat lapping. Specimens must represent at least 3 different varieties and include at least three cabochons of any size or shape, only one of which may be free-formed. A cabochon is a style of cutting in which the top of the stone forms a domed or curved convex surface. Three of the specimens must be mounted into jewelry findings.

Special lapidary exhibits should be entered in class 5304. Please note that each member is limited to one entry in this class.

**Resources:** Project Area - [Geology](#)