



Show It: Geology Display Box

Member Handout 38,
Making a Geology
Display Box

General — Geology, Level II

Collecting rocks is fun, and showing off rocks you've collected is also fun. When you make them into a display, it helps you organize them and learn their names. It also shows other people what interesting things can be found in our state and is more attractive and convenient to look at than a pile of rocks.

If you are not planning to show your display for competition, you could display your collection by any of a variety of methods. One way is to put each one in one section of an egg carton. Another is to get a plastic box with dividers in it (like for fishing tackle or sewing supplies). You could also glue your samples to a board or poster. Be sure you have each sample labeled with where you found it and what it is.

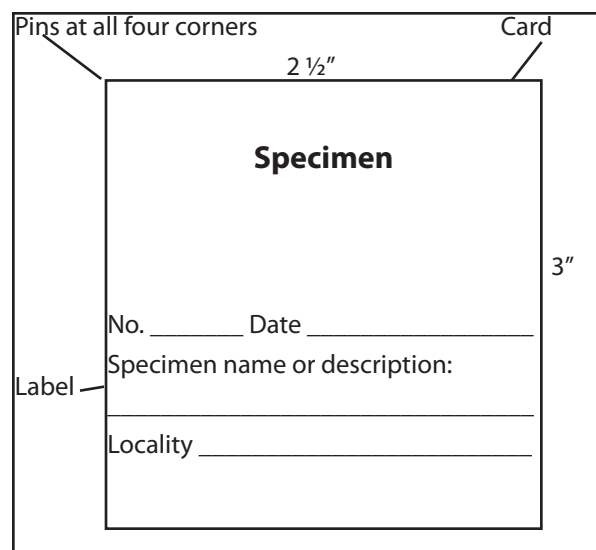
If you are going to be exhibiting at the state fair and most classes of the county fair, however, there are strict rules that you will need to follow to qualify. There are several variations of rules that do not meet the requirements. You might want to consider the ones you have seen used. Here is a basic guide to producing a top-notch geology display box.

Select your specimens carefully. Reread the rules in the fair book to make sure you have met the requirements. Most classes require you to have 15 new specimens collected in the current year in Kansas. Another member of your family or the group could have actually found the specimen as long as you were at that stop. You want specimens that are approximately 2 inches or less in size. If you have one or two really great larger specimens, that is OK also. If you have several small fossils, see if you can make a grouping with an odd number (three, five or seven) of them on the card (like putting seven fusulinids on one card). Make sure your identifications are correct. If you have a specimen you can't get a positive I.D. on, leave it out if you can.

The box used for geology is a wooden box 18 inches by 24 inches with a plexiglass top; the same as an entomology box. You can get directions for making it from your 4-H leader or the extension office, or from your geology leader. Put something in the bottom of the box, like ceiling tile or cork, that pins can penetrate; and cover it with some attractive fabric like felt that will not detract from your specimens, nor show dirt (medium color). Each box can hold up to approximately 30 specimens.

Each specimen must be labeled with the following correctly spelled information: date collected, name of specimen and location (county) where it was found. The label also calls for a specimen number. When you return from a field trip, each specimen should be given a number. For example, one of the specimens you collected on the first stop of your first field trips would be No. 1. The next year, you start numbering where you left off. You should also show whether it is a rock, mineral, or fossil by putting a capital R, M or F in the upper right hand corner of your label. For fossils, genus and species names should be underlined, or typed in italics, if you are using any of those designations. If possible, have your labels typed. If someone else types the labels, you should be the one to write out the information and check the spellings. Then they just need to type them. Labels may be obtained from your county extension office, or you could format your own on the computer, etc. It is a handy idea to print them off on gummed labels.

Instead of mounting your specimens directly in the box, you may want to mount them on a small piece of cardboard so that it is easy to remove them and take them out. Half of an unlined 3-inch-by-5-inch recipe card is a good size for most specimens. The regular label also fits across the 2-inch dimension of it with only





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Making a Geology
Display Box, cont.

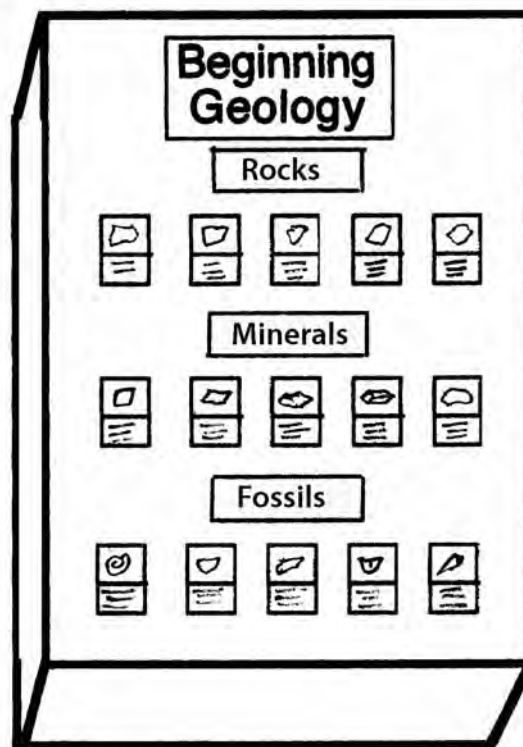
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minor trimming. Glue your specimen firmly to it about $\frac{1}{3}$ of the way down the card (leaving room for the label) without any extra glue showing. A glue gun is handy for larger specimens. Elmer's Glue types also work but be sure to allow it to fully dry in a flat position, or your specimens may slide from position. Glue the proof-read label on the bottom $\frac{1}{3}$ of the card. You may need to neatly trim the label to match the card.

Your box needs a title that tells in what phase of geology you are enrolled (Example: BEGINNING GEOLOGY). Make smaller labels for the categories. You will need labels for at least rocks, minerals and fossils, and maybe more for later years. Arrange your box neatly and logically, grouping the cards with specimens under each category. As you do this, look at each category and see if you can tell how they are alike. Put larger, heavier specimens toward the bottom of the box. Straighten the rows, using a ruler or straight edge for a guide. Then pin the cards and labels down, pushing the pins in all the way. Sequin pins, available at some fabric or hobby stores, are good to use as they are not as long as regular pins. It usually takes a pin in each corner to hold the card flat.

Now your box is finished. Look at it carefully, pretending you are the judge. Did you follow all the requirements? Is your box neat and attractive? Are your identifications correct? Use a checklist, if you have one. It is a good plan to review it also. Correct any errors that are found. Then pack it carefully and enter it in the fair. No matter what award you get, you will know that you have done a good job, and have completed a project you can be proud of.

Fig. 1: Example of completed display box.

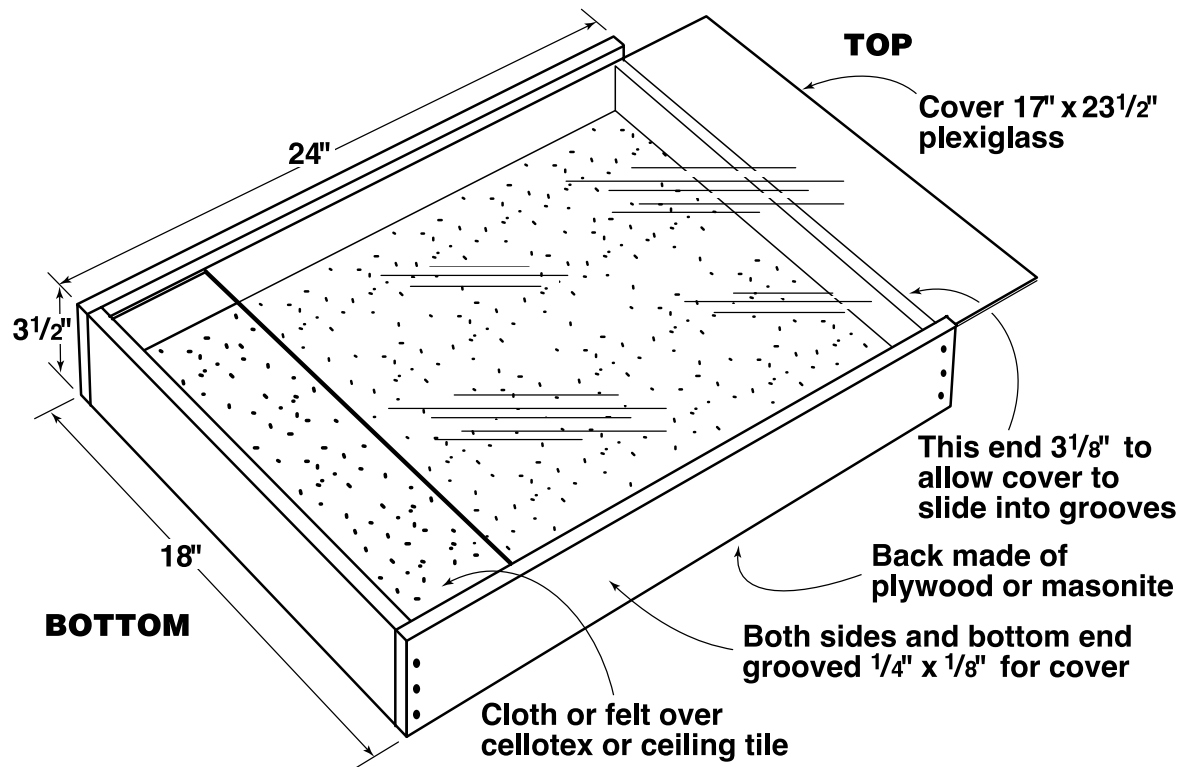




Show It: Geology Display Box

Member Handout 39,
Geology
Display Case

General — Geology, Level II



Geology Display Case

18 X 24 inches

Materials List:

1. Bottom $\frac{1}{4}$ " X 18" X 24" plywood or $\frac{1}{8}$ " x 24" tempered masonite
2. Two side pieces of pine $\frac{3}{4}$ " x $3\frac{1}{2}$ " x 24" groove to accept cover $\frac{1}{4}$ " x $\frac{1}{8}$ "

3. One end piece of pine $\frac{3}{4}$ " x $3\frac{1}{2}$ " x $16\frac{1}{2}$ " groove to accept cover $\frac{1}{4}$ " x $\frac{1}{8}$ "
4. One end piece of pine $\frac{3}{4}$ " x $3\frac{1}{8}$ " x $16\frac{1}{2}$ "
5. One cellotex or ceiling tile $\frac{1}{2}$ " x $16\frac{1}{2}$ " x $22\frac{1}{2}$ ". Cover bottom so pins will stick.

6. One piece of cloth or felt to cover bottom, about 18" x 24"
7. One plexiglass for cover $\frac{1}{8}$ " or more x 17" x $23\frac{1}{2}$ "

At the State Fair the top of the box should be the short end (18") from which the cover is to be removed for inspection. Otherwise there is a chance that the cover will fall out when the boxes are placed upright in the display racks. Any lettering or labeling in the exhibit should be right side up for reading with the cover removal end up.

For exhibiting at the State Fair, the specimens must be displayed in cases $3\frac{1}{2}$ " x 18" x 24" in size similar to the case shown above. It is not necessary to have the cover inserted in grooves as shown in the diagram, but the cover must be removable. The reasons for asking for display cases of this size and construction are simple. The covers allow the judges to examine the specimens. The display racks hold the cases with the long side (24") up and down, and cases too long or too short may not fit in the racks.

Adapted from the 1975 Exploring The World Through Geology Leaders Notes.



Show It: Geology Display Box

Member Handout 40,
MG18, Scorecard for
Judging Geology
Exhibits

General — Geology, Level II

_____ County _____ Contestant's Name _____ Class No. _____ Placing (ribbon color)

Scoring Guide

		Points
Specimens	Correct Identification _____ (2 points off each incorrect — limit 35 points)	35 _____
	Condition (identifying characteristics easily seen) (1 point off each undesirable specimen — limit 15)	15 _____
Labels	_____ (1 point off each incorrect or incomplete label — limit 20 points)	20 _____
Minimum Requirements	Has at least minimum number of specimens for Class (2 points off for each specimen less than required — limit 15 points)	15 _____
Showmanship	(neatness, arrangement, placement, background, lettering, etc.)	15 _____
		Total 100



Show It: Geology Display Box

**Member Handout 41,
MG20, Rock, Mineral,
and Fossil Labels
for Geology**

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No. _____ Date _____ Specimen name or description _____ Locality _____	No. _____ Date _____ Specimen name or description _____ Locality _____	No. _____ Date _____ Specimen name or description _____ Locality _____
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Show It: Geology Display Box

Activity Sheet 63,
Geology Display Box
Checklist

General — Geology, Level II

- __1. I have read the requirements in the fair rule book for geology exhibits, know entry times, and have read the rules for the class I am exhibiting in.
- __2. I have attached the box labels as specified in the rule book and have set up my box so that the plexiglass slides in from the top, not the bottom.
- __3. I have chose specimens for my box that are good examples of their kind, and show that I have learned about a variety of things.
- __4. I have grouped my specimens into rocks, minerals and fossils, and have labeled the groups.
- __5. I have counted that I have the right total number of specimens, and no more than 2 extras; and that I have the required number of new ones from this 4-H year, and the required number in each category.
- __6. I have checked that I have no duplicate specimens or numbers in my box.
- __7. I have eliminated specimens that are controversial such as ones showing characteristics of several groups, ones whose names can't be agreed upon, or ones that are so unusual not even a judge can verify them.
- __8. I have typed (preferred) or neatly written my labels and have proof-read them (or someone has typed them for me and I have proof-read them).
- __9. I have double checked all spellings and identifications.
- __10. I have underlined or put in italics the genus and species, and only the genus and species.
- __11. I have listed the phylum for each fossil
- __12. If required for my class, I have indicated whether rocks are igneous, metamorphic or sedimentary.
- __13. I have lined up my specimens neatly using a ruler or other straight edge.
- __14. If this is not the first time I am exhibiting this box, I have made changes suggested by previous judges.
- __15. I have cleaned my box, and given it one final check over.