

7. Communication

Part of enjoying a hobby is sharing it with others. They say you don't truly "know" something until you're able to teach it to another. Learning to communicate effectively is an important skill. If you go on to become a geologist or paleontologist, you'll discover that science isn't complete until your findings are written up and shared with colleagues, either in a public address or in a journal article or a book. If you go on to become a lapidary artist, you'll find great enjoyment in sharing your skills and techniques with others as an informal mentor or in formal workshop settings. You'll find lifelong benefit to learning the basics of effective communication, both within the hobby and beyond.

Activity 7.1: Oral report.

Give a talk to your club or to your class at school about a trip you took, a project you did, a special rock or fossil you've collected, etc. In preparing your presentation, consider the key questions that all reporters ask: Who? What? Where? When? How? Why?

Activity 7.2: Written report or newsletter article.

Write a 250- to 500-word article for your club newsletter. Follow the news reporter's questions of who, what, where, when, how, and why.

Activity 7.3: Bulletin board or poster board displays.

Prepare a bulletin or poster board display for your show, library, or school on rocks, fossils, minerals, or the lapidary arts. Use pictures to convey most of your information, with writing kept to a minimum, mostly in the form of banners and headlines.

Activity 7.4: Corresponding with experts.

A great way to learn is by corresponding with experts who have made a career out of gemology, paleontology, or geology. Write or email a local jeweler, a paleontologist in a museum, a geology professor at a university, etc. These people are usually very busy, so you should briefly tell them who you are and what you're interested in. Then ask something very specific you'd like to know about their work. Share their answers with your fellow club members at your next meeting or in a report for your club newsletter.

Activity 7.5: Holding a symposium.

Geologists and paleontologists often get together in meetings to exchange ideas, give lectures, and hold symposiums. A symposium is a series of 3 or 4 brief talks organized around a specific topic. Each speaker presents, and then there's an opportunity for questions and discussions. Come up with a topic and hold your own symposium.

Activity 7.6: Writing a field trip guide.

Write a guide to your favorite collecting locality. Provide a brief overview of what's to be found; how to get to the site, with written directions and a map; and the tools you'll need and how to go about collecting. (Are the specimens on the surface? Do you need to dig for them with a shovel?) If several members of your club write guides to different sites, you can put them together into a local guidebook for your club and school.

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- 7.1 Oral report
- 7.2 Written report or newsletter article
- 7.3 Bulletin board or poster board displays
- 7.4 Corresponding with experts
- 7.5 Holding a symposium
- 7.6 Writing a field trip guide

To earn your Communication badge, you need to complete at least 3 of the 6 activities. Check off all the activities you've completed. When you have earned your badge, sign below and have your FRA leader sign and forward this sheet to the AFMS Juniors Program chair.

Date completed

My signature

Youth leader's signature

Name of my club

Leader's preferred mailing address for receiving badge:

Back-up page 7.1: Oral report.

Every aspiring journalist is taught to answer six essential questions in covering a story: Who? What? Where? When? How? Why? You should teach your kids to consider these questions in delivering an oral report. This handy list helps them both to organize the report and to come up with ideas about what to say.

For instance, if they wish to tell about a field trip adventure, who went on the trip? What were they hoping to find, and what did they actually find? Where did they go? When did they go there? How did they find out about the collecting spot and/or how did they go about collecting there? And why might they recommend this site to others?

Or, a talk might be organized like a story, with a beginning, middle, and end. For instance, in describing a field trip, they might tell how they got the idea to visit a specific locality, then describe the trip itself, and end by showing what they found there. In telling how to do a particular lapidary project, they might describe the necessary tools, go through each step in the process, and end by unveiling the finished product.

In giving an oral report, it's important that the audience be engaged in ways that capture and hold attention. Good public speakers incorporate jokes to bring out smiles. In fact, they often begin their talks with a joke or an amusing anecdote to begin in an entertaining way. And, just like in a book, good illustrations can spice up the presentation, so kids should be encouraged to show or pass around specimens, to include maps, pictures or posters, or to otherwise visually reinforce what they'll telling the audience.

Finally a good way to end a talk is with questions and answers, so time should be left for the audience to ask questions or to share their own experiences.

***Note:** Because several other badges involve giving an oral report or presentation, kids can work toward earning their Communication badge and other badges simultaneously. For instance, see Activities 1.7 (Rocks & Minerals), 2.4 (Earth Resources), 3.6 (Fossils), 4.5 (Lapidary Arts), 5.5 (Collecting), 9.3 (Leadership), 12.2, 12.3, and 12.4 (Gold Panning & Prospecting), 13.3, 13.4, and 13.5 (Gemstone Lore & Legend), 14.1 and 14.5 (Stone Age Tools & Art), 15.2 and 15.3 (Rocking on the Computer), 17.8 (Special Effects), and 19.5 (Reaching across Generations).*

Back-up page 7.2: Written report or newsletter article.

At regional and national federation levels, awards are given for best articles published in club newsletters, with a category for articles by kids. Encourage your kids to contribute to your club's newsletter, or, if you don't have one, to write up a brief report to share with you and the other kids in your club. Learning to write a good report is a skill that will benefit kids in school and beyond. In teaching your kids to write an article, you should use the same six key questions noted for Activity 7.1: Who? What? Where? When? How? Why? This handy list helps them both to organize the report and to come up with ideas for what to say in their article.

In addition, encourage kids to try different "genres" or types of articles. One genre is the **anecdote**, or story. Kids might write about a specific memorable event that happened while on a collecting field trip that, at the same time, packs in useful information about where they went and what could be found there. For instance, I vividly remember reading one field trip article that told the story of an encounter with a wild burro that ransacked a campsite near the Mojave mining town of Darwin. The central focus was the encounter with the burro. But in telling the story, the author provided readers with a lot of history about past mining days in the desert, minerals that collectors can find in the old mine dumps, and the wonderful wildlife and colorful characters living in the region. Another genre is the **technical article**. Such an article is more scientific in nature and usually involves some background reading and research. A technical article might describe how a geode or petrified wood forms. It might describe the different classifications of crystal structures. In writing a technical article, kids should end with a list of the books they consulted for their information. Yet another genre describes a **process**, or provides a set of **directions**. An example of such an article would be one that describes in detail the steps for completing a lapidary project, such as crafting a cab. These articles usually begin with a brief overview of what is being made. Then, the necessary tools and materials are listed. Finally, each step in the process is described in numbered or outlined form. For examples of such an article, see Back-up page 1.6 on "Growing Crystals" or Back-up page 3.2 on "Making a Fossil." Still another genre is the **tall tale**, or the humorous story that conveys information or expresses an opinion in a way that elicits a laugh. The perfect example is Mark Twain.

Encourage kids to write several articles, trying different styles (funny/serious; technical/informal) until they find a style that fits them best. Publish as many as you can in your club newsletter. Seeing their names in print can be a big boost for kids' self confidence and—as noted above—could lead to recognition by a regional federation and the AFMS if your newsletter editor submits articles into consideration for annual federation awards.

***Note:** Because several other badges involve writing a paper, kids can work toward earning their Communication badge and other badges simultaneously. For instance, see Activities 1.7 (Rocks & Minerals), 2.2, 2.4, and 2.6 (Earth Resources), 3.6 (Fossils), 4.5 (Lapidary Arts), 5.5 (Collecting), 8.4 (Field Trips), 9.5 (Leadership), 11.3 (Earth in Space), 12.2, and 12.3 (Gold Panning & Prospecting), 13.3, 13.4, and 13.5 (Gemstone Lore & Legend), 14.5 (Stone Age Tools & Art), 15.2 (Rocking on the Computer), and 19.3 and 19.5 (Reaching across Generations).*

Back-up page 7.3: Bulletin board or poster board displays.

Bulletin boards are found in many locations: in your local schools, in public libraries, in homes for senior citizens, in local and county government centers, etc. Explore options within your community and make arrangements for providing educational displays on rocks, fossils, minerals, or the lapidary arts (or on all these aspects of the rockhounding hobby). You might assign this to individual kids within your club, or you might make this a group activity involving everyone.

With a bulletin board display, your audience is usually passing by and isn't likely to stand still and read a great deal of text. You need to grab attention quickly and to get your message across efficiently. As with billboards along a highway, vivid and memorable pictures should do most of the talking and supporting text should be kept to a minimum, mostly in the form of headlines and brief captions.

For instance, a bulletin board about rockhounding in general might ask the question, in large, colorful print: "WANT A NEAT HOBBY?" At the bottom, in equally large print, you might write "TRY ROCKHOUNDING!" These two large banner headlines very quickly broadcast the main message of the bulletin board. Then the middle of the bulletin board can be filled with large photographs, drawings, and other visual images about various aspects of the hobby. Each might be provided with a small caption where you can go into a bit more information. But remember, unlike an article in a newspaper or newsletter, folks will be reading this while standing up and usually while on their way elsewhere, so each caption should be as brief and to-the-point as possible and in print that's large and easily read at a distance.

Junior leader Sandra Corry of the Tennessee Valley Rock & Mineral Club worked with her juniors to present a "Geology Science Fair" to their club. They created tri-fold poster boards on different topics and, at the end of the day, they had a nice supply of "traveling posters" they could take to other public education events around town. The Carmel Valley Gem & Mineral Society (California) has a similar supply of tri-fold poster boards (one on fossils, one on dinosaurs, one on mineral identification, one on earth processes, etc.) that are set up on tables around the kids' booth at their annual show and that are taken to schools for educational talks and programs. Tri-fold poster boards provide a great way for kids to make more-or-less permanent educational displays about our hobby that can be conveniently stored, then transported and set up in all sorts of venues.

Note: Kids can use this activity to satisfy requirements toward earning the Showmanship badge simultaneously (Activity 6.4).

Back-up page 7.4: Corresponding with experts.

In encouraging kids to correspond with experts, you may want to do some advance legwork to make sure that they'll get a timely response. It would be a shame to build up a child's expectations and enthusiasm only to see a letter, email, or phone message go unanswered.

Start by asking kids what it is they'd like to learn about. Then decide who might be a good expert to address their questions. For instance, a child might want to know where all those diamonds come from in the jewelry store windows downtown or in the mall. Or they may want to know how a particular dinosaur got its name. The first question would be appropriate to address to a local jeweler and the second to a museum paleontologist or a university professor. You should help decide who would be the best person to address the question and to track that person down and see in advance if they would be willing to help in your project.

Here are examples of different experts you might contact and how to track them down:

- **Local jewelers.** Check your yellow pages under "Jewelers" or "Jewelry." They usually have a number of different categories: Jewelers-Manufacturers, Jewelers-Retail, Jewelers-Wholesale, Jewelry Buyers, Jewelry Designers, Jewelry Engravers, Jewelry Repairing, etc. Other categories to try include "Gemstones," "Appraisers," or "Lapidaries."
- **College professors.** Check the web site of the nearest college or university to connect with academic geologists and paleontologists. Once on a university web site, check under "Geology" or "Earth Sciences" to get to the department site. Such department web sites usually have a listing of all faculty on staff, with brief descriptions of their areas of expertise. Someone there may be able to help you or to give you the name and contact information of a colleague at another college or university.
- **Museum curators or researchers.** Call up the closest natural history museum to see if they have a staff geologist or paleontologist.
- **Professional geologists and other earth scientists.** The U.S. Geological Survey web site has a link to the "Earth Science Information Center" to address earth science questions via the USGS education web site: <http://www.usgs.gov/education/>.
- **Mining experts.** Two groups have web sites that provide much educational information on mining and mineral resources, along with links to ask questions. One is the Minerals Education Coalition (<http://mineralseducationcoalition.org>) and another is Women in Mining (<http://www.womeninmining.org>).

Back-up page 7.5: Holding a symposium.

Because it's a group event involving several presenters, not just one, organizing a symposium takes special advance planning. First, you need to select a topic that will be of interest to a number of people in your group and about which people may have differing but equally useful opinions and experiences to relate. The goal of a symposium isn't to come to a single correct answer to a question. Instead, it's to share information and tips that a variety of people have formulated in tackling the question at hand, thus giving everyone involved new insights and ideas to consider.

For instance, one good topic for a symposium is how to catalog a collection. Everyone seems to have a different system (see Back-up page 5.2: Cataloging and labeling your collection). It can be useful to hear how different people have organized their collections in different ways and can give kids a number of useful ideas for deciding how they may wish to catalog their own collections.

Another helpful symposium topic might be on cabbing and how to bring out the best shine in a cab. Different minerals have different characteristics, and some—such as jade—can prove difficult to polish. What sorts of techniques have different club members developed over the years? What sorts of polishing compounds would they recommend? What sorts of techniques have they used with different minerals? Etc.

Usually, a symposium has three or four presenters, along with a host or moderator. The moderator introduces the topic and then introduces each speaker in turn and makes sure they stick to their allotted time. Each person might talk for 10 or 15 minutes. At the end, the moderator summarizes, followed by opportunities for the audience to pose questions or to share their own thoughts, experiences, and insights in a follow-up discussion.

Kids themselves might organize, run, and participate in their own symposium. Or, they might come up with the topic, make the plans, and then invite adult members to serve as speakers, followed by questions from the kids.

Back-up page 7.6: Writing a field trip guide.

The best model to provide to kids for writing a field trip guide to their favorite local collecting site is one of the many published field guides. The geological surveys of some states publish rockhounding guidebooks you can use as models, and two publishing companies publish guides covering many states.

Gem Guides Book Company publishes the “Gem Trails” series. In these guidebooks, the first paragraph for a particular locality tells what can be collected there. This is followed by directions for how to get to the site and instructions for how to collect (for instance, by searching the surface of the ground, by digging in specific layers, by splitting shale, etc.). Then there’s usually a photograph of the locality and people collecting there, followed by a map. They also often give special words of advice or warning. For instance, there may be special issues regarding status of ownership of the land and needs for making advance arrangements or getting special passes or paying fees. There may be warnings about hazards such as rattlesnakes, open mine pits, extreme heat in the summer, etc.

Falcon Press Publishing Company publishes “The Rockhound’s Guide” series. In the one for California, the author starts with a listing of the Land Type (desert versus coastal versus mountain, etc.), Best Season to visit, Tools, Material to be collected, Special Attractions, Vehicle Type needed to reach the site, etc. This list is followed by directions, or “Finding the Site,” and then “Rockhounding,” or paragraphs describing what you’ll find and how best to collect it. A map and a photo of the site then usually follow.

Any of these can provide helpful and useful models for your kids to follow.