



Organization and Conduct
of a
Junior Rockhound Club

JUNIOR ROCKHOUND CLUB GUIDE

By Dr. Albert S. Dix

JUNIOR ROCKHOUND CLUB GUIDE
Organization and Conduct
of a
Junior Rockhound Club

FOR SOUTHEAST FEDERATION OF MINERALOGICAL SOCIETIES, INC.

By Albert S. Dix, M.D.

1987

Ben H. Smith, Jr. - President

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The Junior Rockhound Guide for Organization and Conduct of a Club

By Albert S. Dix, M.D. 1987

There have been several JUNIOR MEMBERSHIP MANUALS written to assist in forming and operating a Junior Rock Club. In this booklet I will start from scratch and try to encourage Rockhounds to get interested in young people and assist them in learning about earth science and lapidary pursuits. Since the MOBILE JUNIOR ROCKHOUND CLUB has enjoyed a reasonable success over the past fifteen years, I will try to tell you how it came about.

The idea of a Junior Club was born in the Executive Committee of the Mobile Rock and Gem Society. The Bulletin Editor, Charlotte Styers, obtained information and suggestions from Katherine Murphy of Dorchester, Mass., and Mrs. Styers was the sparkplug that got our club going and continues to support and encourage it through the bulletin, the *Cabber Gabber*. Every month the *Cabber Gabber* carries the Junior News, and very frequently there is a complete junior page. Others may act as news gathers and reports, but the Editor deserves the credit for getting it in the paper each month.

So the first thing that is needed is the local club to act as sponsor and the editor of the bulletin to keep it going. The next thing needed is an adult leader or director. The director must be interested in three things:

- Education
- Young people
- Rocks

Without these three ingredients there can be no junior rock club. With these three factors and consistent interest and cooperation from a few adult members or parents, all other problems are of a minor nature.

Education – learning and teaching what has been learned. The “*head*” *teacher* knows his subject, but to teach juniors the names of rocks and minerals the “*assistant teachers*” do not need to know them. They must be able to read the labels that are face down and when the junior names what it is, he is marked correct, or must study it some more and try again. After a few sessions the *teacher* learns to recognize the rocks and minerals himself.

Young people – of all ages from the time he can say “wok” until he gets a driver's license, owns his own automobile, and gets a girlfriend (or boyfriend). Five and six year olds are not too young to be interested in learning about rocks. They are thrilled to learn, mica, ruby, marble, and quartz. The older young people serve as assistant teachers and are of great help in managing the little ones on field trips and in various activities such as gold panning, cabbing, and many others.

Rocks and Minerals – It is suggested that ten minerals and rocks be selected for the beginners to learn. We have named four. Others might be sulphur, copper, sandstone, pyrite, bornite, and galena. It is OK if they call them fool's gold, lead, or peacock ore. That is a good start.

We have started this Manual talking about juniors learning rocks and minerals. We did not start with lapidary, field trips or other activities. They are important, but, in my opinion, not as important as leaning minerals and a little later – rocks. Many adult rockhounds do beautiful lapidary, silver and gold work, but may not know what the mineral is, where it comes from and what it is good for other and making jewelry. Learning about rocks and minerals does not detract from these lapidary pursuits, but may well enhance them and make them more enjoyable. When a Junior goes on a field trip to find selenite gypsum he knows what it is, where it is likely to occur, and how to take care of his specimens.

So this book is for all beginners who are young or new in the hobby and even others who would like to broaden their knowledge.

PHYSICAL FACILITIES:

We have the club sponsorship and support, the director, the teachers, and the youngsters. Now we need

- **MEETING PLACE:** This is a problem that can be solved in most instances by adults, either club members or parents, who are willing to open their home or garage once a month for a junior meeting. In suitable weather the club can meet outdoors on the lawn or under a tree. A double garage is ideal. When both cars are out there is plenty of room, even for a large group. A single garage is large enough to start. Our club has met in an empty apartment, a garage, at the Exploreum, and outdoors, and maybe once or twice in the den or living room. It can be done. The advantage of a garage is that workshop can be set up and activities can be carried out not suitable for the living room.
- **TIME:** Saturday afternoon about 2:00 or 2:30 seems to be best. [This has changed over the years. Saturday 9-noon seems best now.] Night meetings, especially on school nights, are out. Friday nights are football games and all sorts of other activities that compete. Even if he/she doesn't have any plans, frequently the parent does. Baseball or football practice, music or dance lessons, and birthday parties sometimes interfere even on Saturday afternoon. If the youngster is enthusiastic enough about the rocks and minerals, he will ask his parents to save the first (or other) Saturday each month for him and his hobby.
- **ROCKS AND MINERALS:** We will assume that the Director has a collection of rocks and minerals that he will share with the students to study. It does not need to be a large and extensive collection, but it will grow as the time goes on. Other members of the adult club will share their minerals for study and even contribute them as a "permanent" collection for the club. Even members of other clubs, sometimes in distant cities, will help

supply rocks and minerals for the juniors to study.

Mineral dealers are frequently willing to give one or two specimens to the junior club. Finally, collections can be obtained from ¹WARD'S Natural Science • PO Box 92912 • Rochester, NY • 14692-9012 • 800-962-2660 Established 1862 or Frey Scientific Co. 905 Hickory Lane, Mansfield, OH 44905 800-225-FREY (3739) www.freyscientific.com. A collection of forty different rocks and minerals might cost in the range of \$50. Smaller specimens or chips are also available for students to add to their collections. They would be willing to pay ten or fifteen cents apiece for these specimens. Frey Scientific Company has collections of ores, igneous, metamorphic and sedimentary rocks, as well as minerals. The price is about the same as Ward's. If an adult club is really interested in the young people, it will find a way - through dues, auction, raffle, or sales - to find the money to get the minerals.

¹Information in this paragraph may not be current. Check the website.

- **TABLES AND CHAIRS:** Folding tables are fine. If left in the meeting place they take up very little room.

Usually the parents are willing to bring folding chairs and tables. Chairs are really not needed if benches, boxes, etc. are available. For some activities they sit on the floor, and, for the study of minerals, they usually stand and walk around.

ORGANIZATION

The way the club is organized is of minor importance compared to the other activities, and the whole purpose should be to help the members learn and have fun.

The Director is responsible for the success or failure of the club. With whatever help and advisors he can muster, he decides on the meeting, the time, the activities, the Constitution and By-Laws (if any) and other rules of the club, the qualifications of prospective officers and directs the first election. He may preside at the meeting or appoint someone else if those charged with

this duty are absent. We will assume that the Director will be the Teacher of minerals and rocks, with the aid of the assistant teachers.

It has been helpful, or essential, that the Director have other adult helpers, and he may delegate to them responsibilities named above. While there may be others, the most important are:

1. Host or Hostess: Provides a place to hold the meetings if society clubhouse is not available.
2. Calling Committee: Someone to make sure that all members are notified about the time of meetings and special events - field trips auctions, picnics - and places and time of meetings, and any other information needed in advance of the meeting. The telephone (or email) is the logical instrument to use because postage is too high to send out cards as was done a few years ago.
3. Refreshments: Someone to be responsible to see that one of the parents will furnish refreshments, so enjoyed by the members.
[For the junior meetings in the Mobile Rock and Gem Society, juniors earn rock \$ for bringing refreshments. There is never a lack of goodies!]
4. Cabbng Instructor: If such equipment is available for the juniors.
5. Activity Director: Someone to plan the special activities to be carried out at the meeting. Some of these are listed or discussed later under Activities.
6. Adult reporter: To make sure that information, written by himself for the club report reaches the Editor of the club bulletin in time for its publication.
7. Storekeeper: It is helpful if there is a special adult to keep the store, although this task may be handled by the host or parent.

However, if we call it a club we need officers, such as *President, Vice-President, Secretary, Treasurer, and Reporter*. The duties are simple, but the most important duty of all officers is to be

present at meetings or to notify the Director if he/she cannot be present. No one should continue to be an officer if he is frequently absent without notification in advance of the meeting.

President

- calls the meeting to order
- welcomes visitors
- directs the election of new members
- tells who has a birthday that month
- makes announcements
- calls on the Director, Secretary, Treasurer, Reporter, and any others who have something to say.

Vice President

- presides at a meeting when the president is absent.

Of course he has been notified by the President that he will be absent and told of any special business or announcements to make.

Secretary

- Main duty is to keep a record of attendance

It has been found that the best way to keep a record of attendance is to have a hardback book, like a ledger, with plenty of large pages, where each one present can write his or her name, each on a separate line, which has been numbered for a possible door prize. The Secretary should line off the book and put the date on it, but the book itself should remain in the custody of the Director.

On the line by the name notations can be made:

- V for visitor
- NM for new member
- DP Dues paid.

The Secretary shall get each new member to fill out a record of name and address, with zip code, parent's name, telephone number, and birthday (with year). If the member cannot write, the parent or other adult should fill it out. This information must be given to the one responsible to call the members each month to remind them of the meeting and a copy to the Director so birthdays can be recognized. He will give this information to the President each month.

Treasurer

- To collect the dues and keep a record and handle the money of the club.

If dues are paid to the Secretary or anyone else, the Treasurer must be told to give them credit, and the money should be turned over to him. The dues may be only one or two dollars a year [or more]. The treasurer should deposit the money in a bank usually with the help of a parent.

The account should be in the name of the club, with the Treasurer authorized to sign the checks, co-signed by the President. The Director is also authorized to sign checks without other signature. Many banks will handle the money for the club in a checking account without service charge, but it may be worth while to put it in a savings account. The Treasurer should make a report to the club when called on by the President. [In 2011 the money for the juniors of the Mobile Rock and Gem Society is maintained by the adult club.]

Reporter

There is no officer of the club where his/her regular attendance at the meeting is more essential than the reporter. This is his/her most important duty. The reporter does not need to be an expert in writing, but should list

- who is present
- what went on at the meeting
- who did what: who studied minerals, who made a cab, who had birthdays, who won

door prizes, who brought refreshments and what they were,

- what plans were announced for the future,
- new members and visitors
- and any thing else he can write down or remember.

It is necessary to write these things as the meeting proceeds, not wait until the end and try to remember. The reporter may write up the report and turn it over to the Adult Club Editor or give it to the Adult Reporter of the junior Club to give to the Editor. It is very important that the Junior News gets to the Editor each month in time to get in the club bulletin. Those members who are also members of the Adult Club, or are included in the family membership, get the club bulletin each month. For others it is suggested that the Editor be asked to print extra copies of the Junior News to be given out at the meeting.

ACTIVITIES—REGULAR OR SPECIAL

REGULAR ACTIVITIES

Regular activities are those carried out at almost all regular meetings. Some of these are listed under the duties of the President, such as welcoming new members and visitors, drawing for door prizes, etc. In my opinion every meeting should have a mineral study period. **Mineral Study**, at least at the beginning, seeks to enable the junior to identify a rock or mineral by sight. A little later on he/she can learn in what class a mineral belongs, essentially what it has in it, and what it is good for, as well as the use of its component elements. The study will also likely learn simple chemical and physical tests to help in identification. Since minerals are chemical compounds, he needs to know some of the elements found in the common minerals as well as the native elements, which are minerals by themselves.

There are several ways to study minerals, with games, contests, demonstrations, and handling of the minerals. Movies and slide programs

[DVD's] help, but I think the least effective way is a lecture, unless it is well illustrated with actual specimens which they can handle. A Mini-Mine, made up of much variety is a good place to study minerals, especially if they can keep what they find.

In our experience this is the best way, which engenders a great deal of enthusiasm: The specimens are spread out on a table with cards, name face down, by each one. The teacher with a pencil and pad of paper writes the name of the junior at the top of the page and then lists all the minerals the junior can name. A score is kept which stimulates pride on the part of the student, and later he is rewarded as is discussed on rewards. At the next meeting he tries to do better

It is really amazing the enthusiasm juniors have in learning minerals. Most of them learn 50 or more, many 100, and some even more. One of our juniors, Leonard Lee, a few years ago learned over 600 minerals by sight. He is now a geologist in another state. [There are forms for these located in the Appendix of this publication.]

The **study of rocks** is a little different. Minerals make up rocks, so one must learn minerals before he can identify rocks. Even when there are no visible minerals, there are tests that help, and the juniors learn them.

Door prizes can be drawn in many ways. In our club we spin a roulette wheel, obtained second-hand from a novelty store. Each junior has a number, which is the one by his name in the book when he signed in. The young ones like to spin the wheel,. Usually we have about half as many door prizes as there are members present, especially if the group is small. If it a very small, each one may get a door prize. Both door prizes and birthday prizes are rocks or minerals, or something else pertaining to the hobby. A typical prize might be an apache tear or a garnet.

At most meetings a **simple game** is played. One which we play is patterned after the TV show and is named "Tic-Toc-Rock." A wood frame with nine compartments is used, where a

milk carton will fit in each compartment. A category on the end of the milk carton is chosen by the player, such as "color" and the question might be, "Name a mineral that is red, one white, and one blue." Then it is the other player's turn. One gets a "X" and the other one an "O", and straight line of three wins. The winner may get a prize like the door prizes. There are many games that can be played, sitting in a circle or standing lined up as two teams. They are all fun, and in a Junior Rock Club, fun is the name of the game.

Cabbing may be a regular part of each meeting if the cabbing instructor or his substitute is present, and if the attendance is enough to justify taking three or four members away from the other activities. Usually, especially for the younger ones or beginners, preformed stones, already dopped are brought by the cabbing instructor. Older ones can use the trim saw and then dop their own stones. If the junior club meets at the location of the adult club workshop (if one), equipment is not a problem. Dop wax, templates and slabs are furnished by the adult club members. If no equipment is available, a special junior workshop may be held at some other time at the home of a willing adult who has the equipment.

The store is open at every meeting, where members can buy rocks, minerals, books, magazines, magnets, and other lapidary or mineral identification equipment. The storekeeper keeps track of the money paid, which may be US or club rock money. The store may be in a corner of the garage or other meeting room. It is stocked by members of the adult club.

SPECIAL ACTIVITIES

In many areas there are qualified instructors to teach juniors special lapidary or metal work. Along the Gulf Coast, we are fortunate in having many adult members who have been instructors at workshops at Wildacres or William Holland Retreats. Of course, many others can teach the juniors their special crafts.

Among these activities are:

1. Making sand bottles
2. Making sand paintings
3. Making rock critters
4. Making tumbled stone bracelets or other jewelry
5. Making other items with tumbled stones
6. Making gem trees
7. Making "fossil" molds
8. Making cards of minerals mounted
9. Making booklets
10. Making tape recordings [videos, DVD's, etc.]
11. Panning for gold
12. Sifting for garnets and sapphires
13. Preparing exhibit for show
14. Putting on play related to mineral study

Other activities include auctions, Christmas party, Easter egg hunt (with specimens in the hidden eggs), field trips, searching a mini-mine, rock swaps, attending rock shows, libraries and museums, show and tell, and promoting school programs. They never run out of something to do

INDUCEMENTS, INCENTIVES, AND REWARDS

Learning an accomplishment is its own reward, but to make the club more interesting and stimulating there are a few special rewards. They may be as listed:

1. DOOR PRIZE
3. BIRTHDAY GIFT
4. DAVID NEW MINE MEMBERSHIP - David New is now retired in the state of Washington, but for many years, he was a mineral dealer and supplied our junior club with all his trimmings and scrap minerals. They came by the 100 lb box or sack, and the only charge was for the freight. When a Junior learns 50 minerals, he becomes a David New Miner and may search through the David New mine and keeps what he wants. This mine

contains hundreds of different minerals. David New Miners also receive certificates and are given recognition in the bulletin.

5. CLUB ROCK MONEY - Rock money is play money of various values to spend at the store, at auctions, and for special occasions. A junior receives five cents for each mineral he learns. If he learns ten, he has fifty cents to spend at the store. Some members like the club money so much they hoard it and spend USA money at the store. [A suggested money chart for awarding rock dollar\$ is included in the Appendix.]

6. REFRESHMENTS - Parents take turn in bringing the goodies. Some of them make delicious chocolate chip cookies. The father of one girl owned a doughnut shop and those fancy ones were special. Drinks usually consist of cokes, Kool-Aid™ or fruit punch.

It has been said that to make life worthwhile, one must write a book, plant a tree or teach a child. I am happy that I have done all three. How about you?

SUMMARY OF ITEMS NEEDED FROM ADULT CLUB

1. Club-sponsored Junior Club, not only at the beginning, but continually through the years. Perhaps a vote of renewal of sponsorship should be taken each year, taking into consideration the other items listed here.
2. Select a Director and be prepared to select his successor in case he cannot continue to serve for any reason.
3. Make sure a meeting place is provided, for the present and the future.
4. Members should donate or supply rocks and minerals for study. On almost every field trip, members should bring home "extra" specimens.
5. Loan tables and chairs, if needed.
6. Serve as helpers at the Junior Club on a regular basis. We meet once a month and need help once a month.
7. Notify members about meetings, see that refreshments are brought to each meeting, lead cabbings activities, record news, and manage the store.
8. Present the program as needed.
9. Furnish specimens for door prizes and birthday prizes.
10. Stock the store with leftover rocks and minerals from field trips and other surplus specimens.
11. Help with special activities at the meetings.
12. "Adopt" one or two children and take them on field trips and maybe even a rock show out of town.

If members of the adult club will do these things, then they can say that the junior club belongs to them, and they then can be justly proud of "Our Juniors".

Dr. Dix is no longer with us. He passed away in January 1991.

If you have a question or suggestion, please get in touch with the Southeast Federation Youth Resources Chairman. The name and address of this person will be listed in the SFMS Annual Directory or in the SFMS newsletter, *Lodestar*, or at the SFMS website www.amfed.org/sfms.

APPENDIX

**Additional resources from the files of Dr. Albert S. Dix,
American Federation of Mineralogical Societies (AFMS),
Southeast Federation of Mineralogical Societies (SFMS),
SFMS member clubs, and various other sources.**

Resources for Youth Materials

Check to be sure information is current.

When ordering, allow plenty of time for delivery. Most of the resources listed are free, but always ask if there is a cost involved.

<http://www.amfed.org/fra/materials.htm>

AFMS Future Rockhounds of America
http://www.amfed.org/fra/fut_rock.htm
free junior **badge program** of guided activities for youth leaders. Juniors may earn badges for specific skills and lapidary interests. FRA membership requires membership in a regional federation club with an AFMS affiliation
See http://www.amfed.org/fra/fra_badge.htm

Diamond Dan Publications
P.O. Box 143
Manchester, New York 14504
585-289-4936 or 585-278-3047
<http://www.diamonddanpublications.net/>
Badges and educational resources. Fun stuff about minerals for young mineral collectors!

"**Let's Collect Rocks & Shells**" Booklets
Shell Oil Company, Shell Publications
**** **Discontinued - No Longer Available**

Placer Dome Inc. (Library)
Direct Communications Marketing Ltd.
1175 Grant St. Vancouver, B.C.
Canada V6A 2J7
(604) 661-1991 (604) 258-9302 FAX
For: **Activity books**, color books, posters

Women in Mining Education Foundation
1801 Broadway, Suite 400
Denver, CO 80202
(303) 274-1704

Mineral Activity Book
(They send one excellent book, but request you copy all or what pages you wish. - many good ideas.)

Iowa Department of Natural Resources
123 N. Capital Street
Iowa City, Iowa 52242
(319) 354-8343
Color pamphlets on **geodes/page of Iowa Coral**

Nebraska Conservation & Survey Division
University of Nebraska
113 Nebraska Hall
(402) 472-7211 (Main Operator)

Luzenac America
P.O. Box 130
Cameron, MT 59720-0130
For: Free **Talc** samples/educational leaflets

Ohio Geological Survey
4383 Fountain Square Drive
Columbus, Ohio 43224
(614) 265-6583
For: Free **Geology fact sheets** and educational materials

Phelps Dodge
4521 U.S. Highway 19
Morenci, AZ 85540-9795
For: **Copper Minerals** (Fees???)
*Ask for 25 to 30 pounds

Sunshine Mining & Refining Company
P.O. Box 1080
Kellogg, Idaho 83837
(208) 783-1211
For: **Silver Ore** samples

Society of Economic Geologists
5805 S. Rapp Street #209
Littleton, CO 80120
(303) 797-0332
For: "**Metals Empower Us**" posters

NYCO Minerals
P.O. Box 368
Willsboro, NY 12996-0368
(518) 963-4262
For: **Wollastonite**

*For Your Own Club Library

ODNR Booklet "**List of Educational Resources**"
by Merrienne Hackathorn
(614) 265-6590

Lucky Friday Mine
P.O. Box 31
Mullan, ID 83846-0031
For: **Silver ore** samples

Missouri Geological Survey
P.O. Box 250
Rolla, MO 65401
(314) 368-2101
For: **Fact sheets & brochures**

Bureau of Land Management
Utah State Office #930
P.O. Box 45155
Salt Lake City, UT 84145-0155
For: PLM **Dinosaur Posters**

Wyoming Dinosaur Center
Big Horn Basin Foundation
P.O. Box 71
Thermopolis, WY 82443
For: Packet of educational materials on **starting a fossil club for students**. It contains a lot of good stuff. Cost ???

Wyoming Dinosaur Center
110 Carter Ranch Road
Thermopolis, WY 82443
For: Supply of brochures and year 2000 calendar of "**Kids Digs**"

Bureau of Land Management
Eastern States
7450 Boston Boulevard
Springfield, VA 22153
For: "**Fossils on America's Public Lands**" brochures

Career Information:

American Geological Institute
4220 King Street
Alexandria, VA 22302
-AND-
Society of Exploration Geophysicists
P.O. Box 702740
Tulsa, OK 74170

Northwest Mining Association
10 N Post Street, Suite 414
Spokane, WA 99201-0772
(509) 624-1158
For: "**Mighty Minerals**"

US Dept. of the Interior
The Mark Trail/Ed Dodd Foundation
P.O. Box 2807
Gainesville, GA 30503
For: "**Take Pride in America**"

We would like to thank Neil Reeder of the Midwest Federation for helping us to compile this list. This initial list was distributed by Bob & Kathy Miller, AFMS/MWF Junior Co-Chairmen.

Gary A. Buhr, advisor to Everett Rookie Rockhounds provided the following additional sources of materials:

Placer Dome Inc.
1600-1055 Dunsmuir Street
Vancouver, British Columbia
Canada V7X 1P1
For: "**It Comes From a Mine**" - booklet of puzzles (complimentary)
"**What's a Mine?**" - colouring book (complimentary)
"**The Mine Development Process**" - academic pictorial (complimentary)

U.S. Geological Survey
Information Services
P.O. Box 25286
Denver, CO 80225
For: "**Collecting Rocks**" - info pamphlet (complimentary)
"**Fossils, Rocks and Time**" - info booklet (complimentary)

The How and Why Activity Wonder Book of EARTH - book of info puzzles
By Q.L. Pearce (1989)
ISBN: 0-8431-4299-5
Published by Price Stern Sloan, Inc.
360 North LaCienega Blvd
Los Angeles, CA 90048

Geology Crafts for Kids: 50 Nifty Projects that Explore the Marvels of Planet Earth-
book of projects
By Alan Anderson, Gwen Diehn & Terry Krautwurt (1998)
a Sterling/Lark Book
ISBN: 0-8069-8156-3
Published by Sterling Publishing Co., Inc. NY

The Future Rockhounds of America, a.k.a. *Che-Hanna Pebble Pups*, from Sayre, PA have been using the EFMLS publication: "**Working With Young People**" by Mabel Kingdom Cross for several years. It contains valuable instructions and lots of good ideas for programs and activities. It is available from EFMLS Supply Person, Ned Reynolds
37 Broadway
Amenia, NY 12501-0394
(914) 373-9548
\$2.50 plus shipping. Call for current price.

Janice VanCleave's
**"EarthScience for Every Kid" and
"Dinosaurs for Every Kid"**.
These can be purchased at most book stores.
Janice has written a book on most of the sciences.

Publisher John Wiley & Sons, Inc.
Professional, Reference and Trade Group
605 Third Avenue, New York, NY 10158-0012

The KANSAS GEOLOGICAL FOUNDATION -
large collection of videotapes available at no cost
other than Priority Mail return postage. Anyone can
borrow programs for a specific date or ASAP.
See website www.kgfoundation.org or
request copy (5+ pages) by Phone: 316-265-8676
FAX: 316-265-1013

email: janice@kgslibrary.org or
c/o Janice Bright
212 N. Market St., Suite 100
Wichita, KS 67202

These videos are from many producers.

Some are brief; others are 60+ minutes. Some are
for juniors. Topics include: Archaeology, Geologic
Hazards, Paleontology, Mineralogy, Stratigraphy,
Earth Science Technology, Earth Science, General
Interest & more.

[NOTE: Any videotapes from PBS, NOVA &
National Geographic are home viewing only]

JEWELRY (Misc..) (also see Silver Work)

VHS19. Bead stringing
35. Cameos, Intarsias & Scottish Jewelry
VHS29. Wire Wrap: An Introduction
VHS38. Custom Wire Wrap Part One
VHS39. Custom Wire Wrap Part Two

FOR JUNIORS / NOVICES

VHS106. 3 VIDEOS FOR JUNIORS
VHS58. Careers for Geo-Scientists
VHS2. Common Ground: Modern Mining & You .
162. (how to make) Creepy Critters, Part I & II
VHS36. What Ever Happened to Dinosaurs?
VHS4. A Deadly Playground (abandoned quarries)
VHS117. Dig That Rex! (T- Rex)
VHS14. The Earth has a History (geologic time)
89. The Fossil Story (simplified)
VHS26. I Dig Fossils

172. Have You Ever Picked Up a Rock?
IV1. Lead Works (uses for lead)
171. Our Changing Land
VHS112. Minerals, Gems & Ores

VHS107. Mining for Music
188. Rocks & Minerals
VHS108. "Rockman . . ." (Music Video)
161. Snow Crystals
VHS57. Women Who Walk Through Time
(geologists)

CERTIFICATE of ACHIEVEMENT

Awarded to _____

For

Learning PRO'S TABLE of MINERALS and ROCKS

Teacher/Sponsor _____

Date _____

Minerals Learned:

- | | |
|---------------|-----------------|
| 1. AMETHYST | 2. AZURITE |
| 3. BARITE | 4. BAUXITE |
| 5. CALCITE | 6. CHALCOPYRITE |
| 7. COAL | 8. COPPER |
| 9. FLUORITE | 10. GALENA |
| 11. GARNET | 12. GOLD |
| 13. GYPSUM | 14. HALITE |
| 15. HEMATITE | 16. MAGNETITE |
| 17. MALACHITE | 18. MARBLE |
| 19. MICA | 20. PYRITE |
| 21. QUARTZ | 22. SULFUR |
| 23. TALC | 24. TURQUOISE |

**Specimens in the collection used
with the junior club of the
Mobile Rock and Gem Society**

These are small specimens contained in plastic boxes with divided sections. The boxes can be purchased at local hobby shops. Specimens were collected over a period of time.

IGNEOUS ROCKS

1. VOLCANIC ASH
2. PUMICE
3. PUMICE RED
4. SCORIA COARSE
5. SCORIA FINE
6. OBSIDIAN BLACK
7. OBSIDIAN APACHE TEAR
8. OBSIDIAN MAHOGANY
9. OBSIDIAN SNOWFLAKE
10. OBSIDIAN PITCHSTONE
11. BASALT VESICULAR
12. RHYOLITE
13. PROPHYRY BC
14. PROPHYRY GLOMERULO
15. PROPHYRY LEUCITE
16. GRANITE DARK
17. GRANITE GRAY
18. GRANITE PINK
19. GRANITE RED
20. PERLITE
21. SYENITE
22. SYENITE NEPHELINE
23. DIORITE
24. GABBRO
25. DUNITE
26. UNAKITE
27. LLANITE
28. JACUPYRANGITE
29. JASPERIOD
30. GREENSTONE
31. PEGMATITE
32. PEGMATITE SPODUMENE
33. PEGMATITE TOURMALINE
34. DIABASE
35. PEGMATITE AMAZONITE
36. MONZONITE
37. LARVIKITE
38. TRACHYTE
39. TACONITE

METAMORPHIC ROCKS

1. BUHRSTONE
2. GNEISS GRANITE
3. GNEISS HORNBLENDE

4. KIMBERLITE
5. MARBLE BLACK
6. MARBLE GRAY
7. MARBLE ITALIAN
8. MARBLE WHITE
9. MARBLE PINK
10. QUARTZITE
11. SCHIST ACTINOLITE
12. SCHIST BIOTITE
13. SCHIST CHLORITE
14. SCHIST GARNET
15. SCHIST GRAPHITE
16. SCHIST KYANITE
17. SCHIST QUARTZ MICA
18. SCHIST STAUROLITE
19. SLATE
20. SOAPSTONE

SEDIMENTARY ROCKS

1. CLAY
2. CHALK
3. LIMESTONE
4. LOESS
5. DOLOMITE
6. SANDSTONE GRAY
7. SANDSTONE RED
8. SANDSTONE IRON
9. SANDSTONE PICTURE
10. CONGLOMERATE
11. BRECCIA
12. SHALE OIL
13. SHALE PYRITE

QUARTZ

1. ROCK CRYSTAL
2. AMETHYST
3. CITRINE
4. SMOKY QUARTZ
5. ROSE QUARTZ
6. MILKY QUARTZ
7. BLUE QUARTZ
8. GREEN QUARTZ
9. AVENTURINE
10. RUTILATED QUARTZ
11. TOURMALINATED QUARTZ
12. STRIPED QUARTZ
13. SKELETAL QUARTZ
14. CRISTOBALITE
15. MELANAPHLOGITE
16. FULGERITE
17. COESITE
18. TRIDYMITE
19. CRYSTALLIZED WOOD (Brilliant)
20. ANGLE PLATED QUARTZ

21. OPAL IN MATRIX
22. OPALIZED WOOD
23. PRECIOUS OPAL
24. WHITE OPAL
25. ALABAMA BLUE AGATE
26. PAINT ROCK AGATE
27. BRAZILIAN AGATE
28. LAKE SUPERIOR AGATE
29. MONTEZUMA AGATE
30. APRAJO AGATE
31. HOLLYBLUE
32. MOSS AGATE
33. SNAKESKIN AGATE
34. MONTANA AGATE
35. SAVANNA RIVER AGATE
36. TOYA TEXAS AGATE
37. WOODWARD RANCH AGATE
38. COLDWATER AGATE
39. FIRE AGATE
40. TURTLE BALL
41. ORBICULAR JASPER
42. BLOODSTONE
43. CHRYSOPRASE
44. MOZARKITE
45. NOVACULITE
46. DOVER FLINT
47. NEBRASKA AGATE
48. TURRITELLA AGATE
49. CEDARTOWN CHERT
50. CIRCULAR CHERT
51. BLACK OPAL
52. CHERRY OPAL
53. BLUE TIGER EYE
54. YELLOW TIGER EYE
55. HYALITE OPAL
56. OPALITE
57. FLAME AGATE
58. SUCCOR CREEK THUNDER EGG
59. SAGENITE
60. PLUME AGATE
61. OYSTER SHELL AGATE
62. PETRIFIED PALM WOOD
63. PICTURE AGATE
64. TRENTON AGATE
65. SHEEP CREEK AGATE
66. HONEY QUARTZ
67. CRYSTALLIZED OIL CORAL
68. OHIO FLINT
69. CHALCEDONY GEODE
70. DUDLEYVILLE CHALCEDONY
71. BIGGS JUNCTION JASPER
72. ROSE AGATE
73. TALLEDEGA CHERT
74. FORT PAYNE CHERT
75. BEAUMONT CHERT
76. ARIZONA PETRIFIED WOOD
77. PYRITE IN QUARTZ
78. RAIN FORREST JASPER
79. DENDRITIC OPAL
80. STRIPED JASPER
81. SHELL AGATE
82. BIRDS EYE JASPER
83. SWIRL AGATE
84. POPPY AGATE
85. SUMMERSVILLE AGATE
86. MOAB AGATE
87. SALINA WOODS JASPER
88. FT. GAINES WOOD
89. HOPE SLIDE JASPER
90. COPPER IN QUARTZ
91. OWYHEE JASPER
92. VICKSBURG JASPER
93. SNOWBERGRITE
94. CARNELIAN
95. MEXICAN LACE
96. PLASMA

Way\$ to Earn Junior Rock Dollar\$

Be Pre\$ent = \$.25

Be on Time = \$.25

Bring a \$how-n-Tell = \$.25

Bring your notebook = \$.25

Bring a friend = \$ 1.00

Bring refre\$hment\$ = \$.50

Learn \$pecimen\$ = \$.05 per specimen

Have a Birthday = \$1.00

Go on Club field trip\$ = \$1.00

LO\$E: Forget to wear a name tag = -\$.25

Rock Show Activities for Juniors
From the files of Dr. Albert S. Dix
Award each contestant when paper is completed.

Discovery Test # 1 – **STATE MINERALS**

Look in all the exhibits and locate a mineral or rock from each state. Give the name of the mineral and in what exhibit it was found.

Discovery Test # 2 – **FOSSILS**

Find, in either an exhibit or at a dealer, representatives of 10-14 fossil group types listed on the paper. Give the name of the fossil where it was collected and where it was found in the show. Major groups of invertebrate animals most commonly represented are described below.

1. PORIFERA - the sponges.
2. CNIDARIA (formerly Coelenterata) - corals, hydroids, jellyfish.
3. BRYOZOA - the "moss animals." Very tiny colonial animals that usually construct a calcareous skeleton.
4. BRACHIOPODA - animals with a bivalved shell but most closely related to bryozoans.
5. PELECYPODA (also called "Bivalvia") - clams, mussels, oysters.
6. GASTROPODA - snails. Mollusks with single coiled shell,
7. CEPHALOPODA - nautiloids, ammonoids, squid, octopus.
8. TRILOBITA - Extinct marine arthropods with a head (cephalon) followed by a segmented thorax and a tail (pygidium).
9. EURYPTERIDA - Extinct arthropods most closely related to the horseshoe crab, with a prosoma (head and thorax region with appendages) followed by an abdomen (twelve segments and a telson).
10. CRINOIDEA - crinoids or "sea lilies" - a group of echinoderms (starfish, sea urchins, and relatives).
11. GRAPTOLITES - Colonial, with rod-like, branching, or lace-like colonies.

Discovery Test # 3 – **ALPHABET ROCK LIST**

List on the paper a mineral or rock starting with each letter of the alphabet from A to Z, its source, and the location in the show.

Discovery Test # 4 – **SEARCH AND FIND FROM THE SHOW** - Suggested ideas might include:

A quiz on what was in the show:

Name the mineral used for ice cubes in the rock food table.

Name the rock used to make arrowheads.

Name the centerpiece on the dining room table of rock food.

MINERALS A—Z

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W

X

Y

Z

Mobile Rock and Gem Society Junior Members

9am –noon

4th Saturday of each month at the Mobile Rock and Gem Society clubhouse

Junior Members 12 years and older may earn the right to participate in workshops with the MRGS lapidary equipment. They learn proper safety rules and wear protective attire - ear plugs, eye guards, filter masks - under supervision by experts of the field.

Junior members are invited to participate in the adult meetings and fieldtrips.

A G E N D A

Visitors and new members go to check-in table -> complete forms and pay dues.

SIGN-IN PROCEDURES - Junior Secretary is in charge

1. SIGN BOOK: TOP - YOUTH
BOTTOM - ADULTS
2. GET NAME BADGES.
3. GET MINERAL STUDY BOOKLETS.
4. GET A PENCIL - *Do not use ink.*

PROGRAM AGENDA

1. BE SEATED
2. CALL TO ORDER: PRESIDENT
3. ROLL CALL: SECRETARY
CALL BY FAMILIES
MEMBERS STAND
GIVE FIRST NAME
SAY HOW MANY PRESENT
4. WELCOME VISITORS AND NEW MEMBERS
5. SECRETARY ANNOUNCES BIRTHDAYS (\$ 1.00 rock dollars)
6. DOOR PRIZE – Draw three numbers or 1/2 number juniors present
7. ANNOUNCEMENTS: PRESIDENT OR
SOMEONE HE MAY CALL UPON
8. SHOW AND TELL by MEMBERS
9. "FIVE -MINUTE" LESSON

BREAK for REFRESHMENTS about 10:30 am

ACTIVITY CENTERS

A. MINERAL STUDY

1. BEGINNER'S TABLE
2. OTHERS - STUDY TRAYS: Minerals...
3. SPECIMEN PROJECT – Alabama, Quartz...

B. CRAFT / LAPIDARY ACTIVITY

TREASURER'S REPORT - ROCKHOUND \$ EARNED and PRESENTED

ADJOURN *Put away minerals, chairs, and tables.*

Junior Rockhound Activities

- AFMS badges—learn and earn
- Be Officer of Junior Club
- Buy at Junior Auctions – Use Real or Earned “Rock” Money
- Cut Slabs/Cabs – Usually 12 Years and older
- Diamond Dan badges
<http://www.diamonddanpublications.net/>
- Dig in Mini-Mines
- Display exhibits in a “Rock Show”
- Earn “Rock Money”
- Hunt for Rock Easter Eggs (Candy and Rock Specimens)
- Enter an Exhibit in 4-H or State Fair
- Facet under a Mentor
- Gather Specimen Collection
- Go on Field Trips
- Learn Other Lapidary Arts
- Learn Mineral/Rock Specimens
- Learn Wire Craft Art
- Make Mineral/Rock Booklets
- Make Bracelets
- Make Fossil Molds
- Make Gem Trees
- Make Rock/Gem Critters
- Make Sand Bottles
- Identify Minerals and Rocks with ID Tests
- Pan for Gold
- Play Games (Rock Tic-Toc-Roc, Matching, etc.)
- Present Program at Junior Meetings
- Present a Short Talk at a Senior Meeting
- Present a Short Talk at School
- Put Together Exhibits
- Receive Door Prizes
- Report for Club Newsletter
- Operate a Rock And Mineral Junior “Store”
- Sand Painting
- Show - n - Tell
- Sift For Sapphires
- Study Mineral ID
- Swap Specimens with Friends
- Tumble Rocks
- Wash and Sort Rocks

YOUTH FEDERATION WORKSHOP SCHOLARSHIPS

Please encourage your juniors to apply for the Youth scholarships using the criteria below.

When entering the competition:

- President of the sponsoring adult club submits the junior's name with an explanation of the club's qualifications considered in recommending this youth.
- Youth submits a short essay explaining his or her interest in the hobby and reason for wanting to attend a workshop.
- Deadline for applying for the scholarship is usually March 31 of the current year.
- Send recommendations to:

SFMS Youth Resources *See the SFMS website for current leader.*

When attending the SFMS workshop:

- Permission must be obtained from the SFMS Workshop Director and the class teacher. Usually, this is not a problem.
- Responsible adult must accompany the youth to the workshop.

Following the SFMS workshop:

- After attending the workshop of choice, the scholarship recipient is encouraged to write a Lodestar article about the experience.

Don't let your junior rockhounds miss out!

For additional information see: <http://www.amfed.org/sfms/william-holland-retreat.html>

http://www.amfed.org/sfms/_pdf/lodestar_mar09.pdf

Southeast Federation of Mineralogical Societies
JUNIOR OF THE YEAR
Application Form and Criteria

The SFMS Junior of the Year (JOY) award is a prestigious award that may be earned by junior members of a SFMS member club or society.

*Note: A junior is one that is defined by the member club.
SFMS does not define this criteria.*

Please go to http://www.amfed.org/sfms/junior_of_the_year.html
for current criteria and the application form.

Be sure to read all the details carefully!