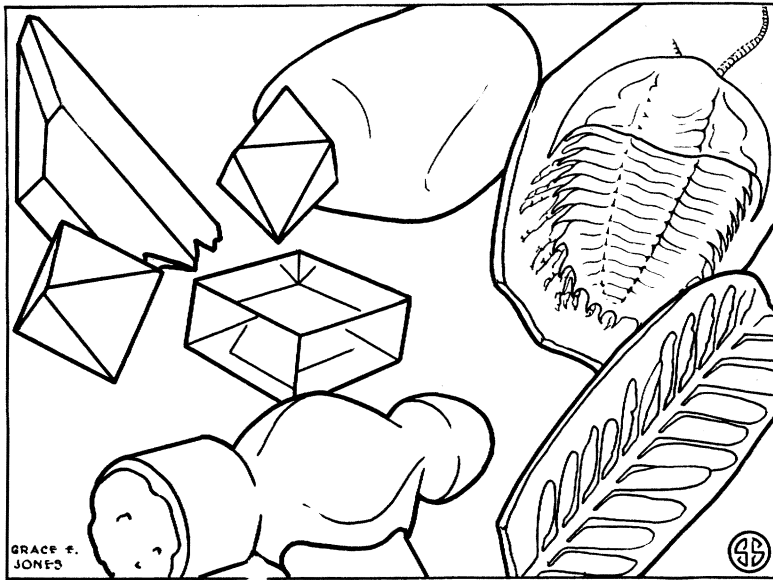


Inexpensive Summer Fun

Watch For Fossils in the Rocks You Find

(Seventh of a series of 12 articles. Next week—Collecting for Aquarium)



FOSSILS, TOO

Besides rocks and minerals themselves, the amateur collector will find fossil remains of life long ago. The "bug" in the upper right-hand corner is frequently found; it is a fossil trilobite, the remains of a crab-like creature that lived millions of years ago when much of today's land surface was under water. A fossil plant is shown in the lower right-hand corner.

ROCKS, minerals, and fossils are the indicators used in the larger science of geology. From the nature of the rocks, you can learn what happened at the time of their formation; from the minerals in the rocks you can find out where the raw materials came from; and from the fossils, an expert can tell how old the rocks are.

Collecting of rocks, minerals and fossils is a fascinating hobby, one which can be continued for years, even in an area of a few square miles around your home, without running out of materials.

Minerals are the crystalline materials rocks are made of. They usually have a very definite shape, a characteristic color, and a specific hardness. Size of the crystals means nothing. A cube of yellow iron pyrite may be a perfect crystal when it is hardly large enough to see, while another may be two inches across a side.

When mineral specimens are collected, they should be attached to a note telling

exactly where they came from, wrapped to prevent scratching of the crystalline surfaces, and stored in any convenient box, unless a corner of a bookcase or something similar can be used to house the collection. Do not pick out the small crystals so commonly found in "nests" in rock. These groups of crystals are more interesting if collected with the rock holding them.

Rocks are groups of minerals containing many crystals of several kinds, or many fragments of crystals. Sandstone, for example, is composed of quartz grains cemented together, often with iron rust. Rocks are usually collected in "hand size" specimens, roughly three by four by one inches, and may be chipped down to this size with an old hammer. Don't use a good carpenter's hammer for this work, or it won't be good very long. Rocks, like minerals, should be immediately labeled, telling exactly where they came from. If the classification is

uncertain, that can be made later.

There are three general kinds of rock—igneous rocks, that melted in the depths of the earth and hardened in their present positions, like granite; sedimentary rocks, made when sands and muds hardened, like sandstone; and metamorphic rocks, made when either igneous or sedimentary rock have been buried and heated and later exposed. The flaky mica-schists of the East are a good example.

Fossils are evidences of ancient life, and may be bones, or shells, or plant remains. These should be handled with care, for many of them are delicate. The "bugs" found in many parts of the country are fossil trilobites, small crab-like creatures that lived in seas millions of years ago.

When collecting fossils, take out the rock all around them, and label the fossil carefully, telling again exactly where it came from. If large fossil bones are found, tell your state museum about them, as large fossil bones are best dug out by experts, and may be easily ruined by unskilled digging.

Collecting minerals, rocks and fossils is one of the cheapest and most interesting of hobbies, costing, in general, only the effort put into it. Every once in a while, some amateur geologist, working at his hobby, finds out things that greatly increase the world's knowledge of the earth's past history. Maybe you'll do it some day!

For more information about collecting rocks and fossils and a list of books and pamphlets on the subject, send us a postcard with your name and address. Ask for Bulletin 7. Address: Science News Letter, 2101 Constitution Ave., Washington, D. C.

Science News Letter, July 30, 1938

The south magnetic pole is in South Victoria Land in the Antarctic.

● Microfilm Documents

PIETTRE, MAURICE: Crystallization and Desiccation of Certain Proteins under the Influence of Cold (translated by S. T. Ballenger)—*Food Research*—Vol. 3 Jan., Feb., Mar., Apr., 1938. pp. 161-165 Document 1134. 10 pp. 30c.

MAUBLANE, A.: Peanut Diseases (translated by T. E. Smith)—*L'Agronomie Coloniale Bulletin Mensuel de L'Institut D'Agronomie Coloniale*—Tome 13 No. 73 Janvier 1924. Pages 1-12 Document 1135. 20 pp. 40c.

CHAMPETIER, GEORGES: Heavy Hydrogen, Iso-type of Hydrogen, and Heavy Water (translated by S. T. Ballenger)—*Bulletin de la Societe D'Encouragement pour L'Industrie Nationale*—Avril 1936. Pages 237-249 Document 1136. 32 pp. 52c.

Copies of microfilm documents may be obtained from Bibliofilm Service, Care Library of the U. S. Department of Agriculture, Washington, D. C. (See SNL, March 5, 1938)