

Geological Education: Reference Shelf for Earth Science Teachers

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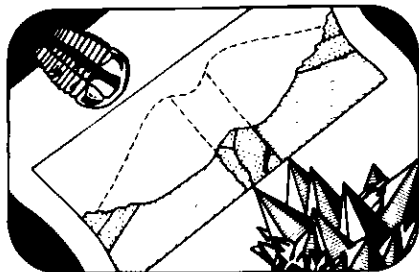
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Features



Geological Education

Reference Shelf for Earth Science Teachers

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Every year the Education Committee of the Geological Association of Canada receives a number of letters from teachers who are looking for books, films, field guides, maps and other reference materials in the Earth Sciences. Most requests are for non-technical accounts about plate tectonics, environmental problems, fossils and regional and economic geology. Geological Association of Canada Circular No. 3, entitled "Sources of Free Materials for Canadian Earth Science Teachers and Students" was compiled several years ago by Jon L. Rau to meet this need and it is still available from GAC Publications.

The following selection of books and magazines is of a general geological nature and should be of interest to teachers at all levels. Comments and suggestions from school teachers, librarians and guidance counsellors are most welcome.

Geos

Constance Mungall (Editor)
Department of Energy, Mines
and Resources
580 Booth Street,
Ottawa, Ontario, Canada K1A 0E4

Published quarterly and distributed without charge on request

This is a glossy magazine attractively presented and printed dealing with all aspects of the earth sciences, including social and economic analyses. A recent copy, for example, featured articles on the core of the earth, energy futures for Canadians and tidal power. In each issue, there is a reminder of the great breadth of research being carried out by Canadian Earth scientists, and in this respect, the magazine seeks to broaden knowledge of Canada's landmass for the benefit of all Canadians. Strongly recommended for school libraries at the Senior High level.

Geoscience Canada

R.H. McNutt (Editor)
Published quarterly by the Geological Association of Canada \$12.00 per year (Non-members may subscribe by writing to Geoscience Canada, GAC Publication Division, Business and Economic Service, Ltd., 111 Peter Street, Suite 509, Toronto, Ontario M5V 2H1

Not only is this a well edited magazine for the Canadian geoscientist but also a valuable reference book for the Earth Science teacher. Articles deal with current geologic concepts, world energy and mineral supplies, environmental problems and geological education. This semi-technical magazine is recommended for the teacher who would like a comprehensive overview of the state-of-the-art in Canada.

The Hamlyn Guide to Minerals, Rocks and Fossils

By W. R. Hamilton, A. R. Wooley, and A. C. Bishop
Hamlyn, London
320 p., 1974
Paperbound, \$9.50 (available C.O.D. from Memorial University Bookstore)

This pocket book, illustrated in full colour, is designed to enable rapid and accurate identification of minerals, rocks and fossils of the world. It could be used during field excursions or in classroom laboratory periods. An invaluable book for the

amateur collector and a handy concise reference for the teacher at any level.

Investigating The Earth

By W. H. Matthews III et al.
Houghton Mifflin Company,
150 Steelcase Rd. W.,
Markham, Ontario L3R 1B2
557p., 1978

Teacher's Annotated Edition
(Code No. 2-00261) \$16.00
Laboratory Supplement
(Code No. 2-00262) \$3.52
Student Text '78 (Code No. 2-00260)
\$12.45

This new edition sponsored by the American Geological Institute (AGI), is based on the original Earth Science Curriculum Project (ESCP), familiar to many Earth Science teachers. The new version has retained the original unified approach to earth science while including the latest information on plate tectonics, meteorology, oceanography and astronomy. The teacher's edition contains extensive notes and references and provides a wealth of background material, objectives and teaching approaches. The student's edition is written in a style readily understood by most Senior High School students who are expected to carry out investigations with limited supervision.

Newfoundland Journal of Geological Education

J. Malpas (Editor)
Geology Department, Memorial University of Newfoundland
Published semi-annually
Distributed to Canadian Earth Science teachers without charge on request
As an educational contribution, the Newfoundland Section of the Geological Association of Canada produces the Journal and makes it available to Earth Science/Geology teachers.

The objectives are to increase and promote geological knowledge and to improve the quality of earth science education at the high school and first year university level. Feature articles include papers on mineral, energy and fossil fuel

resources, as well as semi-technical accounts of original research on the geology of Newfoundland and Labrador. Although the details of some papers may be complex, the broad picture should be understood by teachers and students. New concepts in geology, geophysics and oceanography are discussed. Materials, workshop and book reviews and field trip guide books appropriate for teaching local topics at the high school level are also presented. Teachers concerned with Newfoundland content in their curriculum should be particularly interested.

Open Earth

P. J. Smith (Editor)

A bimonthly magazine

Rates for Canadian Teachers available

on request from the publishers

32 St. James Close, Hanslope,

Milton Keynes MK 19 7LF, England

Here is an entertaining magazine that keeps researchers, teachers, students, and others, informed about the current Earth Science scene throughout the world. Approach and content vary from the historical to the futuristic, from the factual to the fictional, from the philosophical to the scientific, or in short from one extreme to the other. Perhaps too advanced for most high school students but stimulating for those science oriented students in the top stream.

Our Continent - A Natural History of North America

S. L. Fishbein (Editor)

National Geographic Society,

Educational Services,

151 Carlingview Drive, Unit No. 5,

Rexdale, Ontario M9W 5E7

398 p., 1976 \$14.06

A glossy, well-illustrated, hard covered natural history book that is suitable for Junior and Senior High School libraries. Good for the teacher who would like a very generalized account of the geological and biological evolution of North America.

Powers of Nature

R. L. Breeden (Editor)

National Geographic Society,

Educational Services,

151 Carlingview Drive, Unit No. 5,

Rexdale, Ontario M9W 5E7

200 p., 1978 \$8.82

This National Geographic Special provides a well documented, pictorial account of the destructive nature of earthquakes, volcanoes, wind and water. Good for Junior and Senior High School libraries.

Planet Earth, An Encyclopedia of Geology

By A. Hallam (Editor)

Elsevier - Phaidon, Oxford

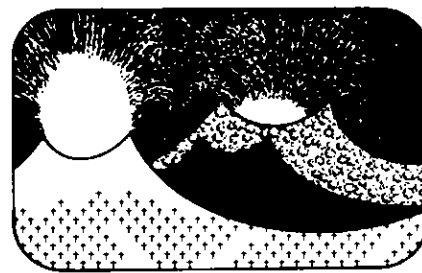
319 p., 1977

Hardcover, \$22.20 (available C.O.D. from

Memorial University Bookstore)

An authoritatively and lavishly illustrated encyclopedia written in language intelligible to the lay reader. Sections on Space, Plate Tectonics, Landscapes, Economic Geology, Rocks, the Geological History of the Earth and the History of Life on Earth are new and up-to-date and provide a fascinating comprehensive review of the subject for any teacher. A mini-library in itself, very good value for the money and very durable in its hard cover and binding.

MS received November 26, 1979



Pyroclasts

By Ward Neale

The Choosing of Managers

That little gem by Mike Keen in the last issue of this magazine (v. 6, no. 4, 1979) might be one of the most important papers ever written on the management of geology and geophysics departments. Come to think of it, I can't recall any other written on this subject which, in fact, seldom even comes up in conversations. Mike makes some very good points on the need for sound management during a time of restraint and dwindling resources, especially on the need to establish firm goals in teaching and research. To achieve these ends, he states that departmental chairmen might have to make some bold moves such as initiating an appropriate system of accounting and control; cutting out many of the highly specialized and highly unnecessary courses so dear to many faculty members' hearts; encouraging collaboration in research; and asking deadwood to shape up or ship out. It is easy to add specifics to this list, for example sitting in on colleagues' lectures unannounced and chewing them out if they are performing consistently below standard.

The problem is not that of adding to the list but of appointing the right people to implement some of the changes called for in Keen's paper. We have an encouraging number of such people across the country who lead fine departments which they have nurtured through slow and carefully planned growth, or welded together from warring factions, or inherited while it was functioning well and kept it that way (possibly the hardest task of all). I think we're very lucky to have these paragons of management virtue among us for most of them were probably chosen for other accomplishments and these departments just lucked into good managers.

If you talk with professors across the country you will find that few of them recognize the challenges that Keen points out and many regard the department