

INTERNATIONAL GEOSCIENCE EDUCATION ORGANIZATION

NEWSLETTER 98-2

7/22/98

Welcome to the second quarterly newsletter for the emerging International Geoscience Education Organization. We have two topics in today's newsletter - 1) an article by Chris King from Keele University in the UK, on changing National Science Curricula and 2) information on GeoSciEd III.

Before we get into the articles, we would like to explain how to make this your newsletter. Our intent is to use this informal newsletter as a vehicle to exchange ideas, educate on new initiatives and generate world-wide discussion on topics of interest in geoscience education. We have asked both the steering committee members and the country contacts to consider writing articles (200 words or less) on some area of interest to Earth science education from their region. We will publish one or two of these articles with every newsletter. Starting with the next newsletter we will also add a response section. Our hope is that you will send us letters back about the topics presented and present your opinions and ideas on the topic or present similar issues from your region. These responses will be posted with the next newsletter, so be sure to include your full name, affiliation and country in the response. With each succeeding newsletter we will include a new topic for discussion and response. Each newsletter will also include a short piece on the upcoming GeoSciEd conference plans.

We would also like to encourage you to use this newsletter to post up-coming events or write your own article for consideration in the newsletter. Responses to posted articles, announcements or new articles must be received one month prior to the proposed distribution date of the next newsletter. Submissions for the September newsletter must be received by August 31. Submissions for the December newsletter must be received by November 30.

Please remember to forward this newsletter to your colleagues and encourage them to participate in what we hope will be a lively dialogue.

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What Earth Science 'Explanatory Stories' would you include in your National Curriculum?

Chris King, Department of Education, Keele University, Keele, Staffs., UK.

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When a National Science Curriculum changes ...

When the latest version of the National Science Curriculum in England and Wales was launched in schools in September 1995, it was in its seventh version. After so many years of change, a promise was made by the government that the Curriculum would not be altered for five years. The five years of 'no change' comes to an end in the year 2000 and so the current debate is about the changes that should be made then. A series of seminars has been set up to carry the debate forward and the document that evolved through these discussions (Millar and Osborne, 1998) makes the following points.

Some of the problems seen with the present Curriculum are:

- 1) it seems to be a catalogue of ideas lacking a coherence or relevance,
- 2) it lacks overall aims and structure,
- 3) it does not use contexts in which learners are likely to need their scientific understanding in later life, and
- 4) it lacks variety.

What changes should be made?

The main suggestion for dealing with these issues is that the Curriculum should consist of a number of 'explanatory stories' which provide an understanding of the development and relevance of important ideas in science. Examples of such stories include the particle model of chemical reactions (covering elements, compounds, atoms, molecules and chemical reactions) and Earth in space (the structure of the Earth, plates and plate movement, the solar system, the galaxy and the universe).

Given these suggestions, what additional Earth science perspectives would we wish to bring? What Earth science 'explanatory stories' should we recommend be included? My suggestions include:

- 1) the development of understanding of geological/deep time and its importance;
- 2) how the 'present is the key to the past' principle can be used to interpret the evolution of our planet.

Do you agree? What other Earth science 'stories' might be developed? I hope this will give you food for thought.

Reference: Millar, R and J. Osborne, 1998. Beyond 2000: Science Education for the Future. Nuffield Seminar Series: Interim Report.

GeoSciEd III Downunder in Australia

3rd INTERNATIONAL CONFERENCE ON GEOSCIENCE EDUCATION (GeoSciEd III)

"Dedicated to Teaching and Learning"

16 - 20 January 2000, University of New South Wales, Sydney, Australia

Principal Convener: Malcolm Buck, University of New South Wales,
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Start planning for the next GeoSciEd conference being held in Sydney Australia, 17-20 January, 2000. The conference will again give people an opportunity to share ideas about the very best geoscience education teaching, course materials and practical exercises.

Features of this conference includes: A modern active city venue and lots of low cost on-campus modern accommodation. Extended (4 page) abstracts, 15 minute oral presentations, ½ day poster sessions, and workshops on computer aided teaching and learning, innovations in teaching aids, how to run field excursions, the electronic classroom, and the K to 12 syllabuses.

Sessions will be arranged to cater to all aspects of geoscience teaching including primary and secondary school, and tertiary level. The sessions will be held at the University of New South Wales - just minutes from the Sydney's exciting downtown area. Social activities during conference will include a real Auzzie BBQ (with not a shrimp in sight) an some local cultural and historical attractions.

Conference attendees will have ample opportunity to examine some of the geology of Australia. Pre-conference excursions will include the Great Barrier Reef (3-4 Days), Uluru, Kakadu, and the Australian desert (5 days). During the conference one day field trips will take in the majestic blue mountains, the wonderful Sydney harbour, the golden beaches of Australia and Jenolan Caves focusing on the links between geoscience and tourism and modern processes in ancient rocks. Field excursions following the conference will include Riversleigh, a world renowned fossil locality (4 days), and The Active Earth - a field excursion to New Zealand (7 days)

You may wish to come early or stay after the meeting and experience Australia from the Great Barrier Reef or Uluru to the outback. Or just plan to sit by the famous harbour and welcome in 2000 with the best fireworks display held anywhere in the world.

A group of international co-ordinators is required to cover the USA, Canada, the UK, European countries, India, Asia, African countries, and New Zealand, in terms of spreading the word of GeoSciEdIII. All volunteers for this role should contact the Conference Administration ASAP.

Sound great? For more information send your name, address, phone, fax and email details to Gary Lewis at glewis@agso.gov.au or geoaware@bigpond.com or through the mail to Geoscience Awareness, GPO Box 378, Canberra ACT 2601, AUSTRALIA.

The first and only Conference Circular is to be distributed world-wide in August/September 1998, so be sure to contact the Conference Administration if you want to be on the mailing list.