



# Down to Earth

"Earth science learning for all"



## How the Earth works - new views of an old planet A 11-week Distance learning course for adults

### KEY INFORMATION

<b>COURSE TITLE:</b>	How the Earth works - a comprehensive look at the inner workings of our planet
<b>LEVEL:</b>	The course is designed for anyone interested in learning about how the Earth works. Some basic knowledge of geology would be helpful, though not essential
<b>COURSE FEES:</b>	£75.00 by email/Moodle, £100.00 with printed
<b>DATES:</b>	The course runs for 11-weeks from mid-September
<b>DELIVERY:</b>	The course will be delivered via a series of online or mailed tutorials, plus unlimited access to Moodle, our online learning site
<b>COURSE TUTORS:</b>	Chris Darmon & Colin Schofield
<b>CONTACT:</b>	email: <a href="mailto:downtoearth@geosupplies.co.uk">downtoearth@geosupplies.co.uk</a> or tel. 0114 2455746

### OUR EDUCATIONAL PHILOSOPHY

Our aim is to provide a relaxed learning environment in which we can all learn, both from the tutor and each other. In short, exactly the original WEA learning model. We hope that everyone will want to complete the tasks we set you, though nobody will be insisting that you do. Feedback and positive encouragement will always be given - we want you to gain knowledge and confidence from everything you do! We encourage you to share ideas and experiences - if you are happy to do this, it can be facilitated on Moodle quite easily in a forum. Once again, this is down to your choice - nobody will be insisting that you do.

**To protect our materials, we must ask you to agree not to share them with anyone not enrolled on the course by any means, including email. This is a condition of you enrolling on this course.**

### THIS COURSE

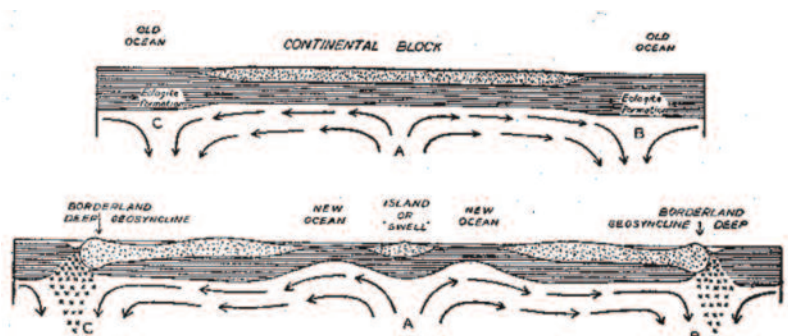
We continue to see widespread volcanic eruptions and earthquakes affecting many parts of the Earth, But why, after 4.6 billion years of Earth history does this still happen? In short, how does the Earth work? This course will try to get at some of the answers to these and many other questions. We'll be looking at earth materials, the minerals and the rocks and outlining some of the key facts about geological time and how Earth processes act. By the end of the course you should be much more familiar with the workings of planet Earth and maybe a little less surprised when something dramatic happens!

### COURSE AIMS

- To examine how our view of the Earth has changed over the past 200 years or so
- To understand something of Earth chemistry and how this is reflected in minerals and rocks.
- To appreciate the enormity of geological time and how it is divided up.
- To understand how the theory of plate tectonics explains much about how our planet works.
- To appreciate that scientific hypothesis may not ultimately be scientific fact.

### COURSE OUTLINE

- **In the beginning** - laying the foundations for studying the Earth
- **The Earth's physics & chemistry** - discover how a vast array of minerals can be formed from just a handful of elements; the internal structure of the Earth, heat flow, gravity, magnetism and earthquakes
- **All the time in the world** - from early ideas about time to the latest techniques for dating events in the past
- **Discovering patterns on the Earth's surface** - early ideas about continents and how they are formed
- **Preparing for the revolution** - steps along the way
- **Towards the plate tectonics revolution** - the journey to a whole new way of looking at our mobile Earth
- **It's all about granite and basalt** - continents v oceans
- **Plate margins 1** - where new material is added
- **Plate margins 2** - where old material is discarded
- **All shook up** - plate tectonics over time
- **But there are still unanswered questions** - from mantle plumes to convection cells, there's still plenty to argue about



**If you have any questions or queries - contact Chris Darmon as follows:-**

**Email: [downtoearth@geosupplies.co.uk](mailto:downtoearth@geosupplies.co.uk) • Tel: 0114 245 5746 • FAX: 0114 240 3405**

**Enrol online at: [www.geosupplies.co.uk](http://www.geosupplies.co.uk) or ring us as above**