

A Summary of the Contents of the BNSC Earth Observation CD-ROM

This CD-ROM is essentially 2 CDs in 1. A map has been included to help clarify the CD's 2 main sections: Business and Education.

The information is arranged in a tree-like structure with hyperlinks connecting one area to another so that it is easy to move around. The lefthand / vertical menu throughout the Education section has been organised so that the buttons containing 256 colour sketches signify general subject matter, whilst the buttons containing photographs will lead to actual case studies. The general idea behind these buttons is that the user is encouraged to 'click and see'. Some browsers will display a word bubble identifying the page title when the mouse pointer is placed over each button. The support buttons (across the top of the screen) remain constant to indicate that you are in the Education area, although backgrounds may change to signal different sections.

The information on the CD has been organised for two types of user:

1. Business Users...should visit the 'Business Applications' section with over 100 business case studies
2. Education Users...should visit the 'Learn about Earth Observation' section - see below

The Learn about Earth Observation Launchpad includes:

1.Topic buttons	2.Support buttons	3. Plus
•Introduction	•Launchpad - return to the Education Launchpad	•Address Database
•Principles of Earth Observation	•Glossary - explanation of terms	•Mortarboard - the Teachers Notes section
•Monitoring Planet Earth	•Project Clipboard - useful to copy and paste information and images from the CD. Note all material is copyrighted and should only be used for educational purposes.	•Register with the BNSC Database
•People and Economic Activities	•Download Zone - for additional software files	•Spinning globes - the Education case studies via world and regional maps
•What is a Satellite?	•Help	
•Getting the Most from your Images	•Find out More - contacts and addresses	
	•Internet - web addresses and hotlinks	
	•Games and Activities	
	•Contents - also a Keyword Search	
	•Search	
	•Business Applications - over 100 case studies	
	•Careers	

A Summary of the Contents of the BNSC Earth Observation CD-ROM continued

Principles of Earth Observation

In this section some of the physical principles used in remote sensing are explained, together with information about orbits and details of missions and sensor types. To get a snapshot of how some of the major sensor types operate there is a quick comparison of these using Winchester as an example.

Monitoring Planet Earth

In this section there is a general introduction explaining some of the ways we can monitor the Earth and a number of sub-sections which include background information and case studies which illustrate the use of remote sensing. The sub-sections are:

- Lithosphere (Solid Earth)
 - Atmosphere (Weather and Climate)
 - Hydrosphere (ice, fresh water and oceans)
 - Biosphere (ecosystems)
 - Environmental Change
 - Hazards and Disasters
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People and Economic Activities

In this section a general introduction explains the relevance of remote sensing to economic activities. A number of sub-sections include background information with some case studies illustrating the use of remote sensing.

The sub-sections are:

- Farming
 - Fishing
 - Forestry
 - Mining
 - Transport
 - Energy
 - Settlement and the Built Environment
 - Making Maps
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What is a Satellite?

Satellites are probably known to most people in association with the tele-communications industry but you may not know of the many other types of satellites that are in orbit around the Earth and the spacecraft that are sent to distant parts of the Solar System. In this section the main uses of satellites are introduced -

- Communications
 - Space exploration
 - Military applications
 - Predicting the weather
 - Earth observation
 - Global positioning
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Getting the Most from Your Images

This section introduces concepts concerning the way raw image data from a sensor are processed; including

- Image correction
- Image enhancement
- Information extraction
- Integration of image data into Geographical Information Systems (GIS)
- The basic principles of Global Positioning Systems (GPS)

For those who would like to **manipulate raw data** (57MB Zip file decompresses to 93MB) this can be done using:
1.Data sets for the Winchester area and 2.ERDAS MapSheets - Win95/NT compatible only - (located in the Download Zone of the CD) or any other '.IMG' compatible software.