IMPLEMENTATION OF INTERNATIONAL INSTRUMENTS AND POLICY DEVELOPMENT

October 31 – November 6, 2005

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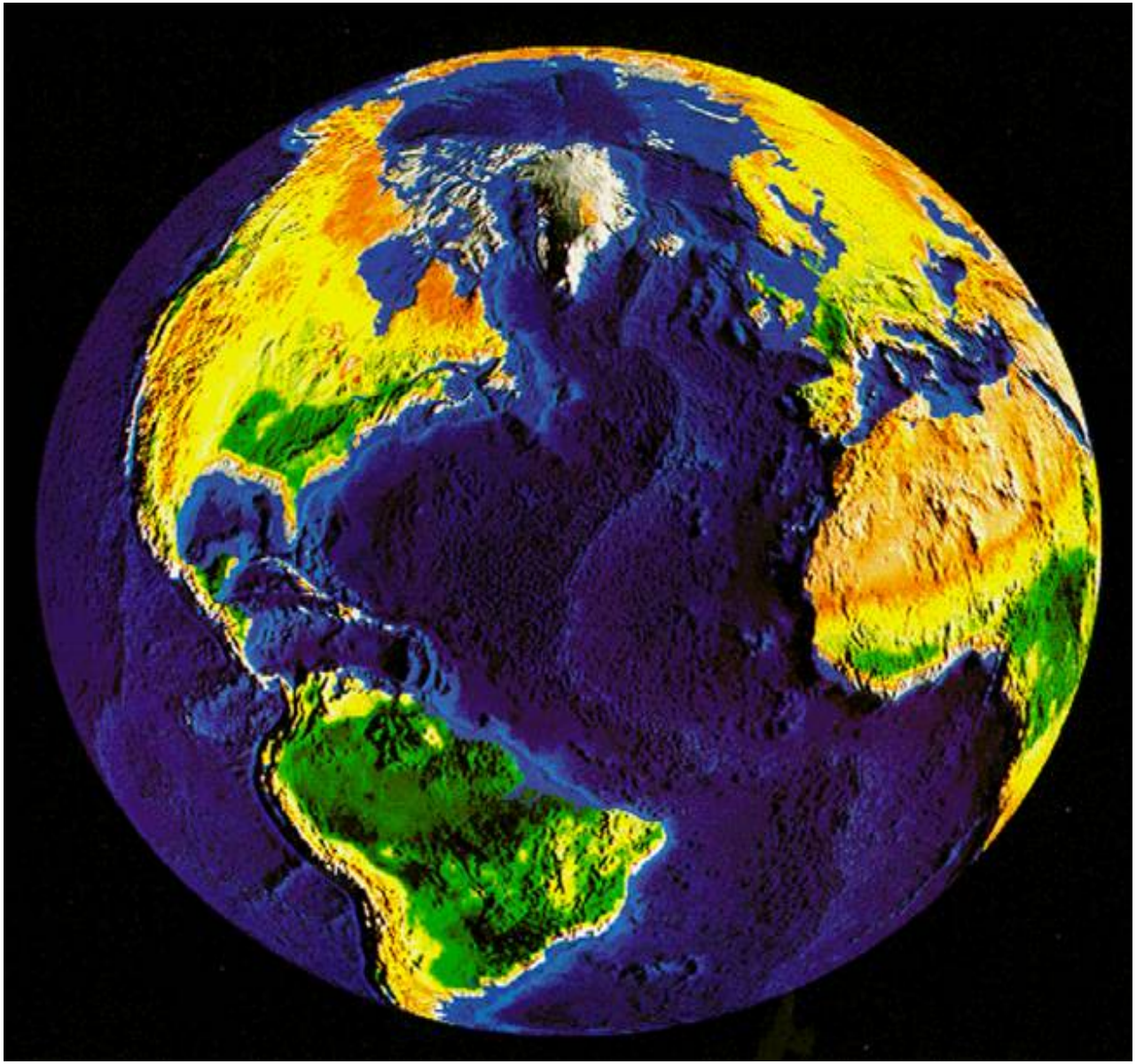
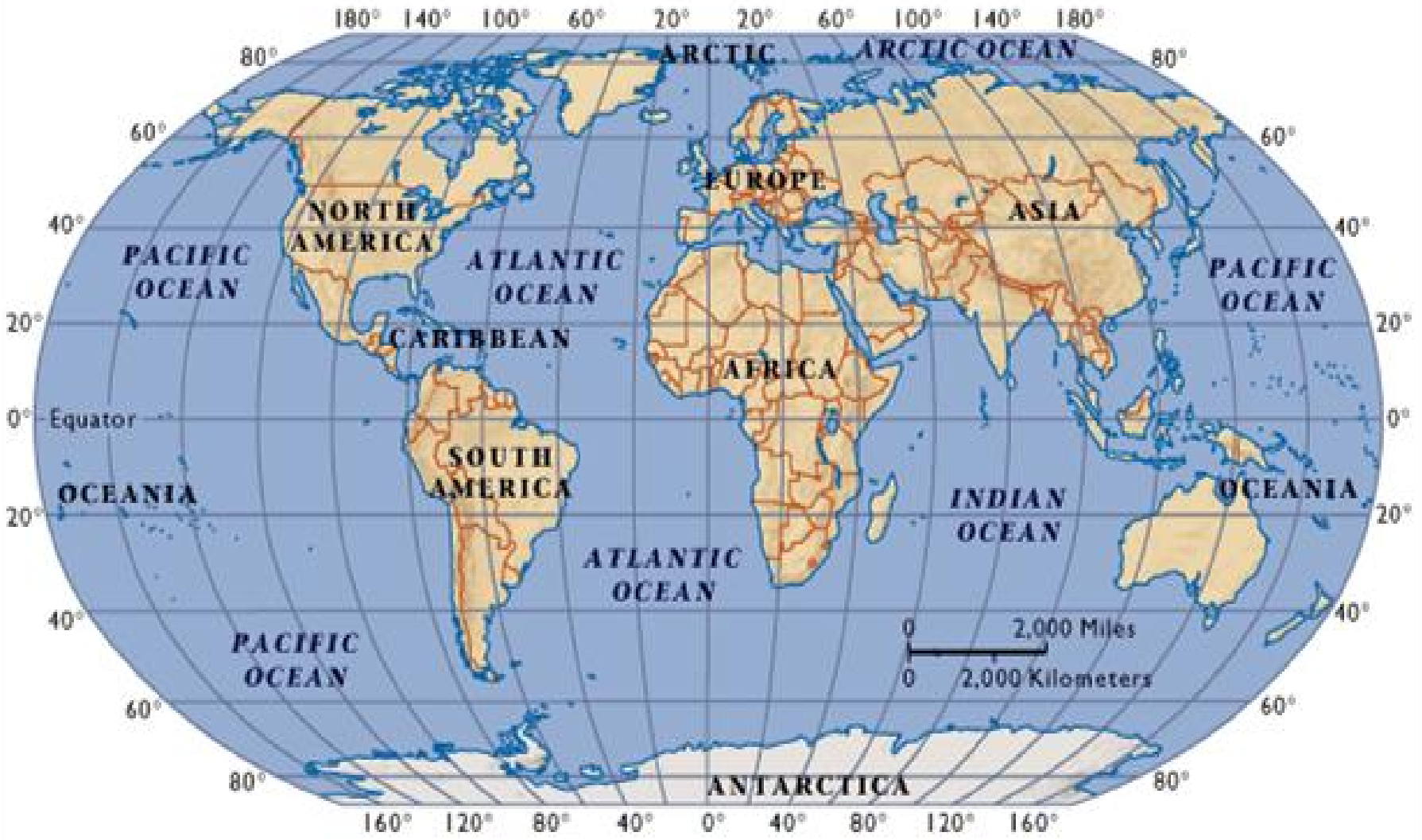
SCIENTIFIC OVERVIEW

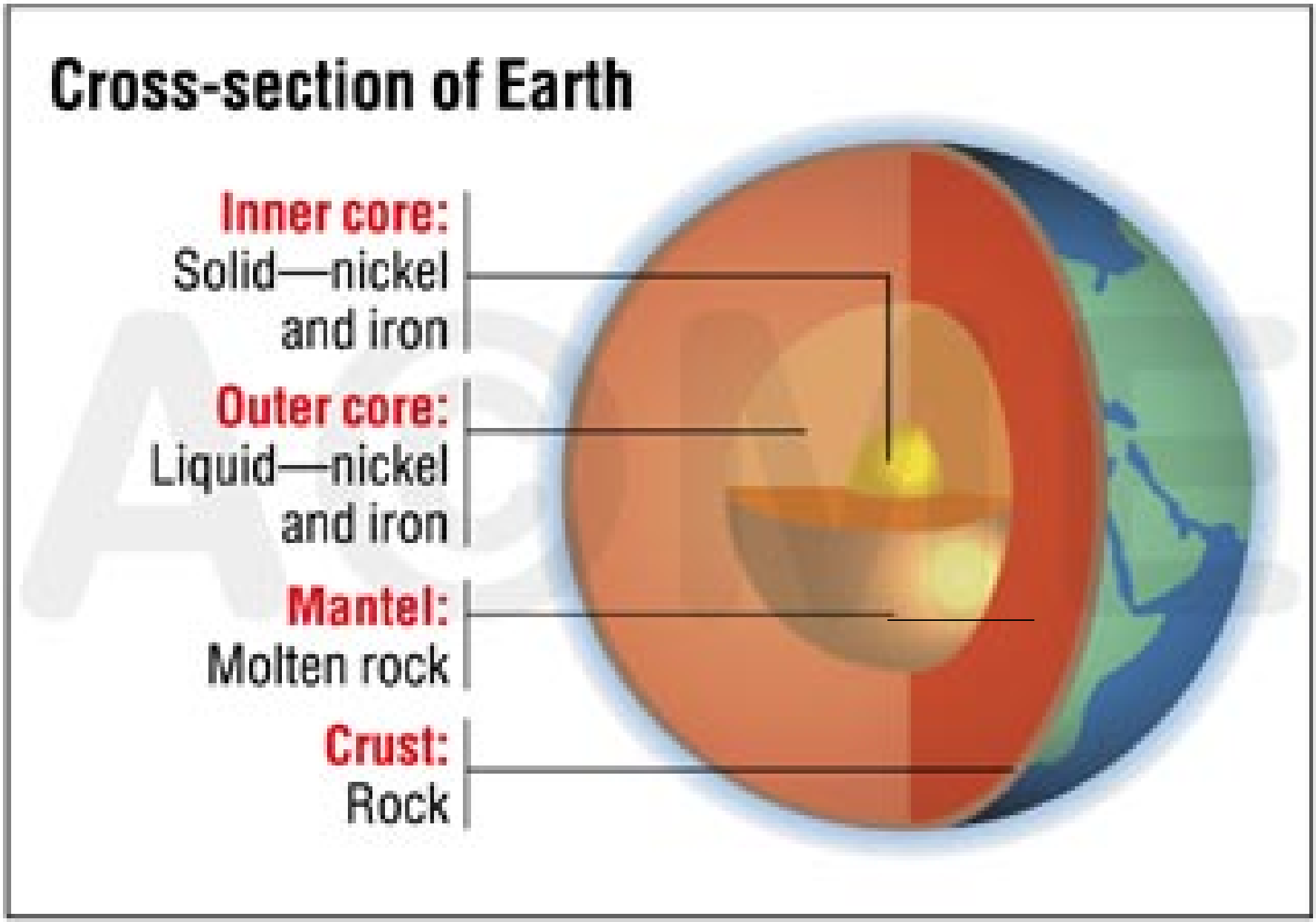
The Blue Planet



The World

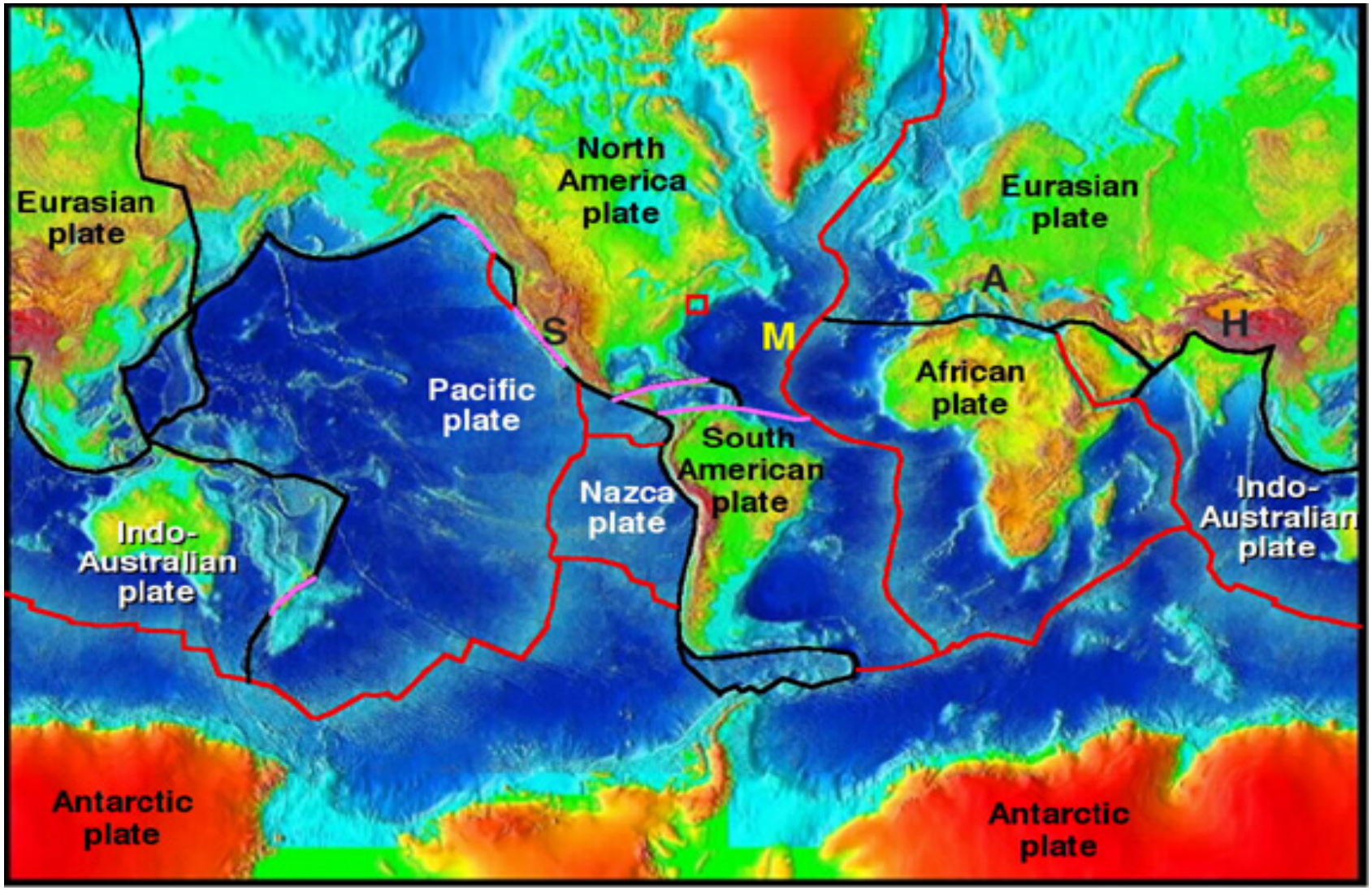


Cross-section of Earth



Pangaea: super-continent

A=Alps; H=Himalayas; M=Mid-Atlantic Ridge; S=San Andreas fault.

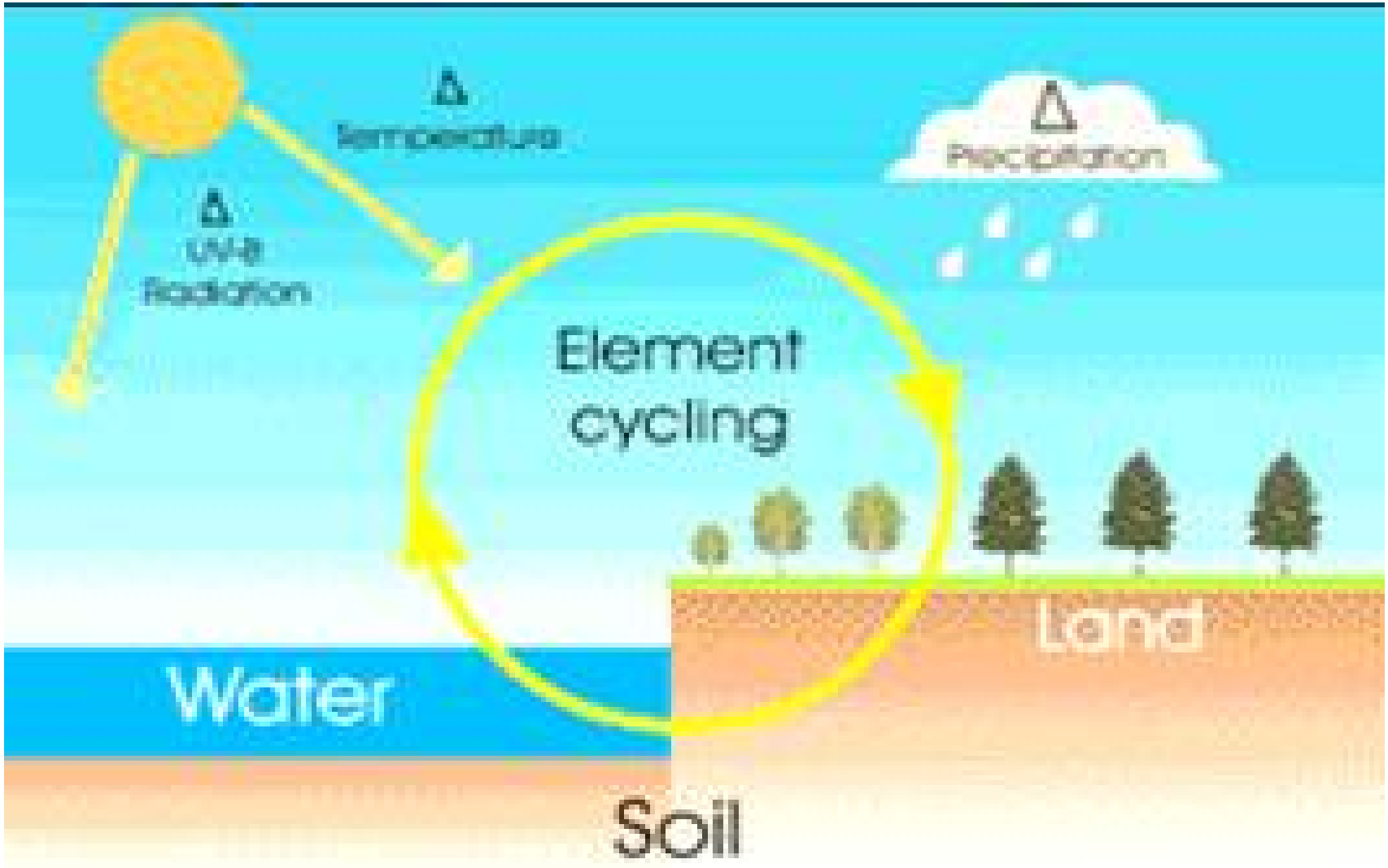


The Environment

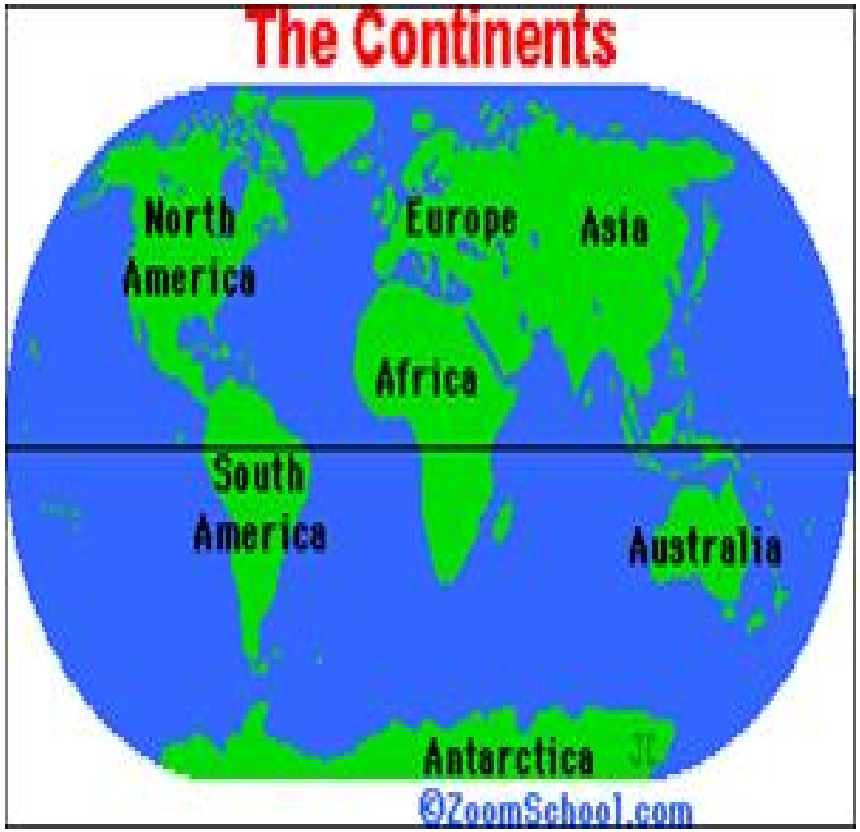
Broadly consists of Land, Water and Air (Atmosphere)

These elements interact with the energy from the Sun and give rise to the

‘Cycle of Life’



Land - continents and islands



Land

Covers 29.2% (149M km^2) of the planet

Provides:

- the substrate on which humans, plants and animals live
- nutrients to the food chain
- materials for economic activity – mining minerals
- Reservoirs for freshwater – lakes, rivers, glaciers, aquifers, wetlands

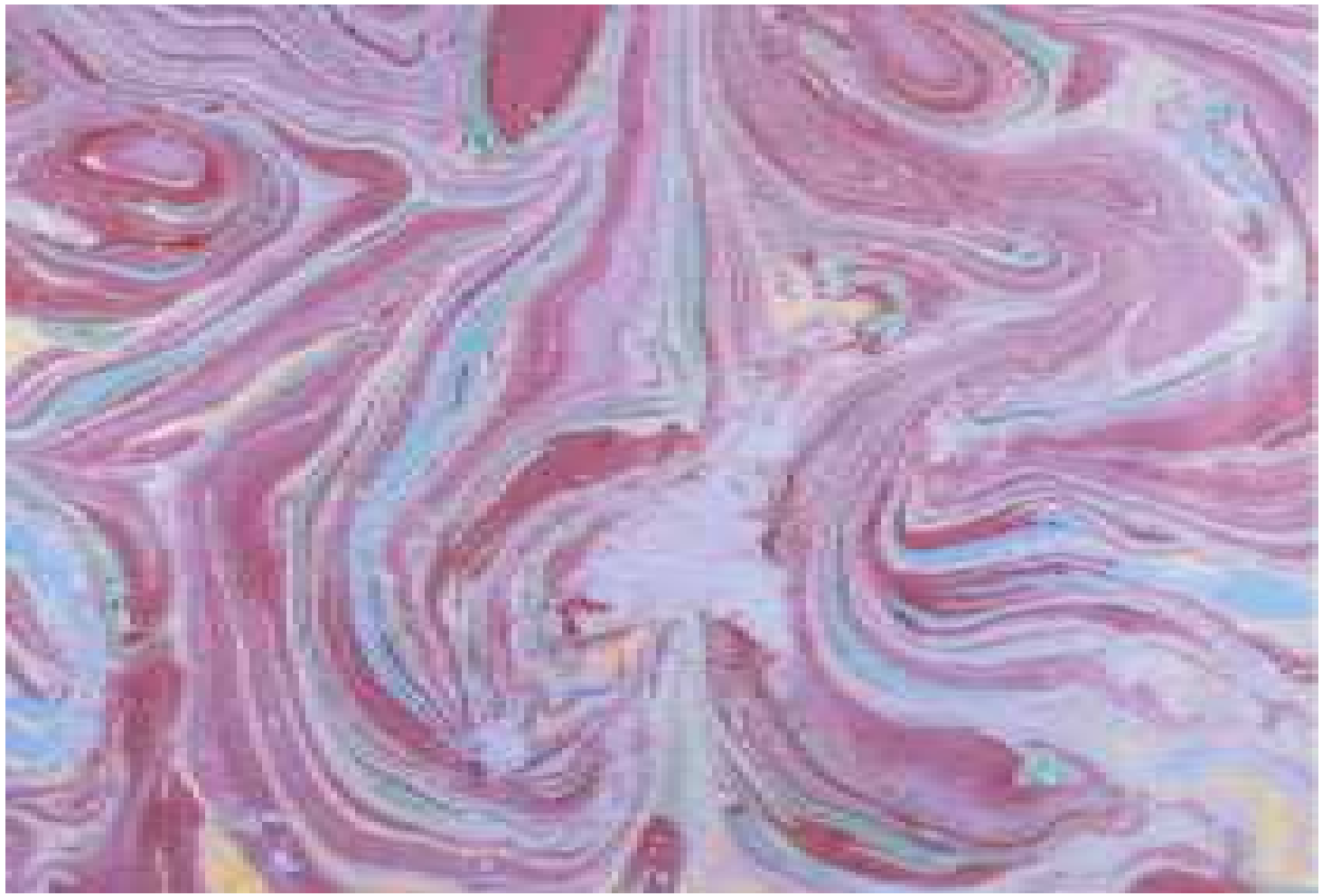
Land

- Mountains - Rock (igneous –derived from volcanic activity e.g. granite, pumice; metamorphic – changed rock e.g. marble, coal; sedimentary – accumulated material e.g. limestone, sandstone)
- Deserts, Beaches - Sand (rocks, coral, precipitates, space dust)
- Plains, Valleys - Clay (microscopic particles of weathered rock)
- Peat beds– organic material

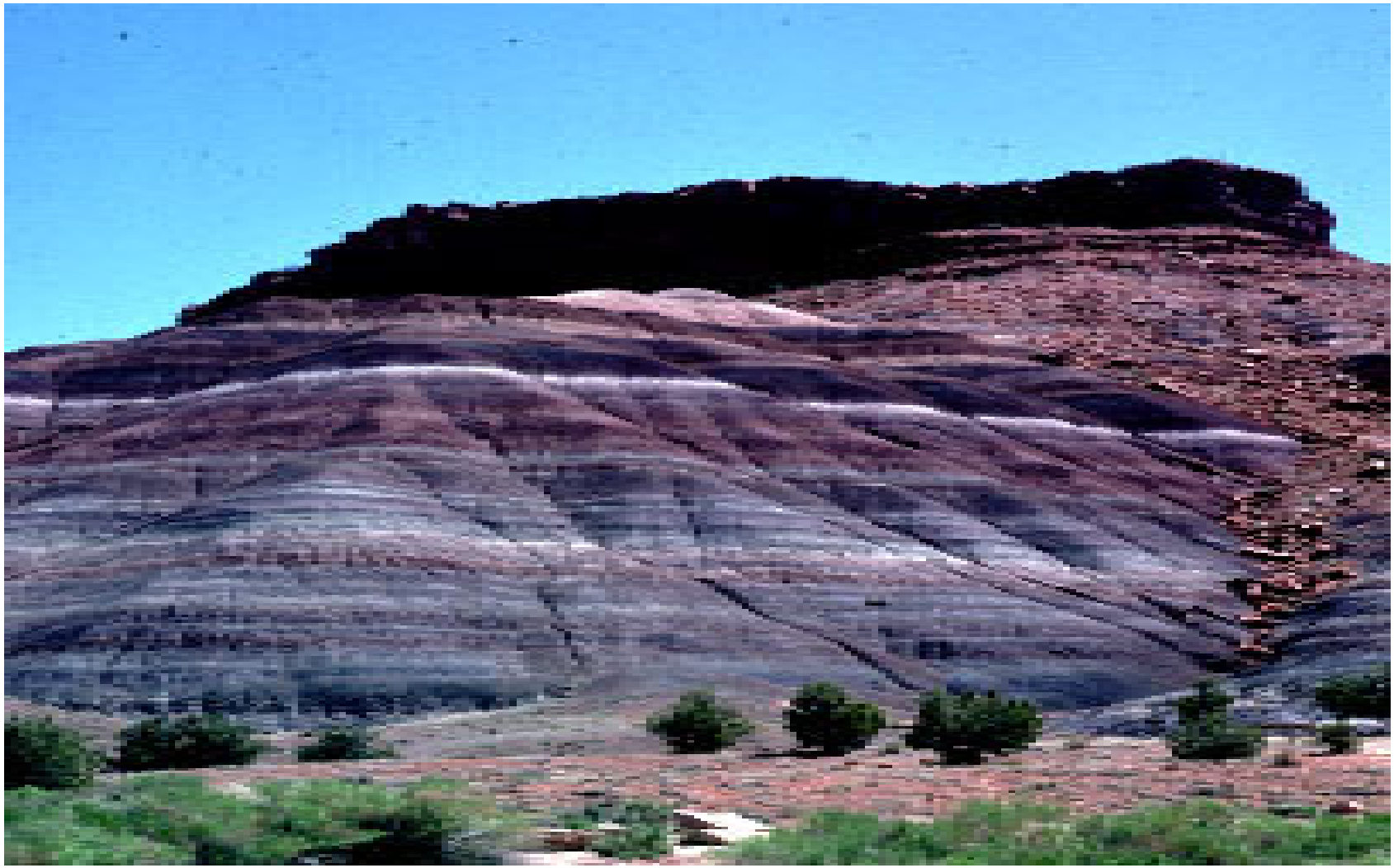
River of lava

Obsidian – igneous rock

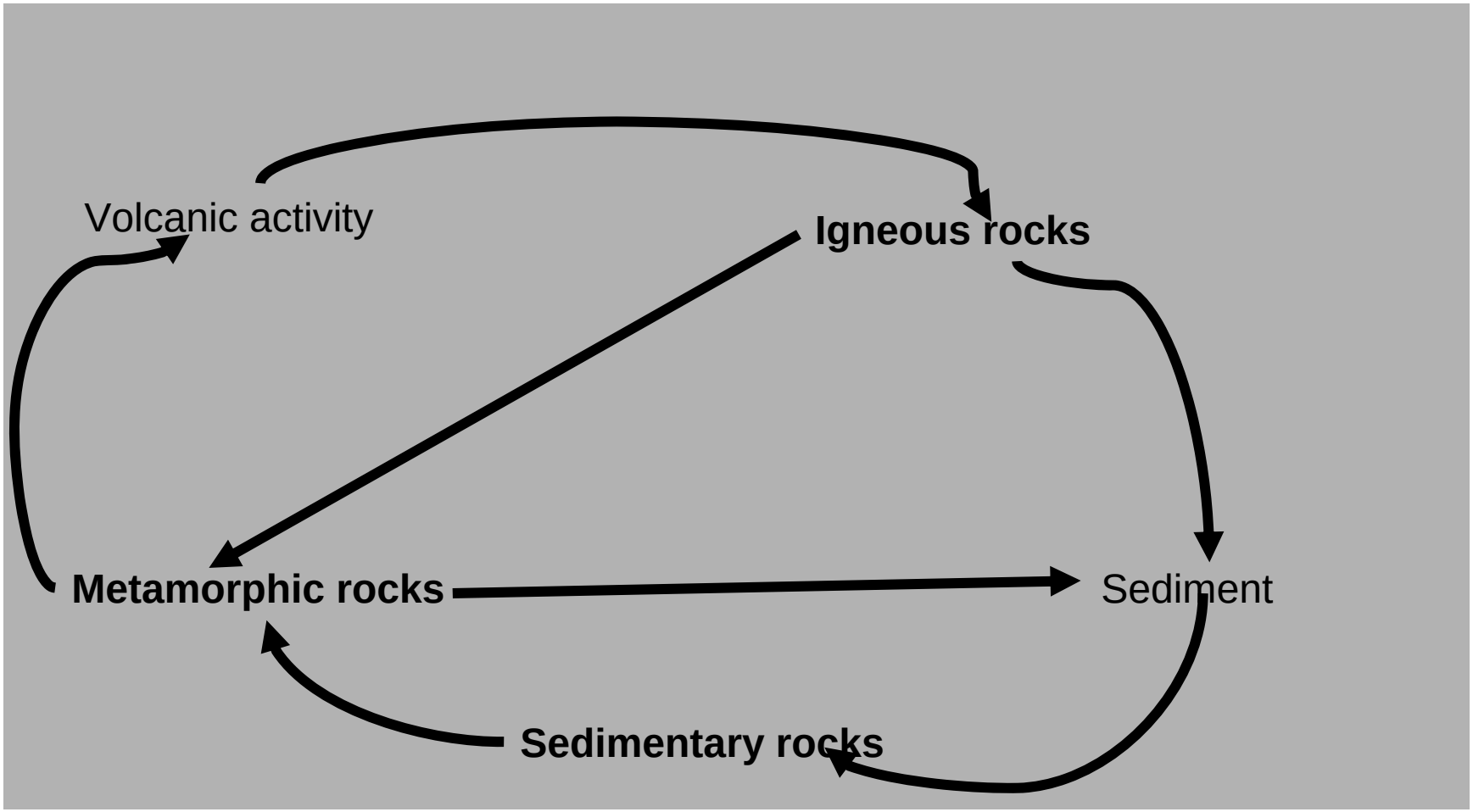
Marble –metamorphic rock



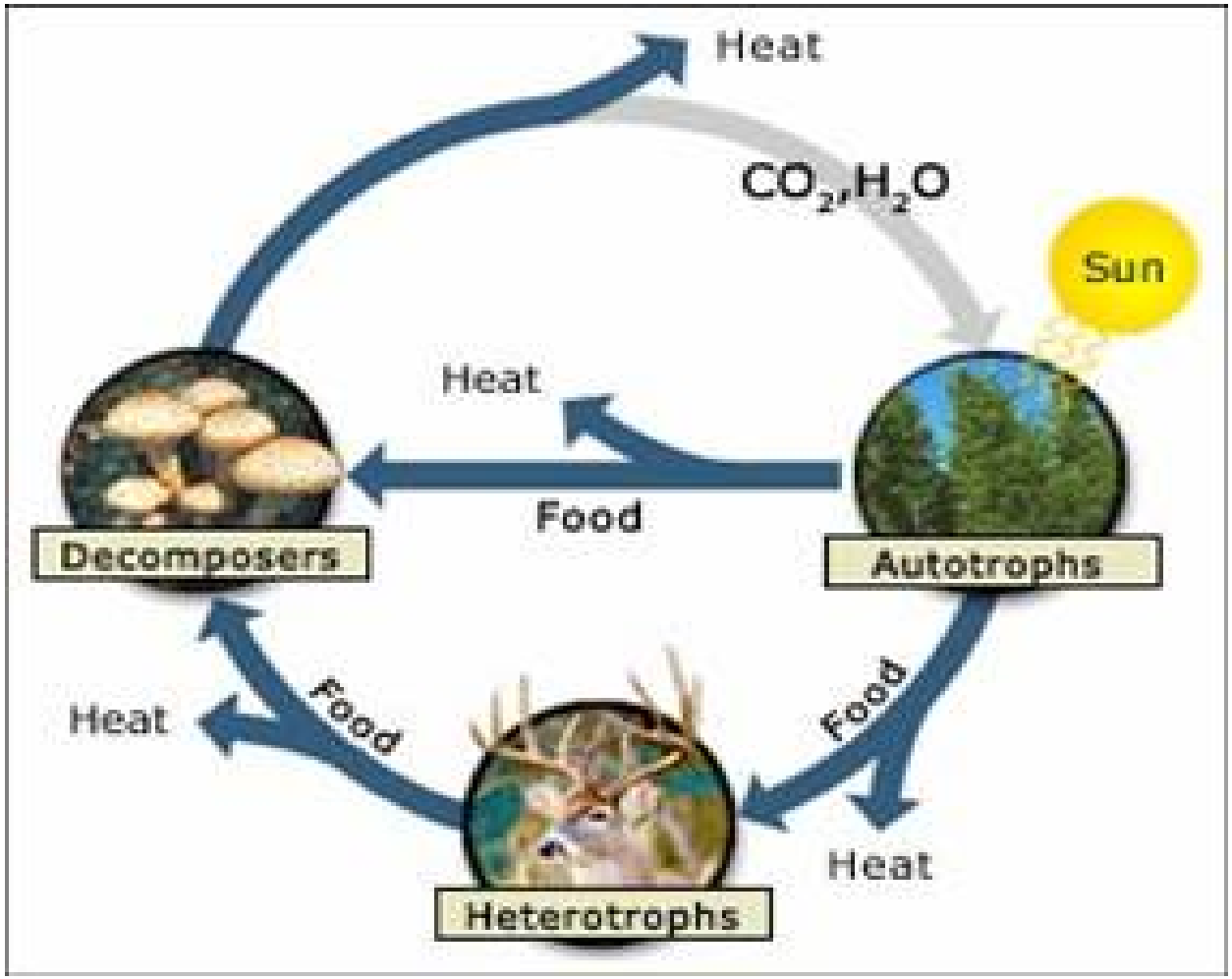
Sedimentary rock



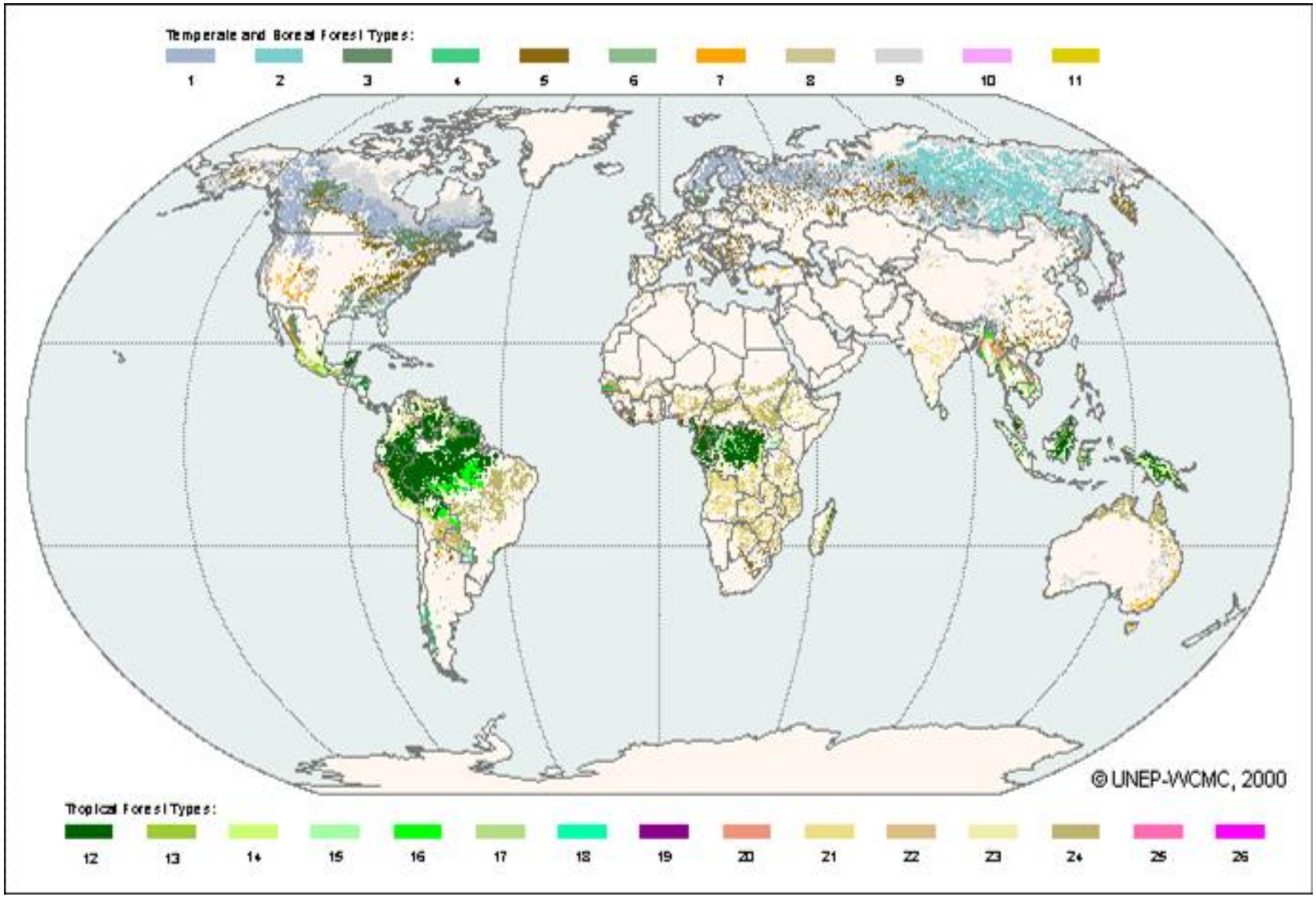
The Rock Cycle



Terrestrial Life Cycle



Primary producers - autotrophs



Forests

Converters - heterotrophs