Reading:
This week: Ch 5
Next week: Ch 6

Internal processes:
Volcanic character

Plate tectonics and volcanoes

Igneous rock classification
Types of lava

Volcano settings
Volcano plumbing

Types of volcano:
Fissure eruptions

Magma composition: mafic ...flows
Tectonic environment: seafloor spreading and hotspots

Types of volcano:
Shield volcanoes

Magma composition: mafic ...flows
Tectonic environment: seafloor spreading and hotspots

Types of volcano:
Curtain of fire

Other examples are found on the Mid-Atlantic Ridge, Iceland

Mauna Loa, Hawaii, 1984

Kilauea, Hawaii, 1983
Types of volcano: Shield volcanoes

Mauna Key from Mauna Loa

Environmental Geology – Volcanic character

Types of volcano: Volcanic domes

Mount St Helens

Magma composition: felsic ... viscous
Tectonic environment: above subduction zones

Environmental Geology – Volcanic character

Types of volcano: Cinder cones

Central vent filled with rock fragments
Successive layers of ejected material

Cerro Negro, Nicaragua, 1968

Environmental Geology – Volcanic character

Types of volcano: Composite volcanoes

Magma composition:
andesitic: can be explosive or can flow
Tectonic environment:
above subduction zones

Environmental Geology – Volcanic character
Types of volcano:
Composite volcanoes

Volcanic hazard:
Lava

- Mount St Helens
- Vesuvius

Volcanic hazard:
Lava

Kilauea eruption 1959-1960, Hawaii

Volcanic hazard:
Lava

Lava flows on Hawaii
Environmental Geology – Volcanic character

Volcanic hazard:
Ash fall

A buried city:
Pompeii, AD 79

Montserrat 1997
Volcanic hazard: Pyroclastic flows

Environmental Geology – Volcanic character

Volcanic hazard: Pyroclastic flows

Mount St Helens, 1980

Environmental Geology – Volcanic character

Volcanic hazard: Lahars

Armero Columbia 1985

Environmental Geology – Volcanic character
Volcanic hazard: Lahars: Mount St Helens

Volcanic hazard: Gasses

Lake Nyos, Cameroon