

Class #4: OCEANS BASINS: Distribution and Depths

OCEAN BASINS AND SEA FLOOR

Distribution of land and sea

Distribution of elevations

Continental Margins

Distribution of land and sea

Average Earth: 71% oceanic, 29% continental

Major differences between hemispheres:

Northern -- 40% of area is continental

Southern -- 83% of area is oceanic

The "hypsographic" curve

Gives percent of Earth surface at each elevation

Sharp, narrow transition between continents and ocean

Reflects fundamental differences in the material that makes up the earth's crust of those regions

Mean elevation of continents = +840 m

Mean depth of oceans = -3,800 m

Provinces of the sea floor -- major (cover most area)

Continental Margins

Ocean Basin Floors (next class)

Mid-Ocean Ridges (next class)

Trenches (next class)

Continental margins

Continental Shelf- extension of the continent underwater, up to a few hundred meters deep

Shelf Break- edge of the cont. shelf

Continental Slope- relatively steep transition from continental shelf to the deeper areas

Continental Rise- gentler gradient, not so steep, transition from slope to deep ocean floor (not always present, sometimes cut off by trench)

Submarine canyons- gashes cut into continental shelves by abrading action of sediment particles
