

Quiz 1: The Development of Plate Tectonics (Ch. 1)

1. What was Alfred Wegener's particular contribution to the theory of plate tectonics?

He synthesized fossil evidence, lithologic correlations, paleoclimate events, and geophysical observations in his book "Origins of the Continents and Oceans" which for the first time correlated all the mounting evidence for continental drift. Acceptable answers must reference the synthesis. best if multiple lines of evidence are mentioned.

2. The terms eugeosyncline and miogeosyncline are outdated, but occasionally still used to describe two different assemblages of rocks. What are they?

eugeosyncline = deep marine rocks. miogeosyncline = shallow marine rocks, sometimes containing volcanics.

3. What is the *lithosphere*?

best answer: the rigid layer at the surface. acceptable answer: crust plus upper mantle. Not acceptable: any answer that conflates the lithosphere-asthenosphere boundary with the Moho.

4. How did the proliferation of submarines help advance the technology needed for marine geology?

Submarine navigation required detailed bathymetric and magnetic mapping of the seafloor. These data were later used to establish seafloor spreading.