

**Geography 1 Hydrosphere Exercise: The Work of Water on the Land** Dr. Renfrew

1. The goal of this exercise is to learn about how ocean water, rivers, rain in the desert, and glacial ice can shape landforms by **weathering, erosion, and deposition**. Landforms are individual relief features, and "relief" (topography) involves differences in elevation, (height above sea level), the surface configuration of the land. Land is pushed up by heat energy from below (internal processes), and then **shaped by liquid and frozen water** and wind in different ways, depending on the climate and composition of the rock materials. Gravity pulls down broken materials from below. It is sculpture. Different elevations are what give beautiful views.

2. For this exercise, add these pages to your required reading for the Hydrosphere in the Earth textbook: Weathering 110-111, Erosion 112-113, Deposition 114-115 (Water-borne and Glacial), and Erosional and Depositional Coastlines 432-433. You may skim pages 386-389 and 394-431 on the Oceans.

3. Using **colored pencils** (no crayons or markers), follow these instructions on the "Glossary of Geographical Terminology" pages from the Geography Coloring Book (3E, Wynn Kapit, 2003: Pearson), and **leave the rest white**: too many bright colors distract. Learning about landforms and geographical locations is about recognizing shapes and relative positions.

4. Color the open water features in the diagrams light blue (oceans, seas, estuary, lagoon, strait: all have dots on them).

5. Color the sky in diagrams D, I, J, L, P, and S light blue.

6. Color in dark blue the rivers shown in "D" Canyon and "L" Headwaters (tributaries) diagrams, the "I" Fjord inlet, "T" Great Barrier Reef, and "U" Strait of Dover.

7. Color the canyon, mesa (and butte), and plateau in a light orange, or reddish-orange shade. Iron in rocks often causes a type of chemical weathering called oxidation (rust).

8. Color the atoll, Nile delta, Hawaiian archipelago, Iberian peninsula, and hills around the fjord and headwaters green, to symbolize vegetation.

9. Color the U.S. continental divide and Gulf Stream (warm) ocean current red.

10. Locate these places on your world map.

11. Study all the features and captions until you have them memorized, including the related words in italics. There will be matching questions on Test 2 and the Lithosphere test.

12. Make lists below of the landforms or features in the diagrams that are:

Coastal

Fluvial (rivers)

Desert

Glacial