

Hydrology Study Guide

Textbook chapters: 11, 13 and 14



Academic Knowledge and Skills:

- 1fa - explain a large portion of the Earth's surface is water, consisting of oceans, rivers, lakes, underground water and ice (GPS)
- 1fa1 - illustrate the water cycle and relate various atmospheric conditions to its stages (GPS)
- 1fb - describe the composition, location and subsurface topography of the world's oceans (GPS)
- 1fc - explain the causes of waves, currents and tides (GPS)

Essential Questions:

1. How does the location of water on Earth's surface and the conditions of the atmosphere affect its path through stages of the water cycle?
2. How do various atmospheric conditions relate to the stages of the water cycle?
3. How does the amount of saltwater differ from the amount of freshwater on Earth?
4. Do salt water and fresh water move through the same water cycle?
5. Where does salt in the ocean come from?
6. Why does water continually move through the water cycle?
7. How are the geological features that exist on land similar to the geological features on the ocean floor?
8. What causes waves?
9. What causes tides?
10. What causes currents?



Essential Vocabulary:

Significant role of water, Earth processes, Atmospheric conditions, Stages, Water cycle, Composition, Location, Subsurface topography, Waves, Currents, Tides, Energy, Conservation, Physical processes, Erosion, Deposition, Gravity, Geological features, Natural resources, evaporation, condensation, precipitation, transpiration, percolation, runoff, watershed, load, deposition, delta, alluvial fan, floodplain, water table, aquifer, porosity, permeability, recharge zone, artesian spring, loess, dune, saltation, deflation, salinity, continental shelf, continental slope, continental rise, abyssal plain, mid-ocean ridge, rift valet, ocean trench, seamount, intertidal zone, pelagic environment, desalination, nonpoint-source pollution, point-source pollution, surface current, Coriolis effect, deep current, upwelling, El Niño, La Niña, wave height, wavelength, crest, trough, wave period, undertow, longshore current, whitecap, swell, tsunami, storm surge, tide, tidal range, spring tide, neap tide

EXTRA CREDIT OPPORTUNITY: On a separate piece of paper, list the essential questions and answer them. Chose 50 of the vocabulary words and write your own version of the definition in a complete sentence. 15 points will be added to your test grade for adequate AND accurate completion of this task.