

Unit 8 Section 1 Study Guide

Directions: Answer the following questions.

Reviewing Objectives Part 1:

1. Compare and contrast surface water systems (lakes, rivers, streams, wetlands) and groundwater in regard to their relative size as Earth's freshwater reservoirs and the dynamics of water movement (inputs and outputs, residence times, sustainability). Pages: 374-386,392-393,397-408,416-417
2. Explain the features and processes of groundwater systems and how the sustainability of North American aquifers has changed in recent history (e.g., the past 100 years) qualitatively using the concepts of recharge, residence time, inputs and outputs. Pages: 396-406
3. Explain how water quality in both groundwater and surface systems is impacted by land use decisions. Pages: 396-406

Reviewing Major Concepts Part 2: *Chapter 15 section 2,*

1. Describe the factors that control whether a river is braided or meandering.
2. Summarize the process that forms an oxbow lake.
3. Use the following terms to create a concept map: water vapor, condensation, precipitation, channel, stream load, watershed, bar, alluvial fan, delta, divides, watersheds, tributaries, floodplains, dams, and artificial levees.

Math Skills

4. Making Calculations If a river is 3,705 km long from its headwaters to its delta and the average downstream velocity of its water is 200 cm/s, use the equation $\text{time} = \text{distance} \div \text{velocity}$ to determine how many days a water molecule takes to make the trip.