

Earth Science
Chapter 9

Day 1

- Read Section 9.1 – Surface Water
- Chapter 9 Term Sheet

Day 2

- Notes over Section 9.1 – Surface Water
- Section 9.1 Review Worksheets

Day 3

- Quiz over Section 9.1 Notes
- Virtual Lab “ How do certain factors affect the erosion of soil by water?”

Day 4

- Set up Capillary Action Lab
- Read Sections 9.2 and 9.3

Day 5

- Check Capillary Action Lab
- Notes over Sections 9.2 and 9.3

Day 6

- Finish Capillary Action Lab
- Quiz over Notes
- Review Worksheets over Sections 9.2 and 9.3

Day 7

- Chapter 9 Review pages 264 – 267

Day 8

- Review for Test

Day 9

- Chapter 9 Test
- Hand in Notes

Name _____

Earth Science
Chapter 9 Term Sheet

1. Runoff –
2. Channel –
3. Sheet Erosion –
4. Drainage Basin –
5. Meander –
6. Groundwater –
7. Permeable –
8. Impermeable –
9. Aquifer –
10. Water Table –

11. Spring -

12. Geyser -

13. Cave -

14. Longshore Current -

15. Beach -

Earth Science
Chapter 9 Test Review Sheet

1. What is a permeable rock layer filled with water called?
2. What type of stream is narrow and move swiftly?
3. What is a calcite deposit on a cave floor?
4. What is a hot spring that erupts?
5. What is an area from which a stream gets its water called?
6. What is the upper surface of the zone of saturation?
7. What are rocks that have spaces that allow water to sink in called?
8. What kind of rocks cause rapid runoff?
9. What are the curves in a river channel called?
10. What is the water that soaks into porous rocks in the ground called?
11. What kind of well has water that rises to the surface under pressure?

12. What is a broad, flat valley floor that is carved by a stream called?
13. When does water help form streams and rivers?
14. What does sediment deposited by a river into a lake form?
15. What is a curve made by fast moving water that erodes the sides of a stream?
16. What type of stream causes very little erosion because it moves slowly?
17. What fills the pores in rocks in the zone of saturation?
18. What begins when a small stream forms during a heavy rain?
19. What is formed when carbonic acid dissolves underground limestone?
20. What is heated groundwater that comes to the surface called?
21. What forms where a river empties into a lake or ocean?
22. What does runoff form?
23. What may green sands be made of?

24. What does groundwater travel through in sediment?
25. What results when a rill channel becomes broader and deeper?
26. What is the land area from which a stream gets its water?
27. What are deposits of sediment that run along the shore?
28. What is formed when the water table meets Earth's surface?
29. What is cool water that is forced to the surface by pressure?
30. What kind of rock has connected pores through which water can pass?
31. What is a calcite formation on the floor of a cave called?
32. What is an underground opening formed in rock?
33. What is the flat valley floor carved by a meandering stream called?
34. What is water that flows across the ground called?
35. What is a curve in a stream's channel caused by erosion?

36. What is a calcite formation hanging from the ceiling of a cave called?
37. What is water that soaks into the ground called?
38. What is a layer of rock that lets water move freely called?
39. What is coastal land called that has rocks and cliffs, but little sand?
40. What is a hot spring that erupts off and on?
41. What is the upper surface of the zone of saturation called?
42. What are rocks with few connected pores?
43. What acts like a river of sand in the ocean?
44. What begins when a small stream forms during a heavy rain?
45. What are sand deposits that parallel the shore?
46. What is the deposit that is formed when river water empties into a flat plain?
47. Name the four factors that affect the amount of runoff.

48. Why are some shorelines rocky and others sandy?

49. How does groundwater create a cave?

50. Be able to number the stages of streams in order.

Name _____

Earth Science Quiz
Section 9.1

1. Name the three types of streams and describe them.

A)

B)

C)

2. Name three things that affect runoff.

A)

B)

C)

3. Name three types of water erosion.

A)

B)

C)

Name _____

Earth Science
Note Quiz – Sections 9.2 and 9.3

1. What is the name of Section 9.2?
2. What percent of all freshwater do scientists think is groundwater?
3. If soil and rock are permeable, what can pass through them?
4. What is the upper surface of the zone of saturation called?
5. How many liters of water do the average U.S. citizen use per day?
6. What is a type of well that doesn't need a pump called?
7. If water is close to the surface and flows out, what has formed?
8. How are a spring and a geyser different?
9. What type of acid is formed when water mixes with carbon dioxide?
10. What type of rock does the answer to #9 dissolve?

11. What is the difference between a stalagmite and a stalactite?
12. What is Section 9.3 called?
13. What are the three major forces at work on shorelines?
14. What are the two most common features of rocky shorelines?
15. What are Hawaii's black sands made of?
16. What are Jamaica's white sands made of?
17. What three things do longshore currents form when they carry sand along the beach?
18. What are barrier islands?
19. What is the average eruption time for Old Faithful? What is the average height of the geyser's water?

Chapter 9 Notes

Section 9.1 – Surface Water

Runoff – Rain that doesn't soak into the ground or evaporate – it flows over Earth's surface

Factors Affecting Runoff

- 1) Amount of Rain
- 2) Length of Time Rain Falls
- 3) Slope of the Land
- 4) Amount of Vegetation

Effects of Gravity

- Gravity pulls water downhill
- When water picks up speed it increases its energy
- Fast moving water carries more soil

Water Erosion – the movement of water that wears a path

Types of Water Erosion

- 1) Rill – small stream that forms a channel during a heavy rain
- 2) Gully – deeper rill erosion
- 3) Sheet – rain water runs off in sheets

Channel – groove formed by water erosion

Stream Erosion –

- Sediment that streams carry are called loads.
- Suspended Load – carries lightweight sediment
- Bedload – Larger, heavy particles on the bottom of the stream

Drainage Basin – an area of land from which a stream or river collects runoff

*** Largest drainage basin in U. S. – Mississippi River Drainage Basin

Stream Classification

- 1) Young - Swift moving, erodes the bottom, white water rapids and waterfalls occur**
- 2) Mature - Flow smoothly, erodes the sides, form meander, wider**
- 3) Old - Widest, water flows smoothly, less water**

Meander - A broad bend (curve) in a river or stream

Floodplain - Broad, flat valley floor

Structures that Help With Flooding

- 1) Dams - Controls water flow downstream**
- 2) Levees - Mounds of Earth built along the river**

Delta - Fan-shaped deposit formed as water empties into an ocean or lake

Alluvial Fan - occurs when water empties from a mountain valley into an open plain.

