

## Unit 6 - Weathering & Erosion / Natural Disaster

### Vocabulary Worksheet (Part 2)

27. **Lahar:** *a type of mudflow consisting of water, mud, volcanic ash and rock, created when a volcanic eruption melts ice or suddenly releases lake water. The mudflow has the consistency of wet concrete, and hardens when the flow stops. Lahars can flow for many kilometers in river channels.*
28. **Tributary** (p.260): *A tributary is a stream that flows into a larger stream or river. For example, the Missouri River is a tributary of the Mississippi River.*
29. **Drainage Basin & Divide** (p.261): *A drainage basin is the land area from which a river and its tributaries collect their water. A divide is the boundary between two different drainage basins. The continental divide is a divide between rivers that drain to the Atlantic Ocean or Gulf of Mexico on the east side, and rivers that drain to the Pacific Ocean on the west side.*
30. **V-Shaped Valley** (p.261): *The upper, steeper portion of rivers form a relatively straight valley with steep "V" shaped sides sloping to the river. In contrast, the lower portion of the river valley is wider and flatter.*
31. **Waterfall** (p.261): *When a river drops over a cliff or ledge to a lower elevation, it is called a waterfall. If the river drops steeply with fast moving water, but not over a single vertical fall, it is called a rapid.*
32. **Flood Plain** (p.262): *A flood plain is flat-bottomed part of a river valley that is periodically flooded by the river after heavy rain storms or spring snow melt-offs. Some of the richest farm lands are found in flood plains, because of the sediment that is deposited after each flood.*
33. **Meander** (p.262): *A meander is a loop-like bend in the course of a river. They form because the outside bend in a river tends to erode outward, while the inside bend tends to build up with sediment. Over time, the river course becomes more and more curved.*
34. **Oxbow Lake** (p.262): *An oxbow lake is a meander that has been cut off from the course of the river, because the river took a "short-cut" across the neck of the meander, usually during a flood.*
35. **Alluvial Fan** (p.p.263): *An alluvial fan is a sloped delta shaped fan of sediment that is deposited at the bottom of desert side canyons, as a result of debris flows from flash floods. The water from the flood slows down and sinks into the ground when it reaches the shallow main valley, leaving the sediment behind as a sloped fan.*
36. **Delta** (p.263): *When a river reaches the ocean and the river current slows down, the sediment load carried by the river is dropped to the bottom of the ocean, building up triangular fingers of land called a delta. The larger sediment (such as gravel and sand) is dropped first, followed by the finer sediment, silt and clay. Currents in the ocean may change the shape of the delta as it forms, or carry all of the sediment away.*

37. **Groundwater** (p.266): *Groundwater is water from rainfall that sinks into the ground and flows through porous rock layers below the surface. Groundwater may come back to the surface as springs or through wells, or may flow directly into the ocean.*
38. **Sinkhole** (p.267): *In areas with limestone rock underlying the surface, acidic rainwater seeps through cracks in the limestone, and creates cavern systems through chemical weathering. If the cavern gets too close to the surface, the roof of the cavern may collapse, which appears as a sinkhole at the surface. Many sinkholes occur in Florida, due to its limestone rock and high rainfall.*
39. **Valley Glacier** (p.275): *A valley glacier is a smaller glacier that flows slowly down from a mountain peak into valleys. They tend to widen existing river valleys, making the side walls steeper (or even nearly vertical) and making the bottom of the valley nearly flat in cross-section.*
40. **Continental Glacier** (p.275): *A continental glacier is a large glacier that covers almost all of a continental land mass, such as the ice cap over present day Antarctica and Greenland. Parts of a continental glacier may flow towards an ocean, while other parts may not move at all. During the last ice age, the ice cap around the North Pole covered much of the northern half of North America, Europe and Asia.*
41. **Ice Age** (p.276): *An ice age is a period of time when the Earth's average temperature is about 6 °C colder than normal, and continental glaciers extend far from the poles. During the last ice age, glaciers covered almost all of Canada and much of the northern United States, reaching as far south as New York City and Chicago. Glaciers may cover as much as 33% of the Earth's surface during an ice age. Ice ages last for 50,000 to 100,000 years, while the warmer "interglacial period", such as we are in now, last from about 6,000 to 13,000 years. The last ice age ended about 11,500 years ago.*
42. **Plucking** (p.276): *As a glacier moves forward over the surface of rock, it picks up small pieces of rock. This is called plucking. These small pieces of rock are then dragged by the glacier along the surface of the rock, further causing weathering by abrasion.*
43. **Moraine** (p.277): *A moraine is a pile of sediment that was pushed to the side of a glacier (a lateral moraine) or pushed in front of the glacier (a terminal moraine). The sediment, which is a mixture of rocks, gravel, sand, silt and clay, is called glacial till.*
44. **Sea Cave & Sea Arch** (p.282): *A sea cave is a water eroded hollow or alcove in a cliff face or headland, usually at the water line. If the sea cave is eroded into the side of a headland, it may eventually be eroded completely through the headland, forming a sea arch.*
45. **Sea Stack** (p.282): *A sea stack is a column of rock that rises out of the water. It usually forms when a sea arch collapses, leaving two sea stacks on either side of the collapsed arch.*
46. **Beach** (p.283): *A beach is an area of wave-washed sediment along a coast. Most of the sediment is usually sand that either came from the weathering of coastal cliffs by waves, or from sediment from rivers.*

47. **Spit** (p.283): *A spit is a long, thin beach that projects like a finger into the water. It is the result of currents running up a coast that carry sediment across the mouth of a bay or river mouth.*
48. **Longshore Drift** (p.283): *Ocean coasts typically have currents that carry sediment either up or down the coast, usually in the same direction as the prevailing wind. As a result, waves come onto the shore at an angle, and tend to push the sediment up or down the coast in the direction of the current and wind. This is called longshore drift.*
49. **Tornado:** *A tornado is a violent, whirling wind, sometimes exceeding 200 mph, which moves in a narrow path over land. Tornadoes generally severely damage or completely destroy the buildings they hit. Tornadoes are always associated with thunderstorms, usually along the boundaries of cold fronts. Tornadoes are most common in the spring, but can happen during any time of the year.*
50. **Hurricane:** *A hurricane is a powerful storm that develops over tropical oceans when warm, moist air carried by trade winds rotates around a low-pressure system. Hurricanes can winds up to 200 miles per hour, and may create numerous tornados as part of the storm. Hurricanes can create storm surges up to 20 feet. Hurricanes are also called typhoons or cyclones in the Pacific and Indian Oceans.*
51. **Earthquake:** *An earthquake is a sudden release of energy in the Earth's crust, caused by the build-up of elastic potential energy as different sections of the Earth's crust move against one another. When the strength of the rock along a fault is exceeded, the rock breaks and releases a series of seismic waves felt as an Earthquake. Earthquakes can destroy buildings, cause landslides and tsunamis.*
52. **Volcano:** *A volcano is an opening or fissure in the Earth's crust that allows the escape of hot, molten rock (lava). Volcanoes can have long, non-explosive eruptions (like in Hawaii) or explosive eruptions (as in Mt. St. Helens.)*
53. **Tsunami:** *A tsunami is a large, fast ocean wave (or series of waves) created by an underwater landslide or earthquake. Tsunamis can travel at very fast speeds, and can reach a height of 30 meters (95 feet) when reaching a shore. The Indian Ocean tsunami of December 26, 2004 killed an estimated 300,000 people, because of the lack of warnings.*
54. **Flood:** *A flood is a massive flow of water that rises above the usual river water level and leaves the river channel to fill the surrounding floodplain. Floods usually are associated with hurricanes or severe thunderstorms, or slow moving storm systems that drop much rain in one area.*
55. **Hailstorm:** *an event within a thunderstorm when frozen balls of ice, ranging in size from pea-sized to softball sized, are formed because raindrops are repeatedly circulated high in the thunderstorm cloud and freeze.*