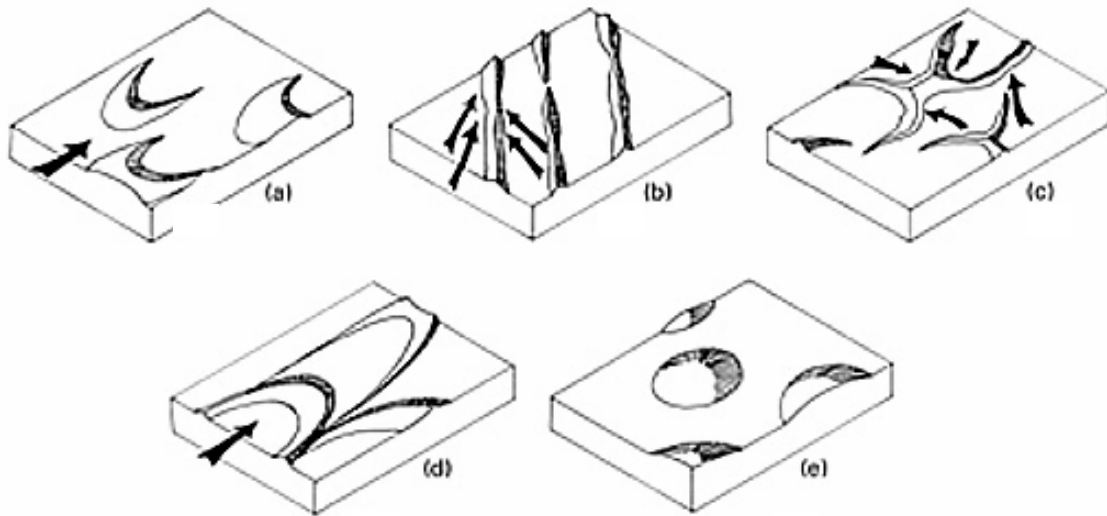
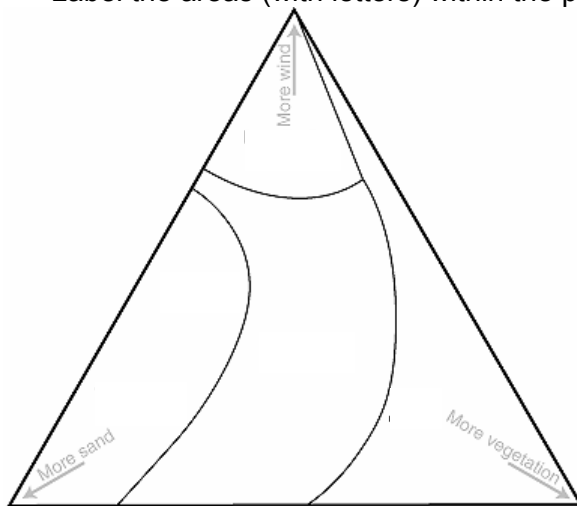


1. A \_\_\_\_\_ is any arid region that receives less than \_\_\_\_\_ cm of precipitation per year.
2. In spite of low rainfall, \_\_\_\_\_ is the predominant force shaping most desert landscapes. Rare and often violent flash flood events produce most desert erosion.
3. The Biome of Monroe, Utah is a \_\_\_\_\_.
4. Deserts can be found anywhere that the atmosphere (air) is usually \_\_\_\_\_.
5. Most deserts are associated with areas where air is (ascending/descending).
6. Globally, hot, moist air rises in the tropics, and dry air descends near \_\_\_\_\_ degrees north and south latitude.
7. \_\_\_\_\_ deserts form downwind of where moist air rises over high mountain ranges.
8. About \_\_\_\_\_% of the Earth's surface is covered in Desert.
9. What mountain range puts us (in Monroe, Utah) in a Rain Shadow?
10. There are two distinct landscapes in the desert southwest. The \_\_\_\_\_ and \_\_\_\_\_ province (in Western Utah) is characterized by rugged mountain ranges called \_\_\_\_\_ separated by valley floors called \_\_\_\_\_.
11. The Colorado \_\_\_\_\_ is marked by flat-lying sedimentary rocks that are heavily eroded (due to their large elevation above sea level) into plateaus, mesas and buttes.
  - a. \_\_\_\_\_ – broad flat-topped areas elevated above the surrounding land.
  - b. \_\_\_\_\_ – broad flat-topped area bounded by cliffs.
  - c. \_\_\_\_\_ – Same as a mesa just smaller. Many buttes are just eroded mesas.
12. Narrow canyons carry sediment down to valley floors during heavy rains. Sediment that empty onto the valley floor are called \_\_\_\_\_.
13. Many alluvial fans may overlap to form a \_\_\_\_\_.
14. Finest sediments travel to basin center where water ponds and evaporates in \_\_\_\_\_.
15. Wind can keep dust in suspension, but larger sand grains move by \_\_\_\_\_.
16. Sand grains moving in high-speed winds can effectively sand-blast rocks into \_\_\_\_\_.
17. Wind can deposit thick layers of silt and clay-sized material called \_\_\_\_\_. Thick loess deposits exist in China, and the United States.
18. Loess typically forms soils that are very fertile, yet easily \_\_\_\_\_. The U.S. dust bowl of the 1930s was produced by eroding loess during extended periods of \_\_\_\_\_.
19. Sand \_\_\_\_\_ are mounds of loose sand piled up by the wind.

20. The images below are of the different types of dunes found on Earth and Mars. Label each type correctly using the following: Longitudinal, Barchan, Star, Dome, Parabolic (5pts).



21. The dune pyramid below shows the relationship between dune types, wind, sand, and vegetation. Label the areas (with letters) within the pyramid with the correct type of dune type (5pts).



- A. No Dunes
- B. Transverse Dunes
- C. Longitudinal Dunes
- D. Barchan Dunes
- E. Parabolic Dunes

22. Why aren't deserts restricted to equatorial latitudes (5pts)?

23. The land speed record was broken on a playa (Bonneville salt flats). Why are the playas so flat (5pts)?

24. What geologic evidence do we have for an atmosphere on Mars (5pts)?