Deposition

1.  The processes by which transported materials are left in new locations are called deposition.

2.  Rock particles transported by erosional processes are sediments.  Sedimentation is another term for deposition.

3.  If all factors other than size are equal, smaller particles settle more slowly in fluids than do larger particles.

4.  Very small particles, such as clay and colloids, may remain suspended in water indefinitely.

5.  If all factors other than shape are equal, flatter particles settle more slowly in fluids than do rounded particles.

6.  If all factors other than density are equal, particles of higher density settle in fluids faster than particles of lower density.

7.  When several events of deposition in quiet water occur, each involving a mixture of sediments, vertical sorting will take place and graded beds of sediment will be formed.

8.  A decrease in the velocity of an erosional agent, such as moving water or wind, will produce a pattern of horizontal sorting of sediments.

9.  Patterns of deposition and the characteristics of the sediments often indicate the medium in which the deposition occurred.

10.  Glacial deposits are either completely unsorted, or partially sorted if running water from the melting ice was involved in the deposition.

11.  Wind-deposited sediments usually consist of well-sorted, small particles in layers that may be tilted wrt to one another (cross-bedding).  Sand dunes generally have a gentle slope facing into the wind, steep slope on the opposite side and they may migrate (move) up to a few feet a day.

12.  Water deposited sediments are sorted, rounded and layered.

13.  Gravity acting alone may produce deposits of unsorted rock particles of all sizes at the bases of hills, cliffs, and mountainsides.

14.  An erosional-depositional system is a region with definite boundaries within all events of erosion and deposition within a single continuous medium.

15.  Erosion is dominant over deposition where velocity and KE of the medium are increasing.  Deposition is dominant where velocity and KE are decreasing.

16.  An interface between erosion and deposition can usually be found in an erosional-depositional system.  At such an interface, a state of dynamic equilibrium (hidden change) exists.  Erosion = Deposition

17.  In the erosional phase of erosional-depositional system, there is a transformation of PE to KE.

18.  In an erosional-depositional system, the total energy within the system is always decreasing.