

Types of Weathering + Erosion:

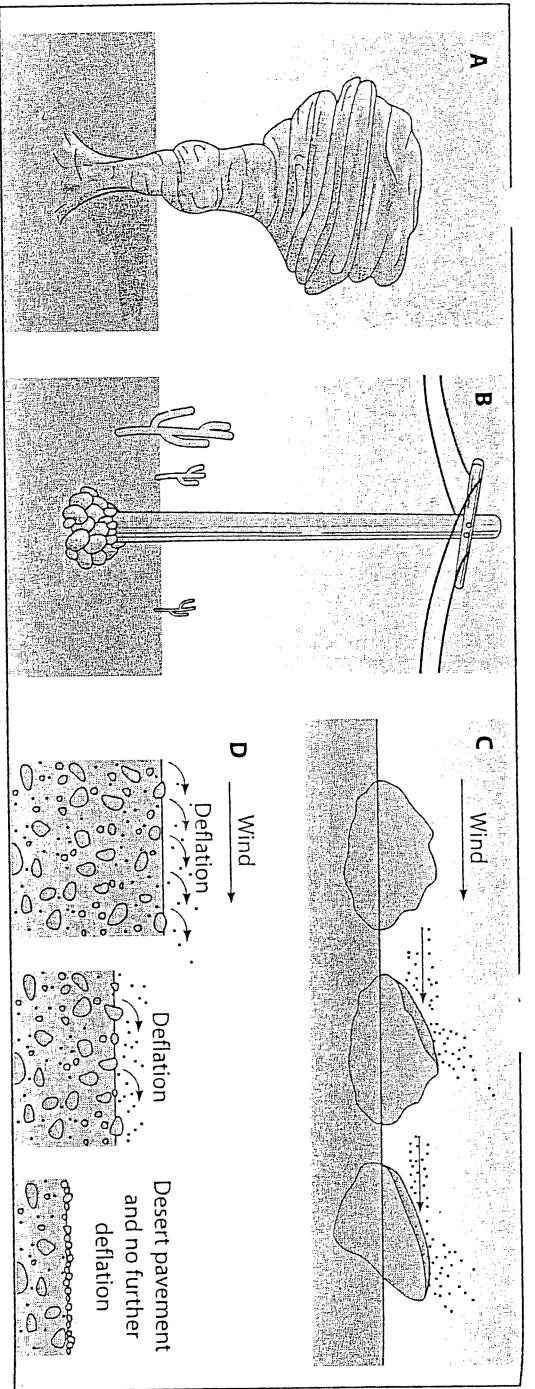


Figure 9-12. Features of wind erosion: (A) Abrasion by wind-blown sand often sandblasts rocks—especially at lower levels—leaving a “mushroom rock.” (B) The base of a utility pole has to be protected from sand blasting so it will not be “sawed” off. (C) Prevailing winds can abrade rocks into sediments with flat sides. (D) Wind erosion can lower an area’s landscape by removing sand and smaller sediments.

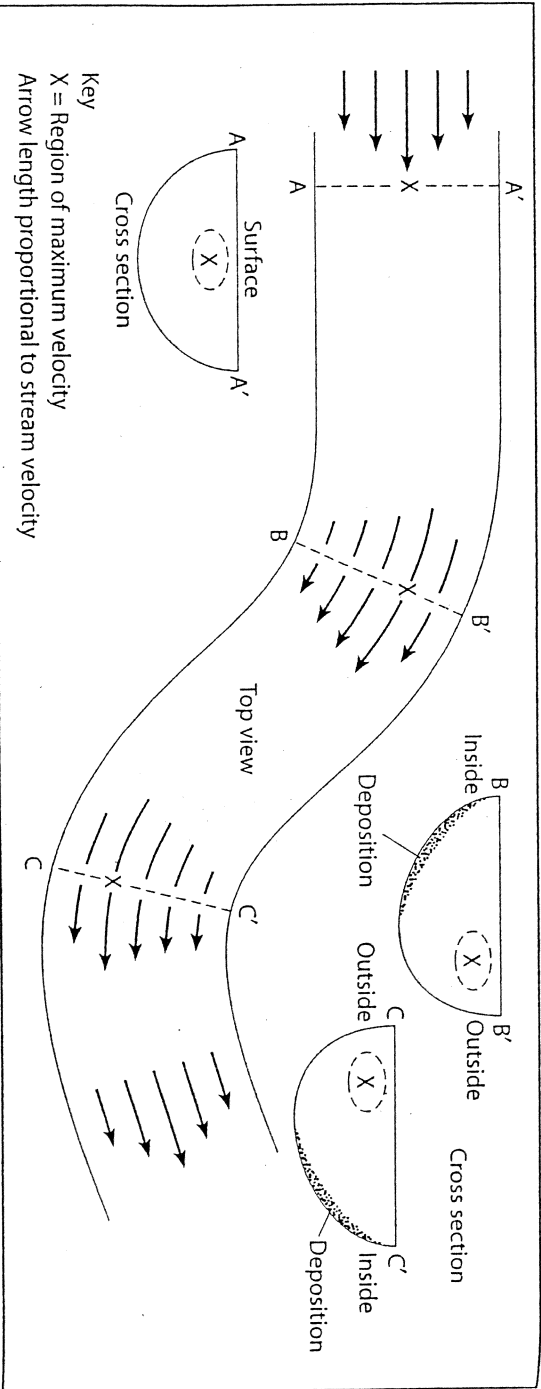


Figure 9-9. Variations in stream velocity in an idealized stream: (A) Where the stream course is straight the maximum velocity is at the center of the cross section. (B) and (C) Where the stream course changes direction, the location of maximum velocity moves toward the outside of the curve, or meander. Low velocity at the inside of curves results in deposition of the larger and denser sediments there. (Also see Figure 10-6 on page 180.)

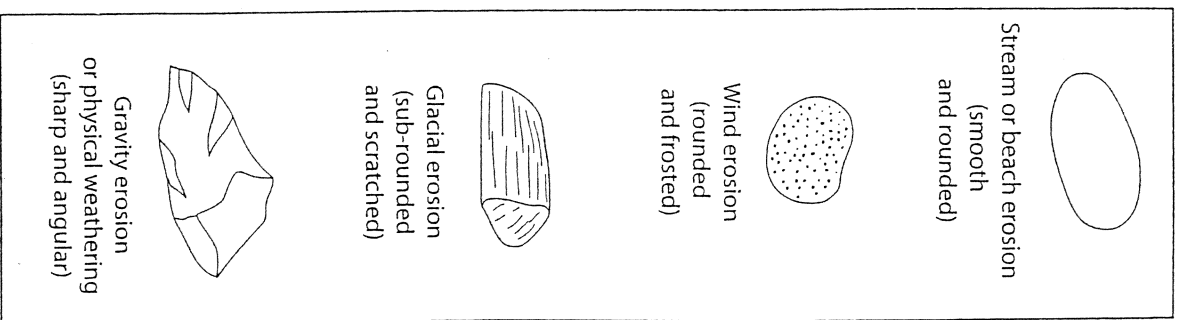


Figure 9-17. Sediment features reflect the erosional or weathering agents that produced or transported them.

Types of erosion: water, wind, ice, gravity

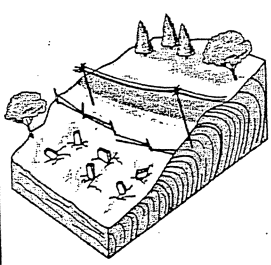
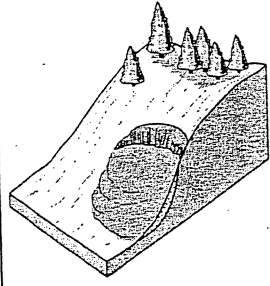
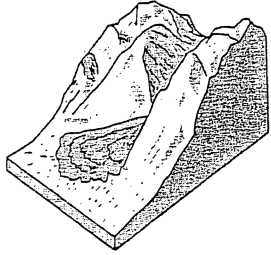
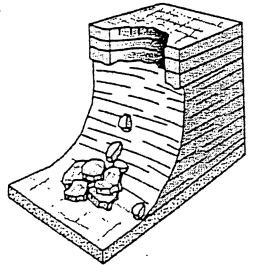
Process	Soil Creep	Debris Flow	Mud Flow (debris flow)	Rock Fall, or Debris Fall
Illustration				
Description	Gradual downhill movement of soil	Rapid downslope plastic flow of a mass of debris	Downward flow of fine particles (mud) and large amounts of water	Rapid falling of pieces of rock from a cliff or steep slope
Velocity	Less than 1 cm/year	1 mm/day to 1 km/hr	1 to 5 km/hr	Greater than 4 km/hr
Slowest	Increasing Velocities			Fastest

Figure 9-5. Types of mass movement: Gravity causes many types of mass movements, from gradual soil creep to rapid rock falls.