

GEOLOGY 12
CHAPTER 5 WORKSHEET
WEATHERING AND EROSION

Name _____

1. Silicate minerals that are most susceptible to chemical weathering at the earth's surface
 - a. must not be very dense (they have a low specific gravity)
 - b. form under conditions of high temperature and pressure, very different from conditions at the surface .
 - c. form at the surface by means of other weathering processes
 - d. are all of the silicate minerals containing any iron or magnesium
2. Warm, moist climates generally
 - a. favour chemical weathering
 - b. slow down chemical weathering
 - c. prohibit physical weathering
 - d. have no effect whatsoever on rates of weathering
3. The process of mechanically breaking a rock into smaller pieces aids or facilitates processes of chemical weathering because
 - a. the orderly arrangement of atoms in the minerals are disrupted when the rock is broken
 - b. more volume is provided in the initial rock
 - c. more surface are is available for chemical processes to attack
 - d. less surface are is available for chemical processes to attack
4. The phenomenon of spheroidal weathering illustrates
 - a. how chemical weathering breaks down granite
 - b. the relationship of surface area to weathering rate
 - c. the mechanical process of unloading
 - d. the predominance of wedging in temperate climates
5. The appropriate term for weathered particles being transported by a stream is
 - a. particles of regolith
 - b. soil
 - c. sediments
 - d. topsoil
6. Which of the following weathering processes would be more effective in mountainous regions at high altitudes?
 - a. dissolution of calcite by acidic rain
 - b. frost wedging
 - c. chemical leaching
 - d. wedging by plant roots
7. The exfoliation of granite in Yosemite National Park illustrates the mechanical effect of
 - a. spheroidal weathering on a huge scale
 - b. differential weathering of soft and hard rocks
 - c. unloading of the granite as overlying rocks are eroded
 - d. freezing and thawing
8. Industries in New England emit a lot of carbon dioxide which combines with water to produce carbonic acid rain. As a result, limestone and marble in New England
 - a. are protected against weathering by a carbon dioxide coating
 - b. are likely to weather slowly if at all
 - c. are not affected by the amount of carbon dioxide in the air
 - d. are likely to weather rapidly by solution/dissolving