Worksheet: Metamorphic Rocks

1. Where is metamorphic rock frequently found?
   a. along the interface between igneous intrusions and sedimentary bedrock
   b. within large lava flows
   c. on mountaintops that have horizontal layers containing marine fossils
   d. as a thin surface layer covering huge areas of the Continents

2. What is the main difference between metamorphic rocks and most other rocks?
   a. Many metamorphic rocks contain a high amount of oxygen-silicon tetrahedra
   b. Many metamorphic rocks contain only one mineral
   c. Many metamorphic rocks have an organic composition
   d. Many metamorphic rocks exhibit banding and distortion of structure

3. The metamorphism of a sandstone rock will cause the rock
   a. to occupy a greater volume
   b. to be melted
   c. to become more dense
   d. to contain more fossils

4. Metamorphic rocks result from the
   a. erosion of rocks
   b. compression and cementation of soil particles
   c. cooling and solidification of molten magma
   d. recrystallization of rocks

5. The recrystallization of unmelted material under high temperature & pressure results in
   a. volcanic rock
   b. rock
   c. metamorphic rock
   d. sedimentary rocks

6. Which mineral is commonly found in the three metamorphic rocks slate, schist, and gneiss?
   a. pyroxene
   b. feldspar
   c. quartz
   d. mica

7. Slate is formed by the
   a. deposition of chlorite and mica
   b. foliation of schist
   c. metamorphism of shale
   d. folding and faulting of gneiss
8. Which rock is foliated, shows mineral alignment, but not banding, and contains medium-sized grains of quartz and pyroxene?
   a. phyllite
   b. schist
   c. gneiss
   d. quartzite

9. During the intrusion of the Palisades Sill, contact metamorphism changed limestone into
   a. diorite
   b. marble
   c. sandstone
   d. hornfels

10. Which nonfoliated rock forms only in a zone of contact metamorphism?
    a. conglomerate
    b. hornfels
    c. pegmatite
    d. quartzite