

**GEOLOGY 12**  
**CHAPTER 7 WORKSHEET**  
**METAMORPHIC ROCKS**

Name \_\_\_\_\_

Use the following terms to complete the fill-in-the-blank questions. Terms may be used more than once.

700-800	fault zone	layering	plutonic
atoms	foliation	limestone	pressure
banding	heat	low	regional
contact	high	melting	schist
denser	hornfels	metamorphic facies	slate
diagenesis	hydrothermal	metasomatism	
directed stress	index minerals	migmatite	
equal	isograds	non-foliated	

1. The two most important causes of metamorphism are \_\_\_\_\_ and \_\_\_\_\_.
2. The low end of metamorphic temperatures represent temperatures in which \_\_\_\_\_ occurs.
3. The high end of metamorphic temperatures is limited by the \_\_\_\_\_ temperature of rocks, above which the rocks are molten.
4. The typical range of metamorphic temperatures would be from 100-200°C to about \_\_\_\_\_ °C, although dry mafic rocks could be heated to even higher temperatures without melting.
5. \_\_\_\_\_ activity can locally increase the temperatures caused by the normal geothermal gradient.
6. Confining pressure is \_\_\_\_\_ in all directions surrounding a rock.
7. Pressure that is not uniform in all directions is called \_\_\_\_\_.
8. Mountain building generally places \_\_\_\_\_ on rocks, which can result in deformation of the rocks.
9. The role of hot fluids in metamorphism is described as \_\_\_\_\_ activity.
10. During metamorphism, \_\_\_\_\_ can rearrange themselves more readily in the presence of fluids.
11. As temperatures are increased during metamorphism, minerals that are stable at \_\_\_\_\_ temperatures react or break down to form new high-temperature minerals.
12. Increased confining pressures favor the formation of \_\_\_\_\_ minerals, whose atoms are packed more closely together.