## Metamorphic Rock Classification and Identification Lab Mrs. Cohn, Earth Science

lame:Lab Partners:					
Part I Jse the word bank below to answer the questions/statements as a vocabulary/concept review.					
<b>Nord Bank: (can use more than once!)</b> Marble Temperature <i>Contact (thermal) Metamorphism</i> Regional Metamorphism <i>Pressure</i> Slat	:e				
Gneiss Phyllite Schist Quartzite Metaconglomerate Foliation Non-Foliated Banding					
re-crystallization Anthracite Coal new minerals larger directional pressure					
1.) The process of metamorphism includes both an increase of	&				
2.) There are two types of metamorphism:					
<ul> <li>aoccurs adjacent to an igneous intrusion or extrusion and involves mainly an increase in This "bakes" the rocks that come int contact with the magma.</li> <li>b This is the more common metamorphism that occur deep within the earth where temperature and pressure are both large players. Bocks and pressure are both large players.</li> </ul>	on co rs				
collisions zones where the plates collide will be under extremely hig	ţh				
3.) When a rock undergoes metamorphism, the formation of occurs as well a where the mineral grains will grow	3S				
4.) Many regional metamorphic rocks will show, where the mineral grains align themselves into layers. This is due to high					
5.) When metamorphic rocks aren't exposed to high pressure they will be, or work not show mineral alignment.	ill				
6.) Rocks with extreme foliation will show;; is a good example of this and has what's called "gneissic" foliation.	le				
7.) A good example of a metamorphic rock without foliation is which metamorphosed sandstone.	is				
<ol> <li>Bituminous coal will metamorphose into, limestone will metamorphose into, limestone will metamorphose into</li> </ol>	se				
9.) Complete the diagram below from low to higher grade metamorphic rock					

Shale→\_\_\_\_\_\_ (Mica appears)→\_\_\_\_\_\_ (↑Mica%)→ Gneiss (Banding)

Sample #	Foliated or Non-Foliated? *If foliated; mineral alignment or banding?	Metamorphism Type (Contact/Regional)	Probable "Parent" or original rock	Rock Name
M-A				
M-B				
M-C				
M-D				
M-E				
M-F				
M-G				
M-H				

- 1.) Why do <u>regional metamorphic</u> rocks show foliated texture while <u>contact metamorphic</u> rocks do not?
- 2.) How could you differentiate between a marble and a quartzite if both looked the same?
- 3.) Why would you seldom find fossils in a metamorphic rock?
- 4.) Gneiss and Granite often portray the same colors and mix of minerals. How could one tell them apart?
- 5.) Why are metamorphic rocks more resistant to weathering than their parent rocks?