

Homework Assignment 2 – The Language of Rocks(1/25/07)

Objective: To hone your “language” skills about the three main types of rocks

Instructions: Answer the questions below for each of the three parts. Turn in your assignment via email or in class by next Thursday (2/1/07)

Part I – Igneous Rocks

Describe the magma composition type, environment of emplacement, basic texture and two common minerals that occur in each of the four main types of igneous rocks (5 pts)

<u>Rock</u>	<u>Magma Type</u>	<u>Environment</u>	<u>Texture</u>	<u>2 Minerals</u>
Basalt	_____	_____	_____	_____
Granite	_____	_____	_____	_____
Gabbro	_____	_____	_____	_____
Rhyolite	_____	_____	_____	_____

Part II - Sedimentary Rocks

For each of the sedimentary rocks below, indicate whether it is a clastic or chemical rock type (circle one). If it is clastic, rank its sorting (well, moderate, poor) and compositional maturity (mature, immature). For all rock types, indicate a possible depositional environment. (7 pts).

<u>Rock</u>	<u>Sediment Type</u>	<u>Clastic Rx Attributes</u>		
	<u>Clastic or Chemical</u>	<u>Sorting</u>	<u>Maturity</u>	<u>Possible Depositional Env.</u>
Till	Cl Ch	_____	_____	_____
Shale	Cl Ch	_____	_____	_____
Limestone	Cl Ch	_____	_____	_____
Quartz Sandstone	Cl Ch	_____	_____	_____
Iron Formation	Cl Ch	_____	_____	_____
Graywacke	Cl Ch	_____	_____	_____
Conglomerate	Cl Ch	_____	_____	_____

Part III - Metamorphic Rocks

For each of the metamorphic rocks below, indicate the grade of its metamorphism (high or low) and a possible protolith (source rock) (4 pts)

<u>Rock</u>	<u>Grade</u>	<u>Protolith</u>
Amphibolite	_____	_____
Metagraywacke	_____	_____
Gneiss	_____	_____
Schist	_____	_____
Marble	_____	_____
Greenstone	_____	_____
Quartzite	_____	_____