Metamorphic rocks

Rock sample number:	**Location:**
Observation	**Comment**
Texture • Are the crystals coarse, medium or fine? • Are the crystals approximately the same size (equicrystalline) or of different sizes (porphyroblastic? • Is it foliated (so the crystals lie in a preferred orientation)? • Does it show schistosity, slaty cleavage or gneissose banding? • Do the crystals lie in a random pattern (so it has a hornfelsic texture)?	
Colour • Is it a pale / light colour? • Is it a dark colour? • Is the colour even? • Does it show colour banding (so it may be a regional metamorphic rock)?	
Minerals * (+ reasons for identification) • How many different colours can you see (each colour probably indicates a different mineral)? • Which minerals form porphyroblasts (larger crystals)? • Which minerals form the groundmass? (Use the mineral sheets to help you identify these minerals. Use properties like hardness, colour, crystal shape, twinning and cleavage).	
Name of rock • Is it marble, slate, schist, gneiss, spotted rock or hornfels?	
Cooling history • Did it form under very high temperatures (so it has coarse crystals)? • Did it cool under high temperatures (so it has fine to medium crystals)? • Did the crystals form at the same time / at the same rate (so crystals are of the same size? • Did some crystals form earlier than others (so the rock has a porphyroblastic texture)?	
Formation • Formed by regional metamorphism? • Formed by contact metamorphism?	

*Common minerals are: quartz, feldspar, mica (muscovite & biotite),
+ chlorite, hornblende with porphyroblasts of garnet or pyrite in regional metamorphic rocks
+ porphyroblasts of andalusite or chiastolite in contact metamorphic rocks