



GCE A LEVEL

A480U10-1B



O20-A480U10-1B



TUESDAY, 6 OCTOBER 2020 – AFTERNOON

GEOLOGY – A level component 1

MINERAL DATA SHEET

Name	Cleavage/Fracture	Hardness	Relative Density	Streak	Lustre	Colour	Other diagnostic properties
Quartz	RF	7	2.65	scratches streak plate	vitreous	colourless, milky but variable	hexagonal prisms terminated by pyramids
Orthoclase Feldspar	RF	*6	2.6	scratches streak plate	vitreous	pink, white	
Plagioclase Feldspar	RF	*6	2.7	scratches streak plate	vitreous	creamy-white, grey, colourless	
Muscovite Mica	RF	*2.5	2.7-3.1	white	pearly	colourless or pale yellow, green or brown	*flaky
Biotite Mica	RF	*2.5-3	2.7-3.1	white	pearly	brown/black	*flaky
Hornblende	RF	*5-6	3.0-3.5	scratches streak plate	vitreous	black, dark green	prismatic crystals
Augite	RF	*5-6	3.2-3.5	scratches streak plate	vitreous	greenish black	prismatic crystals
Olivine	RF	*6-7	3.2-4.3	scratches streak plate	vitreous	*olive green	
Chialtolite/Andalusite		7.5	3.1-3.3	scratches streak plate	vitreous	pearly grey/pink	needle crystals with square x-sections, black centre
Garnet		*6.5-7.5	3.5-4.3	scratches streak plate	vitreous	red/brown	*12 sided crystals - each face rhomb shaped
Calcite	RF	*3	2.71	white	vitreous	colourless, white, tints	*effervesces with 0.5M HCl, rhombic shape
Fluorite		*4	3.0-3.2	white	vitreous	colourless purple/green/yellow	fluoresces in uv light, cubic or octahedral crystals
Halite		*2.5	2.2	white	vitreous	colourless, white, often stained	*salty taste cubic crystals, often stained
Gypsum		*1.5-2	2.3	white	silky, pearly	colourless, white, often stained	fibrous
Barite		*3-3.5	*4.5	white	vitreous, pearly	white, pink	bladed crystals
Chalcopyrite		4	4.2	*black	metallic	bronze yellow	*tarnished to peacock colours
Pyrite		*6	5.0	*greenish black	metallic	brass yellow	crystals often striated cubes
Galena		*2.5	*7.5	*lead grey	metallic	lead grey	cubic crystals
Haematite		*5.5-6.5	4.9-5.3	*cherry red	metallic-dull	red/black skin/steel grey	kidney shaped masses, fibrous

* - Useful property for diagnosis RF - Common rock-forming mineral

This table should not be memorised.

Marks in the examinations will be awarded for description of the outcomes of tests on minerals and, on some occasions, identification from test results.