Rock-Forming Minerals to memorize for Mineral Quiz 2

Mineral	Structural Formula	Oxide formula	Silicate class
Forsterite end-member of olivine SS	$Mg_2[SiO_4]$	$2MgO * SiO_2$	Nesosilicate
Fayalite end-member of olivine SS	$Fe_2[SiO_4]$	$2FeO * SiO_2$	Nesosilicate
Olivine solid solution	$(Fe,Mg)_2[SiO_4]$	$2(Fe, Mg)O * SiO_2$	Nesosilicate
Enstatite end-member of Orthopyroxene Solid Solution	$Mg[SiO_3]$ or $Mg_2[Si_2O_6]$	$MgO * SiO_2$	Pyroxene group of Inosilicates, or Chain silicate
Ferrosilite end-member of Orthopyroxene Solid Solution	$Fe[SiO_3]$ or $Fe_2[Si_2O_6]$	$FeO * SiO_2$	Pyroxene group of Inosilicates, or Chain silicate
Orthopyroxene solid solution	$(Mg,Fe)[SiO_3]$	$(Mg,Fe)O * SiO_2$	Pyroxene group of Inosilicates, or Chain silicate
Diopside end-member of clinopyroxene SS	$CaMg[Si_2O_6]$	$CaO * MgO * 2SiO_2$	Pyroxene group of Inosilicates, or Chain silicate
Hedenbergite end-member of clinopyroxene SS	$CaFe[Si_2O_6]$	$CaO * FeO * 2SiO_2$	Pyroxene group of Inosilicates, or Chain silicate
Clinopyroxene solid solution	$Ca(Mg,Fe)[SiO_3]_2$	$CaO * (Mg,Fe)O * SiO_2$	Pyroxene group of Inosilicates, or Chain silicate
Augite -Na- and Al-bearing clinopyroxene solid solution	$(Na, Ca) (Mg,Fe, Al)[(Al,Si)O_3]_2$		Pyroxene group of Inosilicates, or Chain silicate
Albite end-member of plagioclase SS	$Na[AlSi_3O_8]$	$Na_2O*Al_2O_3* 6SiO_2$	Feldspar group of tectosilicates or Framework silicate
Anorthite end-member of plagioclase SS	$Ca[Al_2Si_2O_8]$	$CaO*Al_2O_3* 2SiO_2$	Feldspar group of tectosilicates or Framework

			silicate
Plagioclase solid solution	$(Na,Ca)[(AlSi)_4O_8]$		Feldspar group of tectosilicates or Framework silicate
K-Fsp end-member of alkaline feldspar SS	$K[AlSi_3O_8]$	$K_2O*Al_2O_3*6SiO_2$	Feldspar group of tectosilicates or Framework silicate
Alkaline feldspar solid solution	$(K, Na)[AlSi_3O_8]$	$K, Na)_2O*Al_2O_3*6SiO_2$	Feldspar group of tectosilicates or Framework silicate
Quartz	SiO_2	SiO_2	Tectosilicate or Framework silicate
Nepheline	$Na[AlSiO_4]$	$Na_2O*Al_2O_3*2SiO_2$	Feldspathoid group of tectosilicates or Framework silicate
Ferrosilite end-member of Orthopyroxene Solid Solution	$Fe[SiO_3]$ or $Fe_2[Si_2O_6]$	$FeO * SiO_2$	Pyroxene group of Inosilicates, or Chain silicate
Orthopyroxene solid solution	$(Mg,Fe)[SiO_3]$	$(Mg,Fe)O * SiO_2$	Pyroxene group of Inosilicates, or Chain silicate
Chromite	$FeCr_2O_4$	$FeO* Cr_2O_3$	Oxide
Magnetite	$FeFe_2O_4$	$FeO* Fe_2O_3$	Oxide
Spinel solid solution	$(Fe, Mg) (Al, Cr, Fe)_2O_4$	$(Fe, Mg)O* (Al,Cr,Fe)_2O_3$	Oxide
Pyrope	$Mg_3Al_2[SiO_4]_3$	$3MgO* Al_2O_3* 3SiO_2$	Nesosilicate
Almandine	$Fe_3Al_2[SiO_4]_3$	$3FeO* Al_2O_3* 3SiO_2$	Nesosilicate
Grossular	$Ca_3Al_2[SiO_4]_3$	$3CaO* Al_2O_3* 3SiO_2$	Nesosilicate
Garnet Solid Solution	$(Mg, Fe, Ca)_3(Al, Cr, Fe^{3+})_2[SiO_4]_3$	3(Mg, Fe, Ca)O* (Al, Cr,	Nesosilicate

		$Fe^{3+})_2O_3$* $3SiO_2$	
Leucite	$K[AlSi_2O_6]$	K_2O* Al_2O_3* $4SiO_2$	Feldspathoid group of tectosilicates or Framework silicate
Rutile	TiO_2		Oxide
Ilmenite	$FeTiO_3$	FeO* TiO_2	Oxide
Calcite	$CaCO_3$	CaO* CO_2	Carbonate
Chlorite	$(Mg,Fe)_6[AlSi_3O_{10}](OH)_8$	Not needed	Phyllosilicate
Serpentine	$(Mg, Fe)_6[Si_4O_{10}](OH)_8$		Phyllosilicate
Hornblende	Ca_2Mg_5 $[Si_6Al_2O_{22}](OH)_2$		Amphibole group of Inosilicates, or Double Chain silicate
Phlogopite end-member of the dark mica SS	KMg_3 $[AlSi_3O_{10}](OH)_2$		Phyllosilicate, or Sheet silicate
Biotite end-member of the dark mica SS	KFe_3 $[AlSi_3O_{10}](OH)_2$		Phyllosilicate, or Sheet silicate
Dark Mica Solid Solution	$K(Fe, Mg)_3$ $[AlSi_3O_{10}](OH)_2$		Phyllosilicate, or Sheet silicate
Muscovite	KAl_2 $[AlSi_3O_{10}](OH)_2$		Phyllosilicate, or Sheet silicate