

Physical Geology Review for Test 1 on Tuesday, Feb 13th Terms and Major Topics of Discussion

The Definition of a Mineral

terms - mineral, atom, element, chemical properties, nuclear properties, crystal, crystal form, mineral cleavage, fracture, ion, cation, anion, ionic bonding, covalent bonding, Van der Waal's forces, polymorph, electron exchange, electron sharing, rock

- how ionic chemical bonds form
- what are the general physical properties of minerals that have ionic bonding?
- how covalent chemical bonds form
- what are the general physical properties of minerals that have covalent bonding?
- how Van der Waals' forces form
- what are the general physical properties of minerals that have Van der Waals' forces?
- the definition of a mineral (5 separate parts)

Physical Properties of Minerals

terms - physical properties, hardness, luster, metallic luster, nonmetallic luster, streak, specific gravity, Mohs Hardness Scale, silicon-oxygen tetrahedron, silicate mineral, rock-forming minerals, nonsilicate mineral, isolated tetrahedral silicate, chain tetrahedral silicate, sheet tetrahedral silicate, framework tetrahedral silicate, ore mineral, industrial mineral, ferromagnesian silicate, nonferromagnesian silicate

- the physical properties of minerals controlled by chemical bonding
- the difference between crystal form and cleavage
- know the Mohs hardness scale
- the physical properties of minerals controlled by chemical composition
- how different arrangements of metals and tetrahedra make the different silicate mineral groups
- the group properties of the different silicate mineral groups
- mineral examples in each silicate mineral groups
- the types and uses of some of the nonsilicate minerals
- the difference between ferromagnesian and nonferromagnesian silicate minerals

The Rock Cycle

terms - rock cycle, mineralogy, texture, geothermal gradient, lithostatic pressure, igneous rock, magma, lava, plutonic igneous rock, volcanic igneous rock, crystallization, weathering, sediment, sedimentary rock, lithification, metamorphic rock, metamorphism

- what are the major elements that make up the earth's crust
- know the three major rock groups and their definitions
- the processes that form each of the three main rock groups
- how the rock cycle can be interrupted