**Key Vocabulary – Rock-Forming Minerals and Ores**

Mineral – a solid, found in nature & not part of a living or once-living thing. A mineral will be made of a certain element (like gold) or be a compound of elements like iron oxide (rust…Fe2O3)

Rock-Forming Mineral: A mineral that is common in rocks these minerals are: quartz, feldspar, mica, and calcite.

Ore – a mineral that can the mined for a profit (money). There are many, many uses for minerals. They are part of our daily lives. Hematite, for example, is commonly mined for its iron content.

Native State / Native Element – When a mineral is found as an element rather than a compound. This is rare because most elements on Earth have reacted with something else – usually reacting with oxygen. Gold is a native element but rust is a compound.

Silicates – the most common type of minerals on Earth’s surface. They are made of silicon plus oxygen and may have another element, too. Feldspar & quartz are common silicates

Carbonates – a mineral group that has carbon and oxygen (CO3). This group reacts with acid and is responsible for many caves and sinkholes as acid ground water eats away the rock.

Oxides – a mineral group that features oxygen and a metal…like rust, which is a chemical reaction of Iron and Oxygen.

Cleavage – the tendency of some minerals to break apart in sheets called “planes,” or show a stair-step or other pattern when broken. They do this depending on how their molecules are arraigned. Mica breaks with cleavage.

Fracture – when other minerals break without a pattern. Quartz breaks with fracture.

Hardness – a measure of a mineral’s ability to scratch or be scratched. On the Mohs hardness scale a 1 (like talc) can be scratched easily. A 10 cannot be scratched (like a diamond).

Luster – the way in which a mineral reflects light (glassy, metallic, pearly, or dull)

Streak – The color of the powder left behind when the mineral is rubbed against a white, unglazed porcelain tile.

Molecular Structure – the way the molecules are lined-up in a mineral. It helps determine the physical properties of the mineral. For example, the “lead” in your pencil (graphite) and a diamond are both made of carbon atoms. But the atoms are arraigned differently in graphite than in diamond.