Today you will be exploring Mining. This will prepare us for our mining lab on Wednesday! Click on the link for the Blendspace located on today’s blog. You should go in order 1, 2, 3. For activity 1 take notes about Fossil Fuels and Ores, for 2 describe at least 2 things you learned from the mining activity, and for 3 choose one reclamation story and describe how they helped reclaim the land in at LEAST 5 sentences.

**Activity 1: Fossil Fuels & Ores PPT**

**Fossil Fuels: Coal, Oil, and Natural Gas**

* Fossil fuels are Non-Renewable resources

**Why do we use fossil fuels?**

* Fossil fuels are fuels formed from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ remains of prehistoric organisms. We burn fossil fuels to produce \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. When these fuels are burned, the energy released can be used to produce electricity, power vehicles and heat homes. They are also important for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_uses.

**Coal**

* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fossil fuel that humans use most is coal. Coal is usually extracted in mines. Many developing countries \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on coal for energy because they cannot afford oil or natural gas. China and India are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ users of coal energy.

**How is coal formed?**

* Coal forms \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ over millions of years from partially decomposed plant material. When layers are compacted and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ over time, deposits turn into coal

**Oil**

* More than \_\_\_\_\_\_\_\_\_\_ of the world’s energy comes from petroleum (crude oil) products

**How is oil formed?**

* Oil is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fossil fuel that formed from the remains of marine microorganisms on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ floor. After millions of years, the deposits end up in rock and sediment where oil is trapped in small spaces. It can be extracted by large drilling platforms.
* Oil is the most \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ used fossil fuel. Commonly used petroleum products are gasoline, diesel fuel, jet fuel, plastics, synthetic fibers, fertilizers, paints and detergents.

**Natural gas**

* Natural gas is a gaseous fossil fuel that is versatile, abundant, and relatively \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ compared to coal and oil. Since 1999, use of natural gas has overtaken coal in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ countries.

**How is natural gas used?**

* Natural gas is used to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ electricity, create glass, paper and steel. It is also used to heat homes.

**Problems with burning fossil fuels**

1. Air \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Can cause \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_rain
3. Destroys \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Environmental \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-

**Formative Quiz**

1. Why are fossil fuels considered non-renewable?
2. Name 3 types of fossil fuels
3. What does coal come from?
4. What is one advantage of using natural gas?
5. What is one problem associated with using fossil fuels?

**Activity 2: Mining Virtual Lab**

Click the start button and then click New User – Click Enter. Write your session ID here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Read through each slide and click the arrow on the right side to continue.

Write your answers to the assessment at the end of the virtual lab below:

**Activity 3: Reclamation Story**

Choose one reclamation story. Describe how they helped reclaim the land using at least 5 sentences.