Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**TOPIC 5: Cellular Energy**

*Please use the Council Rock Video Podcast to guide you*

1. What are examples of autotrophs?
2. What are examples of heterotrophs?
3. The most instant form of energy is known as \_\_\_\_\_\_\_\_\_\_\_\_.
4. Why is ATP a high energy molecule?
5. Complete the photosynthesis equation below

\_\_CO2 + \_\_\_ H2O + \_\_\_\_\_\_\_\_\_/enzymes 🡪 C6H12O6 +\_\_\_6O2

1. If the photosynthesis equation is reversed, then it is the formula for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. The \_\_\_\_\_\_\_\_\_ dependent reactions and the light \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reactions make up photosynthesis.
3. Place a “D” if the statement refers to the light dependent reactions and an “I” if it refers to the light independent reactions

\_\_\_\_ water is split into oxygen, protons, and electrons

\_\_\_\_CO2 is taken in and converted into carbohydrates

\_\_\_\_ light energy is not needed

\_\_\_\_ light energy is needed

1. What initial process splits a molecule of glucose into 2 3-carbon molecules? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What is the NET ATP yield from glycolysis? \_\_\_\_\_\_\_
3. What are the two different types of fermentation mentioned?
4. (Circle one) CO2 is created during **electron transport chain / Kreb’s cycle**
5. In the electron transport chain, oxygen joins with electrons and protons to make \_\_\_\_\_\_\_\_\_\_\_.
6. By going through glycolysis, Kreb’s Cycle, and Electron transport chain, a cell can make between \_\_\_\_\_ and \_\_\_\_\_\_ ATP as opposed to just the 2 of glycolysis.