Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *Biology*

**Biological Energy Currency**

1. ATP stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

2. The job of ATP is to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

3. What does ATP look like?

4. ATP releases \_\_\_\_\_\_\_\_\_\_\_\_\_ for the cell when 1 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bond is broken. Now it is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

5. ADP stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

It has no stored \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

6. In order for it to regain its energy, it must add back 1 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7. Explain how ADP and ATP are each like a battery. Which one is “partially charged” and which one is “fully charged?” Why?

8. Draw the cycle arrows between ATP & ADP.

ATP

ADP

9. Autotrophs: also called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. These are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that get their energy from the sun. They don’t eat – they make their own \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

10. Heterotrophs: also called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. These are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ -- they must eat \_\_\_\_\_\_\_\_\_\_\_\_\_ to get energy. Humans are heterotrophs.