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

**Chemistry of Life : Review #5**

**Biological Molecules (Learning Outcome C-12)**

**L.O. C-12 – Nucleic Acids and ATP**

**\_\_\_\_1. Name the two major types of Nucleic Acids.**

**\_\_\_\_2. What is the key difference between the two categories, when comparing sugars  
 (see Table 2.3 in text)**

**\_\_\_\_3. Give the full names for the four nitrogenous bases that are found in DNA**

**\_\_\_\_4. What replaces the THYMINE base in RNA?**

**\_\_\_\_5. List the three key components that all NUCLEOTIDES possess.**

**\_\_\_\_6. If you built an nucleic acid that consisted of 8 nucleotides all in one strand, how   
 many waters would have been produced during its creation?**

**\_\_\_\_8. A modified nucleotide called ATP is built as an energy molecule for the cell, how**

**does it differ from the RNA Nucleotide that bears an Adenine base?**

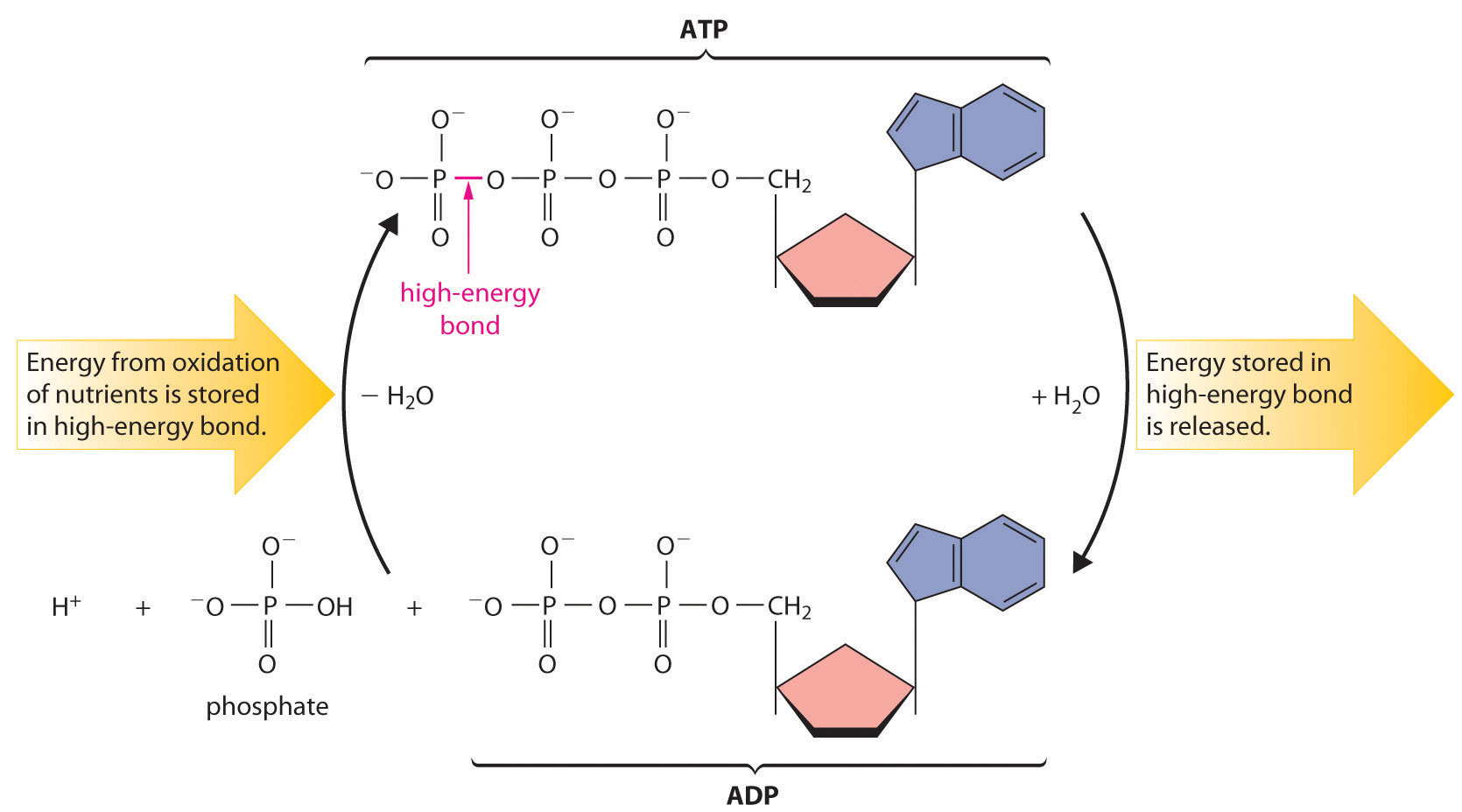
**\_\_\_\_9. Structurally compare ATP to ADP.**

**\_\_\_\_10. What must take place energy to be released from ATP?**

**\_\_\_\_11. What must take place to make ADP into ATP?**

**\_\_\_\_12. Completely label the diagram below with full names:**

1.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



3.\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_