

**Pre-AP Biology Worksheet:
Introduction to Energy & Ecology**

Name: _____

The flow of energy is very important in ecology so fill out the following to get a brief overview of energy concepts

Chemical Energy & ATP

Use pages 202-203 to answer the following:

1. One of the principal chemical compounds that cells use to store & release energy is _____ abbreviated _____.
2. This molecule consists of:
 - a. _____
 - b. _____
 - c. _____
3. The key to ATP's ability to store and release energy is the 3 _____ groups.
4. The energy stored in ATP is released by breaking the chemical bond between _____.
5. List 5 ways that a cell can use the energy provided by ATP
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
6. Why do most cells only have a small amount of ATP to last a few seconds of activity?
7. A single molecule of glucose stores more than _____ times the chemical energy of a molecule of ATP.
8. Cells can regenerate _____ from _____ as needed by using the energy in foods like glucose.
9. Draw and label an ATP molecule. (See figure 8.2).

Ecology and Energy

Begin on page 63 in your text – Read the text and define the following terms & answer the following questions as you come upon them. REMEMBER: use the fewest words possible that still allow you to understand the meaning of the word.

1. ecology
2. biosphere
3. List the levels of organization from smallest to largest.