



## Review Sheet for Photosynthesis

### Words to Know:

Autotroph  
Heterotroph  
Absorption  
Reflection  
Electromagnetic spectrum  
Visible spectrum  
White light  
Pigment  
Chlorophyll  
Chloroplast  
Thylakoid  
Light-dependant  
Light-independent  
Ion  
Gradient  
ATP  
ADP

### Important Concepts:

- ✓ What is known as the "ultimate source of energy for all living things"?
- ✓ List the five pigments we've talked about in class. Why are each important?
- ✓ What does it mean when we say an electron is "excited"?
- ✓ Why is water split, and where is water split (*which part of photosynthesis*), what products are formed when water is split?
- ✓ How are Photosystem II, Electron Transport Chain, ATP Synthesis, Photosystem I, and Calvin Cycle are interrelated
  - What happens in each?
  - What order do they occur?
  - What goes into and out of each?
  - What moves on to the next part of photosynthesis?
- ✓ What are the roles enzymes (proteins) play in the Electron Transport Chain?
- ✓ What is the role of hydrogen ions ( $H^+$ ) in Electron Transport Chain (and ATP Synthesis)?
- ✓ What is the difference between ATP and ADP? Which holds more energy?
- ✓ Explain how the source of most plant mass comes from  $CO_2$  (not minerals from the soil!!!) → see "The Amazing Growing Tree" worksheet
- ✓ Know the equation for photosynthesis
  - What are the reactants? (*what goes in*)
  - What are the products? (*what comes out*)

