# Chapter 8 & 9 Outline Review

# Chemical Energy

## ADP

### Stands for: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### ADP only has 2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; thereby it STORES / RELEASED energy

## ATP

### Stands for: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Contains \_\_\_\_\_\_\_ phosphates which STORE / RELEASED energy

# Photosynthesis

## Overall Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Light-Dependent Reactions

### Takes place in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_and\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a chloroplast

### Sunlight energy is \_\_\_\_\_\_\_\_\_\_\_\_\_\_ by chlorophyll causing excited \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### The electrons are carried away by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### \_\_\_\_\_\_\_\_\_\_\_\_ molecules break down

### Oxygen is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Hydrogen atoms lose \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

### Hydrogen ions bond with \_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_ that act as a carrier or transporter.

### The overall input of the light independent reaction is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

### List 4 factors that affect photosynthesis and explain each.

## Calvin Cycle

### Takes place in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a chloroplast

### Energy from \_\_\_\_\_\_\_\_\_ is used to bond together \_\_\_\_\_\_\_, \_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_ to form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is split.

# Cellular Respiration

## Overall Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Oxidation uses \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Glucose is broken down into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Always the first step of cellular respiration!

### Glucose is broken down into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which generates

### \_\_\_\_\_\_ ATP

### Takes place in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, outside the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Krebs Cycle

### First step of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ respiration (requires \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

### Takes place in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Creates a total of \_\_\_\_\_\_\_ ATP

## Fermentation

### Always follows \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Takes place in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Involved in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ respiration (NO \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ present)

### Two Types

#### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fermentation

 **Example:**

#### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fermentation

 **Example:**

**Vocabulary Terms to Know:**

**Heterotroph**

**Autotroph**

**Photosynthesis**

**Light-Dependent Reactions**

**Calvin Cycle**

**Chloroplast**

**Grana**

**Stroma**

**Thylakoid**

**Carotenoid**

**ATP**

**ADP**

**Chlorophyll**

**NADP**

**Oxidizing**

**Mitochondria**

**Cristae**

**Glycolysis**

**Fermentation**

**Aerobic**

**Anaerobic**