Name: _____ Date:_____ period:_____

Unit 3: The Cell – Energy, Growth & Homeostasis

Study Guide/Unit Outline

Textbook chapters 6.3, 6.4, 7 (all), 8 (all), 9 (all), 10.1, 10.2

1. **Theme 3: Organisms use energy and molecular building blocks to grow, to reproduce and to maintain homeostasis.**
   a. Essential Question #1: Energy and matter: How do living things get it? How do they use it?
   b. Enduring Understanding 3A: Organisms require energy and matter for growth, reproduction and maintenance.

Lesson Objectives: *What I will know and be able to do.*

Objective	Where to find?
Describe the role of ATP in cellular activities.	
Explain where plants get the energy they need to produce food.	
Predict how changes in energy availability affect organisms.	
Explain the role of light and pigments in photosynthesis.	
Explain the role of electron carrier molecules in photosynthesis.	
State the overall equation for photosynthesis.	
Describe what happens during the light dependent reactions.	
Describe what happens during the light independent reactions.	
Identify factors that affect the rate at which photosynthesis occurs.	
Explain where organisms get the energy they need for life processes.	
Outline cellular respiration.	
Compare photosynthesis and cellular respiration.	
Describe what happens during glycolysis.	
Describe what happens during the Krebs cycle.	
Explain how high-energy electrons are used by the electron transport chain.	
Identify how much ATP cellular respiration generates.	