

Pennsville School District				
General Biology				
Curriculum Guide Grade 10				
Standard 5.5 (Characteristics of Life) All students will gain an understanding of the structure, characteristics and basic needs of organisms and will investigate the diversity of life.				
Upon completion of General Biology the following objectives will be achieved by 75% of the students with 75% accuracy.				
Objective	Content	Activities	Materials/Resources	Assessments
A. The cell is the unit of life. Students will be able to relate the structure of molecules to their function in cellular structure and metabolism.	1. All organisms are composed of cells. In multi-cellular organisms, specialized cells perform specialized functions. Organs and organ systems are composed of cells and function to serve the needs of cells for food, air and waste removal. The way in which cells function is similar in all living organisms. 2. Cells carry out the many functions needed to sustain life. They grow and divide, thereby producing more cells. Food is used to provide energy for the work that cells do and is a source of the molecular building blocks from which needed materials are assembled. 3. Living systems are made of complex molecules (including carbohydrates, fats, proteins and nucleic acids) that consist	<u>Chapter 2,7,8,9,10 – History of a Cell</u>	Textbook—(Prentice Hall) Miller & Levine “Biology”.	Chapter Quizzes
		Building macromolecules	Supplies—Computers, printers, teacher-created handouts	Chapter Tests
		Chemical Reactions and Enzymes	Laboratory Activities	Unit Tests
		Eukaryotic & Prokaryotic Cell Structure and Function – Model Making	Computer lab – internet resources explaining various cellular functions & structures.	Cell Model Project
		Osmosis & Diffusion Activity		Laboratory Reports
		Levels of Cellular Organization		Concept Illustrations
		Autotrophs vs. Heterotrophs		Verbal Presentations of Materials
		What’s the Big Deal about ATP?		Power Point Demonstrations of Related Cellular Procedures
		The Reactions of		