LE Grade Pacing Calendar

Month	Topics
September	1) Classroom Syllabus a. Supplies b. Rules 2) Classroom Contract 3) Laboratory Safety Contract 4) Multiple Intelligences Quiz 5) Student Information Sheet 6) Regents Requirements 7) What precautions are we going to take in lab? 8) Textbooks 9) Binder Set Up a. Table of Contents 10) Lab Safety 11) Lab Safety Quiz 12) Tools of a Biologist 13) SI Units 14) Measurement Lab 15) Introduction to Scientific Method a. Observation vs. Inference 16) Introduction to Scientific Method a. Hypothesis vs Conclusion b. Independent vs Dependent variable c. Theory versus Fact 17) Graphing
October	1) Organic/Inorganic molecules 2) Cell theory 3) Heterotroph Hypothesis 4) Properties of Life 5) Cell Organelles 6) Cell Membrane 7) How do organelles work together to maintain homeostasis? 8) Introduction to a Compound Microscopes 9) Cell Analogies 10) Organelles vs Life Functions 11)Animal vs Plant cell 12) Biochemistry
November	1) Photosynthesis 2) Cellular respiration

	3) Passive and active transport 4) Diffusion through a membrane state lab 5) Active transport 6) Passive Transport 7) Enzymes a) Structure of enzyme b) How enzymes work c) Lock and key mechanism d) How is protein related to enzymes refresh how the protein structure is related to lock and keyMembrane as a transport system
December	1) Body systems e) Circulation f) Respiratory g) Digestive h) Reproductive i) Immune j) Endocrine 2) Homeostasis a) Feedback Mechanism b) Diseases 3) Genetics and Biotechnology a) Heredity b) Structure of DNA/RNA c) Protein Synthesis d) Genetic Engineering e) Genetic Diseases State Lab: Relationships and Biodiversity
January	1) Reproduction and Development a) Types of Reproduction i) sexual /asexual b) Cell division and development c) Technology of Reproduction d) Menstrual Cycle e) Human Reproduction State Lab : Making connections

	Stonybrook Field Trip
February	Evolution 1) Theory of evolution 2) Mechanic of evolution a) Genetic variation b) Overproduction c) Natural Selection State Lab: Beaks of finches
March	Ecology 1) Biodiversity 2) Organisms in their environment 3) Structure of ecosystems 4) Flow of energy through an ecosystem
April	Ecosystem Structure 1) Abiotic, biotic 2) Limiting Factors 3) Carrying Capacity 4) Limiting Factors
May	Population Interactions 1) Niche, habitats 2) Food Web 3) Food chains 4) Autotrophs/Heterotrophs 5) Producers, consumers, heterotrophs,autotrophs, herbivores, carnivores 6) Energy Pyramid
June	Human Impact of the ecosystem 1) How ecosystems have changed and how our global world is reacting 2) How materials cycle through the ecosystem 3)How has human population growth affected the Earth's resources? 4) global warming 5) Impact of fertilizers, runoff and acid rain

	Review