

9th GRADE BIOLOGY COURSE MAP

Prepared by Mrs. Karr

	UNIT	CONCEPTS
August/September	Cell structure and function	<ul style="list-style-type: none"> *Characteristics of living things *microscope skills *plant and animal cells *cell organization and organelles *prokaryotic and eukaryotic cells *diffusion, osmosis, active transport
September/October	Cell energy systems	<ul style="list-style-type: none"> *photosynthesis, ATP/ADP *respiration, anaerobic/aerobic *homeostasis *maintenance, growth, repair of cells/tissue
November/ December/January	Cell production and Genetics	<ul style="list-style-type: none"> *review DNA/RNA, transcription, translation, replication *review cell cycle (mitosis, cytokinesis, and meiosis) *review Mendelian and human genetics *population genetics, natural selection *genetic engineering, gel electrophoresis
January/February	Taxonomy Human Biology	<ul style="list-style-type: none"> *4 domains and 6 kingdoms *evolutionary classification *characteristics of phyla in each kingdom *dichotomous keys and cladograms *review structure and function of human organ systems/pig dissection
March/April	Plants	<ul style="list-style-type: none"> *plant parts and functions and adaptations *plant groups *plant reproduction: flower parts/functions *fruits vs. veggies
April/May	Ecosystems	<ul style="list-style-type: none"> *physical geography *variation improves survival *effects of climate and weather *human impact on environment *adaptations and niches *cycles: water, nitrogen, oxygen, carbon, nutrient, energy *producers and consumers *food chains and food webs *predator/prey relationships

*This is a draft course map. Changes will be made by the instructor as necessary.