8th Grade Science Curriculum Map
School Year 2008-2009
Corinne De Keukelaere

Human Brain and Senses FOSSWEB
http://www.fossweb.com/modulesMS/HumanBrain/index.html
Diversity of Life FOSSWEB
http://www.fossweb.com/modulesMS/DiversityofLife/index.html
Populations and Ecosystems FOSSWEB
http://www.fossweb.com/modulesMS/PopulationsandEcosystems/index.html

Organizing Concepts	**FOSS Brain/ Senses: Learning/ Memory/ The Eye** NJCCCS 5.1, 5.2,5.3 5.4, 5.5	**FOSS Brain/ Senses: The Eye Peripheral/ Central Nervous System** NJCCCS 5.1, 5.2,5.3 5.4, 5.5	**FOSS Diversity of Life: Living things, classification, binominal nomenclature** NJCCCS 5.1, 5.2,5.3 5.4, 5.5	**FOSS Diversity of Life: The Microscope, Protist Kingdom** NJCCCS 5.1, 5.2,5.3 5.4, 5.5	**FOSS Diversity of Life: The Microscope, Fungi, Bacteria Kingdoms, Viruses** NJCCCS 5.1, 5.2, 5.3,5.4, 5.5	**FOSS Diversity of Life: Plant & Animal Cells, Cell Processes** NJCCCS 5.1, 5.2,5.3,5.4, 5.5	**FOSS Diversity of Life: Cell Processes, Chemistry of Life, Intro to Plant Kingdom** NJCCCS 5.1, 5.2, 5.3,5.4, 5.5	**FOSS Diversity of Life: Plant Kingdom, Genetics** NJCCCS 5.1, 5.2,5.3, 5.4, 5.5	**FOSS Populations and Ecosystems: Ecosystems, Population Study Genetics** NJCCCS 5.1, 5.2,5.3, 5.4, 5.5, 5.10	**FOSS Populations and Ecosystems: Natural Selection** **Ribbon of Life- cells, tissues, organs, organ systems, organism** NJCCCS 5.1, 5.2,5.3, 5.4, 5.5, 5.10
	September	**October**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**

Month										
Essential Questions	What is the difference between learning & memory? What are different learning strategies? What are the structures & functions of the sense organ: The eye?	What are the qualities of vision? What are the functions of the 3 main parts of the brain & what types of information get processed in each lobe? What is the structure/ function of the neuron and how is an impulse transmitted?	What is the difference between living/ nonliving & dormant? What are the characteristics of life? What is the difference between spontaneous generation & biogenesis? How and why are organisms classified? How do you use a dichotomous key?	How do use a microscope to observe and measure organisms? What are the 5 Kingdoms of Life? What are the characteristics of Kingdom Protista?	What is the difference between the pathogens: Fungi, Bacteria, Virus? How do viruses reproduce & how can their spread be controlled? What are the conditions for Bacteria & Fungi growth?	Why is the cell considered the basic unit of life? What is the difference between a Eukaryotic & Prokaryotic Cell? What are the structures (organelles) & functions of plant & animal cells? What is the ribbon of life- atom, molecule, organelle, cell, tissue,	What is the difference between an atom, element, compound? How is the Periodic Table organized? What is the difference between an organic & inorganic compound? What is the structure of an atom: proton, neutron, electron? What is the difference between a	What is the structure/ function of a seed? How do seeds germinate? What is Photosynthesis, Transpiration, Respiration? What is the difference between a moncot / dicot & gymnosperm/ angiosperm? How do plants reproduce? What is the structure/function of a flower? What is pollination?	What is a habitat and what are the basic needs for different organisms? What is the difference between an individual, population, community, and ecosystem? What are the biotic and abiotic factors in an ecosystem? What is the difference between a food chain and a food web? How do the	What are adaptations and how do they enhance the chances for an individual's survival? How does natural selection allows the best individuals suited for their environment to survive and pass on their traits? How do cells make up tissues-organs, organ systems that compose an

						organ, organ system, organism? What is active, passive transport, diffusion, osmosis and how do these processes relate to movement of materials in and out of a cell?	chemical change and a physical change? How do substance change phases?	What is a genotype, phenotype? How are traits passed down through generations? How do Punnett Squares show the probability that offspring will get a trait? What is dominant, recessive, homozygous, heterozygous, alleles, chromosomes?	organism interactions and the physical factors affect an ecosystem? How do organisms get the energy that they need for life? How does energy move from one trophic level to another in an ecosystem?	organism?
Related Literature	FOSS Brain/ Senses Resources Book Glencoe Life Sciences Ch. 21 Control &	FOSS Brain/ Senses Resources Book Glencoe Life Sciences Ch. 21 Control &	FOSS Diversity of Life Resources Book Glencoe Life Sciences Ch. 1	FOSS Diversity of Life Resources Book Glencoe Life Sciences Ch. 2 Cells	FOSS Diversity of Life Resources Book Glencoe Life Sciences Ch. 2 Cells	FOSS Diversity of Life Resources Book Glencoe Life Sciences	FOSS Diversity of Life Resources Book Glencoe Life Sciences	FOSS Diversity of Life Resources Book & Population & Ecosystems Glencoe Life Sciences	FOSS Diversity of Life Resources Book & Population & Ecosystems Glencoe Life	FOSS Diversity of Life Resources Book & Population & Ecosystems

	Coordination	Coordination	Exploring & Classifying Life	Ch. 8 Protists	Ch. 8 Fungi Ch. 7 Bacteria	Ch. 2 Cells Ch. 3 Cell Processes	Ch. 3 Cell Processes Ch. 9 Plants	Ch. 9 Plants Ch. 10 Plant Reproduction Ch. 11 Plant Processes Ch. 5 Heredity	Sciences Ch. 24 Interactions of Life Ch. 25 Nonliving Environment Ch. 26 Ecosystems Ch. 5 Heredity	Glencoe Life Sciences Ch. 6 Adaptations over time Ch. 13 Worms Ch. 14 Amphibians
Projects	Mirror Writing Helen Keller Movie Cow Eye Dissection	Vision Stations Nervous System Internet Scavenger Hunt Brain Maps	Is there anything alive in here investigation Dichotomous Keys & Binominal Nomenclature	Kingdom Protista microscope activities (Paramecium. Amoeba, Euglena)	Fungi & Bacteria inoculations & growth	Cell project Diffusion. Osmosis experiments	Star Lab Periodic Table Activities	Flower dissection Egg genetics activity	Milkweed Bugs Activity Beetles Observations/ Investigations Mini ecosystems Study	Natural Selection- Galapagos Islands Frog & Worm Dissections