

Intro to Biology

(revised 2008) Levels: I - introduced; P - practiced; M - mastered Current Text

CONCEPT	SKILLS	LEVEL	CHAPTER	TEACHING NOTES	STATE GOALS
I. Biology Principles	Biology explores life from global to the microscopic scale	IP	1	Expanding scientific method and experiment design	11A4a, 4b, 4c 11B4c
	Diversity of Life	P	1		13A4a
	Major themes in living things	IP	1	Recognizing patterns in biology	12B4a, 4b
	Scientific Method	PM	2		
	Study of Animal Behavior	IP	3		
II. Cells	Cell Theory	IP	6	Making models of cells	12A4b
	Cell Membranes	IP	6		
	Organelles of the cell	IP	6	Understanding balance between	
	Photosynthesis	IP	8	photosynthesis and respiration	
	Cellular Respiration	IP	7		
III. Genetics	Mitosis and Meiosis	IP	9	Difference between autosomal cells	12A4a
	Genetic discoveries	IP	10	and sex cells	11A4d
	Patterns of inheritance	IP	10		
	DNA	I	11	Punnett squares and how traits are	
	Human Genetics	IP	12	inherited from each parent	
IV. Evolution	Charles Darwin	IP	14	Natural Selection and Survival of the fit	12A4c
	Evidence of change and evolution	IP	14		11A4a
	New Species	IP	15	Geologic Time and fossils	11A4c
	Fossil Record	IP	15		12E4b
V. Prokaryotes	2 Kingdoms of Prokaryotes	I	16	Viewing bacterial cells under the	13B4b
	Roles of bacteria in the environment	IP	16	microscope.	13B4e
	Pathogenic Bacteria	IP	16		
	Viruses	I	16	Understanding disease	
VI. Simple Eukaryote	Animal like protozoans	IP	17	Microscopic investigations	13B4c
	Plant like protozoans	IP	17		12A4a,b,c
	Reproduction in protozoans	IP	17	Foods lab for fungi and algae	

	Fungi life cycles	IP	18		
	Impact of Fungi on our lives	IP	18		
VII. Plants	Ferns	IP	19	Outdoor study of the different types of plants, and how they are classified	12A4a,b,c 12B4a,b
	Flowering Plants	IP	20		
	Coniferous Plants	IP	19		
	How plants evolved	IP	19		
	Reproduction in plants	IP	20	Biome study of plants	
	Structure of plants	IP	19/20		
VIII. Invertebrates	Sponges and Cnidarians	I	23	There will be some dissections of a variety of animals.	12A4a,b,c 12B4a,b
	Why they are animals	IP	23		
	Structure and function of simple animals	I	23		
	Flatworms and Roundworms	I	23	The students will be able to relate the information back to the chapter on classification	
	Segmented Worms	I	23		
	How these worms relate to classification	IP	23		
	Mollusks	IP	23		
	Echinoderms	IP	23		
	Arthropods	IP	24		
	Role of segmentation	IP	24		
	Variations of body plans	IP	24		
IX. Vertebrates	Fish	IP	25	Scientific Inquiry will be made throughout the use of dissections and observations of living animals	12A4a,b,c 12B4a,b
	Amphibians	IP	25		
	Evolution of the first vertebrates	I	25		
	Anatomy and physiology of the vertebrates	I	25		
	How reptiles have adapted to living in dry environments	I	25		
	Connection between birds and reptiles	I	26		
	Diversity of Mammals	IP	26		
	How animals evolved and flourished in the Cenozoic Era	I	26		