

DAY	CH	TOPIC	READ	X	PODCASTS	x	PWRPTS	x	REVIEW
SUMMER	50	Aquatic Biomes	1094-1097				slides 1-46		
Day 1	50	Terrestrial Biomes	1100-1103		BB Ecosystems		slides 1-46		
	50	CH 50 Review	1104		BB Biotic and abiotic factors		slides 1-46		
SUMMER	51	FAP/imprinting	1108				slides 47-70		
Day 2	51	Taxis/kinesis	1110				slides 47-70		
	51	Classical/operant conditioning	1116-1117		BB Animal Behavior		slides 47-70		
	51	Mating systems-mon/polyamy	1123-1124				slides 47-70		
	51	Altruism/Hamilton's rule/kin selection	1128-1130				slides 47-70		
		coefficient of relatedness					slides 47-70		
SUMMER	51	CH 51 Review	1133-1134		BB Biodiversity-keystone species		slides 47-70		
Day 3	52	Density and Dispersion/Mar-recapture	1137				slides 71-93		
	52	Immigration/emigration	1137				slides 71-93		
	52	Survivorship curves	1139/1140		BB r and K selection		slides 71-93		
SUMMER	52	Exponential/Logistic Growth Models	1143-1147		BB logistic growth		slides 71-93		
Day 4	52	Age structure/carrying capacity	1154-1156		BB exponential growth		slides 71-93		
	52	CH 52 Review	1157				slides 71-93		
SUMMER	53	competitive exclusion principle/niche	1157-1162		BB niche		slides 94-123		
Day 5		Resource partitioning/predation					slides 94-123		
		aposematic coloration			BB aposematic coloration		slides 94-123		
		batesian and mullerian mimicry					slides 94-123		
SUMMER	53	mutualism/commensalism/parasitism	1163-1165		BB Populations		slides 94-123		
Day 6		species richness/relative abundance					slides 94-123		
	53	primary/secondary succession	1173		BB ecological succession		slides 94-123		
	53	CH 53 Review	1180				slides 94-123		
SUMMER	54	Primary producers/ 1,2,3 Consumers	1185				slides 125-145		
Day 7	54	Gross and Net primary productivity	1187				slides 125-145		

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	54	Eutrophication	1190			slides 125-145		
	54	Energy transfer between trophic levels	1192-1193		BB positive and negative feedback	slides 125-145		
	54	Biogeochemical cycles	1196-1197		BB Biogeochemical cycling	slides 125-145		
SUMMER	54	Greenhouse effect/global warming	1204-1205		BB population variation	slides 125-145		
Day 8	54	CH 54 Review	1206		BB Environmental Matter Exchange	slides 125-145		
	55	CH 55 Review	1230		BB Population variation	slides 146-154		
SCHOOL								
T-9/3		short schedule		X				
W- 9/4		short schedule		X				
TH-9/5		AP Multiple choice and grid in pre-test		X				
F- 9/6		Animal behavior lab		x				
M-9/9		Symbiosis- Good buddies activity		x				
T-9/10		Lecture CH 50-52		x				
W-9/11		Lecture CH 53-55		x				
TH-9/12		Interpreting ecological data test practice		x				
F- 9/13		Ecology Test CH 50-55		x				
		Turn in animal behavior lab		x				
		Turn in vocabulary, summer project last due date		x				
M- 9/16	1	CH 1 Review	28					
	2	CHNOPS	33					
	2	Electron Configuration	37					
	2	CH 2 Review	45					
T-9/17								
	3	Four emergent properties of water	48-51		BB Water and life			
	3	Hydrophilic and hydrophobic substances	52					
	3	The pH scale	54					
	3	Buffers	55					
	3	CH 3 Review	56					
W-9/18								
		Population Ecology Grid-in practice Questions (1-5)						

		Fill in notes	
		vocab 50-51	
		vocab 52-53	
		vocab 54-55	Read lab
		symbiosis	
		biology card rev	
		vocab CH 2	
		Test Review	
		Vocab CH 3	
		Test review	
		Test Review	

	4	The formation of bonds with Carbon	59-60						
TH-9/19	4	Hydrocarbons	61						
	4	Isomers-enantiomers, structural, geometric	62		BB polymers				
	4	Functional groups	64-65						
	4	CH 4 Review	66						
F-9/20	5	Dehydration synthesis/hydrolysis	68-69						
	5	Sugars	70-72		BB Carbohydrates				
	5	lipids	74-77		BB lipids				
M-9/23	5	proteins	78-79		BB proteins				
	5	four levels of protein structure	81-83						
	5	Nucleic acids	86-88		BB Nucleic acids				
	5	CH 5 Review	90						
	6	Comparing prokaryotic and eukaryotic cells	98-101						
T-9/24	6	Organelles-ribosome to lysosome	102-108		BB Cellular organelles				
	6	Mitochondria and Chloroplasts	109-111						
W-9/25 ER									
	6	Cell wall of plants	118						
	6	Extracellular matrix	119						
TH- 9/26	6	plasmodesmata, desmosomes, gap junctions	120-121		BB Cell communication				
	6	CH 6 Review	122						
	7	The Fluidity of Membranes	126-128						
F-9/27	7	Cell-Cell Recognition	129						
	7	Passive Transport	130-133						

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	7	Active Transport	134-136					
	7	Exocytosis and Endocytosis	137-138					
M-9/30	7	CH 7 Review	139					
		Osmosis/Diffusion Lab						
		Food lab- Kelly Reidell						
T-10/1								
W- 10/2								
	8	1st and 2nd law of Thermodynamics	143-144					
TH- 10/3	8	Free energy Change (G)	145					
	8	Exergonic and Endergonic Reactions	146					
	8	Enzymes- Activation Energy	150-153		BB Enzymes			
	8	Enzymes-Effects of pH and Temperature	154-155					
F- 10/4	8	Allosteric regulation of enzymes	156-157					
	8	CH 8 Review	158					
		Lab-enzymes						
M-10/7								
T-10/8								

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W-10/9									
TH- 10/10	11	Local and long distance signaling	202-203						
	11	Reception, Transduction and Response	203-205						
	11	G-protein linked Reception/Tyrosine Kinases	206-207						
F-10/11	11	Signal Transduction Pathways	208	BB Signal Transduction Pathways					
	11	Protein Phosphorylation/dephosphorylation	209						
	11	second messengers, cyclic AMP	210-211	BB Signal Transmission					
M-10/14	11	Signal Amplification	214						
	11	CH 11 Review	216						
		Lab- cell signaling							
T-10/15									
W-10/16									
	9	Cellular respiration- Redox reactions	160-163	BB Cell respiration					
	9	Glycolysis	164-165						
TH-10/17	9	substrate level phosphorylation	165						

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	9	Citric acid cycle, ETC and chemiosmosis	168-172					
	9	ATP production by Cellular respiration	173-174					
F-10/18	9	Fermentation- alcohol and lactic acid	175-176					
	9	CH 9 Review	179					
		Cellular Respiration Lab						
M-10/21								
T-10/22								
W-10/23								
	10	Photosynthesis-heterotrophs/autotrophs	181	BB Photosynthesis and Cell Res.				
	10	Chloroplast	182-183					
TH-10/24	10	Light reaction, Calvin cycle	184-185					
	10	ATP and NADPH, Chlorophyll a and b	186-188					
	10	Photosystem II and I	189-191					
F-10/25	10	Chemiosmosis in mitochondria and chloroplast	192					
	10	Calvin cycle- carbon fixation, reduction	193-194					
	10	C4 plants, CAM plants	196-197					
M-10/28	10	Review of photosynthesis/ CH 10 Review	197-199					
		Photosynthesis lab						
T-10/29								

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W- 10/30									
		PROFESSIONAL DEVELOPMENT							
		Photosynthesis lab							
TH-10/31									
F-11/1									
M-11/4									
T-11/5									
W-11/6									
	12	Cell cycle	218-221		BB Cell Cycle				
	12	G1, G2, M and cytokinesis (mitosis)	222-223						
TH-11/7	12	Binary fission	226						
	12	Cyclins, cyclin-dependent kinases	229						
	12	stop and go signals	230-231						
F-11/8	12	Cancer	232-233						
	12	CH 12 Review	234						
	13	Meiosis- Three types of sexual life cycles	242		BB Mitosis and Meiosis				
M-11/11	13	Meiosis stages	243-245						

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	13	Comparing mitosis and meiosis	247						
	13	Independent assortment, crossing over, random fertilization	247-248						
T-11/12	13	CH 13 Review	249-250						
W-11/13		Mitosis/Meiosis Lab							
TH-11/14									
F-11/15									
M-11/18									
	14	Mendel's law of segregation and independent assortment	253-257		BB Mendelian Genetics				
	14	Law of addition and multiplication	258-259		BB probability in Genetics				
T-11/19									
	14	Codominance and incomplete dominance	260-261		BB chromosomal genetics				
W-11/20 ER	14	Pleiotropy, Epistasis, polygenic inheritance	262-263						
TH- 11/21	14	Pedigree Analysis							
F-11/22									
	14	Cystic fibrosis, sickle cell disease, and genetic disorders	266-267						

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TH- 12/12									
F-12/13									
M-12/16		Flex time							
		flex time							
T-12/17		flex time							
W-12/18		CHRISTMAS BREAK							
	16	Griffith experiment- Idea of Transformation	294		BB DNA part I				
	16	Hershey Chase- DNA or Protein the transforming factor?	295						
TH- 12/19	16	Chargaff's rule: A=T, C=G	296						
	16	Wilkins and Rosalind Franklin- x ray crystallography	297						
	16	Watson and Crick- DNA double Helix	297-298						
F-12/20									
	16	Semiconservative model	299-300		BB Meselson and Stahl experiment				
	16	DNA Replication- leading strand, lagging strand	300-302						
	16	Proteins that assist in DNA replication-helicase,	303-304		BB DNA part II				
12/21-1/5	16	TABLE 16.1 helicase, topoisomerase, primase, DNA Poly III	304						
M-1/6									
	16	proofreading and repair- nuclease, nucleotide excision, tel	305-307		BB Advanced Genetics				

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	16	CH 16 Review	307					
	17	Beadle and Tatum's one gene-one polypeptide hypothesis	310					
	17	Transcription and Translation-mRNA	311-313		BB Transcription and Translation			
T-1/7	17	Transcription- initiation, elongation, termination, RNA poly	315-317					
	17	Gene splicing- introns, exons, spliceosome, ribozymes	318-319		BB mutations			
	17	Translation- tRNA, anticodon	320-321					
	17	wobble, rRNA, P site, A site, E site	322-323					
W-1/8								
	17	Protein folding and post-translational modification	324-326					
TH- 1/9	17	TABLE 17.1 Types of RNA	327					
	17	Mutations- point, missense, nonsense, insertion, deletion, fr	328-331					
	17	CH 17 Review	332					
		MIDTERM REVIEW						
F- 1/10								
		AP PRACTICE EXAM- multiple choice, grid in						
		AP PRACTICE EXAM- Free response						
M- 1/13								
		END of TRIMESTER, 1/2 day for students						
		PROFESSIONAL DEVELOPMENT						
		RECORDS DAY						
		DNA LAB						
T-1/14								
W-1/15								
	18	Viruses- capsids, bacteriophages,	334-336		BB Bacteria and Viruses			
TH- 1/16	18	Reproductive cycles- lytic and lysogenic	337-339		BB Viral Replication			

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	18	TABLE 18.1 Classes of Animal Viruses	340						
F- 1/17									
M- 1/20									
T- 1/21									
W-1/22	18	Retroviruses, HIV, provirus, reverse transcriptase	340-341						
	18	viroids and prions	345		BB Molecular Biology				
	18	Bacterial genome- nucleoid, replication in bacteria	346-347						
TH- 1/23	18	Bacterial Transformation, transduction, conjugation	348-349						
	18	plasmids, F plasmid, R plasmids	349-351						
	18	FIGURE 18.18 Conjugation and recombination of E. coli	350						
F- 1/24	18	Transposons	352		BB Mechanisms in increasing genetic Variation				
	18	Operons, repressor, regulatory gene, corepressor, inducer	353-355		BB The Operon				
M- 1/27	18	TRP operon- repressible operon	355						
	18	Lac operon-inducible operon	354						
	18	CH 18 Review	357						
T- 1/28		pGLO bacterial transformation lab							
		pGLO bacterial transformation lab							
W-1/29									
		FLEX DAY							
TH- 1/30									
	19	Chromatin-heterochromatin, euchromatin, nucleosome	359-361						
	19	FIGURE 19.2 Levels of chromatin packing	361						
F- 1/31	19	Histone modification, DNA methylation, epigenetic inheritance	362-364						
	19	Transcription factors- enhancers activators, repressors	364-365						

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	19	RNA processing, mRNA degradation, RNAi, siRNAs	368						
M- 2/3	19	oncogenes, and proto-oncogenes (cancer)	370-371						
	19	tumor suppressing genes, ras gene, p53 gene	371-373						
	19	CH 19 Review- only 19.2 is on AP Exam	381-382						
T- 2/4		Lab							
W- 2/5									
not on Aptest									
not on Aptest	20	DNA cloning, restriction enzymes, sticky ends, DNA ligase	384-386						
	20	FIGURE 20.4 Cloning a Human Gene in a Bacterial Plasmid	387						
	20	Genomic library	388-390						
TH- 2/6	20	FIGURE 20.7 PCR (polymerase Chain reaction)	391		BB Phylogenetics				
	20	Restriction fragments, Gel Electrophoresis, southern blotting	292-293						
	20	RFLP's restriction fragment length polymorphisms	394						
F-2/7	20	FIGURE 20.10 Southern Blotting	395						
	20	Genetic linkage mapping	396						
	20	Human gene Therapy	403						
M-2/10	20	Genetic engineering in plants	406						
	20	CH 20 Review	408-409						
	21	Totipotency in Plants	415						
	21	Cloning in mammals- dolly	416-417						
T-2/11	21	Stem cells- pluripotent	418-419						
	21	apoptosis- programmed cell death	427-428						
	21	CH 21 Review	433-434						
		Genetics lab							

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W-2/12		Winter Break							
		Winter Break							
		Hardy-weinberg card lab							
	22	Evolution- Darwin, Cuvier, Hutton, Lamarck, Linnaeus, Arist	438-441						
TH 2/13 ER	22	Darwin- origin of the species, descent with modification	441-443		BB Evolution I				
	22	Natural selection, artificial selection	444-445						
	22	Homologous structures, vestigial organs,	448-449						
F-2/14	22	Biogeography	450-451						
M-2/17	22	CH 22 Review	452						
T-2/18	23	Hardy-Weinberg Equilibrium	456-458		BB APBIO Natural Selection				
W-2/19									
	23	Mutation, Genetic drift, bottleneck effect, founder effect	460-462		BB Genetic Drift				
	23	Natural selection as the primary mechanism of adaptive evo	464						
	23	Directional, disruptive, and stabilizing selection	465-466						
TH-2/20	23	Heterozygote advantage	466						
	23	CH 23 Review	470		BB Cladograms				
	24	Macro/micro evolution, biological species concept	472-473		BB Origin of Life, scientific evidenc3e				
F-2/21	24	prezygotic and postzygotic barriers	473						
	24	FIGURE 24.4 Reproductive barriers	474-475						
	24	allopatric and sympatric speciation	476-478						
M-2/24									
	24	allopatric and sympatric speciation summary, adaptive radi	480-481						
	24	punctuated equilibrium	482						
	24	Heterochrony, allometric growth, paedomorphosis	484-485						

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	24	CH 24 REVIEW	488						
T-2/25		BLAST lab							
W-2/26									
	27.1	Prokaryotes- peptidoglycan, gram positive,	534-538						
		ACT							
		MME							
		WORK KEYS							
TH- 2/27	38	Angiosperm reproduction- flower structure	771						
	38	sepals, petals, stamens, carpels, receptacle, antehr, ovary	772						
	38	FIGURE 38.3 Floral variations	773						
F-2/28	38	monoecious, dioecious reproduction	773						
	38	Gametophyte development	774-775						
M-3/3		PROFESSIONAL DEVELOPMENT							
T-3/4	38	Double fertilization, endosperm, hypocotyl, radicle, epicotyl	776-778						
W-3/5	38	Aggregate fruit and multiple fruit	779						
TH- 3/6	38	asexual reproduction in plants	781-782						
F- 3/7	38	CH 38 REVIEW	786						
		Flower lab							
	39	Plant response to internal and external signals- etiolation, d	788-789						
M-3/10	39	Reception, transduction, response	789-790						
T-3/11	39	Plant hormones- phototropism	792-793						
	39	TABLE 39.1 Plant hormones- auxin, cytokinins, gibberellins	794						
	39	apical dominance, cytokinins, gibberellins	796-799						

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M-3/24	45	Endocrine system- TABLE 45.1 Major Human Endocring Gl	949						
	45	Hypothalamus and pituitary glands	948-952						
	45	Thyroid hormones, parathyroid hormones	953-955						
	45	Diabetes mellitis, adrenal gland	956-957						
T- 3/25	45	Gonadal sex hormones- testosterone, estrogen, progestins	958						
	45	Melatonin and biorhythms- Pineal gland,	959						
	45	CH 45 REVIEW	961-962						
W-3/26									
	47.3	Animal Development	1003-1008						
	48	Nervous System	1011-1015		BB Nervous System				
TH- 3/27	48	Ion pumps	1016-1017						
	48	Major Neurotransmitters TABLE 48.1	1024						
	48	FIGURE 48.22 Divisions of the autonomic nervous system	1027						
F- 3/27	48	Embryonic brain development	1028-1032						
	48	Diseases	1039-1041						
	48	CH 48 REVIEW	1041-1043						
M- 3/31									
T- 4/1									
		SPRING BREAK							
W- 4/2		FLEX TIME							
		FLEX TIME							
		FLEX TIME							
		FLEX TIME							
		Exam Review							

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