

Biology Honors Midterm Study Guide

Know the following:

Chapter 1	Topic	Page Numbers		Sunshine State Standard Strands
Lesson 1.3	The Study of Biology	13	20	SC.H.1.4.1; SC.H.1.4.4; SC.H.3.4.2; SC.H.3.4.3; SC.H.3.4.6
Lesson 1.4	Tools and Techniques	21	29	SC.H.1.4.1
Chapter 2				
Lesson 2.1	Composition of Matter	31	34	SC.G.1.4.3
Lesson 2.2	Energy	35	38	SC.B.1.4.1; SC.B.1.4.2; SC.F.1.4.5; SC.H.1.4.1; SC.H.1.4.7
Lesson 2.3	Water and Solutions	39	44	SC.B.1.4.1
Chapter 3				
Lesson 3.1	Carbon Compounds	51	54	SC.B.1.4.1; SC.H.1.4.1
Lesson 3.2	Molecules of Life	55	60	SC.B.1.4.1; SC.F.1.4.5; SC.G.1.4.3; SC.H.3.4.2; SC.H.3.4.6
Chapter 4				
Lesson 4.1	The History of Cell Biology	69	71	SC.H.1.4.2
Lesson 4.2	Introduction to Cells	72	76	SC.H.1.4.1
Lesson 4.3	Cell Organelles and Features	77	86	SC.B.1.4.1; SC.F.1.4.3; SC.F.1.4.5; SC.F.2.4.2; SC.H.1.4.7
Chapter 5				
Lesson 5.1	Passive Transport	97	102	SC.H.1.4.1
Lesson 5.2	Active Transport	103	106	SC.F.1.4.3
Chapter 6				
Lesson 6.1	The Light Reactions	113	119	SC.B.1.4.1; SC.F.1.4.3; SC.F.1.4.5; SC.H.1.4.4; SC.H.1.4.7
Lesson 6.2	The Calvin Cycle	120	124	SC.F.1.4.5; SC.H.1.4.1
Chapter 7				
Lesson 7.1	Glycolysis and Fermentation	131	136	SC.H.1.4.1
Lesson 7.2	Aerobic Respiration	137	144	SC.F.1.4.5; SC.H.1.4.1; SC.H.3.4.2; SC.H.3.4.6
Chapter 8				
Lesson 8.1	Chromosomes	151	153	SC.F.2.4.2
Lesson 8.2	Cell Division	154	160	SC.F.1.4.8; SC.F.2.4.1; SC.H.1.4.1; SC.H.3.4.2
Lesson 8.3	Meiosis	161	164	SC.F.2.4.1
Chapter 9				
Lesson 9.1	Mendel's Legacy	173	179	SC.H.1.4.4; SC.H.1.4.7
Lesson 9.2	Genetic Crosses	180	191	SC.H.1.4.1; SC.H.2.4.1; SC.H.2.4.2; SC.H.3.4.1
Chapter 10				
Lesson 10.1	Discovery of DNA	193	195	SC.H.1.4.2
Lesson 10.2	DNA Structure	196	199	SC.F.2.4.2
Lesson 10.3	DNA Replication	200	203	SC.F.1.4.5; SC.F.2.4.2; SC.F.2.4.3; SC.H.3.4.2; SC.H.3.4.6
Lesson 10.4	Protein Synthesis	204	215	SC.F.2.4.2; SC.H.1.4.1; SC.H.3.4.1
Chapter 12				
Lesson 12.1	Chromosomes and Inheritance	235	240	SC.F.2.4.3; SC.H.1.4.1
Lesson 12.2	Human Genetics	241	253	SC.H.1.4.1; SC.H.3.4.3

Review

Daily Assignments Page: <http://mrskingsbioweb.com/BioHonorsAssign.htm>

Interactive Notebooks and PPT notes: <http://mrskingsbioweb.com/BiologyHonorsPPT.htm>

Old Tests & Quizzes: <http://mrskingsbioweb.com/ExamView.htm>

Biology page: <http://mrskingsbioweb.com/Biology.html>

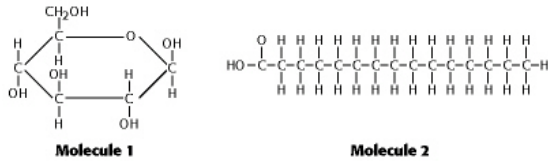
Genetics page: <http://mrskingsbioweb.com/Genetics.htm>

Additional Study Resource: <http://www.sparknotes.com/biology/>

Know what these diagrams convey and be able to label them if asked

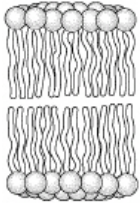
BioChemistry:

Structure of organic compounds
Rings and straight chains

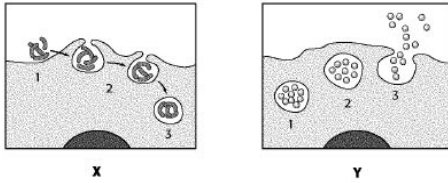


Cells:

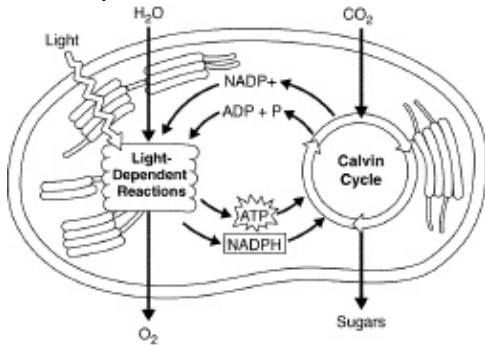
Phospholipid Bilayer



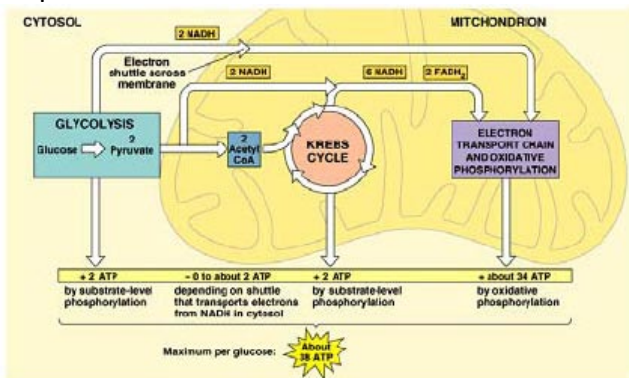
Endocytosis & Exocytosis



Photosynthesis

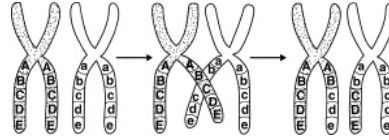


Respiration



Genetics:

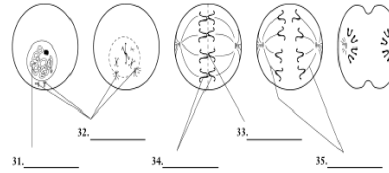
Crossing Over



Phases of Mitosis & Meiosis

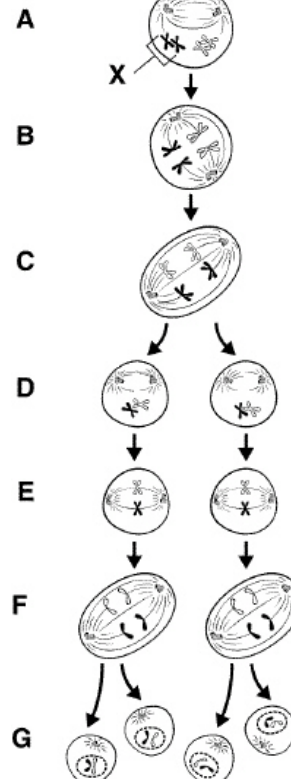
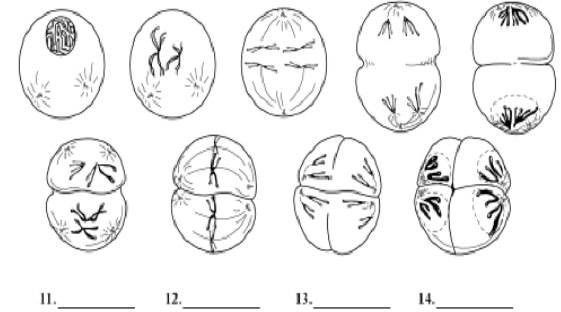
Identify the following phases of the cell cycle. Use these choices: interphase, telophase, metaphase, anaphase, prophase. Then label the diagrams. Use these choices: chromatid, sister chromatid, centromere, spindle fibers, centrioles.

26. _____ 27. _____ 28. _____ 29. _____ 30. _____



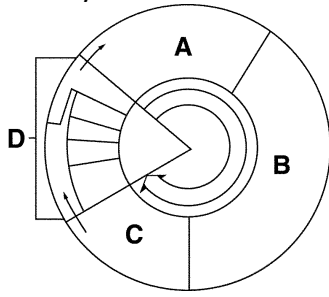
Label the diagrams below. Use these choices: Metaphase I, Metaphase II, Interphase, Telophase I, Telophase II, Anaphase I, Anaphase II, Prophase I, Prophase II.

6. _____ 7. _____ 8. _____ 9. _____ 10. _____

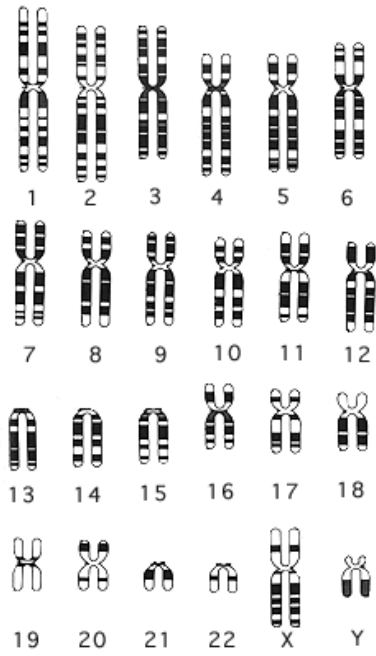


Be able to name these

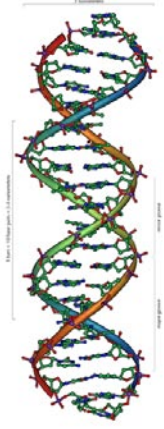
Cell Cycle



Karyotype (n and 2n)



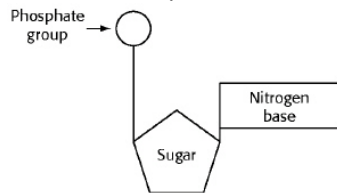
DNA Structure



Codon Table

	Aspartic acid	Glutamic acid	Glycine	Phenylalanine	Leucine	Serine	Tyrosine	Stop
U	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
C	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
A	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
U	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
C	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
A	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
U	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
C	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
A	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
U	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
C	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
A	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
U	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
C	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
A	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G
G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G	U C A G

Nucleotide (DNA and RNA)



Protein Synthesis

