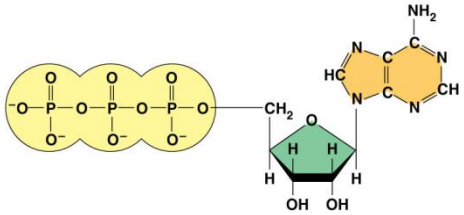
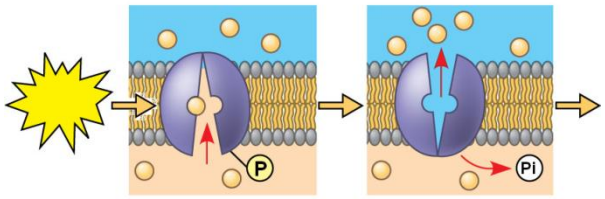
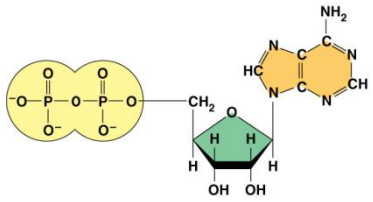
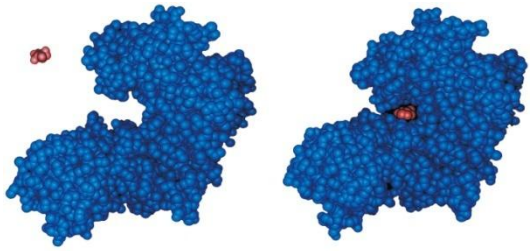
BSC1010

Name that chapter, by looking at figures

Ch. 8-20

(Revised Fall 2011 Wilcox)

a. 	b. 
c. 	d. 
e. 	f.

Chapter number and name: _____

1. enzyme induced fit with substrate

2. living cells reduce entropy

3. ATP

4. ADP

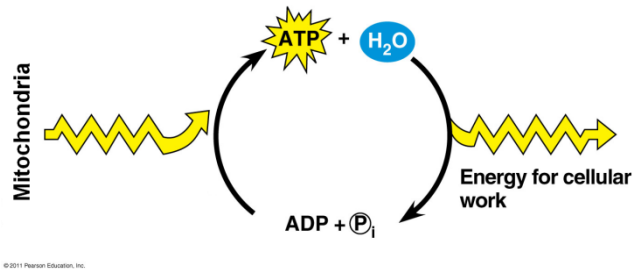
5. transport protein

6. active transport

7. biological systems organize themselves and create order from disorder

8. ATP energizes cellular proteins by the direct chemical transfer of a phosphate functional group.

a.



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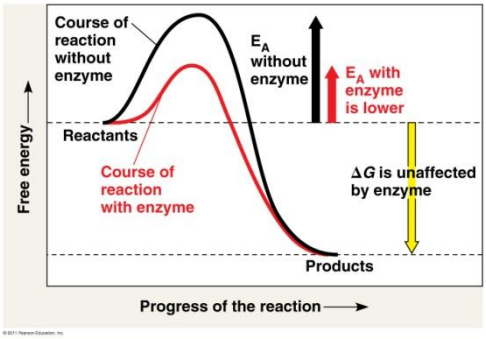

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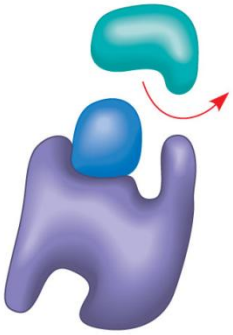

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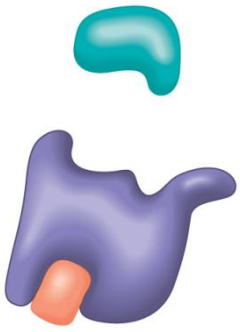


Chapter number and name continued from previous page: _____

9. Second law of thermodynamics: when energy is changed in form (calories to kinetic) some is lost as heat.

10. First law of thermodynamics: energy cannot be created or destroyed, only changed in form.

11. competitive enzyme inhibition

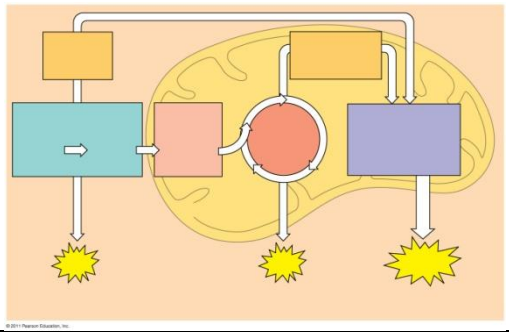
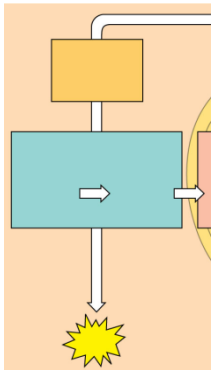
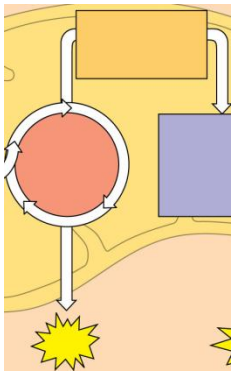
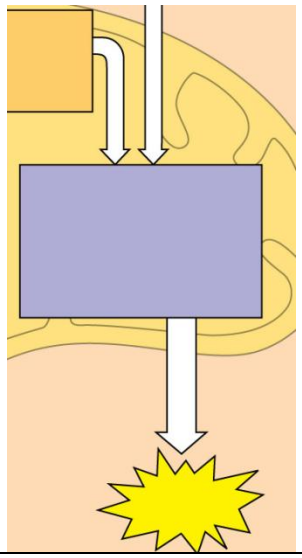
12. noncompetitive enzyme inhibition

13. progress of a chemical reaction with and without enzyme

14. ATP/ADP cycle

15, Organic food molecules broken down into their constituent atoms and released

16. Best illustrates overall cellular respiration

a. 	b. $NAD^+ + 2\,e^- + H^+ \rightleftharpoons NADH$
c. 	d. 
e. 	f.

Chapter number and name: _____

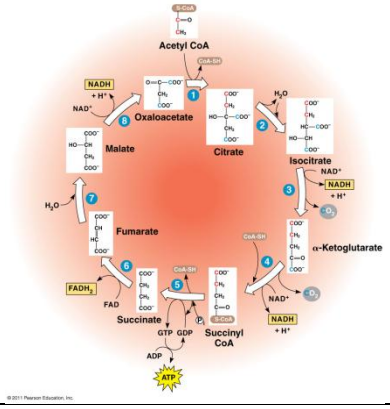
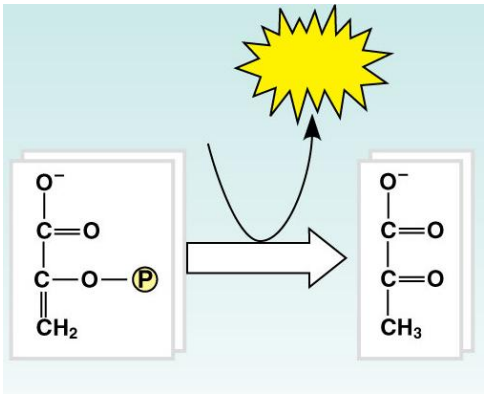
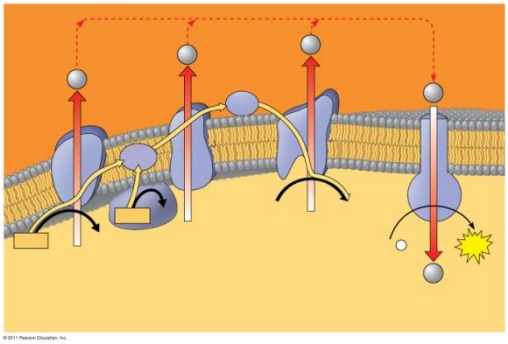
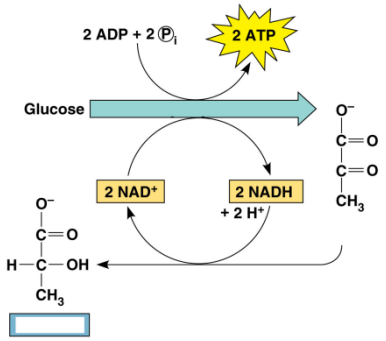
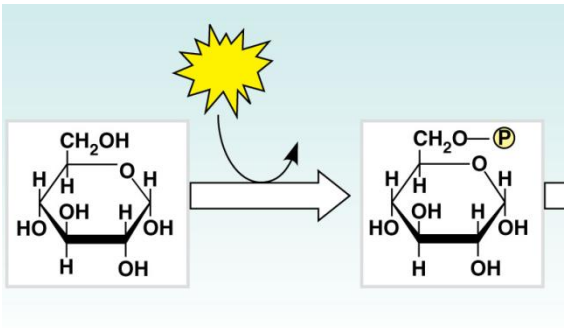
1. Shows the three pathways of cellular respiration where food energy is converted into ATP energy.

2. Glycolysis: occurs outside the mitochondria, produces 2 ATP, NADH and 2 Pyruvate.

3. Citric Acid Cycle (Krebs Cycle): produces 2 ATP and several NADH and FADH.

4. Oxidative phosphorylation: receives NADH from glycolysis and citric acid cycle and makes 36 ATP

5. The electron shuttle that delivers electrons removed from food to the electron transport chain.

a. 	b. 
c. 	d. 
e. 	f.

Chapter number and name continued from previous page: _____

6. First step in Glycolysis: Glucose is phosphorylated by Hexokinase.

7. Last step in Glycolysis: 1 ATP is produced directly from the substrate and pyruvate is produced.

8. The electron transport chain of Oxidative Phosphorylation.

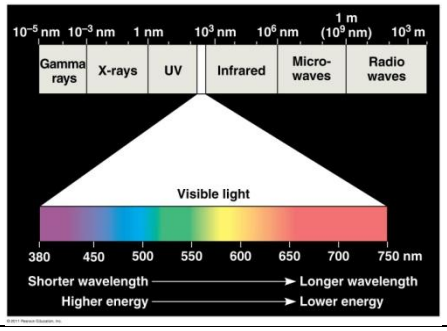
9. Citric Acid Cycle produces 2 ATP from the substrate molecules and 4 NADH, releasing CO_2

10. Shows ATP Synthase

11. Production of a hydrogen ion gradient by transport proteins in the innermitochondrial membrane

12. Lactic Acid Fermentation where pyruvate is converted into Lactate producing ATP and NAD^+.

a.



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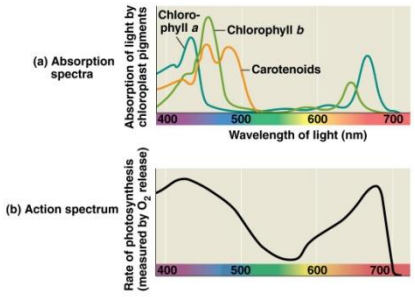

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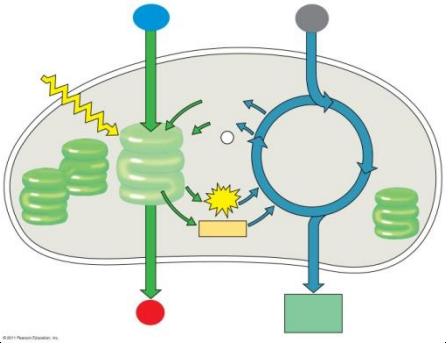

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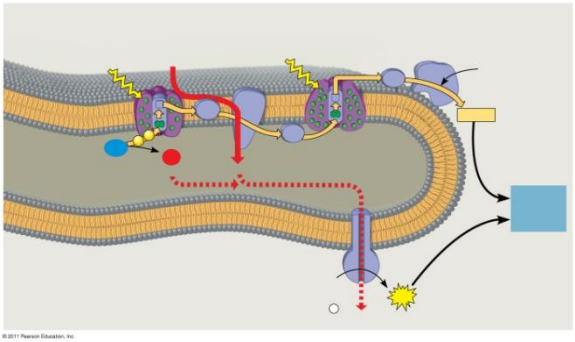

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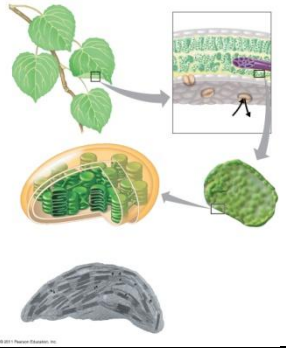
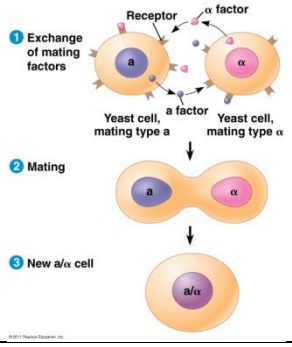
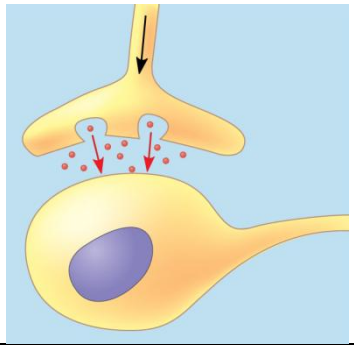
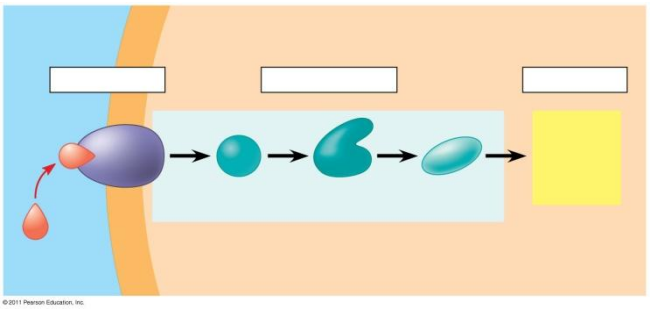
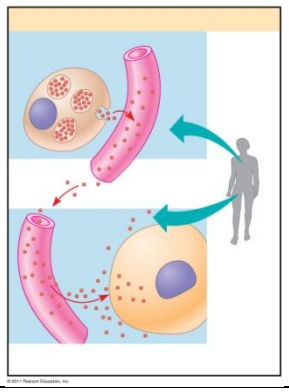


f.

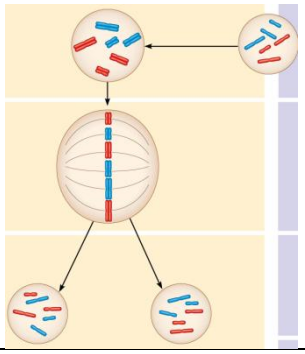
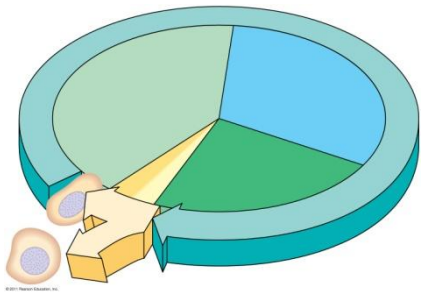
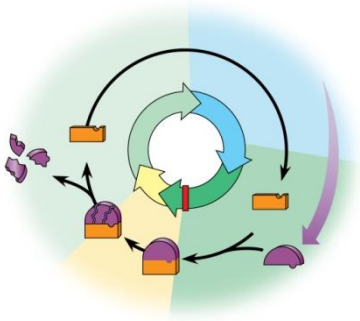
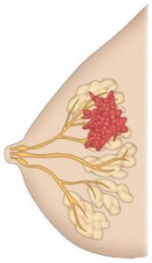
Chapter number and name: _____

1. Photosynthesis: Light Reaction and Calvin Cycle
2. Electron transport chain of the Light Reaction
3. Shows which wave lengths of light drive the most photosynthesis (O_2 production)
4. Electromagnetic spectrum
5. Structure of the leaf and chloroplast

a. 	b. 
c. 	d. 
e.	f.

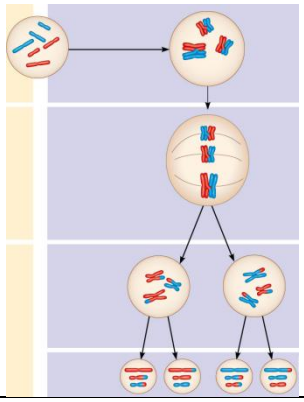
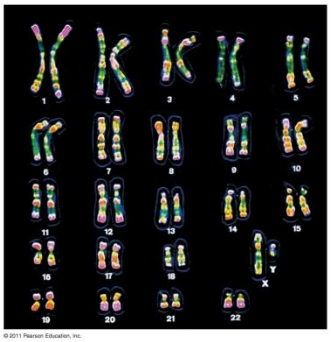
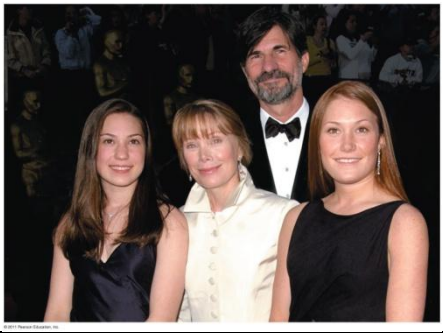
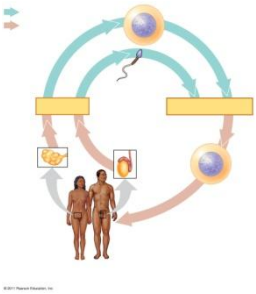
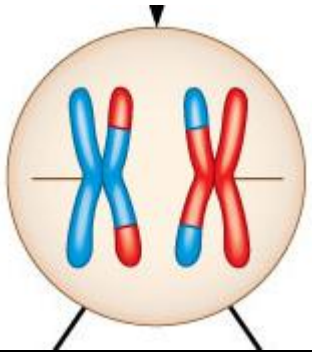
Chapter number and name: _____

1. Early evolution of cell to cell signaling in yeast cells.
2. Cell to cell signaling among different tissues in the body.
3. Receptor and signal transduction.
4. Neural synapse signaling.

a. 	b. 
c. 	d. 
e. 	f.

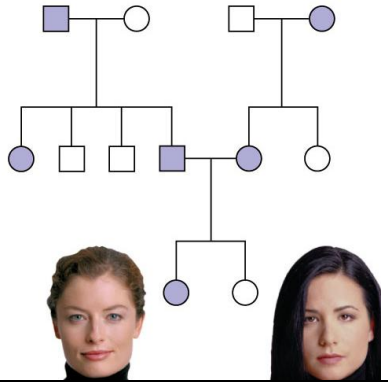
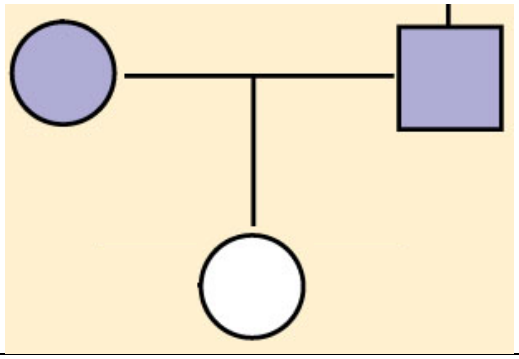
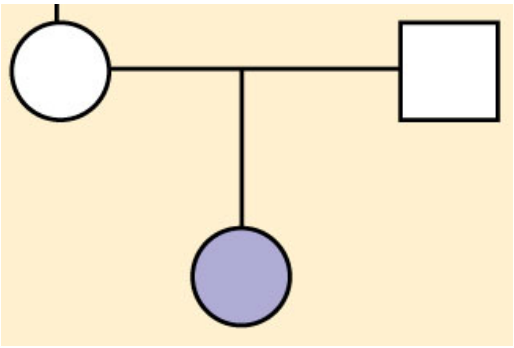
Chapter number and name: _____

1. Asexual reproduction producing two daughter cells genetically identical to the parent (clones).
2. Mitosis
3. Mitosis gone wild.
4. Cyclin and cdk forming MPF
5. Cell cycle: G1, S and G2, mitosis and cytokinesis
6. Telophase

a. 	b. 
c. 	d. 
e. 	f.

Chapter number and name: _____

1. meiosis
2. sexual cycle: meiosis, fertilization, mitosis.
3. Genetic diversity
4. Karyotype
5. Crossing over during Prophase of Meiosis I

a. 	b. 
c. 	d. 
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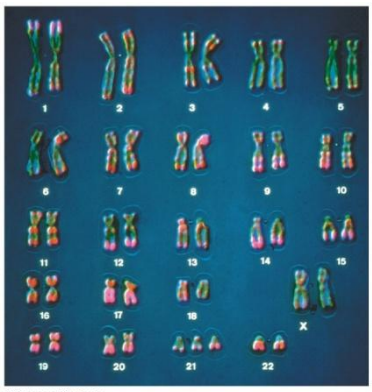
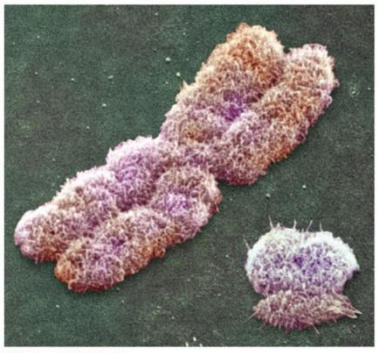
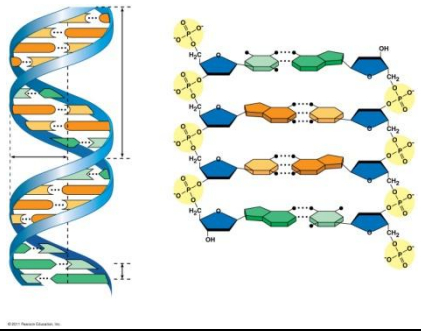
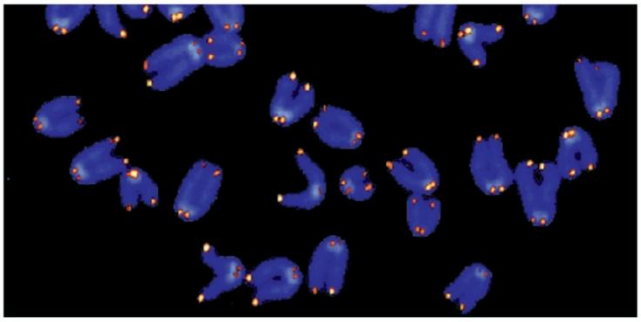
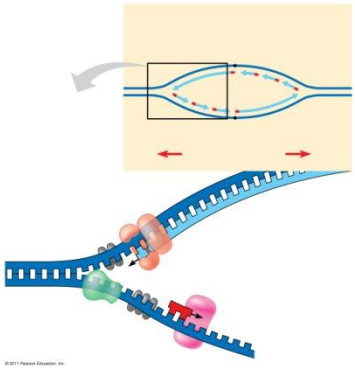
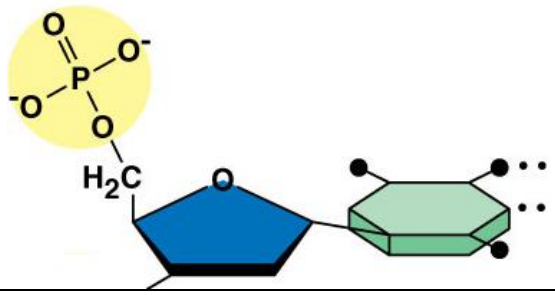
Chapter number and name: _____

1. How Gregor Mendel discovered the basics of inheritance.
2. Family pedigree showing three generations of a trait in a family.
3. A recessively inherited trait in one generation.
4. A dominantly inherited trait in one generation.

a.  © 2011 Pearson Education, Inc.	b.  © 2011 Pearson Education, Inc.
c.	d.
e.	f.

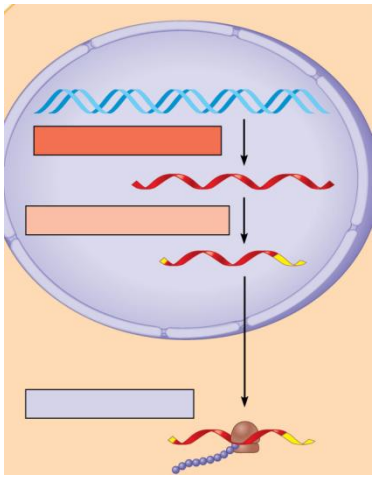
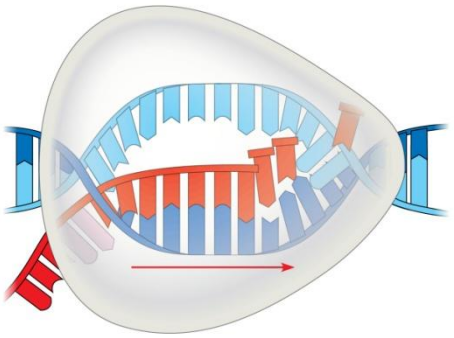
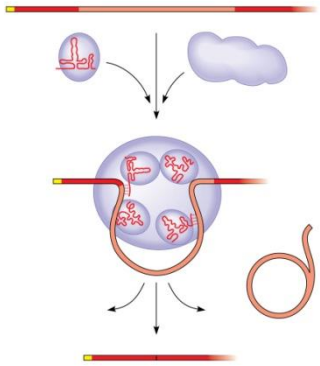
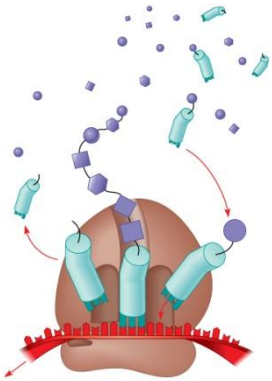
Chapter number and name: _____

1. A mistake in meiosis produces a Down Syndrome child.
2. The x and Y chromosomes of a male.
3. Chromosomes from a female.

a. 	b. 
c. 	d. 
e. 	f.

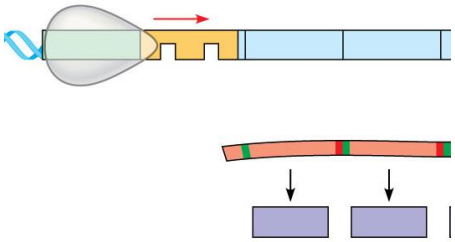
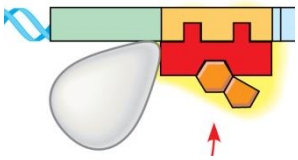
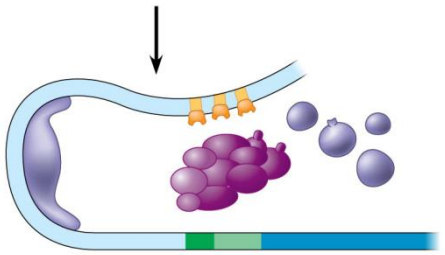
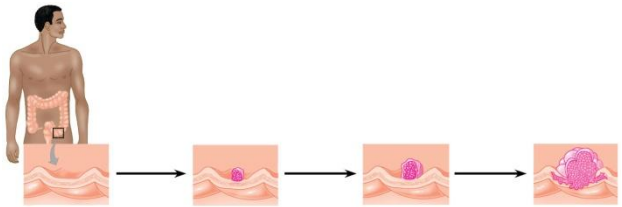
Chapter number and name: _____

1. A nucleotide
2. Watson and Crick discover the structure of DNA
3. A DNA molecule shown in two different views
4. DNA replication
5. Telomers
6. Occurs during the S Phase of the cell cycle

a. 	b. 
c. 	d. 
e. 	f.

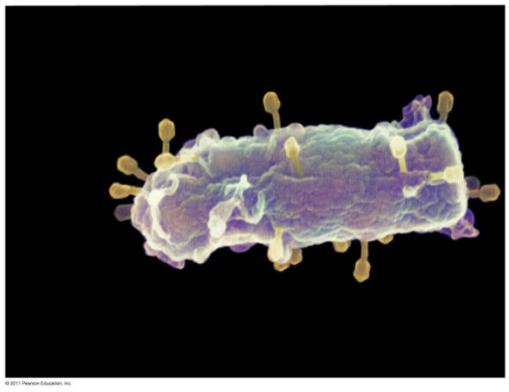
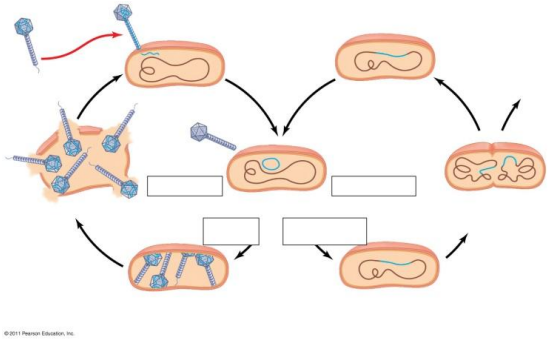
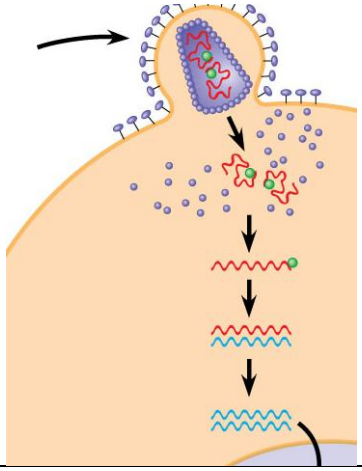
Chapter number and name: _____

1. Translation
2. Transcription
3. Processing
4. Genes make protein
5. Genetic transformation of a plant with an insect gene

a. 	b. 
c. 	d. 
e.	f.

Chapter number and name: _____

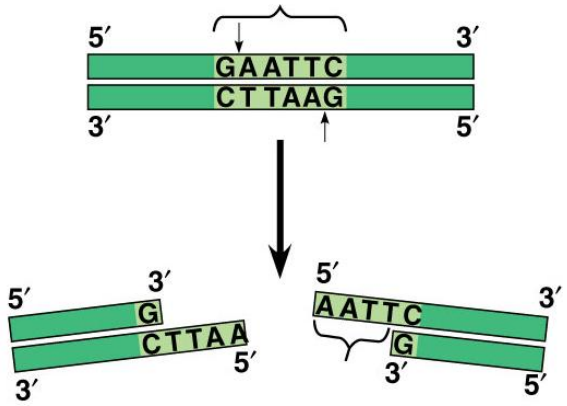
1. Multiple genes must mutate to produce some forms of metastatic cancer.
2. Multiple transcription factors are required to turn on one eukaryotic gene
3. RNA polymerase attaches to the promoter region of a gene
4. An activated regulatory protein enters the operator of a gene and stops transcription

a. 	b. 
c. 	d. 
e.	f.

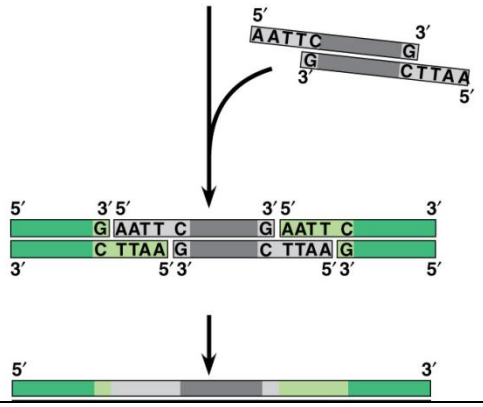
Chapter number and name: _____

1. Bacteriophages attacking a prokaryotic cell
2. HIV inserts its RNA into a cell along with reverse transcriptase
3. Lytic and lysogenic cycle of viral infection
4. Viral capsis

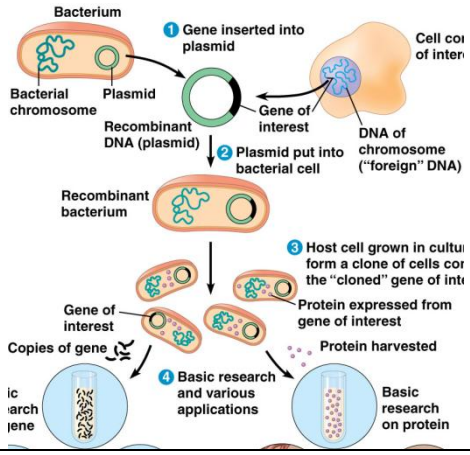
a.



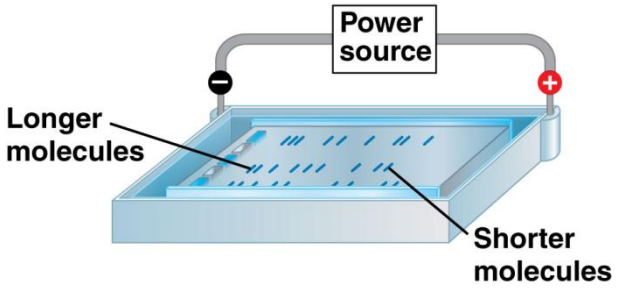
b.



c.



d.



e.

f.

Chapter number and name: _____

1. Ligase used to covalently bond a DNA fragment inserted into another DNA fragment
2. DNA cut with a restriction enzyme
3. Electrophoresis producing several RFLP's (Restriction Fragment Length Polymorphisms) DNA fingerprints
4. Genetic engineering a prokaryotic cell with a eukaryotic gene.

a.	b.
c.	d.
e.	f.

Chapter number and name: _____

a.	b.
c.	d.
e.	f.

Chapter number and name: _____