DEFINE apoptosis
DEFINE morphogenesis
DEFINE phosphorylation
DEFINE kinetochores, centrioles
DEFINE peptide bonds
DEFINE histones
DEFINE nucleosomes
DEFINE codons
STATE the function of reverse transcriptase in retroviruses
STATE the role of tRNA during protein synthesis
STATE the predominate role or function of RNA
STATE the global flow of information in eukaryotes
STATE that all cells come from pre-existing cells
STATE the names of proteins commonly used to regulate the cell cycle
STATE that the environment can influence phenotypes
STATE the location/event where gene regulation is most common in all cells
STATE that testosterone is a steroid and steroids are lipid soluble
STATE the most source of genetic variation in a bacterial colony
STATE the location of most receptors involved in cell signaling pathways
STATE that cell communication is an ancient characteristic of all cells
STATE that cell communication can take place between cells of an organism or between organisms themselves
LIST the steps or events of translation (during protein synthesis)
LIST the sources of variation that arise through sexual reproduction
LIST list the nucleic acid components of an eukaryotic gene
LIST the steps of cell signaling
OUTLINE how DNA is able to “carry” hereditary information
OUTLINE the structure of DNA
OUTLINE the structure and subunits of nucleotides
OUTLINE plasmids
OUTLINE introns and exons
OUTLINE DNA replication in prokaryotes
OUTLINE how proteins are used to regulate the cell cycle
OUTLINE the amount of DNA and the number of chromosomes in a cell prior to meiosis, after meiosis I and the daughter cells after meiosis II
OUTLINE the structure and role of mitochondria
OUTLINE the inheritance of mitochondrial genes
OUTLINE how differential gene expression plays a role in cell differentiation
OUTLINE the role of the operon model
OUTLINE the role of transcription factors
OUTLINE outline signal transduction
OUTLINE the factors that would determine a viruses host range
OUTLINE why viruses are considered obligate parasites
IDENTIFY examples of polygenic inheritance (examples from book will suffice)
IDENTIFY the life cycle typical for animals

DESCRIBE the structure of eukaryotic chromosomes
DESCRIBE prokaryotic genomes / chromosomes
DESCRIBE the steps of splicing foreign DNA into a plasmids and inserting the plasmids into bacteria
DESCRIBE the lac operon
DESCRIBE the trp operon
DESCRIBE the cell signaling pathway of testosterone
DESCRIBE independent assortment
COMPARE leading and lagging strands
COMPARE the structure and components of DNA and RNA
COMPARE the template and coding strands of DNA
COMPARE euchromatin and heterochromatin
COMPARE protein synthesis between prokaryotes and eukaryotes
COMPARE the daughter cells of mitosis from those of meiosis
COMPARE binary fission to mitosis
COMPARE sexual and asexual reproduction
DISCUSS what the information you ascertain from a 1% recombination frequency between two traits
EXPLAIN mRNA processing in eukaryotic protein synthesis
DESIGN a gene map based upon recombination frequencies
PREDICT offspring phenotypes, genotypes and probabilities from single factor crosses, 2 factor crosses, and sex linked traits
PREDICT DNA or mRNA sequences using base pairing rules
PREDICT which mutations are more or less likely to be harmful