Patterns of Inheritance and chromosomes Chapter 14/15
- Define and use the words gene, allele, genotype, phenotype, dominant, recessive, homozygous, heterozygous and test cross.
- How is sex in humans determined?
- Why are the ratios 3:1 and 9:3:3:1 important to understanding Mendel's discoveries?
- Be able to solve a punnett square and solve for both monohybrid and dihybrid crosses as well as be able to solve sex-linked problems.
- Can you solve an ABO blood type problem (codominance)?
- How would you go about determining if a trait was dominant or recessive (assuming that you can breed the creature with the trait)
- Be able to figure out the percentage chance that the offspring of a pair will carry a particular trait.
- What is epigenetics? What are some of the consequences of epigenetic controls like gene methylation?

The molecular basis on inheritance Chapter 16
- How was the structure of DNA discovered, who were some of the major scientists involved (besides Watson and Crick)
- How is DNA replicated? Describe the process u
- Describe how both the leading and lagging strands are copied, include the major enzymes involved and the direction of each strand.
- Why does the lagging strand have to be copied backwards?
- What are Okazaki fragments?
- What are the four nucleotide bases in DNA and how do they link together, why does it matter how they link together (think shape and structure of DNA.)

From Gene to Protein Chapter 17
- Know what the three different kinds of RNA are (mRNA, tRNA, and Ribosomal RNA)
- What is uracil?
- DNA - RNA - Protein
- How do the instructions in DNA become a protein (describe transcription and translation.)
- What is the function of mRNA, where is it created
- What are introns and exons, what gets added to the mRNA strand
- How and why does RNA copy the DNA
- How does the process of copying DNA differ from that of copying RNA?