* Properties of Water
* Basic thermodynamics vocabulary
  + Anabolic, catabolic, exergonic, endergonic
* Differences between animal and plant cells
* Structure of cell membrane
  + Function of membrane components (such as proteins)
* Types of trans membrane movement
* Endosymbiont theory
* Key genetics vocabulary
  + Heterozygous, homozygous, genotype, phenotype, locus, allele, recessive, dominant, test cross
* Calculating probability for offspring
* Recognizing the likelihood of a genetic traits inheritance based on a family tree
* X-Inactivation
* Blood typing and antibody production
* Gene mapping
* Methods of genetic technologies
* Process of mitosis and meiosis
* Structure of DNA
* Process of DNA Replication
* Process of translation
  + How alterations/mutations can alter the process
  + Know the vocabulary that goes along wth those alterations
* Lytic vs lysogenic viruses
* Transformation and the experiment that supported it
* Key evolution vocabulary
  + Types of speciation, types of equilibrium, Causes of variation, balanced polymorphism, vestigial organs, analogous structures, types of isolation, Hybrid fertility and viability
* Darwin’s theory
* Using Hardy-Weinberg to predict percentages of populations with a specific gene type
  + Know how those calculations convert to genotypes and physical manifestations in the given population