**REVIEW GUIDE FOR BIOTECHNOLOGY**

**Viruses: Ch. 19**

* Lytic vs. Lysogenic Cycle
* Structure of a virus
* How viruses infect host cells
* How HIV works; role as a retrovirus
* What bacteriophages are
* Role of viruses in transduction and genetic variation
* Hershey –Chase Experiment

**Biotechnology Ch. 20**

* How bacteria are transformed using recombinant plasmids
* How to select for transformed bacteria
* How a DNA Fingerprint is made (Gel Electrophoresis)
* How to read/interpret a DNA Fingerprint
* How to interpret results of a Bacterial Transformation experiment
* Properties of DNA (negative charge, ability to cut into different sized fragments using restriction enzymes)

**Bacteria: Ch. 27.2**

* Conjugation
* Transformation
* Transduction
* How to extrapolate information from a plasmid to gene expression and a DNA Fingerprint

**Recall:**

* Structure and functioning of an operon (bacteria)
* Gene regulation
* How to read a pedigree
* How to use a codon chart
* Sickle Cell (autosomal recessive inheritance)
* Universality of the genetic code
* How to interpret nucleotide differences to create an evolutionary cladogram
* Impact of DNA mutations
* Be familiar with ALL sources of genetic variation
* Be able to relate genetic variation to evolution/natural selection in a population