

Final Exam Review
Biology

- **Chapter 6 Genetics – Genes and Traits**
 - Recessive vs dominant
 - Crossing-over
 - Meiosis
 - Law of segregation
 - Independent assortment
 - Heterozygous vs homozygous
 - Allele
 - Genotype
 - Phenotype
 - Punnett squares
- **Chapter 7 Genetics – Inheritance**
 - Sex-linked
 - Incomplete dominance
 - Codominance
 - Polygenic traits
 - Pedigree
 - Karyotype
 - Multiple alleles
- **Chapter 8 Genetics – DNA & RNA**
 - DNA replication
 - DNA polymerase
 - DNA structure
 - C-G A-T
 - Mutations (gene and chromosomal)
 - cancer
 - RNA
 - mRNA
 - rRNA
 - tRNA
 - C-G A-U
 - Protein synthesis
 - Translation
 - Transcription
 - DNA vs RNA
- **Chapter 10 Evolution – Natural Selection**
 - Embryology
 - Homologous structures
 - Natural selection
 - Survival of the fittest
- **Chapter 11 Evolution – Adaptation**
 - Endosymbiosis
 - Genetic variation
 - Genetic drift
 - Gene flow
- **Chapter 12 Evolution – Origin of Life**
 - Molecular clocks
 - What was primitive Earth like?
 - Hominids

- Primates
- **Chapter 17 Classification and Diversity**
 - 8 levels of classification
 - 6 kingdoms
 - 3 domains
 - how are organisms classified?
 - Scientific name
 - Why have there been changes to classification?
- **Chapters Human Biology**
 - **29.1 Nervous System**
 - Major parts of the brain and their function
 - Cerebellum
 - Cerebrum
 - Spinal Cord
 - **30.3 and 30.4 Circulatory System**
 - Valves
 - Veins
 - Capillaries
 - Blood vessels
 - Lymph nodes
 - Human heart (major sections and functions)
 - **31.1 – 31.4 and 31.6 Immune System**
 - specific and nonspecific defenses
 - vaccines
 - antibiotics
 - pathogens
- **Chapter 13 Ecology Cycles**
 - Energy flow
 - Nutrient cycling
 - Nitrogen cycle
 - Abiotic vs biotic
 - Consumers
 - Producers
 - Decomposers
 - Trophic levels
 - Food chain vs food web
 - Energy transfer
- **Chapter 14 Ecology & Interdependence**
 - Changes/damage to an ecosystems
 - Carrying capacity
 - Immigration vs emigration
 - succession
- **Chapter 15 Ecology – Biomes**
 - Ecosystems
- **Chapter 16 Ecology – Resources**
 - Impact of individuals on environment
 - Renewable and nonrenewable resources
 - Consequences of loss of biodiversity