

# Biology Final Review

## Module 1

- Four criteria for life
- Taxonomy, biological classification system
- Five major kingdoms

## Module 2

- What are prokaryotic cells
- Parts of a bacterium and their functions
- Conditions for the growth of bacteria

## Module 3

- What are eukaryotic cells
- What are the differences between the two subkingdoms Protozoa & Algae
- Useful/harmful protists

## Module 4

- General characteristics of fungi, types of fungi
- Useful/harmful fungi

## Module 5

- Difference between osmosis and diffusion
- Process of photosynthesis
- Types of organic molecules
- Structure and replication of DNA

## Module 6

- Basic cellular functions
- Cell structure – parts & purpose
- Difference between plant & animal cells

## Module 7

- Difference between mitosis & meiosis

## Module 8

- Be able to complete a Punnett square for two traits (dihybrid cross)
- Know the difference between a genotype and a phenotype

## Module 10

- Difference between a producer, primary, secondary, and tertiary consumer
- Understand a food web and how a change affects it
- Understand an ecological pyramid and what it represents

## Module 11

Kingdom Animalia – Invertebrates and their characteristics

- Phylum Porifera
- Phylum Cnidaria
- Phylum Annelida
- Phylum Platyhelminthes
- Phylum Nematoda
- Phylum Mollusca

## Module 12

Kingdom Animalia

Phylum Arthropoda and their characteristics

- Class Crustacea
- Class Arachnida
- Class Chilopoda
- Class Diplopoda
- Class Insecta

## Module 13

Kingdom Animalia – Vertebrates and their characteristics

Phylum Chordata

- Subphylum Urochordata
- Subphylum Cephalochordata
- Subphylum Vertebrata – vertebrates – know systems/ parts!!
  - Class Agnatha
  - Class Chondrichthyes
  - Class Osteichthyes
  - Class Amphibia

## Module 14

Kingdom Plantae

- Basic plant anatomy
- Phylum Bryophyta
- Phylum Pterophyta
- Phylum Coniferophyta
- Phylum Anthophyta

## Module 15

Kingdom Plantae

- How a plant uses water
- Difference between phototropism, gravitropism, thigmotropism
- Structure of a flower – purpose of parts
- How a seed is formed

## Module 16

Kingdom Animalia – Characteristics of each class

- Class Reptilia
- Class Aves
- Class Mammalia