**Disclaimer** This sheet does NOT necessarily include everything you will need to know for the exam – it is merely to help guide your studying. You will be responsible for everything that has been covered in lecture, for information from any videos that we watched or activities that we did in class, and for relevant information in the book.

**Vocabulary**

- **Allele**
- Codominance
- Complete dominance
- Dihybrid cross
- Dominant
- Genotype
- Heterozygote
- Homozygote
- Hybrid
- Incomplete dominance
- Law of Independent Assortment
- Linked genes
- Loci
- Monohybrid cross
- Multiple alleles
- P, F₁, F₂ Generations
- Phenotype
- Pleiotropy
- Polygenic inheritance
- Punnett square
- Recessive
- Trisomy

**Important Concepts**

- Why did Mendel choose to study peas?
- What is a hybrid? Understand which is the P generation, F₁ generation, F₂ generation, etc.
- Be able to differentiate between a monohybrid and a dihybrid cross.
- Understand Mendel’s law of segregation and law of independent assortment.
- Know how to use a Punnett square to perform monohybrid and dihybrid crosses. Then, be able to determine genotypic and phenotypic ratios from your Punnett square.
- Be able to recognize examples of complete dominance, incomplete dominance, codominance, and polygenic inheritance.
- Be able to create a Punnett square for a gene that involves multiple alleles and codominants (eg. blood type).
- Understand the “Nature vs. Nurture” debate. Which types of characteristics do we think are entirely genetic? Which are influenced by the environment?