

Honors Biology I



Heredity & Genetics

Honors Biology Curriculum

Power Objectives

P.O. #1: Analyze and explain how genes are responsible for the inheritance of traits. ([P.O. #1 Proficiency Rubric](#))

P.O. #5: Design and conduct investigations. ([P.O. #5/6 Proficiency Rubric](#))

P.O. #6: Appraise scientific issues in biology. ([P.O. #5/6 Proficiency Rubric](#))

Academic Vocabulary

- ☐ DNA
- ☐ nucleotides
- ☐ punnett square
- ☐ allele
- ☐ gene

- ☐ chromosome
- ☐ heterozygous
- ☐ recessive
- ☐ dominant
- ☐ codominance

- ☐ sex chromosomes
- ☐ incomplete dominance
- ☐ gametes
- ☐ independent assortment

Enduring Understandings

Students understand that...

- DNA is the molecule that determines an organism's traits.
- Variation is DNA result in different phenotypes that can be predicted with simple probability problems

Essential Questions

- Why is the study of heredity important for understanding human health?
- How can probability be used to predict genetic traits?