

Genetics: Mendel and Inheritance



Learning Target: MS-PS2-1: Use models to show how genetics plays a role in genetic inheritance

Explore	
Watch:	Reflect/Respond: For each topic, please write down key points that help you understand the relationships as well as vocabulary.
Bill Nye: Genes Video https://www.schooltube.com/video/f4f32c3810fc4bf28b8d/Bill%20Nye%20Genes	DNA: Chromosomes:
Ted Ed: How Mendel's Pea Plants Helped Us to Understand Genetics https://www.youtube.com/watch?v=Mehz7tGxiSE	Draw an illustration of Mendel's Pea Plant Experiment.
Alleles Vs. Genes Video https://www.youtube.com/watch?v=X75DTxeGEH4	Alleles: Genes:
Read:	Reflect/Respond: For each topic, please write down key points that help you understand the relationships as well as vocabulary.
Article: What is a Gene? http://kidshealth.org/en/kids/what-is-gene.htm	What are Genes? How do Genes work? What happens where there is a problem with a Gene?
Inherited Traits from Parents https://www.livestrong.com/article/70828-inherited-traits-parents/	Maternal Traits: Paternal Traits: Dominant:

	Recessive:
Review:	Reflect/Respond: For each topic, please write down key points that help you understand the relationships as well as vocabulary.
Dominant and Recessive Alleles https://goo.gl/images/xpqeg5	Dominant: Recessive:
Punnett Square https://goo.gl/images/5g7H5s	Describe how the traits are combining:
Alleles https://goo.gl/images/8mjuJR	What are the parts of an allele?
<u>Discover</u>	
Punnett Squares Virtual Lab http://www.mhhe.com/biosci/genbio/virtual_labs_2/K8/labs/BL_Q5/index.html	For one of the monohybrid crosses you performed in this Investigation, describe how to use the phenotype ratios to determine the percentage of offspring displaying each trait. Can the genotype for a gray-bodied fly be determined? Why or why not? Describe all of the possible genotypes for a fly with that phenotype. Explain why an organism with a homozygous dominant genotype has the same phenotype as an organism with a heterozygous genotype. What genetic information can be obtained from a Punnett square? What genetic information cannot be determined from a Punnett square?
Build a Snowman https://drive.google.com/file/d/131Nuj3dkleg8QVnW0i6lyAGs1bgzD0gM/view?usp=sharing	Lab Activity Directions https://drive.google.com/file/d/1bWZPrN4ai6v3EP7bykOC1Y38Nw5cAtRp/view?usp=sharing
<u>Apply What You Have Learned</u>	
Using your Build a Snowman lab results, build your snowman using Sumopaint , Sketchpad , or DeviantART Muro to illustrate your snowman. Build three punnett squares (using the punnett square maker app Punnet Square) that detail the three of the traits that present in your snowman. Be sure to label which traits are the dominant	Collect your pieces and paste here.

and recessive traits in your punnett squares. Describe two traits that were mutations in your snowman.	
<u>Create Your Presentation</u>	
Using the above "pieces", choose from the following options to create your presentation Comic Makers: Pixton or Powtoon Digital Storyboards: Book Creator or Flipsnack Infographics: Piktochart or Venngage Podcasts: SoundCloud or Spreaker Poster Makers: Phoster or Piktochart Video: WeVideo or Magisto	Add a link here to your presentation.
<u>Share your Presentation here.</u>	Review presentations of your classmates. Which project did you learn the most from? Which project did you find most visually appealing? Which project did you feel was lacking content?

*** Use these later for final HyperDoc

Build a Snowman https://drive.google.com/file/d/131Nuj3dkIegBQVaW8i61yAGs1bgzD0gM/view?usp=sharing	Lab Activity Directions https://drive.google.com/file/d/1bWZPrN4ai6v3FPTbvkOC1V3BNw5cA+Rp/view?usp=sharing
SpongeBob Genetic Lab https://docs.google.com/document/d/1dXW5ETbLTw6HtIWHXLdU7u1R_gVlwgrf567MyUJJNrg/edit?usp=sharing	
Human Traits Lab https://docs.google.com/document/d/1dk6riuXmWCQgTiZ1terSUXEMddXp3TUXqqVst4khT0w/edit?usp=sharing	