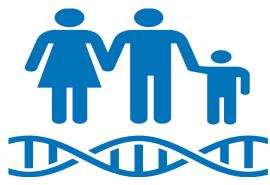
## Genetics: Mendel and Inheritance



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

|   | how genetics plays a role in genetic inheritance   |
|---|--|
| Explore   |  |
| Watch:  | Reflect/Respond:<br>For each topic, please write down key points that<br>help you understand the relationships as well as<br>vocabulary. |
| Bill Nye: Genes Video<br>https://www.schooltube.com/video/f4f32c3810fc4b<br>f28b8d/Bill%20Nye%20Genes                         | DNA: Chromosomes:  |
| Ted Ed: How Mendel's Pea Plants Helped Us to<br>Understand Genetics<br>https://www.youtube.com/watch?v=Mehz7tCxjSE            | Draw an illustration of Mendel's Pea Plant<br>Experiment.  |
| Alleles Vs. Genes Video <a href="https://www.youtube.com/watch?v=X750TxeGEH4">https://www.youtube.com/watch?v=X750TxeGEH4</a> | Alleles: Genes:  |
|   |  |
| Read:   | Reflect/Respond:<br>For each topic, please write down key points that<br>help you understand the relationships as well as<br>vocabulary. |
| Read:  Article: What is a Gene?  http://kidshealth.org/en/kids/what-is-gene.htm   | For each topic, please write down key points that help you understand the relationships as well as                                       |

|   | 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 <a href="https://goo.gl/images/xpqeq5">https://goo.gl/images/xpqeq5</a>  | Dominant: Recessive:  |
| Punnett Square<br>https://goo.gl/images/5g7H5s  | Describe how the traits are combining:  |
| Alleles https://goo.gl/images/8mjuJR  | What are the parts of an allele?  |
| Discover  |   |
| Punnett Squares Virtual Lab http://www.mhhe.com/biosci/genbio/virtual_labs_ 2K8/labs/BL_05/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/131Nuj3dklegBQVg  | Lab Activity Directions   |
| W8i6lyAGslbgzD0gM/view?usp=sharing  | https://drive.google.com/file/d/1bWZPrN4ai6v3FP<br>TbvkOC1V3BNw5cAtRp/view?usp=sharing  |
| Apply What You Have Learned   |   |
| 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.   |   |
|---|---|
| Create Your Presentation  |   |
| 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.               |
| Share your Presentation here.   | 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 <a href="https://drive.google.com/file/d/131Nuj3dkIegBQVaW8i61yAGs1bgzD0gM/view?usp=sharing">https://drive.google.com/file/d/131Nuj3dkIegBQVaW8i61yAGs1bgzD0gM/view?usp=sharing</a>  | Lab Activity Directions <a href="https://drive.google.com/file/d/1bWZP">https://drive.google.com/file/d/1bWZP</a> <a href="mailto:rN4ai6v3FPTbvkOC1V3BNw5cAtRp/view?usp=sharing">rN4ai6v3FPTbvkOC1V3BNw5cAtRp/view?usp=sharing</a> |
|--|--|
| SpongeBob Genetic Lab <a href="https://docs.google.com/document/d/1">https://docs.google.com/document/d/1</a> <a href="https://docs.google.com/document/d/1">dXW5ETbLTw6HtlWHXLdU7u1R</a> <a href="https://docs.google.com/document/d/1">gVlw</a> <a href="https://docs.google.com/document/d/1">grf567MyUJJNrg/edit?usp=sharing</a> |  |
| Human Traits Lab <a href="https://docs.google.com/document/d/1">https://docs.google.com/document/d/1</a> <a href="https://docs.google.com/document/d/1">dk6riuXmWCQgTiZ1terSUXEMddXp3TUXqqVst4khTOw/edit?usp=sharing</a>   |  |