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Vocabulary

- Character: A general feature of an organism hair color
- Trait: A specific state of a character brown hair
- Gene: A fundamental unit of inheritance gene for hair color
 This will be expanded on as we learn more
- Allele: a specific version of a gene the allele for brown hair
- Dominant trait: The state of a trait that is expressed (observable) even when other alleles are present
- Recessive trait : The state of a trait that can only be expressed when a the allele for a dominant trait is absent

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Mendel's Laws

- The First Law (Law of Segregation) • Mendel's Experiment revealed the particulate nature of genes
- The Second Law (Law of Independent Assortment)
 - Mendel's Experiment revealed that in general, each character has its own gene and alleles and they are passed down to offspring without regard to any other gene or allele
 - The results anticipate the role chromosomes play in genetics





There's a Gene for That? Week 3













Differences detectable by odor























































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Usefulness of "linkage"

- You can map chromosomes based on linkage
 The map simply tells you which genes share the same chromosome and in relative terms how close together they are
- Unkage lets you study some genes without really know which gene you are looking at
 Marker genes are just detectable genes or chromosome locations used to study genes when you do not know much else about the gene of interest.
 Linkage means NON-independence so knowledge about one means some knowledge about the other linked gene