Each pair of chromosomes have two genes. One specific gene is called an **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**. An allele is a singular gene that codes for a trait.

You can have a gene that codes for eye color but the alleles would be brown, green, blue or hazel.

When **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** you get a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**  When we **describe genotypes we use letters**.

Alleles can be **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** or **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** allele has a gene that is always expressed. It masks a recessive allele. It is represented by a capital letter (B).

A **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** allele is only expressed if there is no dominate allele paired with it. IT is represented by a lower case letter (b).

You can describe genotypes in three ways: (remember *heter-*different, *homo*- same).

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  describes a genotype that has a recessive and a dominate allele. (Bb, Hh, Tt)

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** describes a genotype that has two dominate alleles. (BB, HH, TT).

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** describes a genotype that has two recessive alleles. (bb, hh, tt).

A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is how that gene is expressed. We can observe phenotypes.

Dominate alleles \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the recessive alleles.

Key:

\_\_\_\_ = Dominate (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

\_\_\_\_ = Recessive (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

All possible genotypes and phenotypes

\_\_\_\_ =

\_\_\_\_ =

\_\_\_\_=





Key:

\_\_\_\_ = Dominate (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

\_\_\_\_ = Recessive (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

All possible genotypes and phenotypes

\_\_\_\_ =

\_\_\_\_ =

\_\_\_\_=

Explain why the heterozygous genotype (Yy) has a phenotype of Yellow pod instead of a green pod.

Remember glue *quickly* along the dotted lines.

Lets make the glue *last* and we will never loose a stick or a cap!