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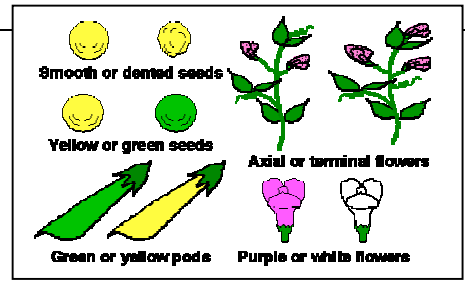
Date:

Period:

Biology: Heredity

What the Heck are Genotype and Phenotype?

In the following class work activity, try to formalize your understanding of genotype and phenotype. We use the word genotype to explain the genes that represent what a person has inherited from their parent (or an organism has inherited from its "parents"). Genotypes are illustrated by using TWO letters for each gene (one from mom and one from dad). Phenotypes simply refer to how you look- or your physical traits- based on your genotype.



Answer the following questions filling in genotype or phenotype as necessary. Assume that:

- A= angry B= big C= cool D= dense E= energetic
- a = happy b= small c= hot d= intelligent e= tired

GENOTYPE	PHENOTYPE	GENOTYPE	PHENOTYPE
Aa		Bbcc	
BB		eebbcc	
cc			Happy, cool, intelligent
EE			Dense, hot, angry
	Energetic	ddEeCC	
	Happy	aaCcdd	
aaEE			Small, hot, tired, intelligent
	Small, dense		Angry, intelligent, energetic, cool
	Happy, hot	aaBbCCdd	
Eedd			Big, cool, dense, angry

On the back of this sheet, create a punnet square for the following crosses. Record the phenotype and genotype percentages from each cross.

- Aa X aa, BB X bb, Dd x Dd, ee X Ee