

The Genetics of a Cartoon Character

Name: _____















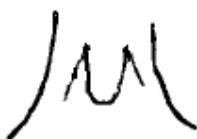

For this experiment, you will be working in pairs. The person who will flip the dime will be the male (father), the person who will flip the penny will be the female (mother). For each trait, each parent will flip a coin to decide which allele they will donate to the offspring. **Heads will represent the dominant allele** and **tails will represent the recessive allele**. Place the appropriate letter for the allele in the boxes. At the end you will draw your new cartoon "child" to see what your alleles combined to create.






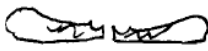








Mother: _____ Father: _____
PENNY SEX CHROMOSOME DIME SEX CHROMOSOME

Cartoon Character Gender Alleles: _____

Cartoon Character Gender: _____

Cartoon Character's NAME: _____

Trait	Father's (sperm) contribution	Mother's (egg) contribution	Offspring genotype	Offspring phenotype	Alleles and phenotypes	
					Dominant allele (and associated phenotype)	Recessive allele (and associated phenotype)
Head Shape			_____ Genotype description		H = 	h = 
Eye shape			_____ Genotype description		E = 	e = 
Eyebrows			_____ Genotype description		Y = 	y = 
Nose			_____ Genotype description		N = 	n = 
Mouth			_____ Genotype description		M = 	m = 
Ears			_____ Genotype description		R =  	r =  
Neck			_____ Genotype description		C = 	c = 

Trait	Male contribution	Female contribution	Offspring genotype	Offspring phenotype	Alleles and phenotypes	
					Dominant allele (and associated phenotype)	Recessive allele (and associated phenotype)
Body			_____ Genotype description		B = 	b = 
Legs			_____ Genotype description		L = 	l = 
Feet			_____ Genotype description		F = 	f = 
Hair			_____ Genotype description		A = 	a = 
Arms			_____ Genotype description		T = 	t = 
Tie			_____ Genotype description		S = 	s = 
Mustache			_____ Genotype description		U = NO mustache	u = 
Beard			_____ Genotype description		D = 	d = NO beard

FINAL INSTRUCTIONS: On a **separate sheet of paper**, draw YOUR genetics cartoon character... for each trait that you created **choose a specific color** and:

- label the genotype on your cartoon character.
- include the NAME AND SEX CHROMOSOMES of your cartoon character in the upper right corner.
- label the phenotype on your character (in parenthesis under the genotype)
- shade the trait table with the same color.