

### Genetics Practice-Alien

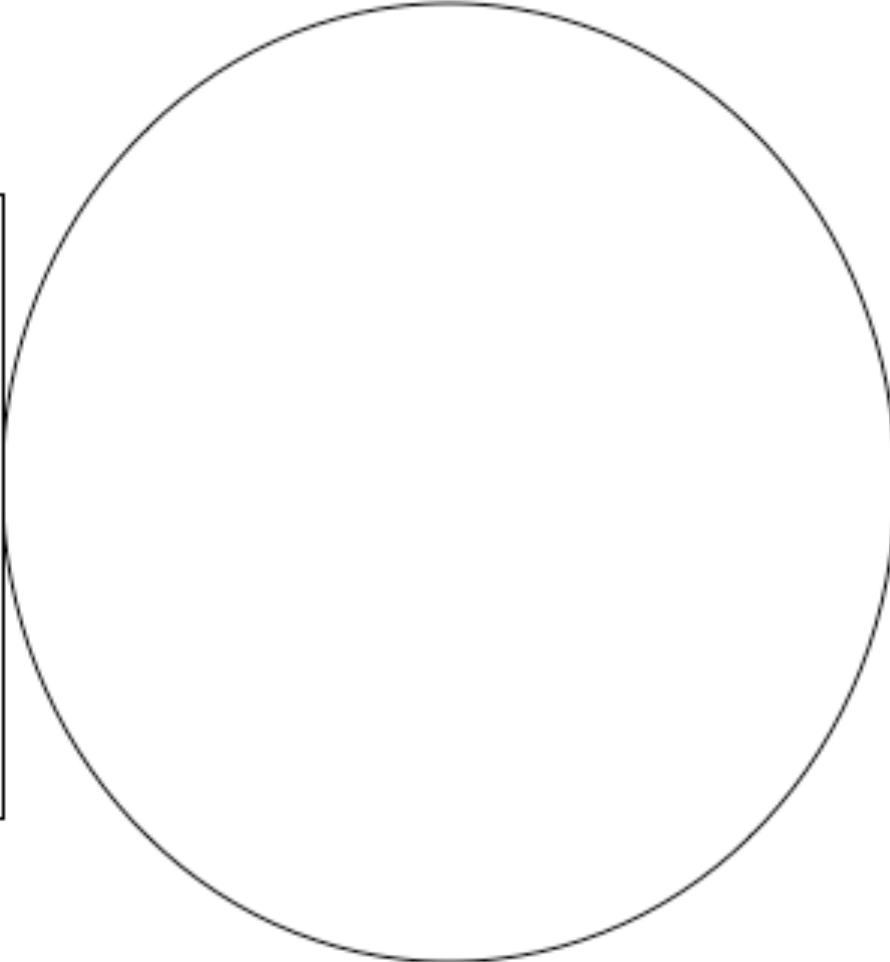
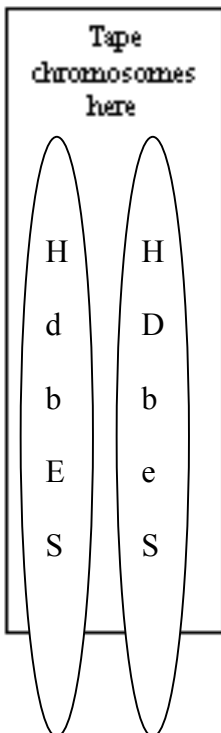
#### PART 1: Winning Traits

1. Get a set of chromosomes from your teacher.
2. Based on the chromosomes you get, fill-in the genotypes (letter combinations) and determine the phenotypes (what it looks like) on the chart.
3. Draw your pony, baby, puppy, or alien based on the traits of the chromosomes and COLOR!

#### MATCH 4: Alien

TRAIT	DOMINANT GENE	RECESSIVE GENE	GENOTYPE RECEIVED	PHENOTYPE SEEN
Hair type	Curly Hair (H)	Straight Hair (h)		
Hair Color	Dark (D)	Light (d)		
Eye Color	Brown (B)	Blue/green (b)		
Ear Type	Large (E) <sub>~~~~</sub>	Small (e)		
Skin type	Scaly (S)	Smooth (s)		

**DRAW YOUR Alien BELOW:**



## PART 2: More Practice

4. For each of the **genotypes** below determine what **phenotypes** would be possible.

Purple flowers are dominant to white flowers      Brown eyes are dominant to blue eyes

PP \_\_\_\_\_

BB \_\_\_\_\_

PP \_\_\_\_\_

Bb \_\_\_\_\_

Pp \_\_\_\_\_

Bb \_\_\_\_\_

5. For each **phenotype** below, list the **genotypes** (remember to use the letter of the dominant trait)

*Straight hair is dominant to curly.      Pointed heads are dominant to round heads.*

\_\_\_\_\_ straight

\_\_\_\_\_ pointed

\_\_\_\_\_ straight

\_\_\_\_\_ pointed

\_\_\_\_\_ curly

\_\_\_\_\_ round

6. For each genotype below, indicate whether it is **homozygous\*** (M) or **heterozygous\*\*** (H)

AA \_\_\_\_\_

Ee \_\_\_\_\_

Ii \_\_\_\_\_

Mm \_\_\_\_\_

DD \_\_\_\_\_

HH \_\_\_\_\_

LL \_\_\_\_\_

Pp \_\_\_\_\_

7. Write in the space provided if the following **genotypes** show **dominant/recessive** (DR) or **incomplete dominance** (ID)

AB \_\_\_\_\_

Mm \_\_\_\_\_

LI \_\_\_\_\_

LX \_\_\_\_\_

Dd \_\_\_\_\_

8. Answer the following problems (Refer to the information in question 5):

a. A person is **heterozygous** for **straight hair**. What is the genotype? \_\_\_\_\_

b. A person is **homozygous** for **curly** hair? What is the genotype? \_\_\_\_\_

c. A person is **homozygous** for **straight hair**. What is the genotype? \_\_\_\_\_