

Name _____ Date _____

Create an Alien Assignment

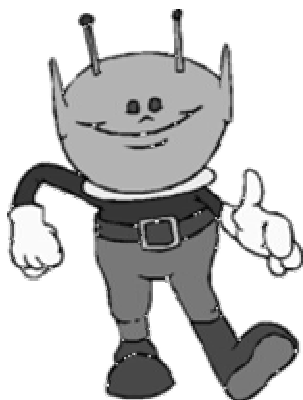
Imagine an alien with four eyes, fuzzy antenna, scale covered wings and webbed toes. This genetics assignment will provide you with a creative assessment of your understanding of single trait inheritance.

This assignment will review:

- 1) basic concepts found in genetics, including dominant and recessive traits
- 2) genotype and phenotype

Instructions:

1. Determining the parents' genotypes. For this part, assume both parents will be **heterozygous** for **all** traits. One of you will be the "mommy" alien and one will be the "daddy" alien.
 2. Determining the baby alien's genotype. For this part, each alien parent (that's you and your partner) will flip a coin to determine if the baby alien being created will receive the dominant or recessive allele for the trait. Once you have flipped the coins, fill in the chart with the appropriate information and then combine the two alleles to make the genotype.
- Heads = Recessive Allele
Tails = Dominant Allele
3. Determining the baby alien's phenotype. Once the baby's genotype is determined, fill in the baby's phenotype by describing what that trait will look like in your alien.
 4. Draw what your alien looks like on the blank sheet of paper provided. Both you and your partner are responsible for drawing what your alien looks like. Name your alien and make sure to write your name on the back.



Baby Alien Chart

Trait	Dominant Allele Characteristic	Recessive Allele Characteristic	Parent 1 Genotype	Parent 2 Genotype	Parent 1 Allele	Parent 2 Allele	Baby's Genotype	Baby's Phenotype
# of Eyes	4 eyes (E)	2 eyes (e)	Ee	Ee				
Color of Eyes	Purple Eyes (Q)	Blue Eyes (q)						
Eye Shape	Round eyes (R)	Square Eyes (r)						
# of Antenna	3 antenna (A)	5 antenna (a)						
Face Shape	Oval (B)	Square (b)						
Shape of Nose	Pointed (N)	Round (n)						
# of Feet	6 Feet (F)	2 Feet (f)						
Color of Alien's Skin	Green Skin (G)	Orange skin (g)						
Body Shape	Pear Shaped (I)	Round Shaped (i)						
Wings or No Wings	Wings (T)	No Wings (t)						
Webbed Feet or Normal	Normal (L)	Webbed Feet (l)						
Glows in Dark or Not	No Glow (H)	Glows in Dark (h)						
Shape of Mouth	(M)	(m)						