

Name: \_\_\_\_\_ Period: \_\_\_\_\_

# Dragon Babies

**Directions:** Complete a cross between two dragons. You must do the following:

1. Pick 16 genotypes and glue one above and next to each Punnett square
2. Complete a Punnett square for each cross.
3. Answer the questions that follow.
4. Color and create your unique dragon according to the traits it inherited.
5. Refer to the shaded part of the Punnett square to know what genotype (and phenotype) your dragon baby has.

Traits:

1. Dots


4. Eye Color


2. Fire Breathing


5. Body Color


3. Spikes on Back


6. Wings


## 7. Claw Color


## 8. Horns


Questions: (Refer to your own data to answer these, as everyone will have different information).

What is the probability of these two dragon parents of having...

1. A pink dragon? \_\_\_\_\_%
2. A dragon that breathes fire? \_\_\_\_\_
3. A dragon with dots? \_\_\_\_\_%
4. A dragon with wings? \_\_\_\_\_%
5. A dragon with horns? \_\_\_\_\_%
6. A dragon who is homozygous recessive for eye color? \_\_\_\_\_%
7. A dragon who is purebred for having black claws? \_\_\_\_\_%
8. A dragon who is heterozygous for body color? \_\_\_\_\_%
9. A dragon that is a hybrid for having a horn? \_\_\_\_\_%
10. A dragon who is purebred for red eyes? \_\_\_\_\_%

## Key to Dragon Trait Alleles

N – polka dotted  
n – solid color

F- fire breathing  
f – non-fire breathing

S – spiked on back  
s – no spikes

E – red eyes  
e – blue eyes

B – green body  
b – pink body

W –wings  
w – no wings

H – no horns  
h – horns

C- red claws  
c – black claws

[illegible]

Hybrid	Heterozygous	Hybrid	Heterozygous	Hybrid	Heterozygous
Homozygous Recessive	Homozygous Dominant	Hybrid	Heterozygous	Purebred Dominant	Purebred Recessive
Homozygous Recessive	Homozygous Dominant	Hybrid	Heterozygous	Purebred Dominant	Purebred Recessive
Homozygous Recessive	Homozygous Dominant	Hybrid	Heterozygous	Purebred Dominant	Purebred Recessive

II Pick 2 traits and combine the genotypes of the shaded boxes to create one dihybrid genotype. Cross this genotype with a dragon that is HOMOZYGOUS RECESSIVE for the 1<sup>st</sup> trait and HETEROZYGOUS for the second trait. Fill in the Punnett square below and calculate the phenotypic and genotypic percentage.
