Eggsy Student Sheet (Adapted from Ms. Lau's Science) name_____ per____

PLEASE DO NOT OPEN YOUR EGG.

INCOMPLETE DOMINANCE - Due Monday 10/7 - check new learning target

1. List the different <u>phenotypes</u> in this population. _____
2. Predict what you think the <u>genotypes</u> will be for each color.
3. Open your eggs and complete the table below. Then, use **hash marks** to put your group data on the whiteboard.

Phenotype	# of Eggsys	Genotype	# of alleles	
-----	----	----	B	b

4. Complete the data table below using the entire class data.

Phenotype	# of Eggsys	Genotype	# of alleles	
-----	----	----	B	b

5. Explain the <u>difference</u> between this population of Eggsys and the pink and orange population we worked with before. Use your vocabulary.

_____

_____

_____

_____

_____

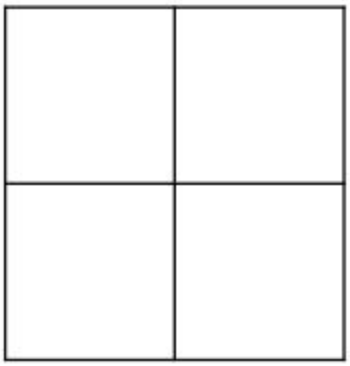
_____

_____

Eggsy Student Sheet (Adapted from Ms. Lau's Science) name_____ per____

6. Pair with another student that has a different phenotype from you.
    a. Parent #1 alleles _____ _____
    b. Parent #2 alleles _____ _____
7. Reproduce to create a new baby. Use the same process we did before.
    a. Randomly select one allele from Parent #1 _____
    b. Randomly select one allele from Parent #2 _____
    c. Baby #1 genotype: _____
    d. Baby #1 phenotype: _____
8. Repeat step #7 two more times for a total of 3 babies.
    a. Baby #2 genotype _____ phenotype_____
    b. Baby #3 genotype_____ phenotype_____
9. Fill out the Punnett Square and information for the parents from #6.

Genotype	Phenotype
BB ___ %	Blue ____ %
Bb ___ %	Green ____ %
bb ___ %	Yellow ____ %



10. If an Eggsy family has 4 children (3 green and 1 yellow), what are ALL the possible genotypes of the parents? Explain

_____

_____

_____

_____

_____

Eggsy Student Sheet (Adapted from Ms. Lau's Science) name_____ per____

11. If one parent is homozygous and the other is heterozygous, is it possible for them to have babies with all 3 phenotypes? Why or why not?

_____

_____

_____

_____

12. Two green parents are surprised when they have a blue and then yellow baby. Explain why this is possible. Use your vocabulary.

_____

_____

_____

_____

Highly Proficient

Create a critter trait that follows INCOMPLETE dominance. Explain what the trait is and how it follows incomplete dominance. Sketch and label all of the phenotypes and genotypes. Show a punnett square for 2 heterozygous parents. (add paper). Make sure the heterozygous trait is a true in-between trait. Your work should be final draft quality.

Patterns: Observed patterns of forms and events guide organization and classification and prompt questions about relationships and the factors that influence them.

Highly Proficient (4)	Proficient (3)	Close to Proficient (2)	Developing (1)
❑ Critter trait is identified and explained correctly. ❑ Critter trait is sketched ❑ Work is 'final draft' quality.	❑ Understanding of INCOMPLETE DOMINANCE is shown. ❑ Lab is complete and mostly correct. ❑ Analysis questions are complete and	❑ Some knowledge of INCOMPLETE DOMINANCE is shown ❑ Some information is incorrect ❑ Work is incomplete ❑ Work needs more detail.	❑ Little to no understanding is shown ❑ Lab is mostly incomplete and/or incorrect.