

IF ABSENT

Name: _____ Date: _____

Plastic Egg Genetics



$\frac{1}{2}$ egg + $\frac{1}{2}$ egg = M & M candies
dad + mom = 4 offspring



Directions:

Since you missed the lab, I have filled in the phenotype and genotype of each parent.

1. Complete each of the four Punnett Squares.

The following is an example of how to complete the Punnett Square.

2. Complete the "Result" table.

3. Answer the Analysis Questions.

Example of how to fill in data:

Punnett Squares

| | | |
|----------|-----------|-----------|
| | <u>y</u> | <u>y</u> |
| <u>Y</u> | Yy | Yy |
| <u>Y</u> | Yy | Yy |

Phenotype:
My egg is $\frac{1}{2}$ Orange
and $\frac{1}{2}$ is Yellow
Genotype:
(y y) x (Y Y)

Diagram showing the relationship between the parent genotypes and the Punnett square. Arrows point from the 'y' alleles in the parent genotype to the top row of the Punnett square, and from the 'Y' alleles to the left column.

OFFSPRING

Genotypes: **4 (Yy)**

Phenotypes: **4 yellow pieces**



PLASTIC EGG GENETICS

Name _____
Period _____ Date _____

1.

Phenotype:
My egg is $\frac{1}{2}$ purple
and $\frac{1}{2}$ green

Genotype:
(G g) x (g g)

Punnett Squares

| | |
|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |

OFFSPRING

Genotype _____

Phenotype _____

2.

Phenotype:
My egg is $\frac{1}{2}$ green
and $\frac{1}{2}$ green

Genotype:
(G g) x (G g)

Punnett Squares

| | |
|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> |

OFFSPRING

Genotype _____

Phenotype _____

3. **Punnett Squares**

| | |
|--|--|
| | |
|--|--|

| | |
|--|--|
| | |
|--|--|

Phenotype:

My egg is $\frac{1}{2}$ green
and $\frac{1}{2}$ green

Genotype:

(G G) x (G g)

OFFSPRING

Genotype _____

Phenotype _____

4. **Punnett Squares**

| | |
|--|--|
| | |
|--|--|

| | |
|--|--|
| | |
|--|--|

Phenotype:

My egg is $\frac{1}{2}$ purple
and $\frac{1}{2}$ green

Genotype:

(G G) x (g g)

OFFSPRING

Genotype _____

Phenotype _____

