**Virus Heredity**

Partner 1 Name: Partner 2 Name:

1. Examine your viruses, what is the genotype of each virus? Write the color(s) of pipe-cleaners used and determine if each virus is homozygous (one color) or heterozygous (two colors).

Partner 1: Partner 2:

2. Examine your viruses, what is the phenotype of each virus? Write the color(s) of straw pieces on each virus. Based on your genotype above, was each virus genotype correctly transcribed and translated, or did a mutation arise?

Partner 1: Partner 2:

3. Examine your viruses, which alleles are dominant? Use the first letter of the colors as the allele notation. For example dominant blue = B.

Possibilities:

Virus has two pipe-cleaner colors, only one color of straws (red (R) & white (w) pipe- cleaners, red straws)= straw color is dominant heterozygous, Rw

Virus has two pipe-cleaner colors & two colors of straws (red (R) & white (W) pipe- cleaners, red & white straws = codominant heterozygous, RW

Virus is monochrome (red pipe-cleaners (RR), red straws) = dominant or recessive homozygous, you decide if your color is dominant or recessive, RR or rr

Virus displays a mutation (red pipe-cleaners, white straws) = you decide if the mutation is dominant or recessive and homo- or heterozygous, WW or ww

Partner 1: Partner 2:

4. Your viruses examine each other & like what they see. What will their offspring look like? Complete the Punnett square for your viruses & predict offspring genotypes & phenotypes.

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Offspring Genotypes:

Offspring Phenotypes: