**Super Hero Project**

**Helpful Sites: marvel.com, marvelkids.com, DCcomics.com**

**Day 1: Activity – Finding your super hero / villain**

**Objective:**  To determine the **Phenotype** and **Genotype** of a chosen super hero or villain.

**MATERIALS:**   
1. Internet/iPad access   
2. Graphic Organizer  
3. Pennies (2)

**PROCEDURE:**

1) Students use the Internet to locate Marvel/DC Comic/Other sites that give backgrounds and physical characteristics of the super heroes or villains. **(Examples would include Wolverine, Cyclops, and Elektra to name a few).**

2) Students must search for a super hero or villain and develop a list of physical traits and powers that these super heroes/villains have that can be identified by physically looking at the characters (example: Eye color, Hair color, etc.) and also those unique to that individual (example: Superman’s flight, Spiderman’s wall crawling). Develop a list of **20 minimum** physical traits (phenotype) and abilities that your character has and record it in the Super Hero Trait Chart Graphic Organizer.

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| **Super Hero/Villain Trait Chart—Example** | | |
| **Physical Trait/Ability** | **Phenotype** | **Genotype** |
| **1)Hair** |  |  |
| **2) Eye color** |  |  |
| **3) Super human strength** |  |  |

3) Create a genotype for you super hero/villain. For each trait, you will pick a letter to represent that trait (example: Brown Hair = B). You will flip two coins to determine if the trait is dominant or recessive. Heads will equal dominant, tails will equal recessive. If your coins land on 2 Heads, then you will have a complete dominant trait (example: Brown Hair = BB). If your coins land on 1 heads, and 1 tails, then you will have an incomplete dominant trait (example: Brown Hair = Bb). If your coins land 2 tails, then you will have a recessive trait (example: Brown Hair = bb). Record your genotype and phenotype in your Super Hero/Villain Trait Chart

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| **Super Hero/Villain Trait Chart—Example** | | |
| **Physical Trait/Ability** | **Phenotype** | **Genotype** |
| **1)Hair** | Blonde |  |
| **2) Eye color** | Blue |  |
| **3) Super human strength** | Has Super Strength |  |

Questions:

1. What is the name of your Super Hero / Villain?

2. What website did you use to find your information?

3. What are 4 examples of your Super Hero’s / Villain’s PHENOTYPE?

4. From the examples you provided, what are the GENOTYPES?

5. From the examples you provided, what traits are dominant and what traits are recessive?

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| **Super Hero/Villain Trait Chart—Example** | | |
| **Physical Trait/Ability** | **Phenotype** | **Genotype** |
| **01)** |  |  |
| **02)** |  |  |
| **03)** |  |  |
| **04)** |  |  |
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| **25** |  |  |

**A Superhero Family – Scoring Guide**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **5** | **4** | **3** | **2** | **1** |
| **# of Traits identified** | -identified 25 traits | -identified 15 traits | -identified 13-14 traits | -identified 12 traits | - identified less than 12 traits |
| **Creation of Superhero Phenotype** | - identified 25 traits with a phenotype | - identified 15 traits with a phenotype | -identified 13-14 traits with a phenotype | -identified 12 traits with a phenotype | - identified less than 12 traits with a phenotype |
| **Creation of Superhero Genotype** | - identified 25 traits with a genotype | - identified 15 traits with a genotype | -identified 13-14 traits with a genotype | -identified 12 traits with a genotype | - identified less than 12 traits with a genotype |