

Only can do with internet access.

* Capture lab day *

Reserve early

Super Hero Project

* Make Class set instructions

Name: And Student copy of

Date: traits + Questions Per: 5

Done w/ or after traits, Alleles lesson

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.

In lab First step

* Model Examples

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

In class Second Step.

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

* Model how to use the pennies

Show on PowerPoint Penny Chart

or have students use masking tape + label sides of 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

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	

* Put Questions After Super hero traits.

Questions:

H. Dom	Het	H. Rec
(H) (H)	(H) (T)	(T) (T)

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

2. What website did you use to find your information? *marvel.com, google images...*

3. What are 4 examples of your Super Hero's / Villain's PHENOTYPE? (eye color, hair color, ...)

4. From the examples you provided, what are the GENOTYPES? (if you picked eye color, what is ~~eye color's~~ genotype for eye color? AA, Aa, or aa)
your super hero's

5. From the examples you provided, what traits are dominant and what traits are recessive? (Homozygous Dominant AA, Heterozygous Aa, or homozygous recessive aa)

Super hero name _____

teacher
sign off _____

Add
traits
1-15
to make
all heroes
traits the
same
to see
next
page

Super Hero/Villain Trait Chart—Example		
Physical Trait/Ability	Phenotype	Genotype
01)		
02)		
03)		
04)		
05		
06		
07		
08		
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13		
14		
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20		
21		
22		
23		
24		
25		

list
out
genotype
letters

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

Super Hero/Villain Trait Chart—Example		
Physical Trait/Ability	Phenotype	Genotype
01) Eye Color		A)
02) Hair Color		B)
03) Hair Type		C)
04) Face Shape		D)
05) Tall		E)
06) Large		F)
07) Male/Female		XX XY
08) Cleft Chin		H)
09) Widow's Peak		I)
10) Straight nose		J)
11) Large Nose		K)
12) Large Ears		L)
13) Round Eyes		M)
14) Powers		N)
15) Powers		O)
16)		P)
17)		
18)		
19)		
20)		
21)		
22)		
23)		
24)		
25)		

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