**Genetic Patterns**

Number of Students: 20 max

Age group: high school

Time: 50 mins

Goals:

* Be introduced to basic genetic concepts
* Gain awareness of what terms mean and how to understand Punnett squares
* Gain a new appreciation and interest in genetics!

SLIDESHOW: not yet made

PLAN: (in 10 min chunks)

**0-5**

Introductions, let people trickle in

**5-10**

Start with a discussion to talk about what student impressions of genetics is and what they know (also gauge what the level of understanding is)

**10-20**

* Brief history on how Mendelian genetics came to be
* Introduce basic terms such as dominant and recessive alleles and how they work in relation to each other
* Show examples demonstrating these basic Mendelian concepts (eg. Flowers, pea shape/color, etc.)

**20-30**

* Introduce 2x2 Punnett squares and how they work (eg. How we can figure out the probability of getting some progeny, how we can work backwards to understand what alleles the parents had, etc.)
* Follow up with 4x4 Punnett squares and how they work in a similar fashion
* Give students a few examples to try

**30-40**

* Surface level introduction to how 4x4 Punnett squares can reveal patterns that tell you how the genes act
* Introduce terms and related ratios
* Give students a few real-life examples

**40-50**

Open the floor to questions about anything genetics related!