



Show Me What You're Made Of!

Genetics Project



Objective: To design/ create a model or representation of a genetics concept we have discussed or learned about in this Genetics unit.

Possibilities/ Choices:

- **Chromosome Model** – 3-D model of a chromosome (all parts should be accurate, represented, and labeled)
- **DNA Model** – 3-D model of the Double Helix. (all parts should be accurate, represented, and labeled)
- **Cell Cycle Banner /Poster** - Creative artwork showing each of the 6 steps of the cell cycle (Descriptions, labels, names, sequence, and other parts should all be accurate)
- **Human Karyotype Model** – A 3-D model / Poster of the layout of the 46 (or 23 pairs) chromosomes found in humans – gender should be identified.
- **Punnett Square Model (New!)** – A 3-D model/ Poster of a complete Punnett square – trait of your choice with given genotypes, phenotypes, and probabilities of outcomes.
- **Pedigree Model (New!)** – A 3-D Model/ Poster of a pedigree of a family trait. Research one trait and track which members of your family express it. Should be at least 3 generations in the pedigree. *Make sure to pick a trait that you can track and observe.
- **Genetics A-B-C (New!)** – a 3-D Model, book, poster, or digital slideshow showcasing a genetic concept for each letter of the alphabet. Please use your own words in the definitions/ descriptions.
- **Other** – if you have another idea for a genetics project, please get approval from teacher prior to Nov. 30.

Restrictions:

- Please be careful with materials – No Styrofoam, Play-Doh, or edible products for this project.
- You should be creating a project, not printing out pictures online.
- If you use a certain internet source for help/inspiration, make sure you cite that source on your project. (Especially for the Genetics A-B-C project!) – Remember, Wikipedia **DOES NOT** count.

Grading:

- Accuracy of model, structure, labels, components, etc. ~ 80 points
- Neatness, spelling, overall appearance ~ 10 points
- Presentation ~ 10 points
- Extra points will be awarded for creativity, uniqueness, and scientific accuracy.

*A more detailed rubric will be used for final grade on project.

Due Date:

- Due **Tuesday, December 4**
- Type of Project You are Creating: _____
- Signed Approval by Teacher: _____