

Parts of nucleic acids

Unit 4.3 – Molecular Genetics and Heredity of Livestock

Instructions:

Place students in groups of 3 (try not to pick friends together). Provide information to the student about the nucleic acids, what they are, why are they there, where are they located (should be completed in the classroom before the lab is introduced). They students will be expected to draw their given molecule, make a model, and present a short presentation of their molecule. First, have the groups draw on a paper their given nucleic acid (diagrams will be available to anyone in need of help). Give each group a nucleic acid. After they are finished drawing their molecule allow the groups to make their marshmallow molecule. The colorful marshmallows each have their own atom, such as blue=Hydrogen, pink=Oxygen, green=Nitrogen, and yellow=carbon. When the groups are finished making their marshmallow molecule they will conduct a small 2-3 minute presentation about their molecule and the components. They will need to place their molecule into the baking pan so that everyone can see it during the presentation. Everyone should be paying attention and taking minor notes for the 1 question quiz at the end of class.

Materials Needed:

- Computer paper
- Pencils
- Diagram of molecule used
- Toothpicks
- Colorful mini marshmallows
- Short one question quiz
- Labels for each atom
- 9x13 baking pan