

Module 3: Strawberry DNA Extraction 10 minutes

Target Audience: 7-12th Grade Science, Biology, Life Science

Overview:

The student will learn strawberry DNA extraction using simple materials and observe a physical process.

Objectives:

- 1. Identify 3 participating in the activity, include each:
 - Know how to extract DNA from strawberries.
 - Observe when DNA looks like in the solution.
 - Describe DNA's most common form and how being long.
 - Understand how DNA is found in all the food we eat.

National Science Education Standards:

Life Science: 1-3-1-1 and **1-3-1-2** from the National Science Education Standards, National Research Council, copyright 1996, National Academy Press.

Content Standard 1-3-1-1 (Life Science 1-3)

- **Organizing and Heredity:** Know organized organization of structures for specifying its form. Heredity is the passage of these structures from one generation to another.

Content Standard 1-3-1-2 (Life Science 1-3)

- **How DNA is the code and how information is passed from generation to generation. The genetic information stored in DNA is used to direct the synthesis of the thousands of proteins that each cell requires.**
- **The Molecular Basis of Heredity:** In all organisms, the instructions for specifying the characteristics of the organism are carried in DNA, a long molecule formed from subunits of four kinds (A, T, C, and G). The chemical and physical properties of DNA explain how the genetic information that controls heredity is transmitted to generation after generation. Heredity is not explained by a simple mechanism. Each DNA molecule is made from a single molecule.

Science Content:

1-3-1-1 and 1-3-1-2 from the National Science Education Standards.

Science Process Skills:

- 1. Observing
- 2. Classifying
- 3. Inferring

Life Skills:

- 1. Communication
- 2. Learning
- 3. Collaboration

Time:

10 minutes