

MILKY MAGIC



Materials

- Petri dishes
- Milk, skim milk, half & half
- Water
- Food coloring
- Dishwashing liquid

DIRECTIONS

Objective:

This project allows students to study the movement of molecules in different liquids.

Procedure:

1. Place a drop of food coloring in a glass of clear water and ask students to observe.

Ask them to predict what will happen when food coloring is added to milk.

2. Pour milk into petri dish and allow students to put one drop each of two different food colorings into the milk.

Have them observe and describe what happens.

3. Direct students to place a small drop of liquid dish detergent between the two drops and observe.

Concept Development:

Guide students to a discovery of the various forces at play on the globules of fat within the milk. They should be able to understand that one end of the long soap molecule attracts the fat. As the fat moves toward the soap the water is forced away. The color dissolves in the water and not the fat. Therefore as the water moves away, the color goes with it.

Ask students to predict what will happen if the same procedure is followed for skim milk and for half & half.