Liquid Kaleidoscope

Purpose:

• To apply our knowledge of the scientific method

Experiment 1: Creating a Kaleidoscope

Materials: 1 petri dish half full of room temperature 2% milk 1 vial of detergent 1 eye dropper 1 set of food colors

Procedures:

- Place one drop of food color onto each of the four "corners" of the petri dish, as shown in the diagram.
- Add a drop of detergent to your dish and observe.
- You may continue to add one drop at a time to your dish.
- Record your observations

Question:

1. How could we change or vary this experiment?

Conducting Your Own Experiment

What <u>one</u> factor of the experiment is your group going to vary or change? We are going to use ______ instead of _____.

Now, set up your own experiment using the format bellow. You must have your new write-up approved before you begin the experiment.

Experiment 2: Your Kaleidoscope

Problem: (What question to you want to find out?)Hypothesis: (What do you believe is going to happen?)Independent Variable: (What is the independent variable in your hypothesis?)Dependent Variable: (What is the dependent variable in your hypothesis?)

Materials: (What did you use?) Procedures: (Step by step explanation so that your experiment is repeatable by anyone. You must have

Observations: (What happened?)

Conclusions and Questions

<u>Conclusion</u>: (Was your hypothesis right or wrong?)

a control group and only one independent variable)

Questions:

- 2. What was your control group?
- 3. What was you experimental group?

