

Names: _____

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Scientific Method

Magic Milk!

Materials

Each group will need the following materials:

- a bowl
- 150mL milk
- food colouring
- some dish soap
- a small beaker or flask

Procedure

1. Pour 150mL of milk (make sure you record what kind!!!) into your bowl (Do **NOT** fill it to the top and do **not** waste the milk...we all need to share it!)
2. Carefully put **one drop** of food colouring in 4 places around the edge of the bowl (try to keep them as widely separated as possible; do **NOT** put them in the centre of the dish!)
3. Observe what happens to the food colouring. What does it do? How does it interact with the milk? Was this what you thought would happen? Be sure to **record** these observations in the Observations section of your worksheet!
4. **Very carefully** place **one drop** of dish soap onto the milk in the **centre** of the bowl and watch what happens!
5. Again, make observations on what happens to the food colouring. What does it do? How does it interact with the milk now? Was this what you thought would happen? Be sure to **record** these observations in the Observations section of your worksheet!
6. Wait until the initial reaction stops (or slows down) and add another **drop** (just one!) of dish soap. What happens now? Make more observations on your worksheet about what you're seeing.
7. **Carefully** pour your liquid down the sink, rinse out your bowl, dry it and try the experiment (steps 1-6) again with a **different kind of milk**. Be sure to make observations the whole time. What happened with this kind of milk? Why do you think that is? What's different about this kind of milk and the kind you first used?

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Observations

Be sure to fill out this chart **as you do the experiment (!!)**. If you leave it all until the end, you might not remember what type of milk you used or what happened and that's not what good scientists do! You don't have to write full sentences in the chart below but be sure to write enough so that you can write full sentences in the **Questions** part below. Write what happens to the food colouring.

Type of milk	Before dish soap added	After dish soap added

Questions

1. What was your independent (manipulated) variable?

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2. What was your dependent (responding) variable?

3. a) What was your original hypothesis for what would happen after adding the
f o o d c o l o u r i n g t o t h e m i l k ?

b) What was your original hypothesis for what would happen after adding the
dish soap to the food colouring + milk?

4. Were your original hypotheses correct?

5. Were you surprised by what happened?

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7. Why do you ***think*** what happened during the experiment happened?
