

OBSERVE & RESEARCH

1. Write down the materials you observe. _____

2. Predict how these materials may be used. _____

3. Define the following key terms. Then, provide an example of each by writing the example or drawing/pasting an image of the example.

Term	Definition	Example (write or add image)
Solid		
Liquid		
Gas		
Surface tension		
Surfactant		

4. Consider how the addition of liquid dish soap will affect milk with food coloring on the surface and why.

▶ Write your hypothesis. _____



PERFORM YOUR EXPERIMENT

1. Fill the plate with whole milk, and let the milk settle for a minute.
2. Add several drops of different food coloring close together, but separate, in the center of the plate of milk.
3. Dip a cotton swab in the liquid dish soap. Then, touch the tip of the cotton swab to the milk's surface near the drops of food coloring. Observe.
4. Try touching the cotton swab to different areas of the plate of milk to initiate more reactions.

ANALYZE & CONCLUDE

1. What happens when you first place the drops of food coloring on the milk's surface? _____

2. What happens to the food coloring when you touch the milk with the cotton swab soaked in soap? _____

3. What are the components of milk? (What makes up milk?) _____

4. What effect does the soap have on the surface tension of the milk? _____

5. Is your hypothesis valid? Why or why not? If not, what would be your next steps? _____

