Question of Inquiry:

How do you determine what state of matter the shaving cream displays?

Sample Procedure:

Weigh the shaving cream can on a digital scale before you obtain your samples of shaving cream. It is okay if another group has already obtained their sample from the can you now possess.

2. Release a small mound of shaving cream onto a paper towel on your lab table.

3. Weigh the can again and calculate the mass of the released shaving cream.

4. Determine if the mound of shaving cream can keep its shape without being in a container.

5. Place a penny on the pile of shaving cream to determine its structural properties.

6. Make any observations necessary in determining which state of matter shaving cream displays. Rub a small amount of shaving cream between your fingers and determine what it feels like.

7. Determine if you can feel solid particles, liquid, etc.

8. Use the hand lens to make visual observations.

9. Place scoop some of the shaving cream from you pile into a small test tube to determine if the substance will take the shape of the container.

10. Pick up the paper towel holding the shaving cream. Hold one side of the paper towel higher than the other side to determine if the shaving cream will flow.

11. Weigh the shaving cream can and record the mass. Release a small amount of shaving cream from the can into a balloon. Seal the balloon without letting excess air to enter. Try to capture only the shaving cream without allow the balloon to expand with air.

12. Weigh the can again and record the mass. Determine the mass of the shaving cream released into the balloon.

13. Place the sealed balloon into your hand and squeeze it to determine its compressibility.

14. Place the balloon into the beaker and notice the volume it displaces.

15. Place a weight onto the balloon and observe if the volume changes.

16. Remove the weight and observe if it returns to the original volume.

17. Fill the large graduated cylinder almost to the top and try to find the amount of water displaced when you put the shaving cream balloon in the graduated cylinder.

18. Using the mass from Step 12 and the volume calculated from the water displacement in Step 17, try to calculate a density for the shaving cream.