**Lab#** **Observing Borax Snowflakes as Minerals**

**Date**:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Name & Partners** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Purpose**: To observe, compare and describe the properties of crystal formation in minerals by creating a snowflake made of borax soap and hot water.

**Hypothesis**: I predict that large crystals will form from the borax soap after the soap dissolves over one to three days.

**Materials:**

-a pipe cleaner -pencil -2 cups of boiling hot water

-large glass jar -string -6 tablespoons of borax soap

(wide mouth jar) -food colouring -measuring spoons/cups

-spoon or stir stick

**Procedures**:

1. The first step of making borax crystal snowflakes is to make the snowflake shape.
2. Document and observe the properties of the dry borax soap
3. Boil 2-3 cups of water, measure 3 tablespoons of borax soap for every cup of water
4. Pour the hot water into the glass jar, add 3 small drops of food colouring and slowly pour in the borax soap and mix with a spoon or stir stick.
5. Attach snowflake to a string and pencil and hang loosely inside the jar so it doesn’t touch the edges.
6. Illustrate the snowflake in the jar and predict how the soap crystals will look like when the water cools.
7. Leave the jar undisturbed for 1-3 days.
8. Remove the snowflake from the jar carefully. Illustrate and describe in sentences the appearance of. Observe the shape, colour, texture, crystal shape and size, texture and dullness or shininess.
9. Refer to your hypothesis and in your conclusion restate whether your prediction was correct.

**Conclusion:**

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**Observations**: Observe, explain and illustrate in the table each step of the experiment

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|  | **Properties**: describe appearance, texture, colour, and luster | **Illustrate**:  colour and draw |
| Step 1:  the dry borax soap |  |  |
| Step 2:  the jar with hot water,  snowflake  and borax soap |  |  |
| Step 3:  the crystal snowflake |  |  |