

Name:

Date:

Class:

Crystalline Cloth Instruction Sheet

Safety

Be sure to obtain goggles, gloves, and an apron. While heating, make sure you use the potholders to pick up your heated beaker.

Lab Directions for Prelab and Lab Portions (complete steps 1-7 for the prelab, then complete steps 1-9 for the lab portion)

1. To make the supersaturated solution, measure 250 ml of distilled water to a 400 ml beaker. Bring the water to a slow boil and add a teaspoon of salt (or sugar). After the salt (or sugar) dissolves, add another teaspoon of salt (or sugar). Continue to add salt (or sugar) until no more will dissolve into the solution.
2. Attach the cheese cloth swatches to the skewer or pencil, and check that the cloth fits inside the beaker. If the cheese cloth does not hang straight down, use a paper clip as weight.
3. Determine the mass of the cloth, skewer and any weights used. Record this under [**Cloth Mass**].
4. Pour the supersaturated solution into a clean, cool 400 ml beaker. Suspend the cloth into the beaker using the pencil/skewer.
5. Keep the experiment covered to prevent dust and other unwanted material from disturbing crystal growth. Observe the formation of crystals on the cloth every day.
6. After your determined experiment time (a few days are minimally required for most of the chemical treatment options but this could be done for a week or more if desired/needed), remove the cloth and crystals from the jar. Then using a weigh boat, mass the grown crystals and cloth together. Record under [**Crystals and Cloth Mass**].
7. Subtract [**Cloth Mass**] from [**Crystals and Cloth Mass**], and record the difference under [**Crystal Mass**].

Directions for Lab portion only

8. Calculate Grown Crystals (GC) reduction using your recorded numbers to determine how effective your treatment was.
9. Identify and describe modifications to the steps above for the treatment experiment.