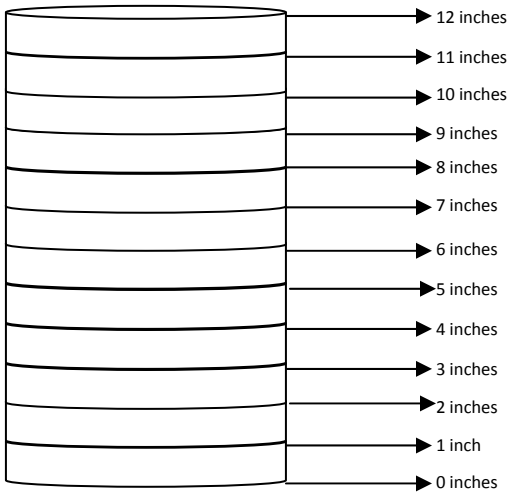
Station 4 (BLUE)

Weather and Climate

Materials
Rain Gauge/snow tube
Spring Scale
100 mL Graduated Cylinder
Hot Water
Foam Board

Snow Tube Chart

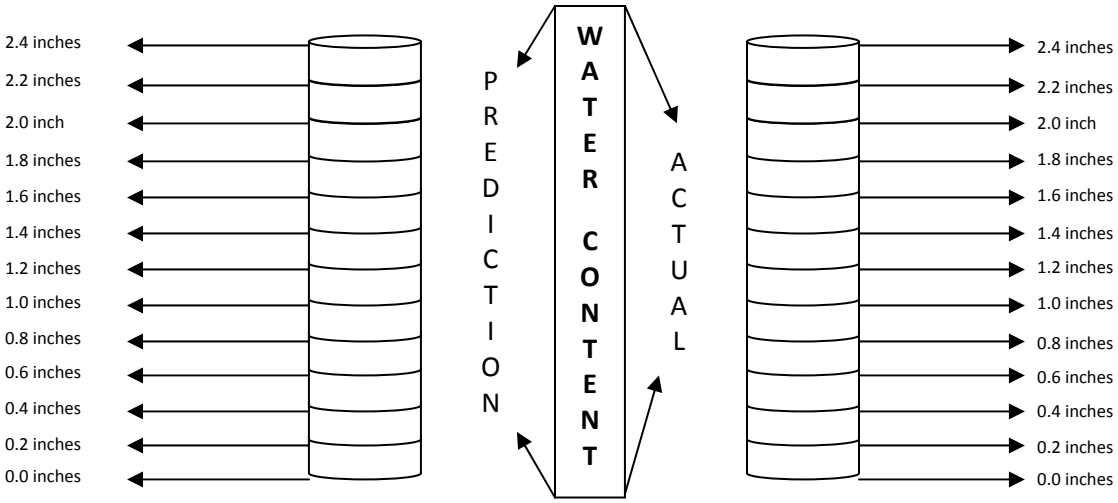


STEP 1:
Push snow tube, open end first, into the snow. Then using the foam board slide it under the open end carefully as to not have any snow fall out. Record your data then shade in the snow tube chart.

_____ Inches

STEP 2:
Make a prediction below about how much water you believe the snow contains. Record your prediction then shade in the chart below.

_____ Inches



STEP 3:
Add 100 mL of hot water to the snow tube and mix it in with the snow to melt it. If the snow has not melted add another 100 mL of hot water until all snow is melted. Record the amount of water you add to the snow tube.

_____ mL

STEP 4:
Remove the amount of water you added to the snow tube. What is left is the actual water in the snow. Place it in the rain gauge and record the actual amount of precipitation then shade in the chart above.

_____ Inches

STEP 5:
Record the amount of snow from the snow tube and the actual amount of precipitation from the rain gauge in the chart below. This is the snow to liquid equivalent. From this you can calculate the amount of snow it would take to produce 1 inch of water.

_____ : _____
Inches of Snow Inches of Water

_____ : _____
Inches of Snow 1 Inch of Water

THINGS TO THINK ABOUT….

1. Explain how our results compare to the 10 inches of snow equals 1 inch of water?
2. Describe how this can affect us throughout the year.

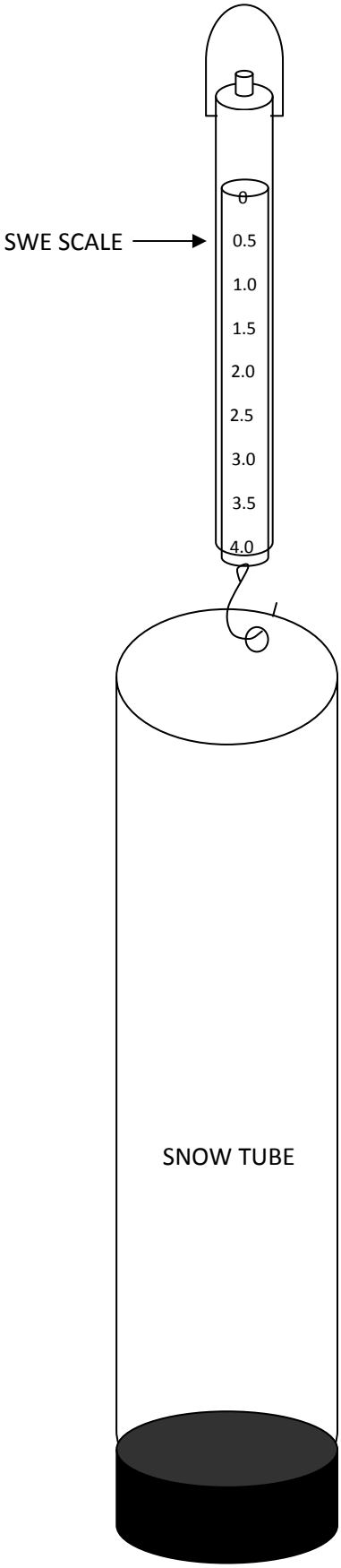
PART 2: Snow to Liquid Equivalent (SWE Scale)

1. Remove the black cap from the snow tube.
2. Push the snow tube in to the snow carefully until the tube touches the ground or the tube is filled with snow.
3. Record the snow depth to the nearest **tenth of an inch.**

   Snow Depth _____ Inches

4. Slide the foam core under the bottom of tube and lift out of the snow.
5. Place finger over the hole in the black cap and turn the tube over and connect the SWE scale.
6. Record the snow water equivalent **using the inches of water side** of the scale.

   Snow to Water Equivalent _____



IF NEEDED

7. If the snow is deeper than 12 inches continue in the same spot until you reach the surface.

   Snow to Water Equivalent 12-24 Inches _____

   Snow to water Equivalent 24-36 Inches _____

8. Add all of the Snow to Liquid Equivalents together to get the total.

   Total = _____

NOTES/THOUGHTS

1. Explain how our results compare to the 10 inches of snow equals 1 inch of water.

2. Describe how this can affect the environment throughout the year.

3. Were both of your results for the snow to liquid equivalent the same?

   List two variables that may have contributed to your results and explain how they may have affected your data.

4. Generate a list of I wonder thoughts based on your findings.

   For example:
   Does the time of day have an effect on the snow to liquid equivalent?