THE CONFLUENCE PROJECT

Snow Science Data

Names: _____

School: _____ Location: _____

Date: _____ Time: _____

Pit Depth (cm): _____ Air Temp (°C): _____

Slope (°): _____ Aspect: _____

Weather: _____

Pit Layer # (Start at top of pit)	**Layer Height** (cm)	**Temperature** (°C)	**Snow Density** (g / 100cm^3)	**Hardness**

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SWE Calculation

In the table below, fill in the density and layer height for each layer. The layer height is the height of just that individual layer. Once you have these data, calculating Snow Water Equivalent (SWE) is a pretty simple if you know the following four important pieces of information:

1. SWE = layer height x percentage of snow that is water
2. Percentage of snow that is water = density of snow / density of water
3. Density of snow = mass of snow / volume of snow
4. Density of water = 1 g/cm^3

Use your measurements to calculate the percent water in each layer. Then multiply the percent water by layer height to calculate snow water equivalent in each layer. Sum all layers for total SWE in your snowpack.

Layer #	Density of snow *(g/cm^3)*	Density of water *(g/cm^3)*	% of snow that is water *(in decimal percent!)*	Layer height *(cm)*	Snow Water Equivalent (cm)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
TOTAL SWE (sum SWE for each layer)					