

# Ice Cores

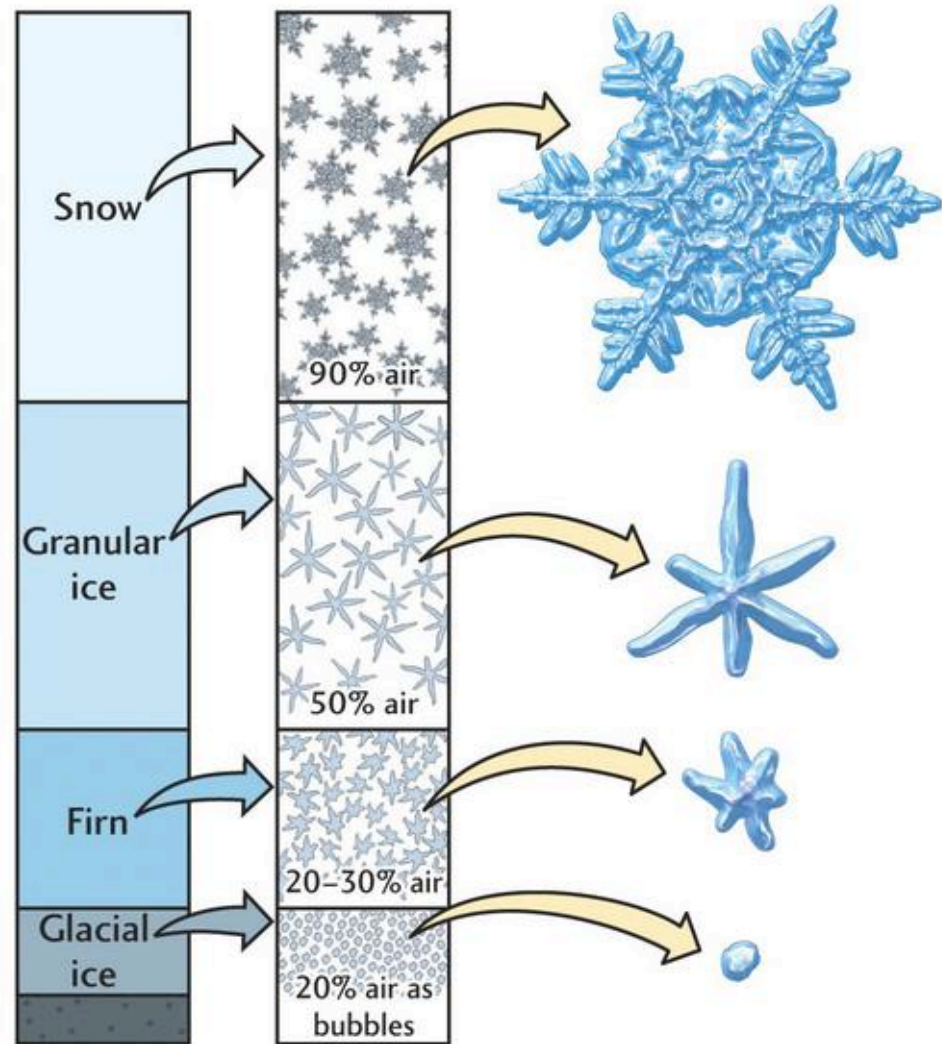
Glaciers and ice sheets form as snow accumulates



As the snow accumulates, the pressure increases, weighing down the underlying snow.

This creates a layer of dense snow, called firn.

Eventually the firn gets further compacted and develops into solid ice.





As the process occurs, air between the snow grains gets trapped.



This air, once preserved in the ice, can be sampled to learn about the composition of past atmospheres.



Scientists, who study ice cores, use these trapped-gases to understand how concentrations of greenhouse gases like carbon dioxide  $\text{CO}_2$  and  $\text{CH}_4$  (methane) have varied over time.



# Activity

Taking a model ice core sample







# Be Creative!

In your group, create a drawing of an ice core showing the changes in the size of the snow particle and trapped air. Label the layers in your drawing with the following terms

Snow

Granular snow

Firn

Glacial ice

Oldest layer

Youngest layer