

Cryogenic Temperatures

By: Claire

Going on this fieldtrip and watching the tape we filmed there has taught me more than I have ever known about cryogenic temperatures. Cryogenic comes from a Greek word kyros which means very cold. Our class did many experiments with dry ice and liquid nitrogen. Dry ice forms at -108°F and liquid nitrogen's boiling point is -320°F . Dry ice is solid Carbon dioxide and completely skips the liquid stage. Dry ice goes straight to a gaseous Carbon dioxide. That is called sublimation. Liquid nitrogen is a liquid and goes to gaseous nitrogen. That is called evaporation.

One of the fun experiments we did was making ice cream. We made this with the following: milk, heavy whipping cream, half & half, sugar, vanilla (optional), peppermint (optional), chocolate chips (optional), and liquid nitrogen. The liquid nitrogen froze the ingredients, making ice cream.

Another activity we did was mixing soapy water and liquid nitrogen together, making a volcano of bubbles. We also learned why we don't put our hand in liquid nitrogen. Our instructor, Ms. Conlon, showed us what would happen if we did by using a flower. At first the flower expanded a little and when she hit the flower on the wall, it shattered into tiny pieces. She demonstrated this



also using a banana, and a plastic tube. They all became frozen the same as the flower.

As I told you, our class has learned a lot about cryogenic temperatures and had a lot of fun. Have you learned anything today.