

Liquid Nitrogen (Venturers)

March 06
J. Leahy

(Charge \$2 dollars per person)	<u>Activity time</u> (mins)
Opening Parade	5
Explain Safety with Liquid Nitrogen (LN2)	7
Liquid Nitrogen Expands 600X its volume as gas Blows lid off coffee can	8
Blow up balloon with mouth, immerse in LN2 Liquid air including Oxygen Allow to warm up and fill balloon	2
Repeat with test tube attached, pour liquid out of balloon into tube Why is it white?	3
Spinning Ping Pong ball Ball has pin hole on side, immerse in LN2 and place on floor	5
Dip and break – Rubber hose and Flowers	8
Broken car Bulb – Immerse in LN2 and apply 12 volts	7
LEDs change Colour – Coloured LEDs lit with 12 v and immersed in LN2 Colour changes toward yellow	7
Frozen Sweat - Marshmallows, freeze and eat – crunchy!	5
Chemical Reactions slow down or stop Cell and bulb- lit at room temperature, light out at LN2 temperature Glow stick – dims out at LN2 temperature	3 3
Changes to optical properties – Cadmium sulphide pigments change colours	3
Superconductors – Levitates magnet (Meissner effect) Zero resistance of conductors	10
Blu-Tack nails & Banana Hammer Shape Blu-Tack into nail shape, freeze and hammer into wood Freeze banana and use to drive in real nail	5 5
Frozen food - Make Instant Ice Crème and eat	20
Closing Parade	5