

# ***SUPERCool FAST FREEZE!***



Have you ever had a bottle of water that was liquid in the fridge but you take it out, open it, and watch it freeze right before your eyes? In this experiment, we recreate the conditions so we can study supercooling!



## ***MATERIALS***

- 2 REFRIGERATED BOTTLES OF WATER, STILL SEALED AND NOT GLASS!
- CRUSHED ICE
- ROCK SALT (COMMONLY USED FOR SIDEWALKS IN WINTER)
- THERMOMETER
- BIG BOWL

## ***PROCEDURE***

1. PUT THE BOTTLED WATER INTO THE BOWL AND SURROUND WITH ICE.
2. PUT THE THERMOMETER INTO THE ICE.
3. GENEROUSLY SPRINKLE SOME ROCK SALT OVER THE ICE.
4. ADD MORE ICE AND ROCK SALT AS NEEDED DURING THE WAIT TIME.
5. WAIT UNTIL THE THERMOMETER SHOWS  $-8^{\circ}\text{C}$  ( $17^{\circ}\text{F}$ ) AND WAIT ANOTHER 10 MINUTES.
6. CAREFULLY REMOVE ONE OF THE BOTTLES OF WATER, WHICH SHOULD STILL BE LIQUID.
7. SLAM IT DOWN ON A TABLE AND WATCH AS ICE FORMS AT THE TOP AND CONTINUES DOWN TO THE BOTTOM OF THE BOTTLE!

