

## Clear packs of liquid

1. Try to avoid reading the information on the pack.
2. Pick up, examine, and describe the pack, being careful not to bend the button inside the pack.
3. Now gently flex and release the button inside the pack.
4. Describe what you observe and how the pack feels when you handle it.
5. Explain what you observe.



## Effect of Freezing on Temperature (Clear packs of liquid)

Summary – This activity investigates the effect of freezing on the temperature of an object. A ‘hand warmer’ style heat pack is used. Flexing the metal disc within the pouch causes the molecules to arrange themselves such that a crystal forms. Once the first crystal forms, the entire solution will then crystallize around it.

### Materials Needed

- A Heat Solution Model 304D or 304Z heat pack

### Scientific Questions

How does freezing affect temperature?

### Possible Hypothesis

- Freezing has no effect on temperature
- Freezing causes warming
- Freezing causes cooling

### Set up

- If the heat packs have been used previously, they can be returned to their initial state by placing in water at or warmer than 135 degrees F.

### Notes

- Freezing of water releases energy from the water into the air and results in warming. Likewise, energy is released and warming occurs when water vapor condenses into liquid.