



HOT ICE

SCIENCE SAFETY

PLEASE follow these safety precautions when doing any science experiment.

- **ALWAYS** have an adult present.
- **ALWAYS** wear the correct safety gear while doing any experiment.
- **NEVER** eat or drink anything while doing any experiment.
- **REMEMBER** experiments may require marbles, small balls, balloons, and other small parts. Those objects could become a CHOKING HAZARD. Adults are to perform those experiments using these objects. Any child can choke or suffocate on uninflated or broken balloons. Keep uninflated or broken balloons away from children.

INGREDIENTS

- Reusable Hand Warmer
- Paper Plate
- Scissors

INSTRUCTIONS

STEP 1: Without clicking the metal disk inside the hand warmer, observe the contents of the hand warmer. Describe and classify the contents of the reusable hand warmer by the observable properties of the contents.

STEP 2: Using the scissors, cut open the reusable hand warmer. Quickly pour the contents of the reusable hand warmer onto the paper plate and observe. Touch the contents of the reusable hand warmer on the paper plate. Describe and classify the contents of the reusable hand warmer, on the paper plate, by the observable properties of the contents.

EXPLANATION

Reusable hand warmers contain a super saturated solution of water and sodium acetate. Once you bend the metal disk inside the hand warmer or the contents hit the paper plate, a chain reaction is triggered, which causes the solution to crystallize. As a result, an exothermic reaction happens, which gives off heat.



SCIENCE BACKGROUND

Matter is anything that has mass and takes up space. Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties. Measurements of a variety of properties can be used to identify matter. Different properties are suited to different purposes.

I CAN STATEMENTS

- ✓ I can plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
- ✓ I can make observations to identify materials based on their properties.

NEXT GENERATION SCIENCE STANDARDS CONNECTION

2 – Structure and Properties of Matter
5 – Structure and Properties of Matter

