

COLD CHANGES

ACTIVITY



DISCOVER HOW COOLING CAN CHANGE MATERIALS.

What happens when we heat different materials and then cool them?

TIME 15 minutes

MATERIALS

- 3 ice cubes in a small, clear cup
- Access to a freezer
- Samples of these items from the Hot Changes activity that have NOT been melted and frozen: chocolate, birthday candle, gummy worm, slice of apple (or another fruit)
- Photo of these items AFTER they were heated in the Hot Changes activity: chocolate, birthday candle, gummy worm, slice of apple (or another fruit)
- FROZEN samples of these items from the Hot Changes activity: chocolate, birthday candle, gummy worm, slice of apple (or another fruit)

DIRECTIONS

1 SET UP

Put the heated items from the Hot Changes activity into the freezer. Or see the Hot Changes activity for how to heat chocolate, a birthday candle, gummy worms, and an apple slice. Then put the heated items into the freezer. Leave them there for a day or more BEFORE you do this activity!

2 GOAL

Your child will **investigate** whether cooling the materials can change them back to the way they were before they were heated.

3 EXPLORE

Your child can investigate three ice cubes.

Put one ice cube in the freezer. Put one ice cube in a clear cup. Give one ice cube to your child. Then ask your child to give it to you. Pass the ice cube back and forth with your child for a minute or two. Then put all three ice cubes on the table. Look at the ice cubes together and compare. What is the same? What is different?



4 EXPLORE

Your child will compare different materials.

Put samples of the items from the Hot Changes activity on the table. Put the photo of the heated items on the table. Give your child time to observe how the items are the same or different after heating.



5 EXPLORE

Keep comparing! Get the frozen items out of the freezer and put them on the table. Give your child time to observe how the items are the same or different after freezing.

6 SHARE

Encourage your child to share what they noticed. Which items are solid? Which items are liquid? What other changes do they notice? Which materials changed back when they were frozen? How can we tell?



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