

Save a Snowman

What is the challenge? Olaf loves summer! However, summer is a dangerous season for a snowman. Can you design something to keep him from melting?

What you need:

- 2 ice cubes
- 2 small plastic storage containers
- Handful of cotton balls
- Masking tape roll
- 3 - 10x10" sheets of tin foil
- 1 - 10x10" cloth square



What to do:

- Gather your materials.
- In one container, create a design for a cooler to keep the ice cube from melting. Inside the container, use the cotton balls, tape, tin foil and cloth to insulate one of the ice cubes.
- The second ice cube will not be insulated.
- Supplies cannot be placed outside the container.
- Place one ice cube inside each container and close the containers.
- Place outside in a shaded area.
- Check on the ice cubes in 1-2 hours to see if your insulated snowman survived better than the uninsulated one!



Notes for adults:

- Encourage learners to come up with a plan of what materials will work best first.
- Don't be discouraged if the ice cube melts, go back to the design plan and try again!
- After the 1-2 hours, ask the learners what the differences were between the insulated container and noninsulated container.

STEM connection:

- Insulation means creating a barrier between a hot and cold object. It reduces the temperature by reflecting the heat or decreasing the transfer of heat from one object to another.
- Engineers use the properties of insulation to design things like coolers and thermoses.
- When building houses, engineers and contractors use insulation to keep homes and buildings warm.

Take it further:

- Try using a different material to see if it insulates the ice cube better.
- Ask yourself:
 - Why would this material be better or worse at keeping the ice cube cold?

