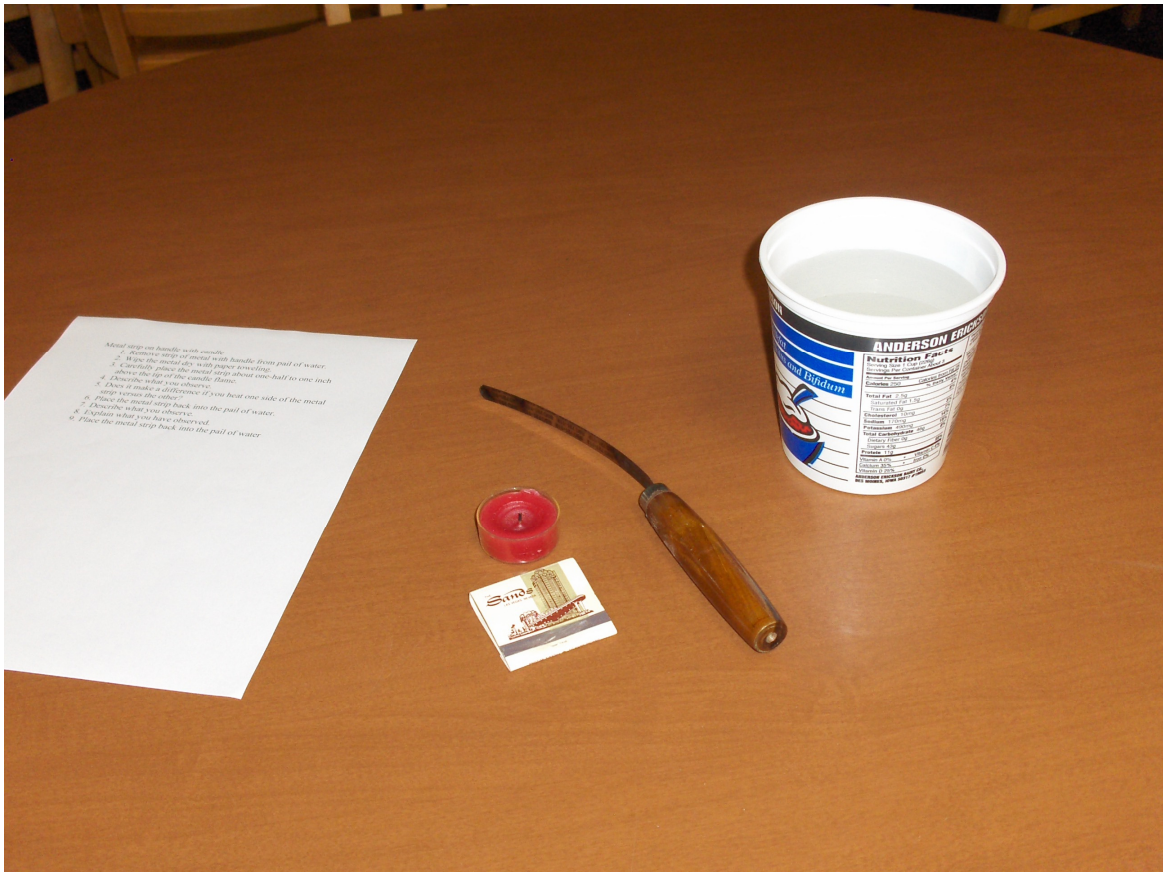


Metal strip on handle with candle

1. Remove strip of metal with handle from pail of water.
2. Wipe the metal dry with paper toweling.
3. Carefully place the metal strip about one-half to one inch above the tip of the candle flame.
4. Describe what you observe.
5. Does it make a difference if you heat one side of the metal strip versus the other?
6. Place the metal strip back into the pail of water.
7. Describe what you observe.
8. Explain what you have observed.
9. Place the metal strip back into the pail of water



Effect of Heating on Expansion of Metals (Metal strip on handle with candle)

Summary – This activity investigates the effect of heating on a bimetallic strip. The metal strip is made of two different metals, one on each side. One of the metals expands more for the same amount of heating.

Materials Needed

- Bimetallic strip
- Candle
- Pail of water
- Paper toweling

Scientific Questions

How does heating affect metals?

Possible Hypothesis

- Heating has no effect on metals
- Heating will always cause the metal strip to curl upward
- Heating will always cause the metal strip to curl downward
- Heating will cause some metals to expand more than other metals

Set up

- Light the candle and place pail of water nearby

Notes

- It may take some coaching to help students realize that it doesn't matter which side of the metal strip is heated; it always curls in the same way with respect to the metal strip.