

Thermal Expansion



Thermal Expansion Stuff

Purpose: Demonstrates the expansion of heated objects.

This set includes a variety of balls and rings which can be heated to demonstrate thermal expansion. The ball-on-a-chain item is probably the most fun: Adjust the ring low and heat the ball. Then raise the ring until the ball is held by it with plenty of slack. As the ball cools (and the ring heats), it will fit through and drop.

Also included are some bimetallic strips which demonstrate that different materials expand by differing amounts upon heating. Heating the strips makes them curl.

Note: Instead of heating, one might also try cooling. I have not tried it, but what would happen to a bimetallic strip when plunged into liquid nitrogen?

Extra Equipment: Butane torch or candle.

Location: Shelf D3