



HEATWAVE

Can you keep your cat cool?



Make a structure or surface to protect your cat from the heat! Try using different materials to make a blanket, pouch or other protective gear and use the tools to watch the temperature. Can you measure how cool your cat is?

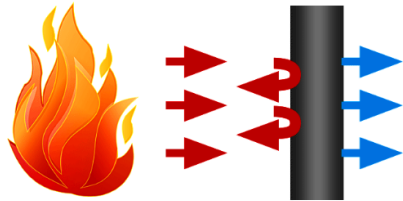
Use the heat lamp, blow dryer and hand warmers to turn up the heat!

Explore the mirrors— does reflecting light also reflect heat?

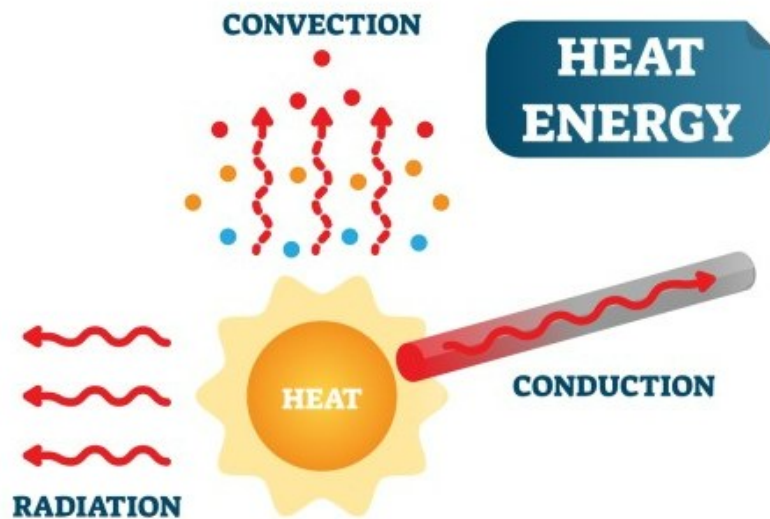
Try the dark colored paper vs the light colored paper— what difference does it make?

The Science

a material that does not
conduct heat well



thermal insulator



To protect the cat from heat, you are determining which materials make good insulators. Insulating materials do not heat up easily—they do not conduct heat. All the materials will be different but using the measuring tools you should be able to get an idea of what materials conduct heat better or worse. The shape and amount of material also matters as well as the heat source.

Heat energy transfers in a few ways. The primary methods are radiation (can you feel the heat through the air coming off something that is hot?) and conduction (can you heat up a material and feel that it is warmer?).

Which sources of heat shed more radiation? Which use more conduction?

For an added experiment, you can add the wax with a low melting point—can you increase the heat enough to melt the wax on a piece of cardboard?