

SUPER A
SCIENTIFIC

HEAT

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Calorimeter



Calorimeter - Double Wall 304-1

Consists of an inner vessel (100ml) and out vessel (300ml) with a molded cover, rubber stopper, stirrer, and fiber washer to support & insulate the inner vessel.



Calorimeter - Electric 304-2

The cover contains a mounted heating coil of about 1.5 ohms resistance with standard binding posts for electrical connections. When connected to a 6-volt battery, this coil will cause a temperature rise of about 5 degrees Centigrade in 10 minutes. The supporting posts and coil are coated to prevent electrolysis. Comes complete with insulated handle on stirrer and single hole rubber stopper.

Specific Heat Set 61015

These units are used with a calorimeter to determine various specific heats. This 5 cylinders set consists of aluminum, copper, zinc, tin, and lead. All the cylinders are the same mass (58g) and same diameter (19 mm). A small knob with a groove on the top for string provides convenience and insures accuracy (by not using a hook made of a different metal). Specification sheet included.



Conduction



Heat Conductometer, 5 rods 312

5 different metal spokes, aluminum, brass, steel, nickel, copper, extend from a center hub on a wooden handle. The hub is heated and the students watch as wax falls from each spoke in the order of conductivity. Includes wax.



Heat Transfer Kit

MS202.1 -1 Wooden handle, brass / iron, 3.5x20cm

MS202.1-2 Wooden handle, brass / iron, 2x21cm

MS202.2-1 Plastic handle, brass / iron, 2x21cm

MS202.2-2 Plastic handle, brass / iron, 2x21cm

MS202.3 Wooden handle, bi-metal blade.

Convection



Convection Apparatus for Liquid 303

The movement of liquid currents due to differences in temperature is demonstrated by introducing dye into the water in the tube. One corner of the tube is heated and the movement of the dye clearly establishes the currents. The rectangular shaped tube has an opening at the top.



Convection Apparatus for Gases

303-1

The enamel coated metal box has a sliding glass front and two glass chimney stacks. Smoke is introduced in one chimney using either smoldering paper or a punk stick. The smoke can be observed traveling down into the box and back out through the other chimney that stands over a flaming candle. The principle of convection of currents and wind is very clear through this demonstration.



Water Trap

2301

Designed for use with a steam generator or boiler to trap condensed steam. The unit is made of Pyrex glass and is 15.5 cm long.

Heat Energy



Steam Generator

1873

A useful accessory for many experiments involving thermal energy. Constructed of a heavy gauge aluminum. Consists of a boiler, sample cup, tripod and two rubber stoppers with and without hole. The boiler is 100mm diameter x 170mm height, the stand measures 240mm in height.



Temperature (Heat) Generator

MS307.6

This generator is driven by the widely water temperature difference. Immerse one metal bar in cooled water and other metal bar in hot water, a few seconds, at the top of small motor will be running fast due to the big water temperature difference. It is good for science education.

Thermal Expansion



Ball & Ring Apparatus, Economy, Brass, 2 Piece

198-A

This unit demonstrates the expansion of metal with heat and its contraction when cooled. When a ball or ring on a handle is heated, the ball will not pass through the ring, but when cooled the ball passes through the ring freely.



Compound Metal Bar

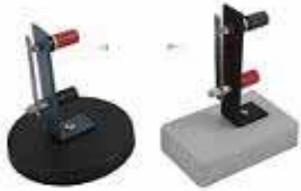
309

A dramatic demonstration of the thermostat principle! Consists of a bimetal strip mounted in a wooden handle. Because of the unequal expansion of the two different metals, the bar will bend when heated which illustrates the operation of a thermostat. (10" x 3/4" x 3/4"; .21b)

Linear Expansion Apparatus Dial Form 1206

This Linear Expansion testing device makes studying the expansion of metals simple and instantly visible to the student. A metal rod is inserted into the steam chamber and steam is applied. Expansion of the rod is immediately registered by the dial indicator that is mounted on one end. The heat jacket has three inlet tubes for water intake, outlet and thermometer insertion. Unit includes four metal rods 6mm x 60cm of aluminum, steel, copper, and brass. A steam source is not provided.





Thermostat Model

MS202.4-A Round Base

MS202.4-B Square Base

A dramatic demonstration of the thermostat principle! Consists of a bimetal strip mounted in a base. Because of the unequal expansion of the two different metals, the bimetal strip will bend to open or close the circuit and the light bulb lights up accordingly.



Ball & Ring App with Support Stand

MS204.1

This unit demonstrates the expansion of metal with heat and its contraction when cooled. When a ball or ring on a handle is heated, the ball will not pass through the ring, but when cooled the ball passes through the ring freely. Comes with support stand.