



a WOW Lab

BLUEPRINT

'c' is for Chocolate

Time / Cost Estimate

Time: Prep - 5 min / Wait - 4 hr / Active - 15 min

To prepare for the activity, the cardboard and 3-layered wax paper base needs to be cut to size. In addition, the chocolate should be arranged onto the base and refrigerated for a minimum of four hours prior to the activity. This is important, since the cool temperature helps prevent heat conduction which may otherwise interfere with the activity results.

The demonstration should take no more than 15 minutes depending on the power of the microwave. The chocolate should be heated just long enough for the melted pools of chocolate to appear at the antinodes. In a standard microwave, with a maximum output of 900 W, a 500 g bar of chocolate takes 60 seconds to melt at the wave antinodes. More powerful microwaves will require less time and vice versa.

After the activity, the class can eat the chocolate (provided a food-safe microwave was used) or the chocolate can be placed in the fridge to harden, with toothpicks or pins used to mark the centre of the melted antinodes, and shown to multiple classes.

Initial Cost: \$12.00 - \$24.00

The only cost directly associated with this activity is that of the chocolate. The cardboard base can be recycled from any large box and the small amount of wax paper required can be brought in from home.