



a WOW Lab

BLUEPRINT

'c' is for Chocolate

Lesson Logistics

Learning Outcomes

Grades 10-12
Performing and recording
Communication and teamwork

Class Organization

One demonstration is conducted for the entire class; however, measurement of the distance between antinodes and the calculation of the speed of light may be done individually or in groups.

Ensure that each group has paper and a pencil for calculations.

Notes

Access to a refrigerator and microwave is a necessity. It may be useful to have a pre-demonstration trial run in order to determine the ideal melting time.

Only eat chocolate that has been handled hygienically and stored and heated in food-safe containers and appliances.

The heated tray should be handled carefully to avoid clothing stains, in case the cocoa fat has seeped through the wax paper layers.

Further Exploration

A suspension of fine particles in air may be used to visualize moving sound waves. Insert a subwoofer at one end of an empty fish tank and suspend chalk dust or lycopodium powder in the tank. When a sustained sound is played, the sound wave is transmitted through the air by the refraction and compression of the air and becomes visible in the suspended particles.