



a WOW Lab  
**BLUEPRINT**

# 'c' is for Chocolate

## Introduction

Despite the favourable aspects of microwave cooking, microwave ovens are not very good at evenly heating food. This provides a fascinating opportunity to use microwaves to explore the relationship between the velocity, wavelength and frequency of light.

In *'c' is for Chocolate*, students will place a chocolate bar in a microwave oven and observe the resulting puddles of melted chocolate. These are the result of the antinodes of the waves and they are spaced according to the operating wavelength of the microwave oven. This can then be used to calculate the speed of light.

Although other foods can be used, chocolate is recommended because its melting point is low enough to allow the chocolate to melt at the location of the antinodes and it can be consumed by the students after the activity.