TOAST
and the speed of light

Measure the Speed of Light with only buttered toast and a microwave oven!

1) Acquire 4 pieces of bread, 1 stick of spreadable butter, and 1 microwave that does not rotate the plate!

2) If your microwave does rotate, you can fix this by wedging blocks under the rotating plate to keep it from contacting the rotator.

3) Toast the bread as much as you would if you were going to eat it.

4) Remove toast and wait for it to cool completely.

5) Using a butter knife, apply a thick layer (1/8th inches) of butter evenly over the toast.

6) Place each piece of buttered toast side-by-side on a plate to form a large square of buttered toast.

7) Put it in the microwave and microwave until a couple spots of melted butter begins to form. Watch carefully! Pull out the plate as soon as the butter begins to melt or you will need to start again.

8) Measure the distance (in cm) from the center of one melted butter spot to the nearest other melted butter spot. This is one-half the wavelength of a microwave used to melt the butter.

9) Look around on your microwave. It should list a frequency somewhere on it. If not, use frequency = 2450000000 Hz.

10) Get the speed of light by = 2 x 100 x distance x frequency.

11) The speed of light is about 300000000 m/s. If you got any number between 220000000 and 380000000, then you did some great science!

ENJOY YOUR TOAST!