

The size of a Celsius degree is equal to the size of a kelvin. The only difference is where the zero point is set. Absolute zero on the kelvin scale is equal to -273°C .

To convert from Celsius degrees to kelvins, add 273. To convert from kelvins to Celsius degrees, simply subtract 273.

Although there are equations for converting from Fahrenheit to Celsius and vice versa, it is more important to be able to approximate temperatures in both units. To do this, it's useful to know some common temperatures in each scale. It is also useful to know that one-degree change in Celsius is almost a two-degree change in Fahrenheit.

Event	Celsius temperature ($^{\circ}\text{C}$)	Fahrenheit temperature ($^{\circ}\text{F}$)
water freezes	0	32
room temperature	20	68
body temperature	37	99
water boils	100	212

If you have reason for a precise conversion, you can refer to a table showing sets of both temperatures, create a spreadsheet, or use the algebraic equations given below.

To convert Fahrenheit to Celsius use: $^{\circ}\text{C} = \frac{5}{9} (^{\circ}\text{F} - 32)$

To convert Celsius to Fahrenheit use the following: $^{\circ}\text{F} = \frac{9}{5} ^{\circ}\text{C} + 32$

Cooking Food in a Microwave Oven

How does a microwave oven work? A microwave oven emits electromagnetic waves of a frequency identical to the frequency that causes water molecules to vibrate and rotate. The microwaves enter the food and the water molecules within the food move and vibrate against one another at the rate of over a billion times a second. The heat from the vibrating molecules moves throughout the food by conduction.

Summary of Heat-Energy Transfer

Conduction is the transfer of heat energy throughout a material or through contact between different materials. When you cook pancakes in a frying pan, the flame never touches the pancake batter. The frying pan gets hot because part of it is in contact with the flame or

