5.11 - Temperature in Different Systems

page 148

Imperial Temperature - Fahrenheit (°F)

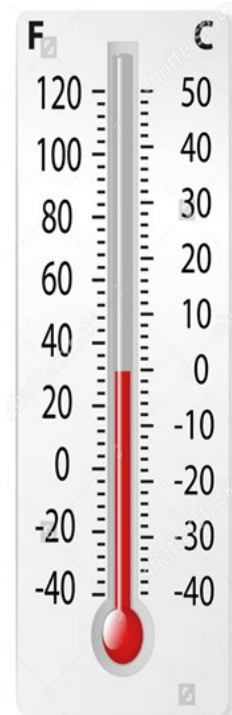-Gabriel Daniel Fahrenheit invented the mercury thermometer in 1714

Metric Temperature - Celsius (°C)

-Anders Celsius created the Celsius temperature scale in 1742
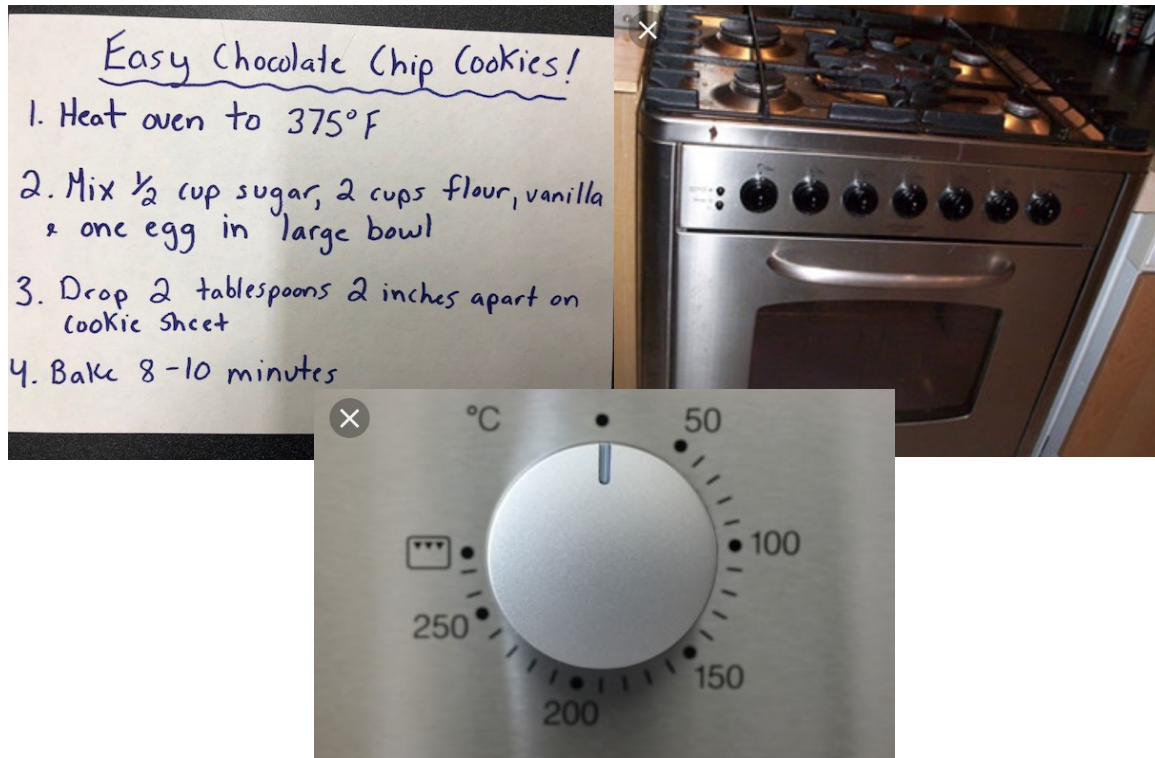
Formulas for converting between Fahrenheit and Celsius

Fahrenheit to Celsius: $C = \frac{5}{9}(F - 32)$

Celsius to Fahrenheit: $F = 1.8C + 32$

What do you notice? What do you wonder?

Easy Chocolate Chip Cookies!
1. Heat oven to 375°F

2. Mix ½ cup sugar, 2 cups flour, vanilla
   & one egg in large bowl

3. Drop 2 tablespoons 2 inches apart on
   cookie sheet

4. Bake 8-10 minutes

What do you notice?	What do you wonder?
-There are no chocolate chips in the recipe! -There are different measurement units -The dial is in degrees Celsius -The recipe says 375° Fahrenheit	-Does the dial belong to the stove? -Why do you need the picture of the stove? -Whose recipe is this? -What is 375° Fahrenheit in degrees Celsius?

$$F = 1.8C + 32 \qquad C = \frac{5}{9}(F - 32)$$

Example 1: page 148

Elise is training to become a chef. A recipe for tourtiere says to bake it at 190 °C. To what temperature should Elise set an oven with temperatures in degrees Fahrenheit?

Example 2: page 149

Owen, an assistant at a library, learned that the highest temperature in Calgary was 36.1 °C on July 25th, 1933. The lowest temperature was -47.9 °F on January 31st, 1893. What is the difference in degrees Celsius, to one decimal place?

Your Turn!

complete #1-10 on page 149-151

Practice Converting Temperature

Convert the following to degrees Celsius:

a) 375° Fahrenheit

b) 204.8° Fahrenheit

c) -146.3° Fahrenheit

Convert the following to degrees Fahrenheit:

a) 75° Celsius

b) 154.6° Celsius

c) -46.7° Celsius