

## Curriculum Outcome

**M1 Demonstrate an understanding of the Système International (SI) by describing the relationships of the units for length, area, volume, capacity, mass and temperature.**

**M2 Demonstrate an understanding of the Imperial system by: describing the relationships of the units for length, area, volume, capacity, mass and temperature.**

**Student Friendly: The relationship between degrees Celsius and degrees Fahrenheit**

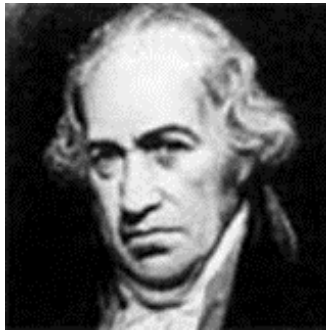
# Roots of Temperature

**Galileo  
Thermoscope  
1592**



**Galileo Galilei  
(1564- 1642)**

**Fahrenheit Scale  
1714**

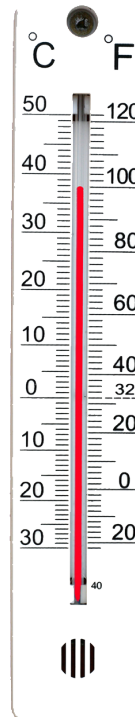


**Daniel Gabriel Fahrenheit  
(1686 - 1736)**

**Celsius Scale  
1742**



**Anders Celsius  
(1701 - 1744)**



# HOMework...

TEXT p. 193 # 1 - 3

5.1 Worksheet - Temperature Conversions.docx



**Temperature Conversions 4.1**

- 1) Convert following temperature to degree Fahrenheit
  - a. 35 °C
  - b) – 8°C
  - c) 165°C
  - d) 21°C
  - e. -40°C
  
- 2) Convert the following temperature to degrees Celsius
  - a. -20°F
  - b) 80°F
  - c) 375°F
  - d) 2°F
  - e. 0°F
  
- 3) Which is hotter, a blow torch flame at 1300°C or a candle flam at 1830°F? By how much hotter is the flame than the other.
  
  
  
  
  
  
  
  
  
  
- 4) When Harry mixes different materials to pave a road, he knows that they must be kept at the following temperatures in degrees Fahrenheit. Calculate the temperat
  - a. Bituminous material must be between 200°F and 260°F
  
  
  
  
  
  
  
  
  
  
- 5) When the human body reaches a temperature of 41°F, it is said to be in a state of "medical emergency". What is this temperature in degrees Celsius?

Text book  
Page 193 -194

1. Cooked meat must reach a recommended internal temperature before it is safe to eat. A cookbook contains a list stated in degrees Fahrenheit.

Determine the corresponding temperatures in degrees Celsius.

**FIGURE 5.1**

**Recommended Internal Temperatures**

<i>Meat</i>	<i>Temperature</i>
ground meats	160°F
beef (medium rare)	145°F
beef (well-done)	170°F
chicken (whole)	165°F

2. Mandy supervises a road construction crew. She knows that she must modify the asphalt paving mixture her crew uses if temperatures drop below  $21^{\circ}\text{C}$ . What is this temperature in degrees Fahrenheit? Why would temperature have an effect on the paving mixture?
3. Chan works at a building construction site. His boss told him that he does not have to work if the temperature is above  $105^{\circ}\text{F}$  or below  $-15^{\circ}\text{F}$ . Chan has a thermometer that measures in degrees Celsius. What are the temperatures given by Chan's boss, in degrees Celsius?

1. ground meats: 71°C; beef (medium rare): 63°C; beef (well-done): 77°C; chicken (whole): 74°C
2. 70°F; temperature would affect the paving mixture because asphalt becomes more fluid as it is heated.
3. Chan will not have to work if the temperature is above 41°C or below -26°C.
4. The surface temperature of the crimper is ( 446 ± 18 ) °F. The temperature of the crimper is between 428°F and 464°F.
5. a) Answers will vary.  
b) Answers will vary.  
c) Bev likes to keep her ho



## Attachments

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Worksheet - EXTRA Practice Converting Temperatures.docx

5.1 Worksheet - Temperature Conversions.docx