**Objectives**: To understand how temperature scales relate to each other.

**Materials**: A ruler or straight edge

**Procedure**:

1. Lay your ruler straight across the thermometer page so that it lines up with 0 degrees Celsius.
2. Draw a line that goes across all three thermometers. Notice that when you do this, your line crosses 32 degrees Fahrenheit and 273 Kelvin. This is because: 0° C = 32° F = 273 K This is the temperature when water freezes.
3. Now lay your ruler straight across the page so that it lines up with 212 degrees Fahrenheit. Again draw a line that crosses all three thermometers. Your line should show you that: 100° C = 212° F = 373 K This is the temperature when water boils.
4. Fill in the chart by using your ruler and the thermometers.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Celsius** | **Fahrenheit** | **Kelvin** |
| Body Temperature | 36 |  |  |
| - |  | 180 |  |
| Freezing Point |  |  | 273 |
| - |  | 200 |  |
| Room Temperature | 25 |  |  |
| - | 65 |  |  |
| Boiling Point |  | 212 |  |
| - |  | 115 |  |
| - |  |  | 373 |
| - | 5 |  |  |

**Questions:**

1. Did you notice a trend between the Celsius scale and the Kelvin scale?
2. Your friend from France came to visit you in January. When she was packing for the trip she went on weather.com and found that the average temperature in Annville is 31\*. Why did she pack shorts, sleeveless tops and no coat?
3. You have a friend who is using a recipe for flan from a Mexican cookbook. You notice that he set your oven temperature at 175\*F. What would you advise him to do?
4. A person with hyperthermia has a temperature of 106\*F. What does this read on a Celsius scale?
5. Because high fevers can cause convulsions in children, the doctor wants to be called if a child’s temperature goes over 40.0\*C. Should the doctor be called if a child has a temperature of 103\*F?