



## ACTIVITY

|   |  |
|---|--|
| TEACHER`S NAME<br>Květoslava  | NAME OF THE ACTIVITY<br>Metric - US / Imperial units |
| Time: 20-30 minutes<br>Language level: Pre-Intermediate to Upper-Intermediate<br>Language focus: differences between metric and imperial system<br>Aim: Ss will learn and understand the differences between metric and imperial system<br>Ss will learn the vocabulary of imperial units   |  |
| Preparation:<br>print worksheet   | Materials:<br>worksheet for Ss                       |
| Procedure:<br>- Ss work alone<br>- T introduces the topic by asking Ss questions as shown on the worksheet<br>- Ss work out the answers to task 1 by using the tables ( units of length and mass) given<br>- Feedback: -Ss check in pairs<br>- group / class feedback<br>- Ss work out the answers to task 2 by using the picture given<br>- Feedback: -Ss check in pairs<br>- group / class feedback<br>- Ss work out the answers to task 3 by using the table (units of volume) given<br>- Feedback: -Ss check in pairs<br>- group / class feedback |  |



## Metric – US/Imperial units

Has anyone ever told you ...

- that he is six feet tall and you had no idea whether it was tall or short? Was he tall enough to play basketball?
- that she had a baby who weighed 8 pounds ... and you wondered if it was a little or a big baby?
- that the temperature was 52 degrees outside and you had no idea whether it was warm or cold?

Look at the following tables to find out about the differences between the metric and imperial units.

### Length

| Metric            |        |   | US or Imperial |
|-------------------|--------|---|----------------|
| 1 millimeter [mm] |        | → | 0.03937 in     |
| 1 centimeter [cm] | 10 mm  | → | 0.3937 in      |
| 1 meter [m]       | 100 cm | → | 1.0936 yd      |
| 1 kilometer [km]  | 1000 m | → | 0.6214 mile    |

| US or Imperial      |           |   | Metric    |
|---------------------|-----------|---|-----------|
| 1 inch [in]         |           | → | 2.54 cm   |
| 1 foot [ft]         | 12 in     | → | 0.3048 m  |
| 1 yard [yd]         | 3 ft      | → | 0.9144 m  |
| 1 mile              | 1760 yd   | → | 1.6093 km |
| 1 int nautical mile | 2025.4 yd | → | 1.853 km  |



## Mass

| Metric           |          |   | US or Imperial   |
|------------------|----------|---|------------------|
| 1 milligram [mg] |          | → | 0.0154 grain     |
| 1 gram [g]       | 1,000 mg | → | 0.0353 oz        |
| 1 kilogram [kg]  | 1,000 g  | → | 2.2046 lb        |
| 1 tonne [t]      | 1,000 kg | → | 1.1023 short ton |
| 1 tonne [t]      | 1,000 kg | → | 0.9842 long ton  |

| US or Imperial        |             |   | Metric    |
|-----------------------|-------------|---|-----------|
| 1 ounce [oz]          | 437.5 grain | → | 28.35 g   |
| 1 pound [lb]          | 16 oz       | → | 0.4536 kg |
| 1 stone               | 14 lb       | → | 6.3503 kg |
| 1 hundredweight [cwt] | 112 lb      | → | 50.802 kg |
| 1 short ton (US)      |             | → | 0.9072 t  |
| 1 long ton (UK)       |             | → | 1.0160 t  |



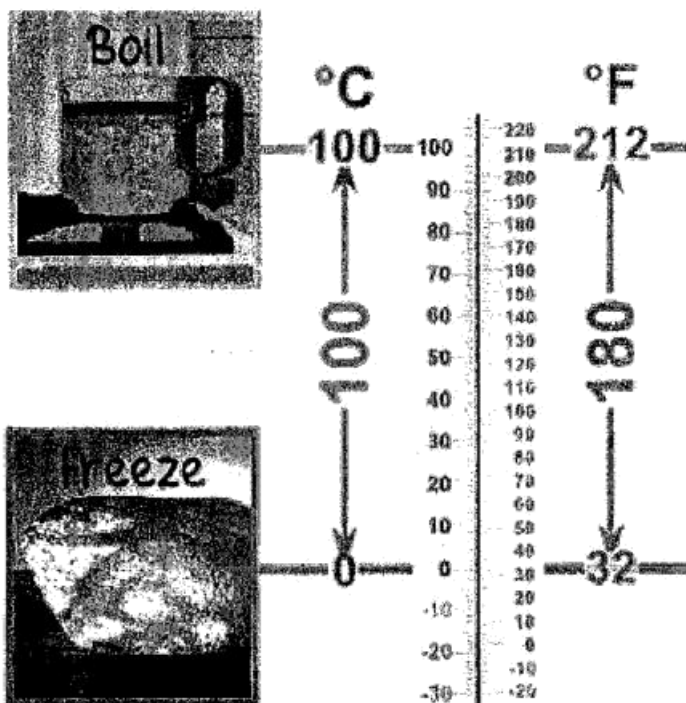
**TASK 1:** Write the missing numbers with the help of the tables above.

|            |            |
|------------|------------|
| 185 cm     | ..... ft   |
| ..... m    | 13 yard    |
| ..... m    | 15 mile    |
| ..... ft   | 0.914 m    |
| ..... yard | 17 km      |
| 2 m        | ..... in   |
| 3 dm       | ..... in   |
| 6 m        | ..... yard |
| 15 in      | ..... cm   |
| 3.2 mile   | ..... km   |

|          |             |
|----------|-------------|
| 2 oz     | ..... g     |
| 17 lb    | ..... kg    |
| 2 kg     | ..... lb    |
| 13 grain | ..... g     |
| 20 stone | ..... kg    |
| 50 kg    | ..... lb    |
| 500 g    | ..... lb    |
| 17 mg    | ..... kg    |
| 1 t      | ..... stone |
| 19 lb    | ..... kg    |



## Temperature



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

$$F = \frac{9C}{5} + 32$$

**TASK 2.** Write the missing numbers. The picture above will help you.

|         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|
| 32° C   | 32° F   | -20° F  | -20 ° C | 100° C  | 100° F  |
| .....°F | .....°C | .....°C | .....°F | .....°F | .....°C |

### Typical Temperatures

| °C         | °F          | Description                                  |
|------------|-------------|--|
| <b>180</b> | <b>356</b>  | Moderate Oven                                |
| <b>100</b> | <b>212</b>  | Water boils                                  |
| <b>40</b>  | <b>104</b>  | Hot Bath                                     |
| <b>37</b>  | <b>98.6</b> | Body temperature                             |
| <b>30</b>  | <b>86</b>   | Beach weather                                |
| <b>21</b>  | <b>70</b>   | Room temperature                             |
| <b>10</b>  | <b>50</b>   | Cool Day                                     |
| <b>0</b>   | <b>32</b>   | Freezing point of water                      |
| <b>-18</b> | <b>0</b>    | Very Cold Day                                |
| <b>-40</b> | <b>-40</b>  | Extremely Cold Day<br>(and the same number!) |

(bold are exact)



## Volume/Capacity

| Metric                           |                     |   | US Measure           | Imperial  |
|----------------------------------|---------------------|---|----------------------|-----------|
| 1 cu cm [ $\text{cm}^3$ ]        |                     | → | 0.0610 $\text{in}^3$ |           |
| 1 cu decimeter [ $\text{dm}^3$ ] | 1,000 $\text{cm}^3$ | → | 0.0353 $\text{ft}^3$ |           |
| 1 cu meter [ $\text{m}^3$ ]      | 1,000 $\text{dm}^3$ | → | 1.3080 $\text{yd}^3$ |           |
| 1 liter [l]                      | 1 $\text{dm}^3$     | → | 2.113 fluid pt       | 1.7598 pt |

| US Measure                    | Imperial        |   | Metric               |
|-------------------------------|-----------------|---|----------------------|
| 1 cu inch [ $\text{in}^3$ ]   |                 | → | 16.387 $\text{cm}^3$ |
| 1 cu foot [ $\text{ft}^3$ ]   |                 | → | 0.02832 $\text{m}^3$ |
| 1 fluid ounce                 | 1.0408 UK fl oz | → | 29.574 ml            |
| 1 pint (16 fl oz)             | 0.8327 UK pt    | → | 0.4732 liters        |
| 1 gallon (231 $\text{in}^3$ ) | 0.8327 UK gal   | → | 3.7854 liters        |

**TASK 3.** Write the missing numbers with the help of the table above.

|         |                      |           |           |          |
|---------|----------------------|-----------|-----------|----------|
| 2 pt    | 120 gal              | 100 l     | 1000 l    | 0.5 l    |
| ..... L | ..... $\text{l,m}^3$ | ..... gal | ..... gal | ..... pt |