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## $\widehat{\mathrm{IIII}}$ Negative Numbers

## Why learn about negative numbers？

$\cdots-4$.
Temperature is measured in degrees Fahrenheit（ ${ }^{\circ} \mathrm{F}$ ）in the US and measured in degrees Celsius $\left({ }^{\circ} \mathrm{C}\right)$ in countries that use the metric system．Celsius is also used by most scientists to measure temperature．

## Think Like a Chemist！

Chemists classify matter by its melting and boiling points，or the temperatures at which a solid changes to a liquid and a liquid changes to a gas．Ice changes into water at $32^{\circ} \mathrm{F}$ $\left(0^{\circ} \mathrm{C}\right)$ and changes into water vapor at $212^{\circ} \mathrm{F}\left(100^{\circ} \mathrm{C}\right)$ ．What other jobs might work with negative numbers？

## Pe <br> Origin of Fahrenheit：Named after German physicist Daniel G．Fahrenheit．Fahrenheit set 0 degrees at the coldest temperature he could conveniently achieve using an ice and salt mixture，and he intended to set 100 degrees at the temperature of the human body． （He was off a by a couple of degrees）． <br> Origin of Celsius：Named after Swedish Astronomer Anders Celsius．The Celsius scale is also known as＂centigrade＂scale．Centigrade means＂consisting of or divided into 100 degrees＂．Celsius has 100 degrees between the freezing point（ 0 C ）and boiling point $(100 \mathrm{C})$ of pure water at sea level air pressure．

Why might it be necessary to convert one measure to another？

To convert Celsius to Fahrenheit－$\quad[(\mathrm{C} \times 9) \div 5]+32=\mathrm{F}$
To convert Fahrenheit to Celsius－$[(\mathrm{F}-32) \times 5] \div 9=\mathrm{C}$
Change the following to Fahrenheit or Celsius．Show your work on the back．
$\begin{array}{llllll}40^{\circ} \mathrm{C} & 35^{\circ} \mathrm{C} & 10^{\circ} \mathrm{C} & 41^{\circ} \mathrm{F} & 68^{\circ} \mathrm{F} & 86^{\circ} \mathrm{F}\end{array}$

Name one detail from the information above that you found interesting．Explain why you chose this detail．

## KEY



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| :--- | :---: | :---: | :---: | :--- | :---: |
| $104^{\circ} \mathrm{F}$ | $95^{\circ} \mathrm{F}$ | $50^{\circ} \mathrm{F}$ | $5^{\circ} \mathrm{C}$ | $20^{\circ} \mathrm{C}$ | $30^{\circ} \mathrm{C}$ |

Name one detail from the information above that you found interesting．Explain why you chose this detail． $\qquad$

