

Can I position positive and negative numbers on a number line and find the difference between them?

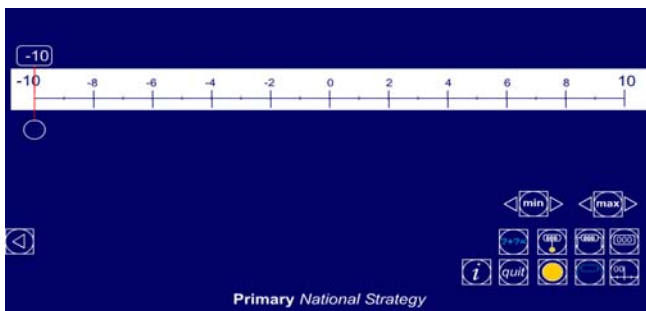
Teaching guidance

Key vocabulary

positive, negative, above zero, below zero, degrees Celsius ($^{\circ}\text{C}$), minus, difference, integer, interval, number line, order

Models and images

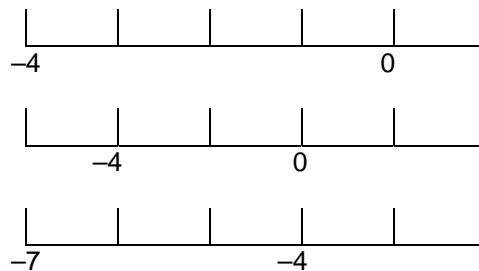
Use the *Number line* ITP to show how number lines extend beyond 0. Encourage children to identify and discuss what the unmarked numbers are.



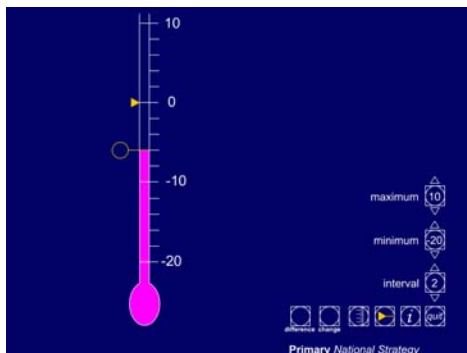
Number line ITP

Use a number line and/or a counting stick to identify and locate numbers.

Where would you place -2 on each of these number lines?



Use a thermometer or the *Thermometer* ITP to look at negative numbers within a context.



Thermometer ITP

Teaching tips

- Give children a range of opportunities to position positive and negative numbers on number lines. This could include the use of practical washing lines, counting sticks and individual number lines.



- Make sure that children experience number lines in different orientations.
- Use a range of counting activities with different starting points and step sizes to emphasise that counting continues beyond zero. Use number lines to show the relative position between pairs of negative numbers and to demonstrate that -4 is less than -2 .
- Help children to use the benchmark numbers on a number line to determine the position of other numbers on that number line.
- Help children to make connections between using benchmark numbers on a number line and reading the scale on a thermometer.
- Use negative numbers in other contexts, for example, 'A diver is below the surface of the water at -30 m. He goes up 12 metres, then down 4 metres. Where is he now?'