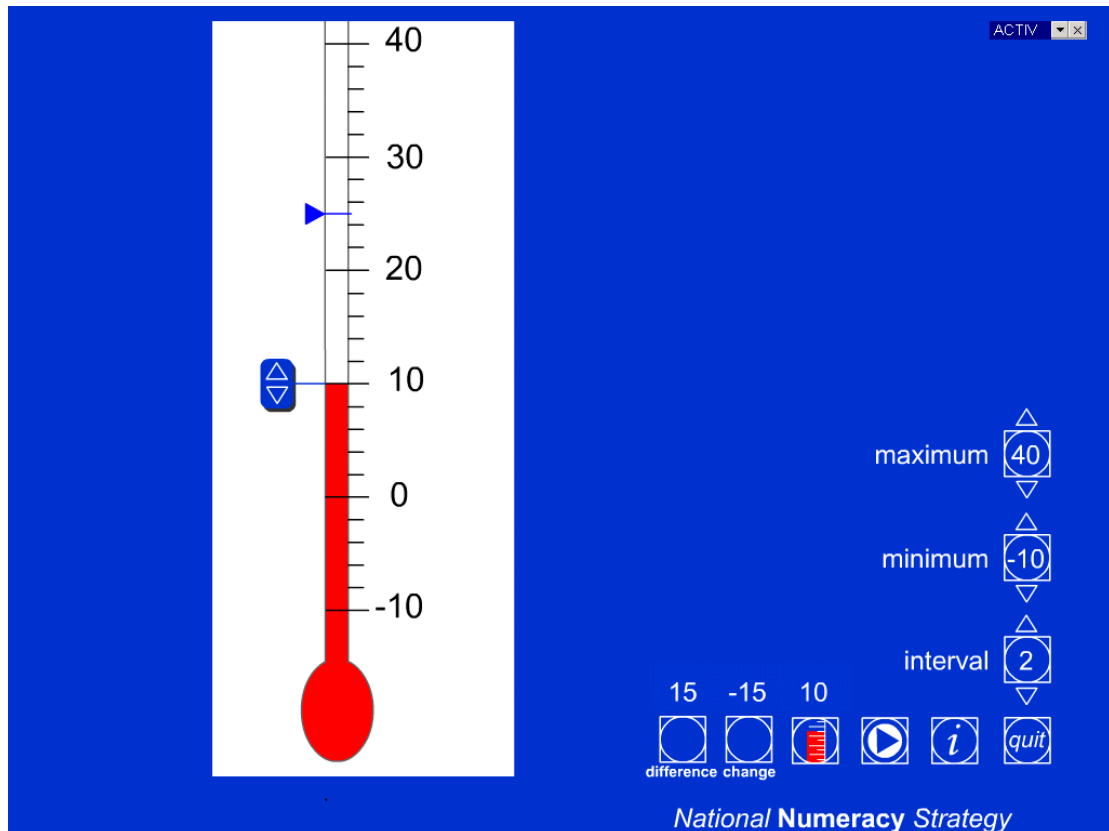



Tutorial 6 Thermometer



Use the arrows to set the minimum  to -20 and the maximum  to 30 .

Increase the interval  to 2 .


Click and hold the slider button  to set a new value of 10 on the thermometer.

Note the blue marker shows the position of the previous reading.

Q: By how much has our temperature increased?

It has increased by 10 in this case.

Move the slider button down to -4 . Note that the blue marker has now moved to the previous reading of 10 .

Confirm that this marked value is -4 by clicking on the  icon.

Q: What is the difference between the current value and the previous value shown by the blue marker?

Show that the answer is 14 by clicking on the circle in the difference icon.

Remember that we set each interval to represent 2 so a difference of seven intervals is equal to a difference of 14 . Change the interval back to 1 .

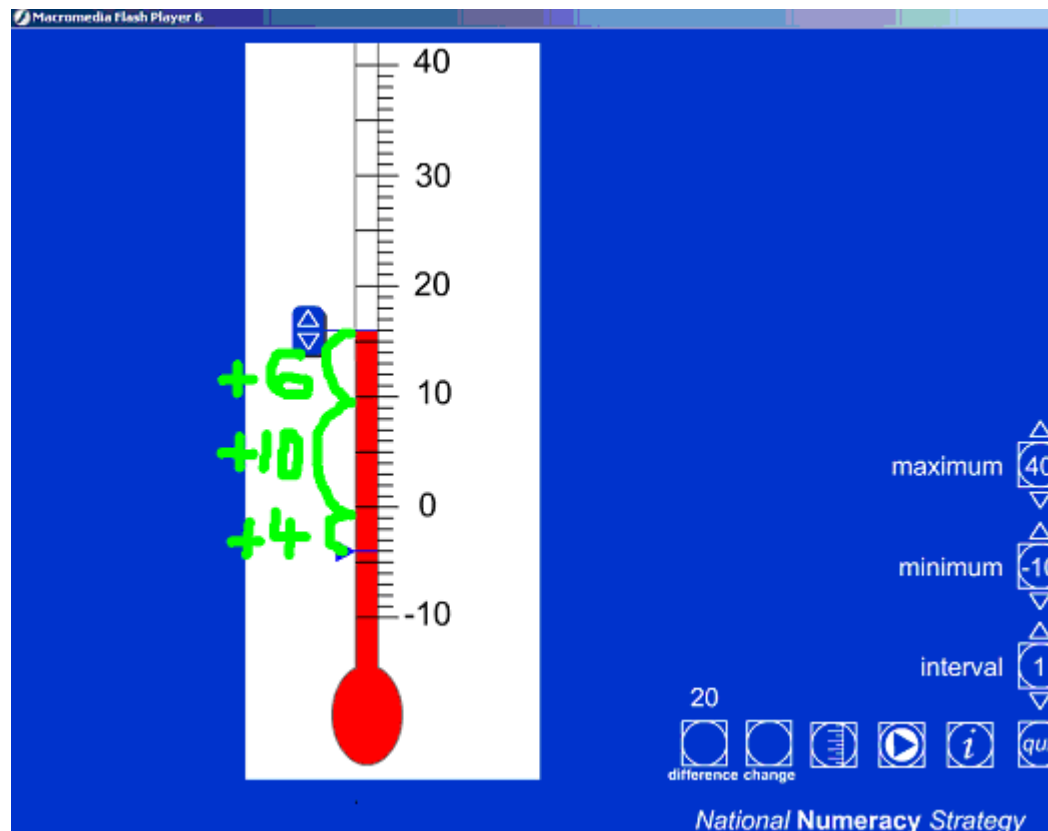
Q: What is the change in temperature? Why?

The difference between the two values is 14, a positive number. However, the change is -14 as the temperature has gone down. Show this by clicking on the circle in the change icon. Remove the difference and change values by clicking on the respective circles.

Click and move the slider button to 16.

Q: What is the difference/change now?

The interactive whiteboard tools can be used to annotate on the screen as shown below.



Reveal that the difference is 20 by clicking on the difference icon. Also confirm that the change is 20 as the temperature has increased.



You can fix the position of the value marker at 10 by clicking on the icon.

The marker changes to red when it is fixed. (Otherwise it is blue and will always jump to the previous scale value.)

Explore ways of using the Thermometer ITP to support children's understanding of negative numbers and their calculation strategies for addition and subtraction. Also how using different scales can support their estimation skills and ability to read scales in the context of temperature.