

Tutorial 15 Number Facts

The screenshot shows a blue interface with the equation $0 + 10 = 10$ at the top. Below the equation is a horizontal row of ten red circles. At the bottom, there is a control panel with several icons: a left arrow, a number 10 with up and down arrows, a plus sign, a question mark with an equals sign, a reset button, an information icon, and a quit button. The text "National Numeracy Strategy" is centered at the bottom.

Click on three of the circles to change them from red to yellow as shown below

The screenshot shows the same interface as before, but the first three circles in the row are now yellow, and the remaining seven are red. The text "This will automatically change the calculation." is to the right of the circles.

$$3 + 7 = 10$$

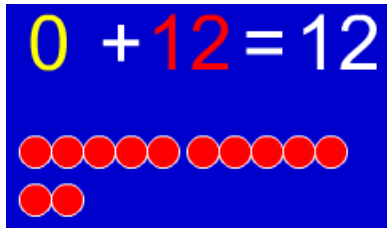
Counters can be moved around the screen by clicking on them and dragging them.


The screenshot shows the equation $3 + 7 = 10$ at the top. Below it, three yellow circles are arranged vertically on the left side, and seven red circles are arranged horizontally to their right.

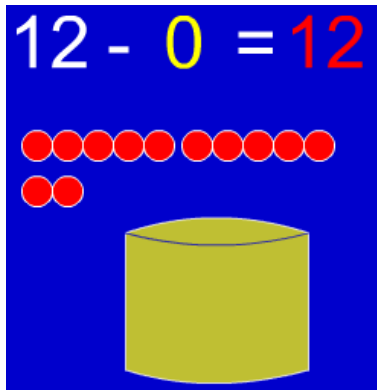
Increase the number of counters up to 20 by clicking on the up arrow and then the centre




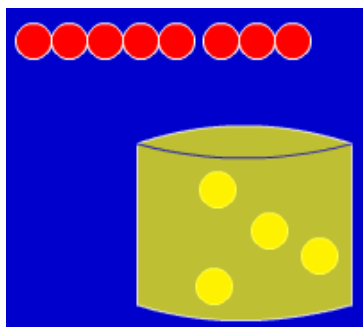
number of the icon. The counters and calculation displayed will automatically change to a default state with a zero in the number sentence.




Click on the  icon. This will now change to a subtraction icon and a bin will appear on the screen together with a subtraction number sentence.



Click on the  icon to hide the calculation. Click on and drag four counters into the bin.



Q: What calculation has been modelled?

The taking away of counters has modelled subtraction. Click on the icon  to reveal the associated subtraction number statement $12 - 4 = 8$.

The bin can be made opaque by clicking on the solid yellow block above the + sign. This will replace the number of counters being subtracted, in the number statement displayed at the top of the screen. To remove the statement click on the icon with the question marks and to remove the question mark at the top of the screen, click on it. The counters in the bin can be revealed by selecting the option below the yellow block and the full number statement can also be displayed.

Use the Number Facts ITP to demonstrate the addition and subtraction of numbers to 20. Explore how this ITP can be used to model how children add by combining and counting, and subtract by partitioning and taking away.