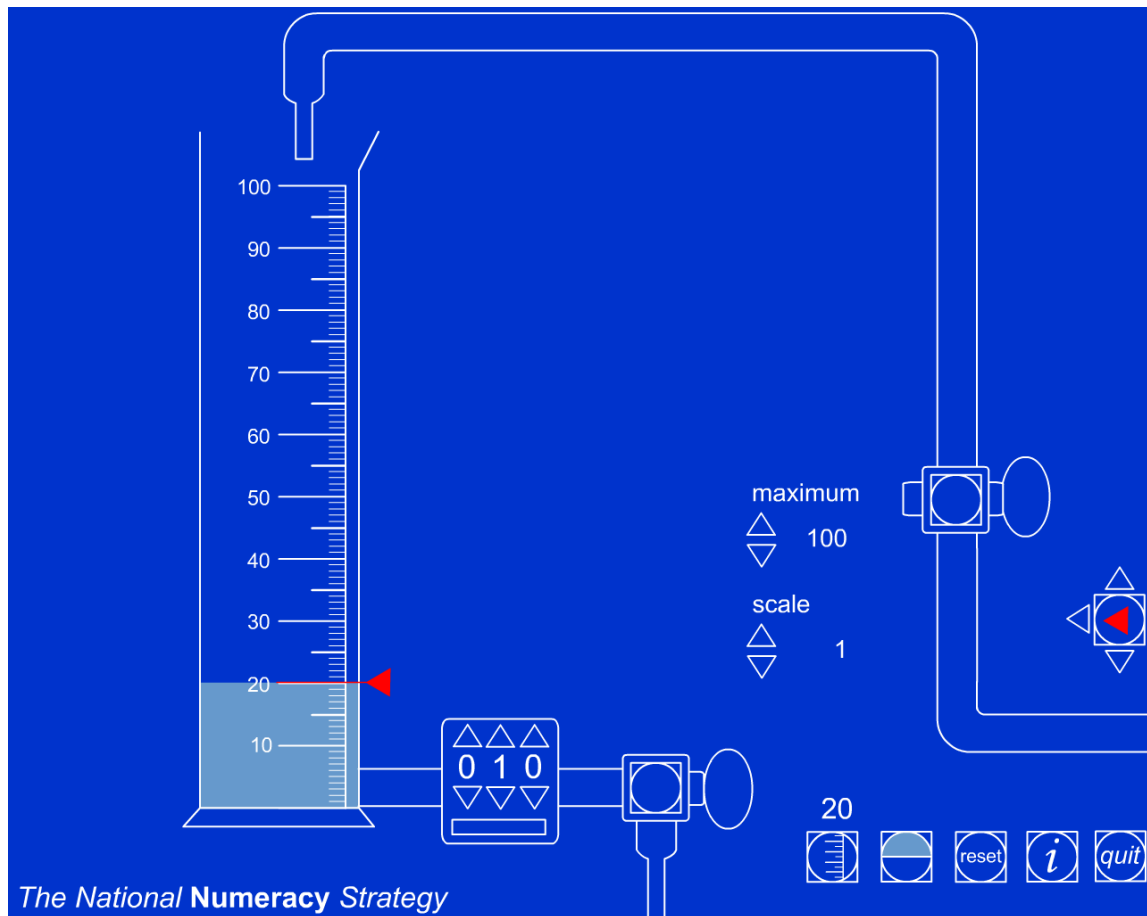






Tutorial 2 Measuring Cylinder



Click on the upward arrows to increase the scale to a maximum of 200 and make the increments on the scale 10.


To turn the tap on click on the oval on the right-hand side of the  icon. To stop the tap click on  again.

Turn the tap on and fill the cylinder up to 60. Show the current volume of liquid is

60 by clicking on . To hide this value click on .

Click on  to reveal the marker.

Drag the marker down to 60.

You can also use the control arrows  to move the marker up or down and to reset it to the centre of the scale.

Turn the tap on again to increase the liquid to approximately 65; make sure that it is not exactly 65.




Click on the circle in the centre of the  icon to reveal the inlet control panel



On the inlet control panel, using the arrow keys input an estimate of how much more liquid is needed to make the total 125. Turn the tap on and watch the numbers on the control panel.

Change the increments on the scale, to see how this helps you to read the actual volume of liquid in the cylinder.




Click on the  icon to show the actual volume of liquid. This should be close to 125.




Click on the outlet icon  to reveal the drain tap.



Show the drain control panel  and set the amount of liquid needed to be drained to reach the required volume of 60 where the marker has been set. (If you have 128 you will need to set the drain control panel to 68).

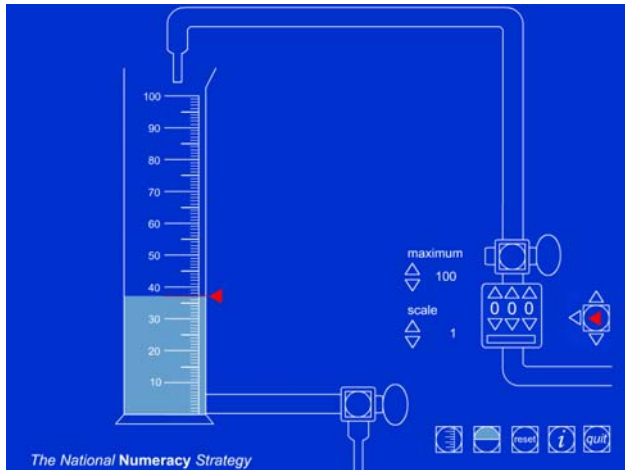
Use the tap to start the outward flow. The liquid will stop draining when it reaches the amount you have entered.



Click on the  icon to reset the Measuring Cylinder ITP. Set the maximum to 100 and the scale to 1.

Using the arrows on the inlet control panel, enter the required amount as 37.

Turn on the tap to enter the amount of liquid. The tap will automatically let in the required amount of 37.



Q: How much liquid would I have to add for the volume to be 76?



Set the marker to 76 on the scale. Using the inlet control panel set to 39 the amount of liquid needed. Turn the tap on to confirm this gives us a total of 76.

If you are using an interactive whiteboard you will be able to annotate over the screen using the whiteboard tools.

Q: How much liquid would we now need to release to reach 18?

Set the drain control panel to the amount needed and turn the tap on to confirm the answer.

Explore ways of using the Measuring Cylinder ITP to support children's 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 capacity and volume.