

Teachers' notes for Place Value Subtraction

This learning object provides a valuable resource for illustrating subtraction problems using place value equipment.

The user is presented with a subtraction problem. They are first asked to make the starting number using place value equipment. They can use the  and  buttons to add and remove blocks from each column. By clicking the rubbish bin  button all the blocks in the column are cleared.

The number of blocks and the place value of each column is written above the column, and the total value of each column is written below. At the bottom of the screen the total of the whole number is written.

Each column can hold more than 10 blocks. You can move the blocks around inside the column by clicking and dragging them.



The right arrow  appears when there are one or more blocks in any of the three columns on the left. By clicking the right arrow you can see one of the blocks move to the border, break up into parts, and move to the column to the right. The numbers above and below each column change to match the blocks. The overall total does not change.

The left arrow  appears when there are enough blocks in any of the three right hand columns to combine and move to the next column. By clicking the left arrow you can see the blocks move to the border, join together, and move to the column to the left. Again the numbers above and below the columns change to match the blocks.

Once the user has made the starting number they can check their answer by clicking the check button. If they are incorrect they are given feedback to help them correct their answer. Once the number is correct it moves to the top half of the screen.

Solve $434 - 348$. Next, use the down arrows to subtract 348. You may need to break up some blocks to help you. Click Check when you are done. New Problem Check

0 Thousands	4 Hundreds	3 Tens	4 Ones
↑ ↓	↑ ↓	↑ ↓	↑ ↓
0 Thousands	0 Hundreds	0 Tens	0 Ones

The user is then asked to take away the amount identified in the problem by using the arrows to move blocks down to the bottom half of the screen. They may need to break up some blocks to do so. Once the correct amount has been taken away, the user is asked to identify the result of the subtraction problem.

Solve $434 - 348$. What is the answer to $434 - 348$? Enter the answer and click Check to continue. New Problem Check

0 Thousands	0 Hundreds	8 Tens	6 Ones
↑ ↓	↑ ↓	↑ ↓	↑ ↓
0 Thousands	3 Hundreds	4 Tens	8 Ones