

Tutorial 4 Number Grid

The National Numeracy Strategy

▷	1	2		4	5	6	7	8	9	10
▷	11	12		14	15	16	17	18	19	20
▷										
▷	31	32		34	35	36	37	38	39	40
▷	41	42		44	45	46	47	48	49	50
▷	51	52		54	55	56	57	58	59	60
▷	61	62		64	65	66	67	68	69	70
▷	71	72		74	75	76	77	78	79	80
▷	81	82		84	85	86	87	88	89	90
▷	91	92		94	95	96	97	98	99	100

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quit
i
reset

mask
primes

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1
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△
10
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△
1
▽

start
cols
multiples

Click on the square icon near to the bottom left-hand corner of the number grid. This will show a vertical and horizontal row of triangles that allow you to hide and reveal any individual row or column.

Mask out the third column from the left and the third row down as shown above.

Q: What number is covered by both horizontal and vertical strip?

Reveal numbers by clicking on the row and column to confirm that the number is 23, then mask them out again.

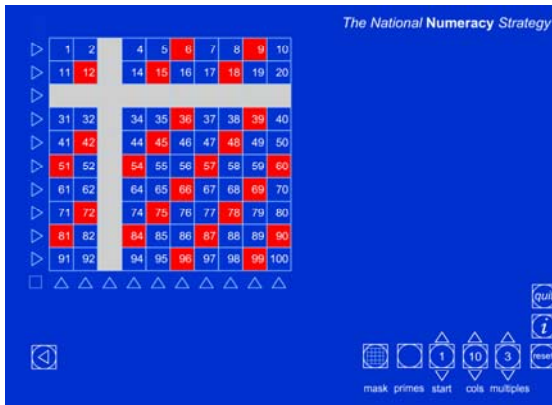


Highlight the multiples of 6 by clicking on the arrows in the multiples icon. Then click directly on the 6 in the centre circle.

Q: Which multiples of 3 will be covered by the horizontal and vertical strip?

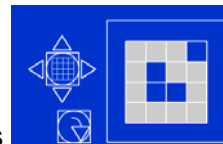
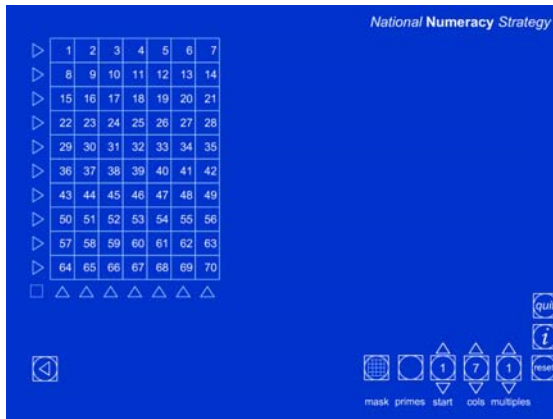
The multiples covered in the row will be 24 and 30, multiples of 3 between 21 and 30. There are no numbers covered in the column as none is a multiple of 6. You can also highlight a cell on the grid by clicking on that cell. Clicking again will return the cell to blue.






Q: Can you highlight all the square numbers on the grid?



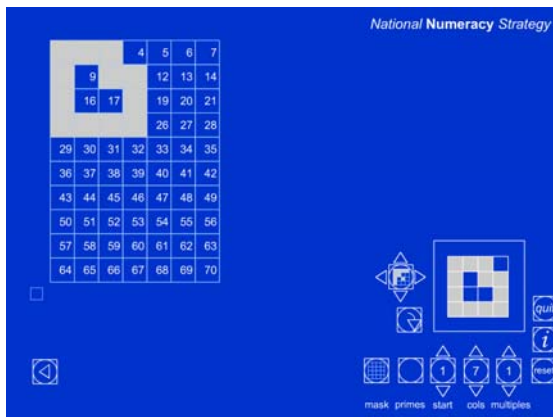
Reset the Number Grid ITP.

Reduce the number of columns to seven by reducing the number in the columns icon to 7.




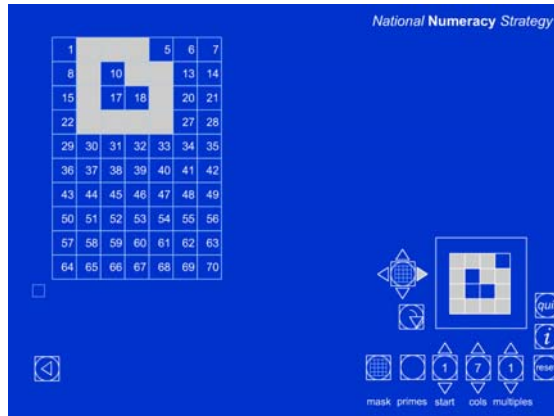
Click on the mask icon **mask**. This will show the icons     . Click on the small squares in the 4 by 4 grid to create a mask.

This will automatically place the grid in the top left-hand corner of the number grid as shown below.





Using the arrows on the  icon move the mask, for example one square to the right.

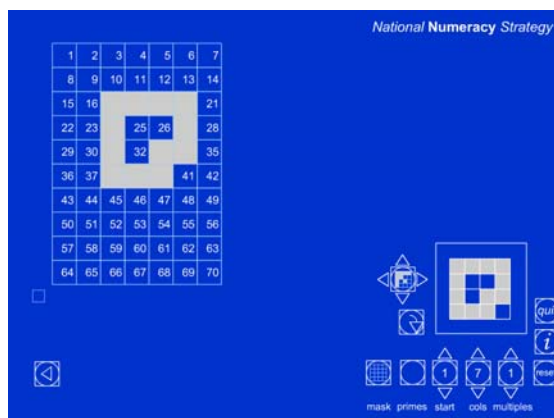


Move the grid around the screen using the arrows and find the total of the three numbers exposed in the L-shaped grid.

Q: Can you predict the total if you know the top-most number is 44?



Click on the icon . This will rotate the mask as shown below.



Move the mask around the screen to find different totals.

Q: Can you predict the total this time given the bottom-most number is 44?

Explore the distribution of different multiples on grids of different sizes. Consider how the Number Grid ITP can support children's understanding about multiples of numbers, their recognition of number patterns and their ability to predict and generalise.