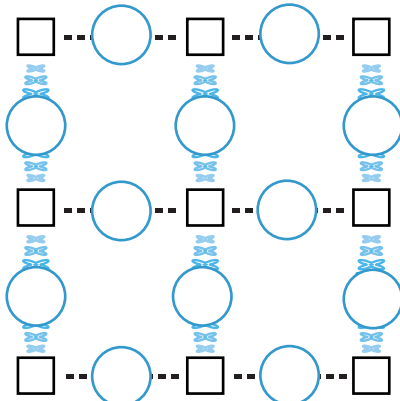
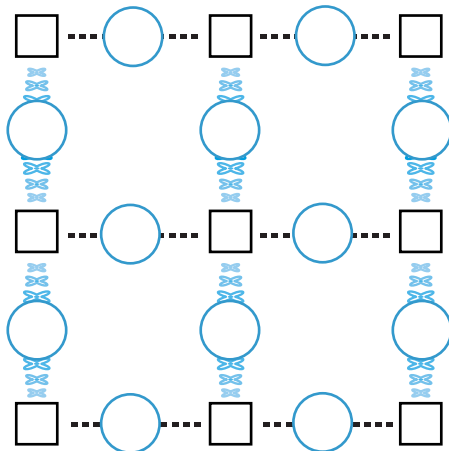


LCM squares	Skills practised: <ul style="list-style-type: none">Finding the lowest common multiple of two numbersAdding several two-digit numbers
Children use trial and improvement to find the smallest possible total on a square of Lowest Common Multiples.	
Conjecture: Using the lowest common multiples, it is possible to arrange given numbers so as to demonstrate that we have the largest and smallest possible totals.	
What to do: Children work individually or in pairs.	
1. Use this grid.	
	
2. Write the numbers 2, 3, 4, 5, 6, 8, 9, 10 and 12 in the squares, one number in each square.	
3. In the circles between each pair of squares, write the LCM (lowest common multiple) of the two numbers, e.g. If 9 and 6 are the numbers in the first two squares on the top row, you write 18 on the line between them.	
4. Add all your circled numbers, first adding pairs and crossing them out, and then adding pairs of those totals and finally adding the last three numbers.	
5. Start with a new grid.	
6. Re-arrange your numbers and repeat.	
YOUR AIM IS TO FIND THE SMALLEST TOTAL POSSIBLE!	
Discuss what you notice. Are some numbers used more than others are? Which numbers are used least? Where is it best to put the 12?	
CHALLENGE: Demonstrate that you have found the smallest possible total.	
Aim: <ul style="list-style-type: none">To use trial and improvement effectivelyTo understand how to use factors in finding LCMs	Minimum number of calculations expected 30

LCM squares

1. Use this grid.



2. Write the numbers 2, 3, 4, 5, 6, 8, 9, 10 and 12 in the squares, one number in each square.

3. In the circles between each pair of squares, write the LCM (lowest common multiple) of the two numbers.

4. Add all your circled numbers, first adding pairs and crossing them out, and then adding pairs of those totals and finally adding the last three numbers.

5. Start with a new grid.

6. Re-arrange your numbers and repeat.

FIND THE SMALLEST TOTAL POSSIBLE!

What do you notice? Are some numbers used more than others are?
Which numbers are used least? Where is it best to put the 12?

Challenge

Demonstrate that you have found the smallest possible total.