

Dr Fog Presents

Making Rectangular Arrays

Year 2 (National Numeracy Strategy)
(Based on DFEE Sample Lessons)



Resources

- Giant number fans
- Number fans for each child.
- Number line
- Pegs and pegboards
- 10 - 15 Number cards (Several each)
- Counters and cubes
- Dotted paper (Square grid)



Mental Learning Objective

- I can count in fives and tens to hear the pattern.
- I can identify multiples of 2, 5 and 10 by looking at the final digit.



Mental Learning Task

- Today's lesson will build on previous learning about multiples.



Mental Learning Task

- Today we are starting by counting in fives and tens.
- Remind the children of the patterns that they can hear when they count.



Mental Learning Task

- Lets start by counting in tens starting from....

10



Mental Learning Task

- Lets start by counting in fives starting from....

5



Mental Learning Task

- Look at the class number line...
- What multiples of 2 are there?
- What do the numbers end in?



Mental Learning Task

- Look at the class number line...
- What multiples of 5 are there?
- What do the numbers end in?



Mental Learning Task

- Look at the class number line...
- What multiples of 10 are there?
- What do the numbers end in?



Mental Learning Task

**Make some
of your own
multiples**



Mental Learning Task

- You will show a number which is a multiple of 2
- Keep your number hidden until your teacher says go.
- Go!



Mental Learning Task

- You will show a number which is a multiple of 5
- Keep your number hidden until your teacher says go.
- Go!



Mental Learning Task

- You will show a number which is a multiple of 10
- Keep your number hidden until your teacher says go.
- Go!



Mental Learning Objective

- I can count in fives and tens to hear the pattern.
- I can identify multiples of 2, 5 and 10 by looking at the final digit.



Main Learning Objective

- I can arrange objects into a rectangular array.
- I can see a rectangular array in two ways.



Main Learning Task

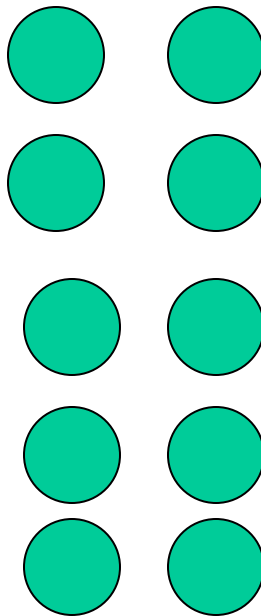
- Sit into pairs
- Give each pair a pegboard.
- Give a number card from 10 to 15
- Read the number and count out that many pegs



Main Learning Task

- You need to arrange your pegs into a rectangular array.

Like this →



Main Learning Task

- This is **not** a rectangular array.



Not Like this →



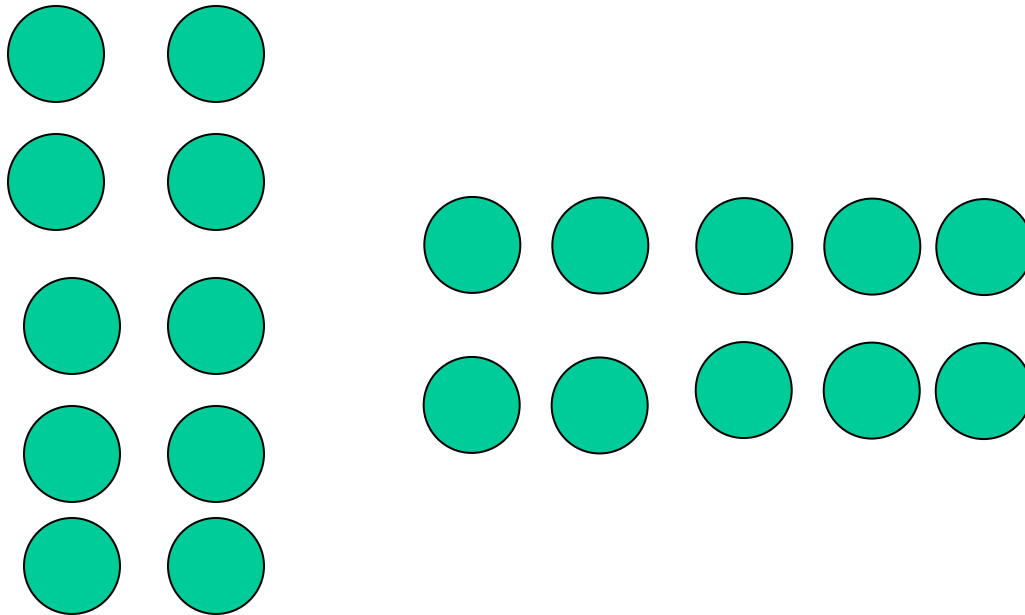
Main Learning Task

- Did your number work?
- If your way did work, you can talk about it in two different ways.



Main Learning Task

- This array could be **two lots of five** or **five lots of two**.



Main Learning Task

- Give each pair another card.
- Will it make a regular array?
- Record your findings on dotted paper.



Main Learning Task

- Challenges:-
- Give children numbers from 20 to 30 to work with.
- Give them numbers 24 or 36 and challenge them to find all the ways the numbers can make regular arrays.



Main Learning Objective

- I can arrange objects into a rectangular array.
- I can see a rectangular array in two ways.



Plenary

- Ask for a number a child worked with.
- Predict if any array can be made.



Plenary

- How many ways can we split 12 into?
- We could have 1 lot of 12
- 12 lots of 1
- 3 lots of 4
- 4 lots of 3
- 2 lots of 6
- 6 lots of 2



Plenary

- How many ways can we split 16 into?



Plenary

- Numbers which don't make rectangular arrays can still be described as 'one lot of...'



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