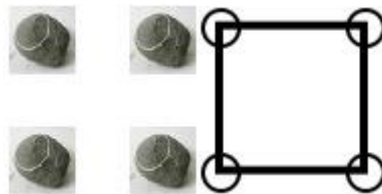


Thursday 16th July 2020

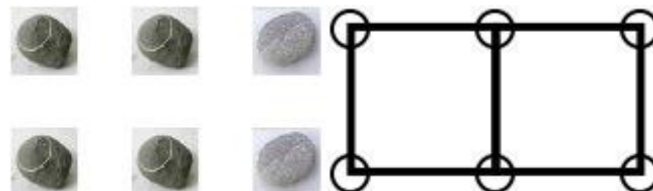
Pebbles

You can complete this activity at the beach, in the park, in your garden or indoors. You can use pebbles, shells, counters or draw it on paper with pens.

You start off with four pebbles and you place them on the sand in the form of a square. The area inside is of course just 1 square something, maybe 1 square metre, or 1 square finger ... whatever.

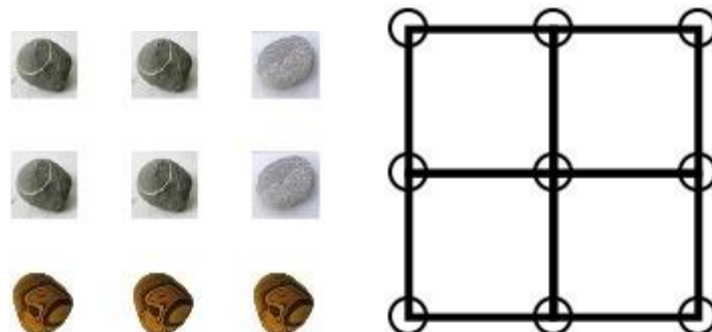


By adding another 2 pebbles in line you double the area to 2, like this:

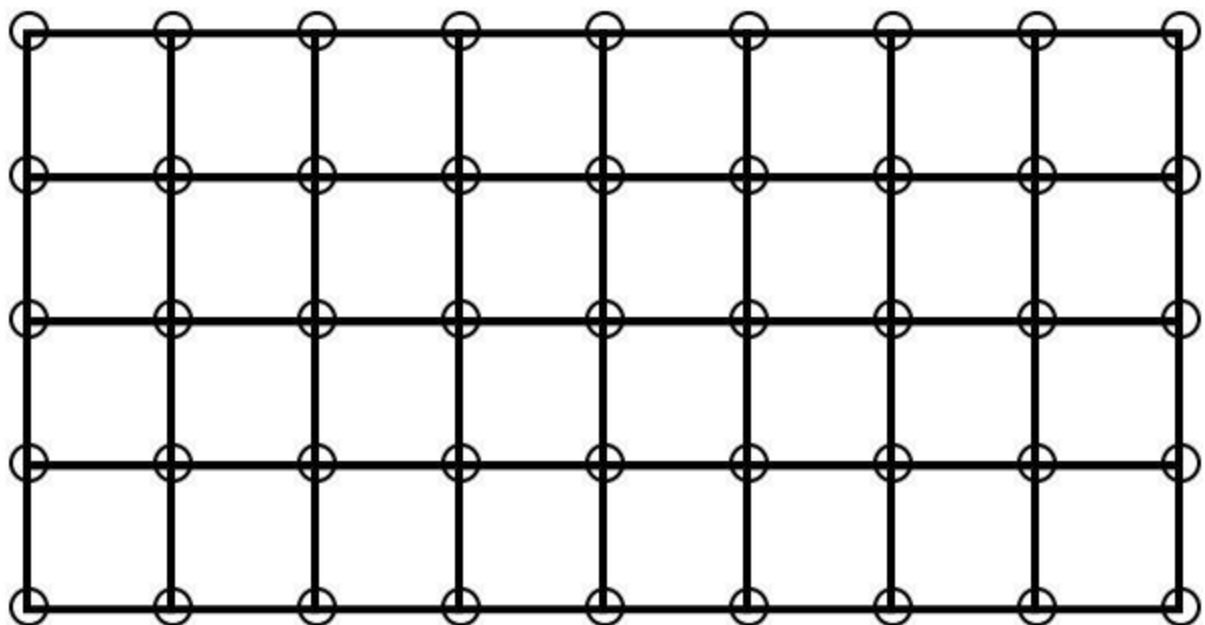


The rule that's developing is that you keep the pebbles that are down already (not moving them to any new positions) and add as FEW pebbles as necessary to DOUBLE the PREVIOUS area, using Squares/Oblongs ONLY!

So, to continue, we add another three pebbles to get an area of 4:



Number 6 would look like this:



So remember:-

The rule is that you keep the pebbles that are down already (not moving them to any new positions) and add as FEW pebbles as necessary to DOUBLE the PREVIOUS area.

Well, now it's time for you to have a go...Keep going beyond the patterns above

Well now, what about some questions to explore?

- a. How many extra pebbles are added each time? This starts off 2, 3, 6...
- b. How many are there around the edges? This starts off 4, 6, 8...
- c. How big is the area? This starts off 1, 2, 4...
- d. How many are there inside? This starts off 0, 0, 1, 3, 9...

Can you spot any patterns?

Take some pictures and share them with us.