

Warm Up

With your child, try the following:

- Look at the number patterns below. Say or write the next three numbers in the pattern. Ask your child to explain the pattern or say how they know which numbers came next?

- 5; 10; 15; ...
- 3; 6; 9; ...
- 4; 8; 12; ...
- 20; 16; 12; ...
- 33; 30; 27; ...
- 2; 5; 8; ...
- 7; 15; 23; ...
- 28; 21; 14; ...
- 10; 18; 26; 34; 42; ...
- 2; 4; 8; ...
- 90; 80; 70; ...

- Which numbers come before the pattern:

- ___; ___; 25; 30; 35
- ___; ___; 12; 16; 20
- ___; ___; 59; 69; 79
- ___; ___; 24; 32; 40

- CHALLENGE.** Find the next 2 numbers in the pattern:

- 1; 1; 2; 3; 5; 8; ...
- 180; R90; R45; ...
- $\frac{1}{2}$ day; 6 hours; 3 hours; ...

ACTIVITY 1 – Matchstick Patterns

- Talk about the pattern with your child. Ask them to explain the pattern and try to build or draw the next picture.
- Fill in the table.

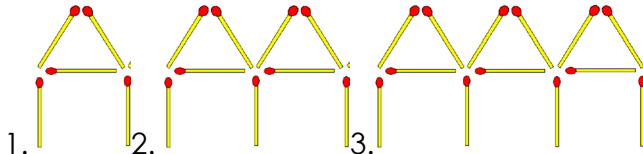
CHALLENGE: Predict the number of matchsticks needed for the 10th & 100th number.

SERIES 1



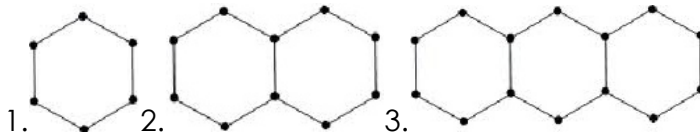
Picture No	1	2	3	4	5	...	10	100
No of matchsticks	3	5 3+2						

SERIES 2



Picture No	1	2	3	4	5	...	10	100
No of matchsticks	5							

SERIES 3



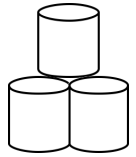
Picture No	1	2	3	4	5	...	10	100
No of matchsticks								

Make up other patterns with matchsticks? Predict how many matchsticks you need for the 10th picture in each pattern.

ANSWERS a-1:
 a. 20,25,30 b. 12,15,18 c. 16,20,24 d. 8,4,0 e. 24,21,18 f. 11,14,17
 g. 31,39,47 h. 7,0 i. 50,58,66 j. 16,32,64 k. 60,50,40 l. 15,20

ACTIVITY 2

A shelf stacker at the supermarket has been asked to display the soup tins in the shop window. Each tin must rest on 2 tins underneath it, to make a triangular shape.



If he builds a pile 2 tins wide on the bottom row, he has a total of 3 tins in the pile like this:

- How many tins would there be in a pile that has 5 tins on bottom row?
- Fill in the table & discuss the patterns you see in the table.

Number of tins in bottom row	2	3	4	5	6	10
Number of tins in pile altogether	3					

DICE GAMES:

- Play with a friend
- Throw a single dice, then double it and add 1. e.g. throw a 6. Double 6 is 12 then add 1 = 13.
- The winner is the person with the highest number.



VARIATIONS:

- Subtract 1 from the number and then double it e.g. throw a 5. Subtract 1 is 4, double 4 is 8
- Make up your own variations

ANSWERS m-1:
 m. 4,8 n. 39,48 o. 8,16
 p. 13,21 q. R22,50,R11,25 r. 1½ hours, 45 minutes

Brought to you by the

SA Numeracy Chair is hosted by Rhodes University & is jointly funded by the FirstRand Foundation with the RMB fund, the Anglo American Chairman's Fund & the DST and administered by the NRF.



--	--	--

