HOW I TEACH NUMERACY USING 3-D CUBIC BUILDING BLOCKS

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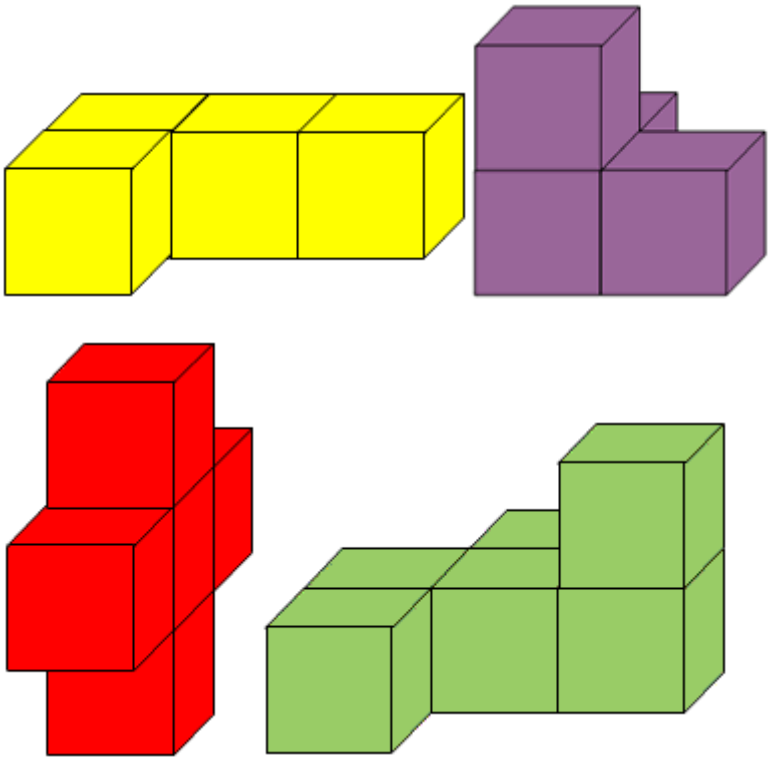
INTRODUCTION

In this session I will share the way in which I use cubic stacking blocks to teach a range of numeracy topics including 3 dimensional objects.

Some of the activities that I will discuss and share in the session are included below:

ACTIVITY 1

a) Can you make these shapes yourself?



(Source: www.nrich.org)

b) The bottoms of the objects have paint on them and are put on paper. What picture do the shapes make on the paper? Draw the pictures.

c) Build objects of your own.

Milborrow E. (2013). How I teach numeracy using 3-D cubic building blocks. In Z. Davis & S. Jaffer (Eds.), *Proceedings of the 19th Annual Congress of the Association for Mathematics Education of South Africa*, Vol. 2. (pp. 110 – 111). Cape Town: AMESA.

ACTIVITY 2

Build these rectangular prisms:

1. Length = 3 blocks; width = 2 blocks; height = 2 blocks
2. Length = 2 blocks; width = 2 blocks; height = 2 blocks
3. Length = 5 blocks; width = 3 blocks; height = 4 blocks
4. Length = 4 blocks; width = 4 blocks; height = 4 blocks

Now answer these questions for questions 1; 2; 3 and 4 above:

a) How many blocks were used in each structure? Can you explain how you worked each one out?
b) Draw a picture of the floor plan (floor stamp) each rectangular prism makes.
c) Which rectangular prisms are cubes? Why?

OTHER IDEAS FOR USING CUBIC BLOCKS FOR TEACHING NUMERACY

- Use them to show making up and breaking up of numbers. (e.g. 10 = 5 + 5 = 6 + 4 = 7 + 3 etc.
- Use them to show concrete representation of tables – e.g. 3; 6; 9; 12…. (Grouping and sharing)
- Use them to show 3D shapes, volume that is L X B X H, area that is L X W
  a) 1 X 1 X 1
  b) 2 X 3 X 4 etc
  c) Squares, rectangles, cubes and prisms
- Use them to practice measurement
- Use them for fun creative building!
- Use them to build/show Fibonacci pattern (1; 1; 2; 3; 5; 8; 13…) and to make other patterns e.g. 1; 3; 5; 7; … or 1; 2; 4; 8

ACKNOWLEDGEMENTS

I gratefully acknowledge the support for writing this paper provided by Mellony Graven and Peter Pausigere and the financial assistance from the South African Numeracy Chair Project (Rhodes University) for attending the conference.

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