IDENTIFYING TEN DIFFERENT MULTIPLICATION IDEAS ACROSS THE SOUTH AFRICAN SCHOOLS MATHEMATICS CURRICULUM

Landi Wheeler, Rachelle Basson, Angelique Earle, Johannes Kleinhans and Corvell Cranfield

Stellenbosch University

This poster presentation emphasizes the following ten multiplication ideas that are used in the South African school mathematics curriculum: repeated addition; grouping; number line hopping; number line stretching or compressing; folding and layering; branching; making grids or rectangular arrays; area, volume and dimension; steady rise (slope); and proportional reasoning. Each multiplication idea is carefully presented and illustrated with a colourful display. Within each display a working definition is provided to aid learner understanding. After each definition two examples are given to show how one could apply this understanding to our daily lives.

The purpose of this poster presentation is to provide teachers with an awareness of how multiplication is used at different stages of the curriculum. In addition, teachers' will be able to see the relevance of presenting multiplication in a much broader way in their own teaching by drawing on the ideas displayed. These concepts are used throughout the curriculum from grade R-12 in different ways, as teachers, it is good practice to explain these concepts by making use of different teaching ideas.

In addition, these multiplication ideas will help learners to get a better understanding of multiplication, based on how it is applied in the classroom. This poster is one way where this type of content can be displayed creatively, visually, and colourfully. The poster shows how learners could complete the given activities and how they could possibly develop or create their own illustrations. The poster is an ideal way of getting learners involved in doing mathematics and also to challenge their thinking about multiplication.

REFERENCES

GCSE Maths Revision (2013). http://www.mathsrevision.net/gcse/pages.php?page=18

Home School Maths (2013). http://www.homeschoolmath.net/

Wheeler,L., Basson, R., Earle, A., Kleinhans, J., & Cranfield, C. (2013). Investigating the effect of changing the values of parameters on the graphs of functions using *GeoGebra*. In Z. Davis & S. Jaffer (Eds.), *Proceedings of the 19th Annual Congress of the Association for Mathematics Education of South Africa*, Vol. 2. (pp. 126). Cape Town: AMESA.