GRADE 4 : NUMBERS

2. Compare and order numbers to 10 000.
6. Demonstrate an understanding of multiplication (2- or 3- digit by 1- digit) to solve problems by:
    - using personal strategies for multiplication with and without concrete materials
    - using arrays to represent multiplication
    - connecting concrete representations to symbolic representations
    - estimating products
    - applying the distributive property
8. Demonstrate an understanding of fractions less than or equal to one by using concrete, pictorial and symbolic representations to:
    - name and record fractions for the parts of a whole or a set
    - compare and order fractions
    - model and explain that for different wholes, two identical fractions may not represent the same quantity
    - provide examples of where fractions are used.

10. Relate decimals to fractions and fractions to decimals (to hundredths).

+Resources

Coming to Know Number (Wheatley & Reynolds, 2010) - Click here
"Balance" pp.117-131. To be used as a mental math starter with students, powerful discussion piece, not to be used as paper/pencil tasks.

National Library of Virtual Manipulatives - Click here
Look at "Rectangle Multiplication" & "Rectangle Division" - these visual models may be recreated with "concrete tiles" - focus should be given to the distribution of tiles and the equivalence to the "area" of tiles used. This reflects multiplicative thinking and is related to operational reasoning.

National Library of Virtual Manipulatives - Click here
Look at "**Fraction Bars", "Fraction Pieces", "Fractions - Comparing", "Fractions - Equivalent", "Fractions - Part of a Whole", "Fractions - Visualizing"**
