**VAKWERKPLAN WISKUNDE voor TWEETALIG VWO**

Book: Numbers and Space VWO 1 Part 1

Chapter 1 :Space

* Know the names of the common 3-D shapes and be able to identify them in a diagram and the terms edge, vertex and face
* Be able to label vertices in all the geometric figures correctly with capital letters
* Know what a net is and be able to recognise a net of a cube or a cuboid. Also, be able to draw the net of a common 3-D shape.
* Know and be able to identify common 2-D shapes and the terms, side, vertex (vertices), diagonal and right angle
* Be able to use a pair of compasses correctly and know and be able to identify the terms diameter, radius, centre and circumference (not in book) of a circle
* Be able to identify prism and pyramids and be able to calculate how many vertices, edges and faces each prism or pyramid has.
* Be able to construct a triangle using a pair of compasses
* Be able to identify a space diagonal and a face diagonal.
* No Khan Academy exercises
* Can use apps Geometry Pad for drawing shapes, Sorting 3D Shapes Venn Diagram to learn properties, Mathsland 3D Shapes and Nets to practise with nets

Chapter 2: Numbers

* Know and be able to apply the terms sum, difference, product, factors, quotient, divisor, prime number, LCM and HCF
* KA: Arithmetic and Pre-Algebra, Factors and Multiples, Prime number and Prime factorisation, LCM and GCD (HCF)
* Know and be able to correctly use the order of operations (KA: good , but already uses negative numbers so cannot be used here).
* Use apps OoopsPlus and Order of Ops
* Know what an integer and a decimal number is and be able to calculate with decimals.
* Understand how to multiply decimals by multiples of 10 (move the decimal point)
* Be able to round off decimals correctly and also to hundreds, thousands etc.
* KA: Good extra would be to do Arithmetic and Pre-Algebra, Decimals and percents and leave out the percentage parts and significant figures
* Know and be able to recognise a fraction, numerator, denominator, improper fraction and a mixed number.
* Be able to add, subtract, multiply and divide (in book on page141) fractions
* Know the term reciprocal
* KA: Arithmetic and Pre-Algebra, Fractions – this whole section can be used
* Be able to use the calculator correctly, also be able to use fractions on the calculator
* Leave out estimating
* Understand how to round off in everyday situations
* Understand and be able to make and simplify ratios.
* KA: Arithmetic and Pre-Algebra, Ratio and Proportion the first 5 items

Chapter 3: Sets of Axes

* Be able to add and subtract with positive and negative numbers
* KA: Arithmetic and Pre-Algebra, Negative Numbers and Absolute Value, Negative number basics and Adding and Subtracting Negative Numbers
* Be able to name coordinates in a set of axes. Fun app to use is Coordinate Pics
* KA: Algebra, Graphing points, equations and inequalities, Coordinate Plane everything is usable.
* Be able to draw a graph from a table and find information using the graph.

Chapter 4: Formulas

* Be able to multiply and divide with negative numbers
* KA: Arithmetic and Pre-Algebra, Multiplication and Division, Order of Operations everything is usable
* Understand rule about dividing by zero
* Be able to add and subtract, multiply and divide with negative fractions
* Be able to calculate with word formulas and formulas with letters
* Be able to draw a graph using a word formula using a table

Chapter 5: Lines and Angles