**GREENSPRINGS SCHOOL, LAGOS**

**FIRST TERM**

**ADD. MATHEMATICS SCHEME OF WORK 2016/2017**

**YEAR 11**

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| WEEK | TOPIC | CONTENT |
| 1 – 2 | SIMULTANEOUS EQUATIONS.  QUADRATIC FUNCTIONS | -Simultaneous one linear, one quadratic equations.  - quadratic function to the form a(x+p)2+q  -maximum and minimum value or point  graph sketching, range for a given domain  - (i)two real roots (ii)no real roots-imaginary roots (iii)two equal roots  -conditions for a given line to (i)intersect a given curve (ii)be a tangent to a given curve, (iii) not intersect a given curve |
| 3 | QUADRATIC INEQUALITY | Quadratic inequalities |
| 4 – 5 | FACTORS OF POLYNOMIALS | -Addition, subtraction, multiplication and division of polynomials  - the remainder and factor theorems  cubic polynomials  functions |
| 6 – 8 | COORDINATE GEOMETRY | -Distance between two points  -mid point of a line segment  -division of a line in a given ratio  -gradient, condition for parallelism and perpendicularity |
| 9 – 10 | FUNCTIONS | -Definition, domain, co-domain, range  -inverse functions, composite functions  -one-one and onto functions  -relationship between a function and its inverse  -sketch graph of function  -modulus equations |
| 11 | CIRCULAR MEASURE | -Arc length, area of sector in radian measure. Perimeter of a shaded segment of a sector. |
| 12 | MATRICES | -Information Display. Order Of A Matrix. Addition, Subtraction Of Matrices. Matrix Multiplication. Identity Matrix. Zero Matrix. Inverse Of A 2x2 Matrix. The Determinant Of A 2x2 Matrix. Application To Simultaneous Equations. |