**North Ridge High – Mathematics curriculum long term planning Key Stage 4**

**Where appropriate KS4 pupils access OCR entry level accreditations. This long term plan is intended to support pupils in completing units for submission where appropriate.**

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| **Subject area**  Maths | **Coordinator**  S.Thornton | **Approx teaching time**  5 lessons a week for approx.40-45 minutes each. |

Pupil’s access 5 maths lessons a week in KS4. Pupils are taught and given opportunities to:

1. become **fluent** in the fundamentals of mathematics so that they are efficient in using and selecting the appropriate written algorithms and mental methods, underpinned by mathematical concepts
2. can **solve problems by** applying their mathematics to a variety of problems with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios
3. can **reason mathematically** by following a line of enquiry and develop and present a justification, argument or proof using mathematical language.

To support this, lessons are taught in a methodical way using the spiral curriculum approach. Teachers plan and teach for ‘mastery’ in maths using key C-P-A approaches. Pupils are given time to truly master key skills that they can then apply to high level learning in small steps.  
**Topic areas: algebra, statistics, ratio and proportion are taught within other topic areas at the level that is most appropriate for the pupil.**

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|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **Topic area** | **Prop of Number:** *Partition, addition and subtraction (inc. algebra)*  ***Inc. 2 weeks statistics*** | **Measure:**  *Money*  ***Inc. 2 weeks statistics*** | **Measure:**  *Calendar and Time* | **Geometry & Measure**  *4 weeks: Shape*  *2 weeks: Length (link to perimeter of shapes)*  ***Statistics within all*** | **Measure**  *3 weeks: weight*  *3 weeks: capacity*  ***Statistics within all*** | **Number:**  *Multiplication,*  *Division and fractions* |
| **Additional areas to cover / link back to** | -Early **algebra** skills e.g. 3 + ? = 7  -inverse operations  -**Statistics** | -Addition skills  -Subtraction skills  -functional maths skills (shopping lists & comparing prices)  -**Statistics** (sorting coins / graph to show items purchased) | - Multiplication skills (5 times tables)  -Functional skills (schedules & events in the day) | -Position and direction of shapes  -patterns (inc. early **algebra** skills) -Addition skills (calculating perimeter)  -**Statistics** (properties of shape) | -Number skills  -Addition skills  -Subtraction skills -Functional skills (cooking)  -Statistics | -Early **ratio** skills  -Early **proportion** skills  -Early **algebra** skills  -Fractions of shapes |