Birkdale High School	**Mathematics Department Foundation Stage**	**Curriculum Map**
Unit 10: Ratio and proportion		**Year Group: 8**

<table>
<tr><td>INTENT: Aims of the Unit</td><td>IMPLEMENTATION: Knowledge and delivery</td><td>IMPACT: Assessment</td></tr>
<tr><td>In Mathematics Year 8 we are looking at students completing the Mastery approach to learning. In this unit we are looking at our first unit of ratio and proportion.

Students are introduced to types of ratio and how to calculate amounts which are in direct proportion</td><td rowspan="2">Knowledge
Writing ratio in simplest form
Equivalent ratios
Calculating ratio when one part is known
Fractions and ratio
Sharing an amount in a given ratio
Direct proportion
Delivery
Teacher led instruction using activstudio
Class discussion
WAGOLLs
Random/Targeted Questioning
Textbook questions
Tutorial lessons
Possibly to include
Variation theory
Treasure hunts
Puzzles
Mathsbox settlers</td><td rowspan="2">What knowledge are you assessing?
how to write ratio in simplest form
to recognise or calculate equivalent ratios
to convert between fractions and ratios
to calculate a missing part of a ratio
to divide a quantity into a given ratio
to be able to recognise if quantities are in proportion
to calculate amounts which are in proportion using the unitary method where necessary
Which elements of fluency of knowledge are you assessing?
to simplify a ratio involving integers
to find the missing part of a ratio in wordy questions or to be able to divide a quantity into a ratio
to be able to convert between fractions and ratios to solve problems
to be able to find amounts in real life problems where items are in proportion such as recipes</td></tr>
<tr><td>Enabling Learning
know what equivalent fractions are and how to calculate them
to be able to simplify fractions
know multiplication tables and associated division facts</td></tr>
<tr><td colspan="2">Key Vocabulary</td><td>Wider Learning</td></tr>
<tr><td>Tier 2: High frequency / Multiple meaning

fraction, simplify, proportion</td><td>Tier 3: Subject related.

ratio</td><td>SMSC / RWCM / CEIAG</td></tr>
</table>

Birkdale High School	**Mathematics Department Foundation Stage**	**Curriculum Map**
Unit 11: Straight Line Graphs		**Year Group: 8**

INTENT: Aims of the Unit	**IMPLEMENTATION:** Knowledge and delivery	**IMPACT:** Assessment
In Mathematics Year 8 we are looking at students completing the Mastery approach to learning. In this unit we are looking at straight line graphs. This follows on from the last unit on proportion Students are introduced to drawing straight line graphs from a table of values and the significance of real life graphs	Knowledge ● Substitute to complete a table of values for an equation ● Plot coordinates in all four quadrants ● Read values from a graph ● Draw a graph when two values are in proportion ● Read real life graphs ● Draw real life graphs Delivery ● Teacher led instruction using activstudio ● Class discussion ● WAGOLLs ● Random/Targeted Questioning ● Textbook questions ● Tutorial lessons Possibly to include ● Variation theory ● Treasure hunts ● Puzzles ● Mathsbox settlers	**What knowledge are you assessing?** ● To substitute both positive and negative numbers into an equation ● To draw a straight line graph from an equation ● To read values from a graph ● Interpret a real life graph ● To draw a real life graph from data given **Which elements of fluency of knowledge are you assessing?** ● To recognise a straight line graph from an equation and be able to draw it ● To interpret graphs which detail real life scenarios ● To be able to sketch a graph depicting real life scenarios in time
Enabling Learning ● know how to substitute into a formula ● to be able to read coordinates in all four quadrants ● to be able to draw a set of axes including negative integers		

Key Vocabulary		**Wider Learning**
Tier 2: High frequency / Multiple meaning	*Tier 3: Subject related.*	**SMSC / RWCM / CEIAG**
Proportion, substitute, graph, plot	Axes, coordinates	