Subject	Year	Month	
Mathematics	10	May	Balcarras From strength to strength

Topic:

Straight line graphs

3 lessons

Content (Intent)

Prior Learning
Year 9 Straight line graphs March

Future Learning
Year 10 Real life graphs June

Objectives

- By the end of the sub-unit, students should be able to:
- Use function machines to find coordinates (i.e. given the input x, find the output y);
- Plot and draw graphs of $y = a$, $x = a$, $y = x$ and $y = -x$;
- Recognise straight-line graphs parallel to the axes;
- Recognise that equations of the form $y = mx + c$ correspond to straight-line graphs in the coordinate plane;
- Plot and draw graphs of straight lines of the form $y = mx + c$ using a table of values;
- Sketch a graph of a linear function, using the gradient and y-intercept;
- Identify and interpret gradient from an equation $y = mx + c$;
- Identify parallel lines from their equations;
- Plot and draw graphs of straight lines in the form $ax + by = c$;
- Find the equation of a straight line from a graph;
- Find the equation of the line through one point with a given gradient;
- Find approximate solutions to a linear equation from a graph;
- Find the gradient of a straight line from real-life graphs too.

Pedagogical notes (implementation)

Emphasise the importance of drawing a table of values when not given one.
Values for a table should be taken from the x-axis.

How will understanding be assessed & recorded (Impact)

End of half term no
End of Year Year 11 mocks in November

How can parents help at home?

MathsWatch clips

Qualification KS3: A14abc

Qualification KS4: 36, 96, 97, 99, 159ab

Further reading/discussion

Reading / Enrichment	Literacy	Numeracy Links	Careers Links
http://passyworldofmathematics.com/mountain-gradients/			Medicine – identify links Economist Meteorologists Actuaries graph risks