Subject	Year	Month	
Mathematics	11	November	Balcarras From strength to strength

Topic:

Direct and inverse proportion	6 lessons

Content (Intent)

Prior Learning	**Future Learning**
Year 10 Ratio January Year 9 Proportion November	x

Objectives

- Direct & inverse proportion in context e.g. currency conversions, recipes, best value, rates of pay and number of builders vs time taken to complete task.
- Recognise and interpret graphs showing direct and inverse proportion, including square, cubic and direct proportion to square root.
- Identify the type of proportion from a table of values, including direct, square, cubic, inverse, inverse square, inverse cubic and square and cube root.
- Write statements of proportionality and equations for quantities directly and inversely proportional to the square, cube, square root or cube root.
- Use $y = kx$, $y = kx^2$ etc to solve proportion problems, where students find k, and then use k to find another value of either y or x
- Set up and use equations to solve word and other problems involving direct proportion or inverse proportion and combinations of more than one formula using substitution

Pedagogical notes (implementation)	How will understanding be assessed & recorded (Impact)
Consider using science contexts for problems involving inverse proportionality, e.g. volume of gas inversely proportional to the pressure or frequency is inversely proportional to wavelength.	**End of half term** no **End of Year** 2nd mocks in Feb & March
	How can parents help at home?
	MathsWatch clips (Qualification GCSE) 42, 199

Further reading/discussion			
Reading / Enrichment	**Literacy**	**Numeracy Links**	**Careers Links** Stock analyst Retail banker Real estate agent Finance