Subject	Year	Month	Balcarras From strength to strength
Mathematics	10	January	

Topic:

Ratio
5 lessons

Content (Intent)

Prior Learning	Future Learning
Year 9 Proportion November Year 8 Ratio January	Year 11 Direct and inverse proportion using an algebraic approach November

Objectives

- Write ratios in their simplest form, including in form $1 : m$ or $m : 1$, using algebra, in a context or using more than 2 parts;
- Write a ratio as a fraction, a linear function and vice versa e.g. when A:B are in the ratio 3:5, A is 3/5B. When 4a = 7b, then a = 7b/4 or a:b is 7:4
- Use a ratio to find one quantity when the other is known or to find one quantity when the difference is known
- Combine Ratios, e.g. a:b = 3:4, b:c = 5:7, what is the ratio a:c
- Change/update ratios e.g. The ratio of blue to red counters is 3:4, I remove 2 red counters. The new ratio of blue to red is 6:7. How many reds were there originally? Therefore solving 2x-9:x-4 = x:4 or ratios that could lead to solving a quadratic equation
- Use a ratio in real life contexts e.g. scale drawing/models,

Pedagogical notes (implementation)	How will understanding be assessed & recorded (Impact)
Combine ratio with other areas of maths in the same question. e.g. percentages, fractions, coordinates etc. Also include using decimals to find quantities. Use a variety of measures in ratio and proportion problems. Include metric to imperial and vice versa, but give them the conversion factor, e.g. 5 miles = 8 km, 1 inch = 2.4 cm – these aren't specifically in the programme of study but are still useful.	**End of half term** Assessment in Feb **End of Year** Mocks in April
	How can parents help at home?
	MathsWatch clips (Qualification GCSE) 38, 106, 107, 165a, 165b, 165c 200a, 200b, 200c

Further reading/discussion

Reading / Enrichment	Literacy	Numeracy Links	Careers Links
http://passyworldofmathematics.com/guitar-mathematics/			Stock analyst Retail banker Real estate agent Accounting & Finance Architect Interior Design