Subject	Year	Month	
Mathematics	10	November	Balcarras From strength to strength

Topic:

Sequences 4 lessons

Content (Intent)

Prior Learning

Year 9 Fibonacci & quadratic sequences November
Year 8 Linear sequences February

Future Learning

Year 10 Straight line graphs February
Year 10 Quadratic graphs March
Year 13
Pure Chapter 3 Sequences and Series

Objectives

- Recognise, generate, extend and describe sequences including triangular, square and cube numbers, arithmetic, geometric, quadratic and Fibonacci-type sequences;
- Find and use the *n*th term of an arithmetic sequence to generate terms, identify which terms can/cannot be in a sequence
- Find and use the *n*th term of a quadratic sequence to generate terms, identify which terms can/cannot be in a sequence (simple versions only e.g. is 108 in the sequence $3n^2+8$?)
- Solve problems involving sequences from real life situations (including geometric sequences).

Pedagogical notes (implementation)	How will understanding be assessed & recorded (Impact)
Emphasise use of $3n$ meaning $3 \times n$. Students need to be clear on the description of the pattern in words, the difference between the terms and the algebraic description of the *n*th term. Finding the nth term of a quadratic sequence by halving the second difference to find the coefficient of n^2.	**End of half term** Assessment in Dec **End of Year** Mocks in April **How can parents help at home?** **MathsWatch clips (Qualification GCSE)** 37, 102, 103 104, 141, 163, 213

Further reading/discussion

Reading / Enrichment	Literacy	Numeracy Links	Careers Links
http://passyworldofmathematics.com/fibonacci-sequence-in-music/			Artist Biologist Landscaper