Subject	Year	Month	
Mathematics	11	October	Balcarras From strength to strength

Topic:

Circle geometry

3 lessons

Content (Intent)

Prior Learning

Year 10 Constructions May
Year 10 Circle calculations March
Year 10 Straight line graphs February

Future Learning

Year 12
Pure Chapter 6 Circles

Objectives

- Select and apply construction techniques and understanding of loci to draw graphs based on circles and perpendiculars of lines;
- Find the equation of a tangent to a circle at a given point, by:
- finding the gradient of the radius that meets the circle at that point (circles all centre the origin);
- finding the gradient of the tangent perpendicular to it;
- using the given point;
- Recognise and construct the graph of a circle using $x^2 + y^2 = r^2$ for radius r centred at the origin of coordinates.

Pedagogical notes (implementation)

Work with positive gradients of radii initially and review reciprocals prior to starting this topic.
It is useful to start this topic through visual proofs, working out the gradient of the radius and the tangent, before discussing the relationship.

How will understanding be assessed & recorded (Impact)

End of half term no
End of Year Mocks in November yr11

How can parents help at home?

MathsWatch clips (Qualification GCSE)
149, 183, 184, 197, 208

Further reading/discussion

Reading / Enrichment	Literacy	Numeracy Links	Careers Links
			Mathematician Physicist Architect Astronomer Engineer