Subject	Year	Month	
Mathematics	9	May	Balcarras *From strength to strength*

Topic:

TRANSFORMATIONS

6 LESSONS

Content (Intent)

Prior Learning

Y7 June
- Reflections (incl. equations for horizontal, vertical and diagonal mirror lines)
- Rotations
- Translations (incl. vector notation)

Y8 Nov
- Enlargements (only positive and fractional sf)

Y8 May / Y9 March
- Straight line equations (which help with mirror lines)

Future Learning

Y10 (summer term)
- All four transformations are discussed in detail for both Foundation as well as Higher tiers
- Going into all the details for each transformation
- Transformations are being mixed.
- Enlargement is linked to SIMILAR SHAPES
- Translations is linked with the topic VECTORS
- Invariant points discussed
- Negative scale factor

Objectives

1. Reflections **(1 lesson)**
   - Horizontal, vertical and diagonal mirror lines
   - Fully describe the reflection
   - Construct the reflection
2. Rotations **(1 lesson)**
   - Degrees, clockwise, anti-clockwise
   - Centre of rotation
   - Describe and construct
3. Translations **(1 lesson)**
   - Describe and construct
   - Vector
4. Enlargements **(2 lessons)**
   - Describe and construct
   - Centre of enlargement
   - Positive and fractional scale factor (**not negative**)
5. Mixed Transformations **(1 lesson)**

Pedagogical notes (implementation)

Notation

Cartesian coordinates should be separated by a comma and enclosed in brackets (x, y)

Vector notation $\binom{a}{b}$ where a = movement right and b = movement up

How will understanding be assessed & recorded (Impact)

In class assessment.
Assessments in Year 10

How can parents help at home?

MathsWatch clips
Qualification KS3 :
G3, G4a and b, G4b, G5 , G6 , G7
Qualification GCSE :
48, 49, 50, 148, 181a, 182

Further reading/discussion

Reading / Enrichment	Literacy	Numeracy Links	Careers Links
	x-axis, y-axis		Animator
	Origin		Fashion designer
	Transformations: Translation, Reflection, Rotation, Enlargement		Plumber
			CAD engineer
	Object, Image		Game developer
	Congruent, congruence		Interior designer
	Mirror line		Surveyor
	Vector		Urban planner
	Centre of rotation		Construction worker
	Similar, Similarity		Cartographer
	Scaling, Scale factor		Mechanical engineer
	Centre of enlargement		Robotics engineer
			Architect