This unit was developed as part of a series of units which were discussed in the *Planning for Teaching Learning & Assessment: One School's Approach* webinar, a recording can be accessed at www.jct.ie/maths/planning_resources.

Concept: **Relationships and Variables V**
Understanding of relationships and how variables are related and represented
In different situations including in the context of geometric relationships

Student Context: Second year students

Learning Outcomes: AF1 (a) (b) (c), AF4 (a) (b), AF6, AF7 (c) (d), GT1, GT2 (a) (c) (e), N3 (b)

Learning outcomes from the Unifying strand are decided by the class teacher

Key Learning:
- Students should understand that there are a variety of mathematical representations that can be useful when solving problems, including:
    o understanding that different representations preserve meaning
    o understanding that different representations may expose features of a problem that others do not
    o understanding that different representations may be used in conjunction with each other

- Students should further develop their understanding of a variable, including:
    o understanding that a variable is a quantity that can vary in the context of a mathematical problem

- Students should further develop their understanding of relationships as functions, including:
    o understanding that the dependent variable is governed by the independent variable(s)
    o understanding that ordered pairs may be instances of a function
    o quantifying the change between variables
    o identification and classification of the type of change between variables

Ongoing Assessment

- Can the student use the most appropriate representation(s) of a problem to analyse, interpret and present their solution(s)?
- Can students transition between a variable and a fixed unknown in context?

Learning Experiences
- Fencing an Enclosure task (JCT Mathematics CPD 2019 -2020)
- 'Match the Stories' (www.projectmaths.ie – Modular Course 3 (Algebra & Number, Module 1)
- Describing relationships (Task adapted from www.openupresources.org)

Notes/Reflections

Units are in development and are subject to change based on ongoing departmental consultation, collaboration and feedback.