Unit 2 Differentiation

Content Area: **21st Century Life & Careers**
Course(s): **Generic Course**
Time Period: **Generic Time Period**
Length: **Weeks**
Status: **Published**

Unit Introduction

Standards

4.1.12A	4.2.12A	4.2.12D	4.3.12B	4.4.12A
4.1.12B	4.2.12B	4.2.12E	4.3.12C	4.4.12C
4.1.12C	4.2.12C	4.3.12A	4.3.12D	

Essential Questions

- What does it mean to say that a line is tangent to a curve at a point?
- How are the properties of differentiation useful in mathematics?

Content / Skills

CONTENT

- Relevant vocabulary, notation and symbols.
- The definition of tangent line with slope m.
- Relationship between differentiability and continuity.
- Basic differentiation rules and rates of change
- Derivative of Trigonometric functions.
- Higher order derivatives.
- The chain rule.
- Implicit Differentiation

SKILLS

- Use relevant vocabulary, notation and symbols.
- Find the equation of a tangent line.
- Investigate the relationship between differentiability and continuity.
- Use differentiation rules to determine derivatives.

- Use the graphing calculator where appropriate.