📑 Summary

SL - Integration `Draft`

Subject	Year	Start date	Duration
Mathematics: applications and interpretation	IB2	Week 2, January	`3 weeks`

Course Part

📕 Inquiry & Purpose

❓ Inquiry / Higher Order Questions

Type	Inquiry Questions
`Concept-based`	Why is the trapezium rule considered an approximate method?
`Skills-based`	When do you include +c using integration and when do you not?

🔎 Curriculum

⊕ Aims

Communicate mathematics clearly, concisely and confidently in a variety of contexts

◇ Objectives

Knowledge and understanding: Recall, select and use their knowledge of mathematical facts, concepts and techniques in a variety of familiar and unfamiliar contexts.

📔 Syllabus Content

Topic 5: Calculus

SL Content

SL 5.5

Introduction to integration as anti-differentiation of functions of the form $f(x) = ax^n + bx^{n-1} + \ldots$, where $n \in \mathbb{Z}, \quad n \neq -1$

Anti-differentiation with a boundary condition to determine the constant term.

Definite integrals using technology.

Area of a region enclosed by a curve $y = f(x)$ and the x-axis, where $f(x) > 0$.

SL 5.8

Approximating areas using the trapezoidal rule.

ATL Skills

Approaches to Learning

Thinking

- In this unit, we will

   help students to make their thinking more visible (for example, by using a strategy such as a thinking routine)

Developing IB Learners

Learner Profile

Inquirers

Knowledgeable

Thinkers