

IB DP IB Mathematics Analysis and approaches SL 2022
(IB1)

Summary

SL Chapter 2 - Understanding Functions

Subject	Year	Start date	Duration
Mathematics: analysis and approaches	IB1	Week 2, September	3 weeks

Course Part

Description

In this unit you will explore the manipulation and use of functions

Inquiry & Purpose

? Inquiry / Higher Order Questions

Type	Inquiry Questions
Skills-based	Why can a many to one function not have an inverse?
Skills-based	Why is a domain so important to functions in a context?

Curriculum

⊕ Aims

Develop an understanding of the concepts, principles and nature of mathematics

◇ 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 2: Functions

SL Content

SL 2.2

Concept of a function, domain, range and graph. Function notation, for example $f(x)$, $v(t)$, $C(n)$

The concept of a function as a mathematical model.

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Informal concept that an inverse function reverses or undoes the effect of a function.

Inverse function as a reflection in the line $y = x$, and the notation $f^{-1}(x)$

SL 2.3

The graph of a function; its equation $y = f(x)$.

Creating a sketch from information given or a context, including transferring a graph from screen to paper.

Using technology to graph functions including their sums and differences.

SL 2.5

Composite functions.

Identity function. Finding the inverse function $f^{-1}(x)$

ATL Skills



Approaches to Learning

Thinking

- In this unit, we will
 - set students a task which required higher-order thinking skills (such as analysis or evaluation)
 - build on a specific prior task
 - include a reflection activity

Developing IB Learners

Learner Profile

-  Inquirers
-  Knowledgeable
-  Thinkers
-  Reflective