

Summary

SL- Functions Draft

Subject	Year	Start date	Duration
Mathematics: applications and interpretation	IB1	Week 1, September	2 weeks

Course Part

Inquiry & Purpose

? Inquiry / Higher Order Questions

Type	Inquiry Questions
Skills-based	What type of relations are functions?
Skills-based	How can you identify that a relation is a function from a graph, table, mapping diagram or context?

Curriculum

⊕ Aims

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

◇ Objectives

Technology: Use technology accurately, appropriately and efficiently both to explore new ideas and to solve problems.

📖 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.

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

Linear models. $f(x) = mx + c$

Equation of a horizontal asymptote.

The y -axis as a vertical asymptote when $n < 0$.

SL 2.6

Use the modelling process described in the “mathematical modelling” section to create, fit and use the theoretical models in section SL2.5 and their graphs.

Develop and fit the model:

Given a context recognize and choose an appropriate model and possible parameters.

Determine a reasonable domain for a model.

Find the parameters of a model.

Test and reflect upon the model:

Comment on the appropriateness and reasonableness of a model.

Use the model:

Reading, interpreting and making predictions based on the model.

 **ATL Skills**

 **Approaches to Learning**


 **Thinking**

- In this unit, we will

give students time to think through their answers before asking them for a response

 **Developing IB Learners**

 **Learner Profile**

 **Inquirers**



Knowledgeable



Thinkers