

IB *Maths*: Analysis & Approaches

A Brief Overview of Curriculum and Assessment

What is Analysis & Approaches?

A Focus on Theory

Emphasizes algebraic methods, calculus, and logical reasoning.
This course is designed for students who enjoy abstract mathematics and formal proofs.

STEM Pathways

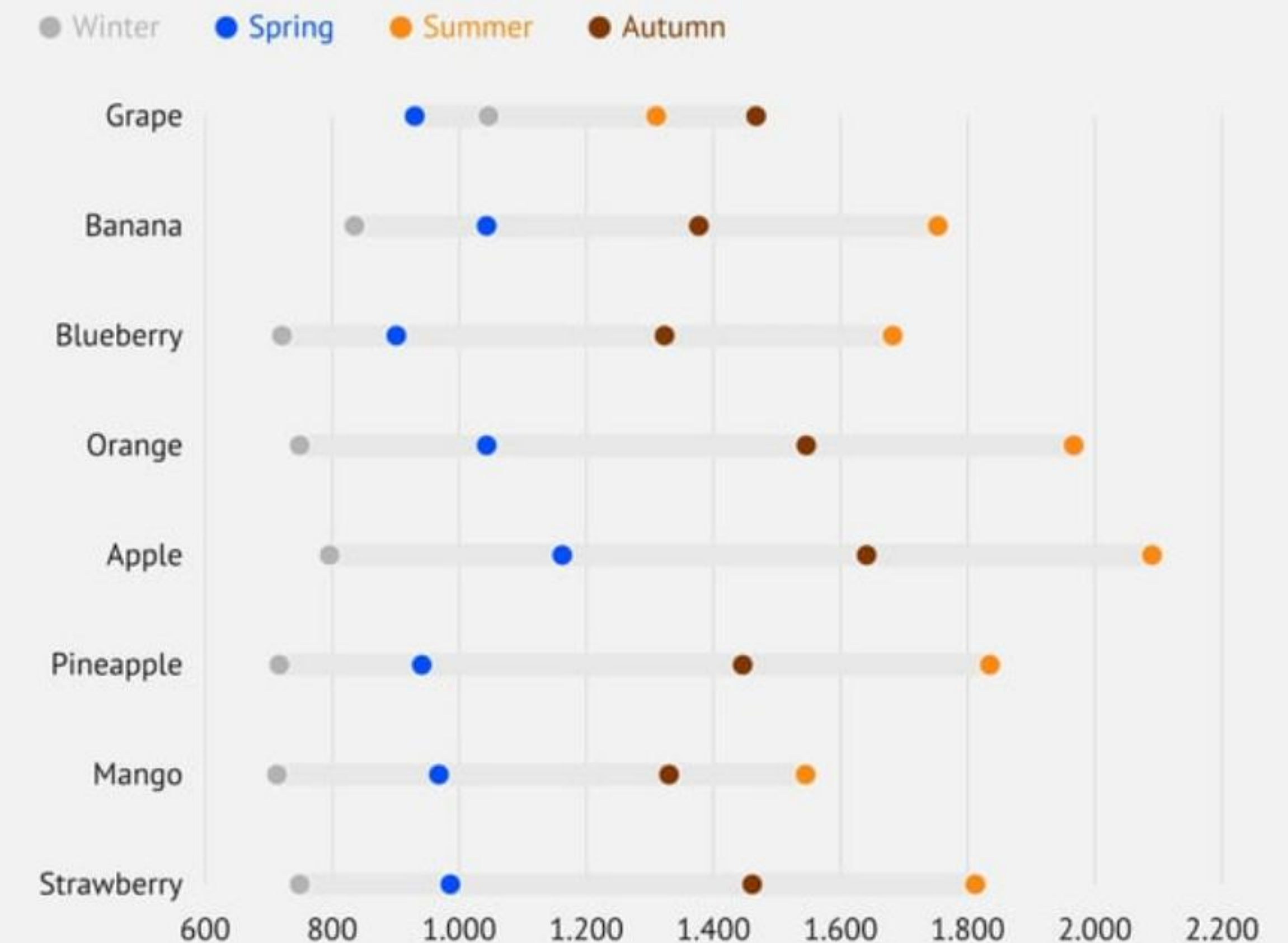
Ideal for students planning to pursue degrees in mathematics, engineering, computer science, and the physical sciences.

Standard Level (SL) vs. Higher Level (HL)

- **Standard Level (SL):** ~150 teaching hours. Designed for students who need a sound mathematical background for their university studies.
- **Higher Level (HL):** ~240 teaching hours. For students with a strong passion for maths. It covers the core curriculum *plus* additional topics (e.g., complex numbers, advanced calculus, vectors) in much greater depth.
- The jump from SL to HL is significant and is required for many competitive STEM university programs.

Summer is the peak season for fruit sales

Apple leads the summer surge with 2.090 seasonally weighted units



All data in this chart is fictional and for demonstration purposes only

The Five Core Topics

Core Curriculum



Number and Algebra

Sequences, series, binomial theorem, logarithms, and proof.



Functions

Linear, quadratic, exponential, and trigonometric functions and their graphs.



Geometry & Trigonometry

Unit circle, trig identities, 3D geometry, and vectors (HL).

Core Curriculum (cont.)



Statistics & Probability

Data handling, correlation, regression, and probability distributions (Binomial, Normal).



Calculus

Differentiation for optimization and rates of change; integration for finding areas and volumes.

How is Maths AA Assessed?

External Assessment (80% of Grade)



Paper 1 (No Calculator)

Tests conceptual understanding, algebra, and calculus.



Paper 2 (Calculator)

Focuses on statistics, functions, modeling, and calculator-based problems.



Paper 3 (HL Only)

Calculator allowed. Features two extended, complex problem-solving questions.

Internal Assessment (20% of Grade)

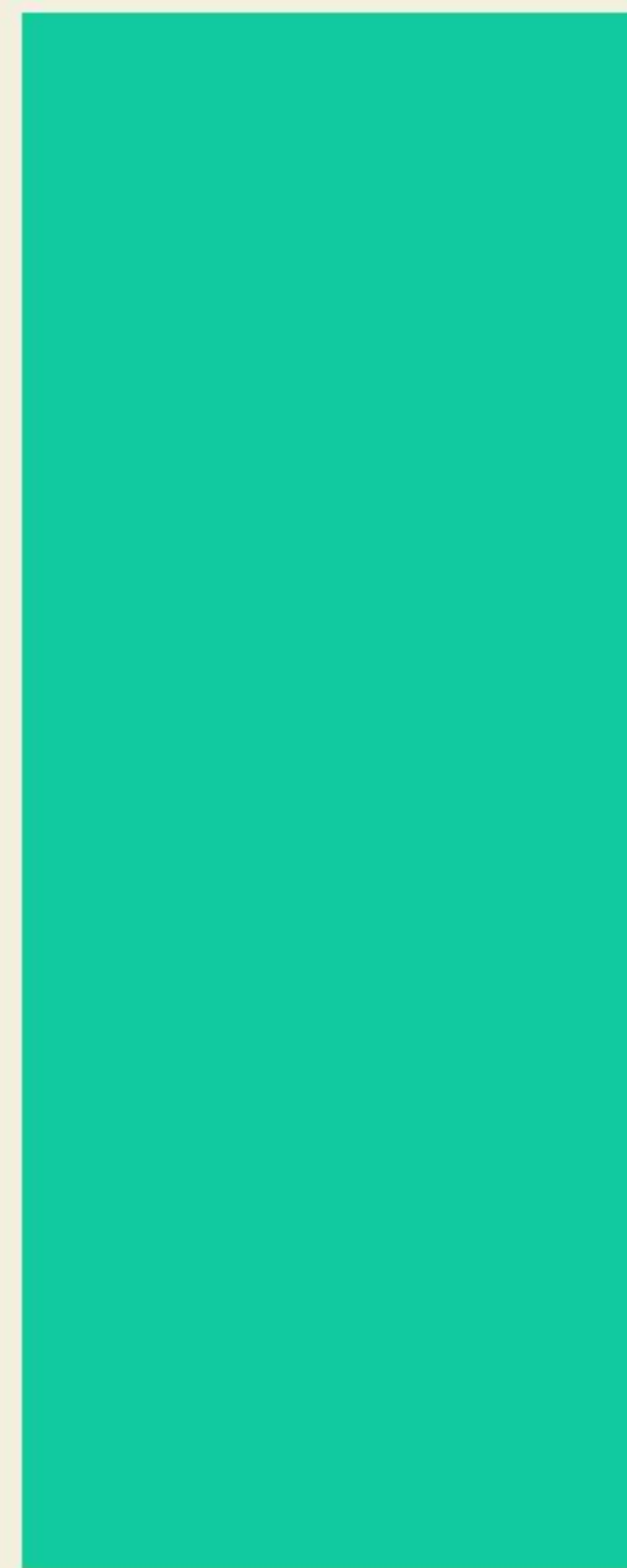


- The "**Mathematical Exploration**" is a 12–20 page written project on a topic of the student's choice.
- It is **not** a standard report, but an exploration of the maths behind a topic.
- Assesses personal engagement, mathematical communication, and critical thinking.
- This component is worth 20% for **both** SL and HL.

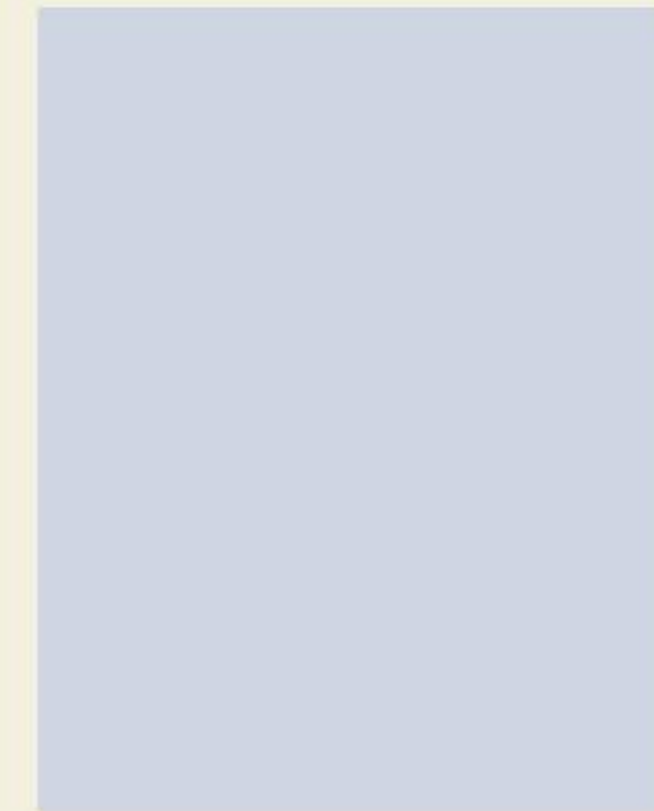
Assessment Weighting: Standard Level (SL)



Paper 1 (90
min)
40%



Paper 2 (90
min)
40%

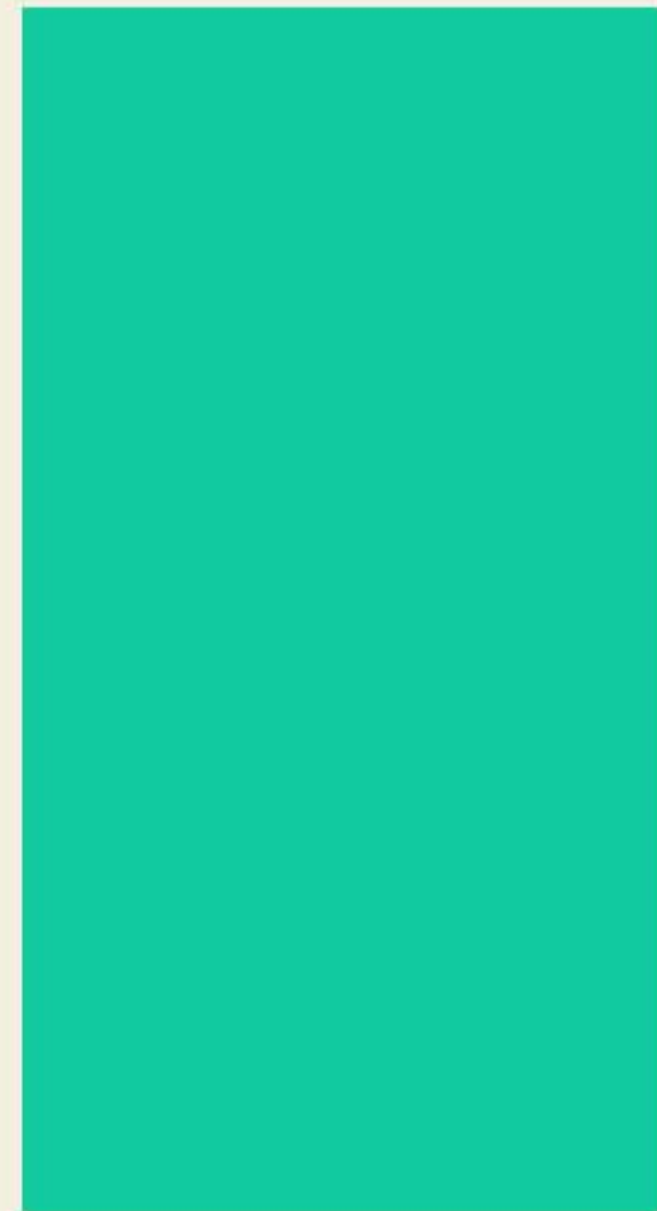


Internal
Assessment
20%

Assessment Weighting: Higher Level (HL)



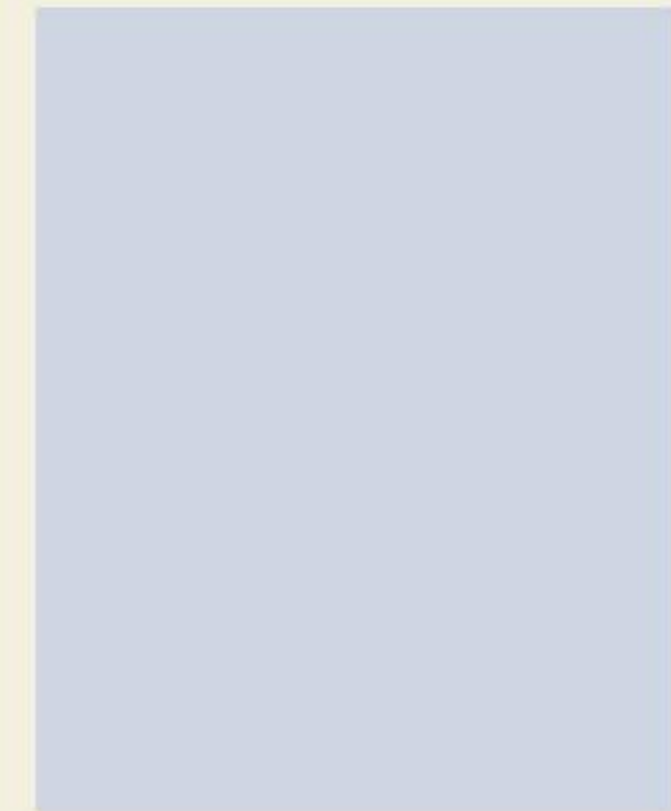
Paper 1 (120
min)
30%



Paper 2 (120
min)
30%



Paper 3 (60
min)
20%



Internal
Assessment
20%

Questions?

