

Teacher(s)	TCO, TSA, DCH, JGO, DSP, MCH	Subject group and discipline	Maths		
Unit title	5 Linear and Non-Linear	MYP year	3	Unit duration (hrs)	

Inquiry: Establishing the purpose of the unit

Key concept	Related concept(s)	Global context
Logic	Systems and simplification	Scientific and technical innovation: creating a taxonomy of systems
Statement of inquiry		
Categorising representations of systems into the linear/non-linear taxonomy aids simplification		
Inquiry questions		
Factual – What is a linear sequence? What does n^{th} term rule mean?		
Conceptual— How can we represent a sequence? Can pictorial representations allow us to find a rule for a sequence? What are the differences between linear and non-linear (sequences and graphs)?		
Debatable— To what extent is solving simultaneous equations using algebra better than doing it graphically?		
Objectives	Summative assessment	
Assessment 1: Criteria B i. select and apply mathematical problem-solving techniques to discover complex patterns ii. describe patterns as relationships and/or general rules consistent with findings	Assessment 1: Outline of summative assessment task(s) including assessment criteria: Students are asked to explore patterns in intersecting sequences.	Assessment 1: Relationship between summative assessment task(s) and statement of inquiry:

iii. verify and justify relationships and/or general rules. .	(https://www.inquirymaths.com/home/algebra-prompts/linear-sequences) G Explore when numbers appear in more than one sequence R mathematician trying to find a general rule A fellow students S From inquiry prompt, it is noticed that some numbers appear in two different sequences P Create a generalization of the patterns found S Criteria B	By exploring patterns in different sequences, students can classify the differences between them, and use terminology to describe those differences
Assessment 2: (if used in the unit)	Assessment 2: (if used in the unit) Outline of summative assessment task(s) including assessment criteria:	Assessment 2: Relationship between summative assessment task(s) and statement of inquiry:
Approaches to learning (ATL)		
Social skills: Listening actively to others' perspectives and ideas		

Action: Teaching and learning through inquiry - To be completed once resourcing is finalised, but here is an overview at this stage

Activity within lesson	Learning experiences and teaching strategies	Formative Assessment	Differentiation
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