

Teacher(s)	Year 8 team	Subject group and discipline			
Unit title	Probability	MYP year	2	Unit duration (hrs)	

Inquiry: Establishing the purpose of the unit

Key concept	Related concept(s)	Global context
Logic	Model, quantity	Opportunities and risks
Statement of inquiry		
Using a logical system to quantify chance allows us to model uncertain situations involving opportunities and risks to support rational decision making.		
Inquiry questions		
Factual – How can we describe uncertainty? How can we describe probability? What traditional contexts is probability used in? What ways do we have of representing all possible outcomes?		
Conceptual— How do experimental and theoretical probability compare in their assumptions about knowledge? How can we compare theoretical probability to experimental probability?		
Debatable— Which is the best way to represent all possible outcomes? What is the best strategy for a probabilistic game (e.g. 21)? Is it useful to model real world situations using Monte Carlo methods?		
Objectives	Summative assessment	

<p>Assessment 1:</p> <p>C i. use appropriate mathematical language (notation, symbols and terminology) in both oral and written statements, ii. use different forms of mathematical representation to present information, iii. communicate coherent mathematical lines of reasoning, iv. organize information using a logical structure.</p>	<p>Assessment 1:</p> <p>Outline of summative assessment task(s) including assessment criteria:</p> <p>G: your goal is to check if a game is fair. R: your role is to write an article for the school newsletter explaining how the game is unfair and suggesting ways to make it fair. A: your audience is the readership of the school newsletter. S: the situation is that you are writing an article. P: your product will be a newsletter article. S: this will be assessed under Criteria C</p>	<p>Assessment !:</p> <p>Relationship between summative assessment task(s) and statement of inquiry:</p> <p>Students are asked to model uncertain situations involving risk to explain why the game is not fair</p>
<p>Assessment 2: (if used in the unit)</p> <p>A</p>	<p>Assessment 2: (if used in the unit)</p> <p>Outline of summative assessment task(s) including assessment criteria:</p> <p>In this task, students will answer a wide range of questions, from simple to complex to challenging (in both familiar and unfamiliar situations), all related to the topics they have studied this year. The test will be done individually in class during one period</p>	<p>Assessment 2:</p> <p>Relationship between summative assessment task(s) and statement of inquiry:</p> <p>End of year assessment.</p>
<p>Approaches to learning (ATL)</p>		
<p>In order for students to understand how using a logical system to quantify chance allows us to model uncertain situations involving opportunities and risks to support rational decision making they will need to understand and use mathematical notation. Explicitly taught and practised skill strategy: this is explicitly taught in Block 1 lesson 1 where students explore the explicit words associated with probability, and the 0-1 probability scale.</p>		