



Ecole Internationale Provence-Alpes-Côte d'Azur



Forward Planning

Long-Term Semester Planning

Academic Year: 2020-2021

Class: S7

Subject: Mathematics 3 Periods

Teacher: Ms Rebeca Morones

No. Students: 3

Curriculum – Long-Term Planning 2020-2021

Date	Learning Objectives	Activities	Resources	Key Competences	Learning Outcomes / Assessment
September - October (6 weeks)	Revision	<ul style="list-style-type: none"> - Number properties. - Sequences - Function properties. - Differentiation. 	<ul style="list-style-type: none"> - Tarsia - Bingo games 	1, 2, 3, 4, 5, 6, 7, 8	
November (4 weeks)	Exponentials and logarithms	<ul style="list-style-type: none"> - Definition, graph and properties of both functions ($f(x) = ke^x$ and $f(x) = k \ln(ax + b)$). - Solving equations $a^x = b$ - Applied questions (exponential growth and decay). - Differentiation of exponential and logarithm functions. 	<ul style="list-style-type: none"> - Geogebra - Calculator work - Worksheets 	1, 2, 3, 4, 5, 8	<ul style="list-style-type: none"> - Classwork/ homework marked in class. - Test
December	Statistics	<ul style="list-style-type: none"> - Revision (arithmetic mean, mode, median, quartiles, interquartile range). - Analysing one variable data - Analysing bivariate (scatterdigrams, Pearsons product moment correlations, calculate the line of Mayer, regression line) 	<ul style="list-style-type: none"> - Worksheets - Calculator work 	1, 2, 3, 4, 5, 8	<ul style="list-style-type: none"> - Classwork/ homework marked in class. - Test

January	Random Variables	<ul style="list-style-type: none"> - Revision of probabilities. - Introduction to discrete distribution. - Definition of Binomial distribution, expected value and standard deviation. 	<ul style="list-style-type: none"> - Worksheets - Calculator work 	1, 2, 3, 4, 5, 8	<ul style="list-style-type: none"> - Classwork/ homework marked in class. - Test
		<ul style="list-style-type: none"> - Introduction to continuous distributions. - Definition of normal distribution 			
February	Integration	<ul style="list-style-type: none"> - Finding areas under the curve by using rectangles. - Define integral to find areas. - Properties of defined integrals. - Applied questions for polynomials of degree less than or equal to 3, exponentials and rational functions. 	<ul style="list-style-type: none"> - Worksheets - Calculator work 	1, 2, 3, 4, 5, 8	<ul style="list-style-type: none"> - Classwork/ homework marked in class. - Test
March -	Exam preparation	Exam type questions.		1, 2, 3, 4, 5, 6, 7, 8	<ul style="list-style-type: none"> - Homework - Class tests - Group work

* Link to 8 key competences:

1. Literacy (reading and writing)
2. Multilingualism
3. Mathematics, Science, Technology and Engineering
4. Digital
5. Personal, Social and Learning to Learn
6. Citizenship



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7. Entrepreneurship
8. Cultural Awareness and Expression