

IMMACULATE CONCEPTION HIGH SCHOOL
PHYSICS SYLLABUS SEQUENCE 2023-2024

[illegible]

2	Sept. 18 – 22	<p>Graph</p> <p>Galileo Galilei The Scientific Approach</p>	<p>Continue Graph Revision</p> <p>1.3 Discuss the methodology employed by Galileo contributed to the development of Physics</p>	Graphing coursework
3	Sept. 25 - 29	Vectors	<p>2.1 distinguish between scalars and vectors and give examples of each;</p> <p>2.2 calculate the resultant of vectors which are parallel, anti-parallel and perpendicular;</p> <p>2.3 use scalar diagrams to combine two vectors so as to find their resultant;</p> <p>2.4 explain common situations using the fact that a single vector may be regarded as equivalent to two other vectors at right angles.</p>	Vectors – Classwork and Worksheet
4				

	<p>Oct. 2 - 6</p>	<p>Lab Report</p>	<p>Outline the format of a lab report</p>	<p>INTRODUCTORY LAB – Density</p>
	<p>Heritage Day Oct. 14</p>	<p>Forces</p>	<p><u>Force, F</u></p> <p>3.1 recall that a force can cause a change in the size, shape or motion of a body;</p> <p>3.2 identify situations in which electric, magnetic, nuclear or gravitational forces act;</p> <p>3.4 determine the weight of objects using the relationship:</p> <p>weight = mass x gravitational field strength that is,</p> $W = mg$ <p>3.5 relate the stability of an object to the position of its center of gravity and its weight</p> <p>3.6 identify types of equilibrium</p>	
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GRADE:	10			
TERM:	1			
WEEK:	DATE	TOPICS	OBJECTIVES	
5	Oct. 9– 13	The Simple Pendulum	4.1 Define the simple pendulum. 4.2 State the factors which affect the period of a simple pendulum. 4.3 Determine the length of a pendulum. 4.4 Define the period and oscillation of a pendulum. 4.5 Calculate the period of a pendulum from the time of a given number of oscillations.	Simple Pendulum lab
6	Oct. 16 – 20 Mid-term Break Oct.12-16		Revision	
7	Oct.		STANDARDIZED Test # 1	STANDARDIZED Test # 1

	23 – 27			
8	Oct. 30 - Nov 3	Statics	<u>Moment of Force, T</u> 5.1 define the moment of a force 5.2 state the principle of moments and use it to solve problems on equilibrium; 5.3 explain the action of common tools and devices as levers	Centre of Gravity (Lamina) Lab Moments - Worksheet

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9	Nov. 6 - 10	Statics	<u>Moment continued</u>	Moment- Coursework
10	Nov. 13 - 17	Deformation	<u>Deformation</u> 6.1 State Hooke's Law 6.2 Investigate the relationship between extension and force, for springs and elastic	

			<p>bands.</p> <p>6.3 Solve problems involving the proportional relationship between a force and the extension it causes. (using Hooke's Law)</p>	
11	Nov. 20 – 24	<p>Kinematics</p> <p>-Motion in a Straight Line</p>	<p><u>Motion in a Straight Line</u></p> <p>7.1 define the terms: distance, displacement, speed, velocity, acceleration;</p> <p>7.2 draw, interpret and use displacement-time graphs to solve problems;</p> <p>7.3 draw, interpret and use velocity-time graphs to solve problems;</p> <p>7.4 determine the acceleration due to gravity using a free fall method.</p> <p><u>Aristotle</u></p> <p>Discuss Aristotle's arguments in support of his "law of motion", that is, v is proportional to F</p>	<p>Motion in a Straight Line - Worksheet</p>

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12	Nov. 27 – Dec.1	Kinematics -Momentum	<u>Newton's Laws</u> 8.1 State Newton's three laws of motion and give examples of each. 8.2 Use Newton's laws to explain dynamic systems 8.3 Define linear momentum 8.4 Describe situations that demonstrate the law of conservation of linear momentum 8.5 Apply the law of conservation of linear momentum	
13	Dec. 4 – 8		Standardized Test	Standardized Test
14	Dec.	Kinematics	Newton's Laws cont'd	

	11 – 15	-Momentum	8.5 Apply the law of conservation of linear momentum	Momentum - Worksheet
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