			IMMACULATE CONCEPTION HIGH SCHOOL PHYSICS SYLLABUS SEQUENCE 2023/24	
GRADE:	**9**			
TERM:	**1**			
WEEK:	**DATE**	**TOPICS**	**OBJECTIVES**	**SUGGESTED ACTIVITIES**
1	Sept. 4th – 8th		**ORIENTATION**	
2	Sept. 11th – 15th	**Physical Quantities and units**	1. State five of the fundamental quantities. - Mass, length, time, temperature, Electric current 2. Recall S.I. units and symbols of fundamental quantities. 3. Explain why an S.I. system is needed. 4. Define derived quantities and state examples.	
3	Sept. 18th – 22rd	**Measurement**	1. Use standard form and prefixes (micro, milli, centi, kilo, Mega,) 2. Convert units of mass and length (micro, milli, centi, kilo, Mega)	Practice Measurement Worksheets
4	Sept. 25th – 29th	**Measurement**	1. Limit the number of significant figures and decimal places in a final answer 2. Discuss accuracy, precision, sensitivity, smallest division and range	

5	**Oct. 2rd - 6th** (Heritage Week)	**Measurement and Scales**	1. Compare linear and nonlinear scales stating examples 2. Compare analogue and digital scales stating examples	**Coursework 1** **Physical Quantities and Measurement**

6 + 7	**Oct. 9th – 13th**
	
	Oct. 16th – 20th
		Measurement and Scales
		
		Errors
			1. Measuring Instruments
			  (i) Vernier caliper
			  (ii) Micrometer Screw Gauge
			  (iii) Triple Beam Balance
			  - their use
			  - read the scale on the instrument
			  - precautions
			2. Identify the smallest division and range on a given scale
			
			3. Discuss types of errors (Random and Systematic)
			
			Mid-term
			Oct. 12th - 16th
			Oct. 16
			Heroes Day
				Students may be asked to use the different instruments to measure the mass, external diameter and internal diameter of different objects (eg an egg, a weight, etc)
				
				They may also use the following simulations:
				
				Micrometer Model (iwant2study.org)
				
				Vernier Calipers (Simulator) : Class 11 : Physics : Amrita Online Lab (olabs.edu.in)
				
				Reading a Triple Beam Balance - Wisc-Online OER

8	Oct. 23th – 27th			**Based on material covered thus far**
9	Nov. 30th – 3rd	**Area**	**Area (Review)** 1. Define area and use formulae to find the area of basic regular shapes. 2. Use a grid to estimate the area of an irregular shape. 3. Convert between units of area.	Students may use the grid method to estimate the area of different things such as: ● A leaf ● One foot ● Pictures of irregular shapes Student will be assigned homework on volume. They be required to make notes on volume of regular solids and instruments used to measure the volume of liquids. They will also be asked to explore how they would find the volume of an irregular solid.

10	Nov. 6th – 10th	**Volume** **Density**	**Volume** Find the volume of an irregular solid using the displacement methods (measuring cylinder and eureka can). **Density** Define density. Use the density formula and be able to transpose it when necessary.	Students may be asked to find the volume of various irregular solids. Density Practice Worksheet
11	Nov. 13th – 17th	**Graphs**	**Graphs** 1. Definition 2. Graphs as a means of presenting data 3. Criteria (title, labels, types of plotted points, scale of axes)	
12	Nov. 20st – 24th	**Graphs**	**Graphs** 1. Best fit line 2. Gradient & intercepts 3. Extrapolation of data	**Coursework 2** **Volume & Graphs**
13	Nov. 27th – Dec. 1nd	**Density & Graphs**	Review Course work and topics for test	
14	Dec. 4th – 8th			**STANDARDIZED TEST 2**
15	Dec. 11th - 15th		**Return and review test** END OF TERM	
16	Dec.		**Dec 19 : Last Day**	

| | 18th - 19th | | | |

| | 18th - 19th | | | |