Physics

IMMACULATE CONCEPTION HIGH SCHOOL PHYSICS TERM 3 PLAN ONLINE / DISTANCE LEARNING			
GRADE:	**10**		
TERM:	3		
WEEK:	**DATE**	**TOPICS**	**OBJECTIVES**
1	**April 22-24**	**Power**	<u>Power and Efficiency</u> 4.1 define power and apply formula to solve problems 4.2 define the term efficiency 4.3 calculate efficiency in different situations **Review Plan and Design Lab#1**
2	**April 27 – May 1**	**Hydrostatics** **- Pressure**	**Energy & Power Quiz** <u>Hydrostatics</u> 5.1 Define Pressure. Use examples (foot of an elephant vs heel of a woman's shoe). 5.2 Apply: $P = \frac{F}{A}$ 5.3 Relate the pressure at a point in a fluid to its depth and the density. 5.4 Apply: $\Delta p = \frac{\rho g \Delta h}{A}$

			5.5 Define Archimedes Principle. 5.6 Describe Upthrust. 5.7 Find the Upthrust on a submerged object: *Upthrust = Actual Weight – Apparent weight*
3	**May. 4– 8**	**Hydrostatics** **- Archimedes' Principle**	**Hydrostatics: Coursework** <u>Archimedes' Principle</u> 5.8 state Archimedes' Principle 5.9 apply Archimedes' Principle to detect whether a body will sink or float in a given fluid. **Hydrostatics Quiz**
4	**May. 11 – 15**	**Kinetic Theory** **- Nature of heat** **- macroscopic properties and phenomena** **(temperature; phases of matter; expansion;** **gas laws)**	<u>Nature of Heat</u> 6.1 differentiate between the caloric and kinetic theories of heat 6.2 discuss Joule's experiment on the conservation of energy. <u>Phases of Matter</u> 6.3 Distinguish among solids, liquids and gases 6.4 use kinetic theory to explain the different macroscopic properties of solids, liquids and gases <u>Gas Laws</u> 6.5 relate pressure/volume against temperature graphs to the establishment of the Kelvin temperature scale 6.6 explain gas pressure in terms of molecular motion

		Kinetic Theory **- gas laws**	
5	**May. 18–22**	**Kinetic Theory** **- gas laws**	Gas Laws 6.7 Apply the gas laws: Boyle's Law; Charles' Law; Pressure Law; General Gas Law **Gas Laws worksheet** **Lab: Plan and Design (Investigative Report Proposal) Selection of question.**
6	**May 25- 29**	**Kinetic Theory** **- gas laws** **THERMAL MEASUREMENTS:** **i. Heat Capacity** **ii. Specific Heat Capacity**	**COURSEWORK- GAS LAWS** 6.8 Define Heat Capacity, ***C***, and state its S.I. units. 6.9 Apply: $C = \frac{E_H}{\Delta T}$ 6.10 Define Specific Heat Capacity, ***c***, and state its S. I. units. **6.11** Apply: $c = \frac{E_H}{m\Delta T}$
7	**June 1-5**	**THERMAL MEASUREMENTS**	6.12 Show the relationship between ***c*** and ***C***: $C = mc$ 6.13 Apply the relationship with examples: $E_H = mc\Delta T$ or $E_H = mc\Delta\theta$ Worksheet- Thermal Measurements

8	**June 8 – 11**	**THERMAL MEASUREMENTS:** **i. Heat Capacity** **ii. Specific Heat Capacity**	6.14 Explain that temperature remains constant during a phase change. Use the Cooling Curve experiment (with water or candle wax). 6.15 Explain the term "Latent heat" 6.16 Distinguish between Latent Heat Capacity, ***L***, and Specific Latent Heat Capacity, ***l***. 6.17 Distinguish between l_v and l_f. 6.18 Apply the relationship: $E_H = ml$