Enseignement secondaire		
Classes internationales		
	Régime anglophone	
Physique		
Programme		
5IEC		

Leçons hebdomadaires: 2
Langue véhiculaire: anglais
Nombre minimal de devoirs par trimestre: 1

Theory

	Topic		**Contents**
1	**Moving things**	Forces and movement	- Recall different types of forces - Explain the effects of balanced and unbalanced forces - Explain why objects have a top speed
		Energy for movement	- Recall ways in which energy can be stored and transferred - Explain the law of conservation of energy
		Speed	- How to calculate speed - Use formula relating speed, distance and time - Understand the meaning of the gradient of a distance-time graph - Represent simple journeys on a distance- time graph
		Turning forces	- Describe how a simple lever can multiply forces or distances - Identify load, pivot and effort on the diagram of a lever
2	**Weight and mass**		- Explain the difference of mass and weight - Calculate the weight of an object on different planets
3	**Magnetic field**		- Describe bar magnets and magnetic poles - Describe attraction and repulsion of magnets
4	**Electricity**	Static electricity	- State existence of positive and negative electric charge - Explain why an insulating material can be charged by rubbing

		Current electricity	- Describe how electrically charged objects affect each other - Explain how switches can be used to control different parts of a circuit - Recall how current behaves in series and parallel circuits - Describe how voltage behaves in series and parallel circuits
4	**Power and efficiency**	Power and appliances Electricity bill	- State the meaning of efficiency - Describe what power and efficiency mean in the context of electricity - Calculate efficiencies - Draw and interpret Sankey diagrams - Explain what a kilowatt-hour means - Calculate the cost of running an electric appliance
5	**Revision**		- Revision of topics covered in 7IEC, 6IEC and 5IEC

General skills:

1. Use of command terms
2. Summarise key points in a text
3. Use of tables
4. Writing a method
5. Charts and graphs (see chemistry and physics)
    - Present information as bar charts or scatter graphs
    - Identify relationships using scatter graphs (proportional and linear relationship)
    - Analyse and describe trends of a graph

6. Models in science: how to use them in science and testing them
7. Produce and present a presentation
8. Calculating with simple formulae y = a times x
9. Measuring angles
10. Understand accuracy and precision
11. Understand random and systematic errors (difference and effects)
12. Rounding numbers

Practical work Suggestions

The practical activities are an important an integral part of the course.

	Topic	**Contents**
1	**Moving things**	- Measuring different forces - Measuring speed - Plot distance – time graphs based on measurements - Identify and study common use levers - Measuring weights and relate mass to weight
2	**Electricity**	- Electric circuits - Compare power of electric appliances - Relationship between resistance and current (notion of resistance)