



Enseignement secondaire		
Classes internationales		
	Régime anglophone	
Physique		
Programme		
5IEC		
Leçons hebdomadaires: 2		
Langue véhiculaire: anglais		
Nombre minimal de devoirs par trimestre: 2		

Theory

	Topic		Contents
1	Moving things	Forces and movement	<ul style="list-style-type: none">- Recall different types of forces- Explain the effects of balanced and unbalanced forces- Explain why objects have a top speed
		Energy for movement	<ul style="list-style-type: none">- Recall ways in which energy can be stored and transferred- Explain the law of conservation of energy
		Speed	<ul style="list-style-type: none">- 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	<ul style="list-style-type: none">- 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		<ul style="list-style-type: none">- Explain the difference of mass and weight- Calculate the weight of an object on different planets
3	Magnetic field		<ul style="list-style-type: none">- Describe bar magnets and magnetic poles- Describe attraction and repulsion of magnets



4	Electricity	Static electricity Current electricity	<ul style="list-style-type: none">- State existence of positive and negative electric charge- Explain why an insulating material can be charged by rubbing- 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	<ul style="list-style-type: none">- 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		<ul style="list-style-type: none">- Revision of topics covered in 7I, 6I and 5I

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)
 - o Present information as bar charts or scatter graphs
 - o Identify relationships using scatter graphs (proportional and linear relationship)
 - o Analyse and describe trends of a graph
6. Modelling in science: how to use them in science and testing them
7. Produce and present a presentation
8. Calculating with simple formulae $y = a \text{ times } x$
9. Measuring angles
10. Understand accuracy and precision
11. Understand random and systematic errors
12. Rounding numbers



Practical work

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

	<u>Topic</u>	<u>Contents</u>
1 2	Moving things	<ul style="list-style-type: none">- 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	<ul style="list-style-type: none">- Electric circuits- Compare power of electric appliances- Relationship between resistance and current (notion of resistance)