



Enseignement secondaire		
Classes internationales		
	Régime anglophone	
Biologie		
Programme		
6IEC		

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

Manuels scolaires : livre de 6^{ème}

Theory

	<u>Topic</u>	<u>Contents</u>
1	Classification	<ul style="list-style-type: none">Recall how organisms are classifiedInterpret scientific organism namesExplain the importance of biodiversityDistinguish different <u>invertebrate groups</u> (insects, arachnids, molluscs, annelids, crustaceans) and name their characteristic featuresSpecify anatomy, physiology and the way of living of at least 2 <u>representative of the insects (one of which should be the honey bee), 1 representative of molluscs and 1 other group</u>Use a dichotomous key
2	Plants and reproduction	<ul style="list-style-type: none">Describe the general structure of flowering plantsExplain how the structures of flowers and pollen allow pollination by animals or windExplain how plants ensure cross-pollinationDescribe how pollination leads to fertilizationDescribe the formation of seeds and fruitsExplain the functions of seeds and fruitsDescribe what happens in germinationExplain why seeds and plants need certain resources



		<ul style="list-style-type: none">• Describe how organisms are interdependent - coevolution
3	Food and nutrition	<ul style="list-style-type: none">• Distinguish the different types of nutrients (simple representation) and their corresponding functions in our body• Describe the impact of physical activity, age and gender on energy needs• Describe the benefits of a balanced diet• Explain how different types of malnutrition are caused and their effects• Name the parts of the digestive system and their functions
		<i>Application:</i> - Interpret nutrition information labels - explain deficiency diseases
4	Breathing and respiration	<ul style="list-style-type: none">• Describe the anatomy of the human respiratory system• Describe how gas exchange occurs in different organisms• Describe the functions of the organs in the gas exchange system• Explain how the structure of the lungs allows efficient gas exchange• Describe the effects of exercise on ventilation and heart beat rates• Describe the transport of oxygen and waste products in the blood• Describe the causes and explain the effects of reduced oxygen supply on the body
		<i>Application: Cause and effect of lung cancer</i>

General skills:

- Accuracy and estimates
- Means and ranges



Practical Work - examples

<u>Topic</u>	<u>Contents</u>
Quadrat sampling	<ul style="list-style-type: none">• Use the quadrat method to estimate and compare populations
Flower and pollen	<ul style="list-style-type: none">• Produce a diagram of a flower• Observe pollen and honey under the microscope
Project on invertebrates	<ul style="list-style-type: none">• Research on needs of land snail• Set up of a species appropriate terrarium
Leaf litter	<ul style="list-style-type: none">• Explore living organisms in leaf litter
Experimental design	<ul style="list-style-type: none">• Investigation of a factor affecting woodlice behaviour (light, temperature, humidity)• Investigation of factors affecting seed germination
Invertebrate dissection	e.g. <ul style="list-style-type: none">• Sepia/mussel• Honey bee / lobster
Insect development	<ul style="list-style-type: none">• Mealworm beetle (diary of development)
Gas exchange	<ul style="list-style-type: none">• Measure lung volumes• Compare ventilation rates before and after exercise
Nutrition	<ul style="list-style-type: none">• Construct a food pyramid