Enseignement secondaire		
Classes internationales		
	Régime anglophone	
Biologie		
Programme		
7IEC		

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

Theory

	Topic	**Contents**
1	**Life processes**	• Recall and describe the characteristics of life/life processes • Explain the differences between living organisms and non-living things
2	**Classification**	• Distinguish between 3 or 5 kingdoms and name their characteristics • Define species • Identify vertebrates and invertebrates and name their characteristic features • Identify the 5 classes of vertebrates and name their characteristics (skin, body temperature, reproduction*, respiration) • Describe and explain these characteristics using examples of animals • Hibernation • Use a dichotomous key • Name examples of native and endangered species • Describe and evaluate different forms of livestock farming ** Describe how egg cells are fertilised in animal sexual reproduction;* *Compare fertilization and offspring care in fish, birds and mammals*

3	**Cells, tissues, organs and systems**	• Identify the main parts of animal and plant cells and describe their functions • Identify and recall named tissues in human and plant organs • Describe the functions of different tissues in an organ • Identify and locate important plant and animal organs • Describe the functions of important plant and animal organs • Describe what happens in photosynthesis • Identify and recall the main organs in the plant water transport system • Identify and recall the main organs in the human locomotor, digestive, circulatory, breathing, urinary and nervous system
		Application: Organ transplants
4	**Human reproduction**	• Name the parts of the male and female reproductive systems and their functions • Explain how sperm and egg cells are adapted to their functions • Describe and explain what happens during adolescence • Describe and explain what happens in the menstrual cycle • Describe how sexual intercourse can lead to the implantation and development of an embryo • Describe how an embryo is protected and cared for in the uterus • Describe and evaluate different methods of contraception • Explain the dangers of selected sexually transmitted diseases (HPV and HIV)
		Applications: - *In vitro fertilization* - *HPV vaccination*
5	**Ecosystems**	• General definitions: biosphere, ecosystem, biotope, biocenosis, biotic and abiotic factors... • Define what a species, a population and a habitat is • Use a food web to make predictions • Use pyramids of numbers to describe how energy is lost in a food chain

General skills:

- Use of command terms
- Charts and graphs
  - Present information as bar charts or scatter graphs
  - Identify relationships using scatter graphs
  - Analyse and describe trends of a graph

Practical Work - examples

Topic	Contents
Scientific method	• State the purpose of and the common steps in the scientific method • Describe the role of scientific questions in the scientific method • Identify scientific, non-scientific and ethical questions • Describe and use the convention for investigation reports (Aim and research question, hypothesis, method, apparatus, results, conclusion, evaluation
Microscopy	• prepare a microscope slide • use a light microscope to examine animal and plant cells
Dichotomous key	• Establish a dichotomous key using models of vertebrates
Classification	• Use skulls of vertebrates and dentition for classification • Determine the relationship between dentition and mode of nutrition
Endangered species	• Presentations • "Hello Spring"
Photosynthesis	• Identify the products of photosynthesis • Determine the effect of light intensity on the rate of photosynthesis (in elodea)
Contraceptive methods and sexually transmitted diseases	• Use the general rules for producing and performing a presentation
Ecosystem	• Analyse different factors of a selected ecosystem (pond, forest,…)
Populations	• Determine population densities
Species	• Determine species using a field guide