

Curriculum for Biology

Grades 7-12

Short version

Reference curriculum: Thuringia, Germany
Year created: 2018

According to the bilingual concept, Biology is taught in modules, some in English and some in German. Content printed in italics will be taught in English.

Grade	Contents
Grade 7 2 hours/week	<ol style="list-style-type: none">1. Cells<ul style="list-style-type: none">- impact of the microscope- the cell as the basic unit of all life2. Cell structure and life cycle of bacteria3.

Grade 8

- Kingdoms of Life
- 2. Plasma membrane
 - discovery of the plasma membrane
 - transport mechanisms
- 3. The role of enzymes as the cell's biological catalysts
 - structure, function and mode of action of enzymes
 - influencing factors (i.e. enzyme inhibition)
 - enzyme regulation
- 4. Metabolic processes
 - photosynthesis
 - cellular respiration
- 5. Molecular genetics
 - human genome (i.e. analysis of karyograms)
 - mitosis and meiosis
 - structure of DNA
 - DNA replication
 - protein synthesis
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2. Evolution

- theories of evolution
- analysis of cladograms
- methods of evolutionary research
- homologies and analogies

