

Biology Diploma Programme-aligned Kits & Experiments

EDVOTEK® is proudly presenting kits and experiments geared toward **International Baccalaureate® (IB) Biology**, a core subject with the *Diploma Programme**.

IB Core Topics

TOPIC 1: CELL BIOLOGY

- Eukaryotic Cell Biology, Cat. #1001
- Analysis of Mammalian Cells, Cat. #986
- Principles and Practice of Diffusion and Osmosis, Cat. #AP05

TOPIC 2: MOLECULAR BIOLOGY

- Purification & Size Determination of Green & Blue Fluorescent Proteins, Cat. #255
- Survey of Protein Diversity, Cat. #150
- Investigating Synthetic Biology, Cat. #331

TOPIC 3: GENETICS

- ALU Human DNA Typing Using PCR, Cat. #333
- Chromosomal Spread, Cat. #987
- Mitosis and Meiosis, Cat. #AP07
- In Search of My Father, Cat. #S-49

TOPIC 4: ECOLOGY

- Dissolved Oxygen and Aquatic Primary Productivity, Cat. #292
- Energy Dynamics, Cat. #AP10
- Invisible Footprints: Seeing Carbon Dioxide & Understanding Climate Change, Cat. #930

TOPIC 5: EVOLUTION & BIODIVERSITY

- Artificial Selection, Cat. #AP01
- Mathematical Modeling: Hardy-Weinberg, Cat. #AP02
- Safari Family Reunion, Cat. #920

TOPIC 6: HUMAN PHYSIOLOGY

- Blood Typing, Cat. #140
- AIDS Kit I: Simulation of HIV Detection by ELISA, Cat. #271
- Detecting the Silent Killer: Clinical Diagnosis of Diabetes, Cat. #280

TOPIC 7: NUCLEIC ACIDS

- Separation of RNA and DNA, Cat. #204
- DNA Fingerprinting Using PCR, Cat. #371
- Reverse Transcription PCR: The Molecular Biology of HIV Replication, Cat. #335

TOPIC 8: METABOLISM, CELL RESPIRATION & PHOTOSYNTHESIS

- Cellular Respiration, Cat. #AP06
- Photosynthesis, Cat. #AP05
- Plant Pigment and Photosynthesis, Cat. #284

TOPIC 9: PLANT BIOLOGY

- Transpiration, Cat. #AP11
- Introduction to Plant Cell Culture, Cat. #908

TOPIC 10: GENETICS & EVOLUTION

- In Search of the Cancer Gene, Cat. #314
- Mathematical Modeling: Hardy-Weinberg, Cat. #AP02
- Exploring the Genetics of Taste: SNP Analysis of the PTC Gene Using PCR, Cat. #345

TOPIC 11: ANIMAL PHYSIOLOGY

- Effects of Alcohol on *C. elegans*, Cat. #851
(Similar kits are #852, #856)

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IB Option Topics

TOPIC A: NEUROBIOLOGY & BEHAVIOR

- Cell Types in the Brain, Cat. #1110
- Alzheimer's Disease by ELISA, Cat. #1116
- Diagnosing Huntington's Using PCR, Cat. #1125
- Chemotaxis: The Science of Attraction in *C. elegans*, Cat. #852

TOPIC B: BIOTECHNOLOGY & BIOINFORMATICS

- Construction and Cloning of a DNA Recombinant, Cat. #301
- Identification of Genetically Modified Foods Using PCR, Cat. #962
- Sickle Cell Gene Detection, Cat. #116
- Sequencing the Human Microbiome, Cat. #339-340
- Comparing DNA Sequences to Understand Evolutionary Relationships with BLAST, Cat. #AP03

TOPIC C: ECOLOGY & CONSERVATION

- Environmental Toxicity Response in *C. elegans*, Cat. #856
- The Dose Makes the Poison: Testing the Environmental Impacts of Pollution, Cat. #905
- Chromogenic Analysis of Water Contaminants, Cat. #951 (Similar kit is Cat. #953)
- Dissolved Oxygen and Aquatic Primary Productivity, Cat. #292

TOPIC D: HUMAN PHYSIOLOGY

- What's In My Lunch? Quantitative Food Allergy ELISA, Cat. #266
- Morphology of Cancer Cells, Cat. #990