



Switched-On™
ONLINE

2009-2010 Curriculum Catalog

Biology

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We are excited that you are including AOP as part of your program of instruction, and we look forward to serving you and your students.

AOP comes complete with a full, multimedia-enriched curriculum for grades 3—12 in five core subjects and electives.

This course catalog covers the following course:

- Biology

Thanks for choosing us!

Glynlyon Curriculum Development Team

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Monday – Friday 7:00 am to 7:00 pm (CT)

Biology

Unit 1

Assignment Title
1. The History of Taxonomy
2. Quiz 1
3. Binomial Nomenclature
4. Concept of Species
5. Quiz 2
6. Plant and Animal Classification
7. Experiment: Fruit
8. Activity: Keying Plants
9. Activity: Keying Animals
10. Search For A System
11. Quiz 3
12. Taxonomy and Origins
13. Models of Origin
14. Project: Research
15. Project: Origins
16. Quiz 4
17. Special Project
18. TEST
19. ALTERNATE TEST

Unit 2

Assignment Title
1. Molecular Basis of Life
2. Quiz 1
3. Properties of Compounds
4. Experiment: Static Electricity
5. Covalent Bonding
6. Experiment: Temperature
7. Importance of Inorganic Compounds
8. Experiment: Water Properties
9. Experiment: Indicators
10. Quiz 2
11. Chemical Reactions
12. Quiz 3
13. Organic Compounds
14. Carbohydrates
15. Experiment: Starch
16. Lipids
17. Nucleic Acids
18. Quiz 4
19. Enzymes
20. Experiment: Digestion
21. Quiz 5
22. Special Project
23. TEST
24. ALTERNATE TEST

Unit 3

Assignment Title
1. The Cell-An Introduction
2. The Microscope
3. Experiment: Microscope
4. Experiment: Cheek Cells
5. Experiment: Onion Cells
6. Quiz 1
7. Cell Design
8. Cell Membrane Function
9. Experiment: Osmosis
10. Organelles
11. Production of Needed Material
12. Quiz 2
13. Cells in Organisms
14. Experiment: Tissues
15. Quiz 3
16. Special Project
17. TEST
18. ALTERNATE TEST

Unit 4

Assignment Title
1. Cell Division
2. Meiosis
3. Stages of Mitosis
4. Experiment: Mitosis
5. Quiz 1
6. Asexual Reproduction
7. Experiment: Fragmentation
8. Plants
9. Experiment: Bulb Structure
10. Practical Applications in Plants
11. Experiment: Cuttings
12. Quiz 2
13. Sexual Reproduction
14. Fertilization
15. Experiment: Sexual Reproduction
16. Quiz 3
17. Sexual Reproduction in Animals
18. Experiment: Tissue Structure
19. Metamorphosis
20. Quiz 4
21. Sexual Reproduction in Plants
22. Life Cycles of Ferns and Pines
23. Experiment: Ferns and Pines
24. Experiment: Flowers
25. Quiz 5
26. Special Project
27. TEST
28. ALTERNATE TEST

Biology (cont.)

Unit 5

Assignment Title
1. Genetics: God's Plan of Inheritance
2. Probabilities
3. Experiment: Probability
4. Cross Predictions
5. Application of Mendelian Genetics
6. Quiz 1
7. Chromosome Basis of Heredity
8. Chromosomes in Meiosis
9. Sex Chromosomes
10. Quiz 2
11. Molecular Genetics
12. Experiment: Molecular Genetics
13. Quiz 3
14. Human Genetics
15. Factors Studied
16. Inherited Diseases
17. Quiz 4
18. Special Project
19. TEST
20. ALTERNATE TEST

Unit 6

Assignment Title
1. Microbial Taxonomy
2. Fungi
3. Experiment: Fungus All Around (Part 1)
4. Experiment: Fungus All Around (Part 2)
5. Quiz 1: Microbial Taxonomy and Fungi
6. Animal-like Protists
7. Experiment: Protozoan Culture
8. Quiz 2: Animal-like Protists
9. Plant-like Protists (Algae)
10. Fungus-like Protists
11. Quiz 3: Plant- and Fungus-like Protists
12. Eubacteria
13. Activity: Pathogenic Bacteria Report
14. Archaea
15. Viruses, Prions, and Viroids
16. Experiment: Algae Observations
17. Quiz 4: Eubacteria, Archaea, Viruses, Prions, and Viroids
18. Special Project
19. TEST: Microbiology
20. ALTERNATE TEST: Microbiology

Unit 7

Assignment Title
1. How Is a Plant Made?
2. Parts of the Plant Cell
3. Anatomy and Morphology
4. Quiz 1
5. How do Plants Grow?
6. Experiment: Seeds
7. Developmental Anatomy
8. Quiz 2
9. How do Plants Work?
10. Photosynthesis: A Closer Look
11. Experiment: Terrarium
12. Respiration
13. Quiz 3
14. How do Plants Help People?
15. Quiz 4
16. Special Project
17. TEST
18. ALTERNATE TEST

Unit 8

Assignment Title
1. Digestive System
2. Excretory System
3. Respiratory System
4. Circulatory System
5. The Heart
6. Experiment: Heart Rate
7. Quiz 1
8. Body Framework
9. Muscular System
10. Experiment: Muscle Types
11. Reproductive System
12. Quiz 2
13. Environmental Interactions
14. Sensory Systems: The Eye
15. Sensory Systems: Hearing, Taste, Touch
16. Endocrine System
17. Immune System and Disease
18. Quiz 3
19. Special Project
20. TEST
21. ALTERNATE TEST

Biology (cont.)

Unit 9

Assignment Title
1. Principles of Ecology
2. Environmental Factors
3. Food Chains
4. Quiz 1
5. Ecological Relationships
6. Communities and Habitats
7. Experiment: Habitats
8. Experiment: Biomes
9. Experiment: Quadrats
10. Experiment: Inventory
11. Quiz 2
12. Pollution Affects Ecology
13. Pollution Problems
14. Quiz 3
15. Energy Affects Ecology
16. Essay: Stewardship
17. Quiz 4
18. Special Project
19. TEST
20. ALTERNATE TEST

Unit 10

Assignment Title
1. Study of Life
2. Definition of Life
3. Quiz 1
4. Basic Principles of Life
5. Control System
6. Environment of Life
7. Quiz 2
8. Applications of Biology
9. Green Revolution
10. Quiz 3
11. Special Project
12. TEST
13. ALTERNATE TEST