

Course Planning Guide

Course Planning Guide for *Biology: The Dynamics of Life*

Chapter/Session	Single-class Scheduling (180 days)	Block Scheduling (90 days)
1 Biology: The Study of Life 1.1 What Is Biology? 1.2 The Methods of Biology 1.3 The Nature of Biology Chapter Assessment	3 1/2 1 1 1/2	1 1/2 — 1/2 1/2 1/2
BioDigest What Is Biology?	1/2	1/2
2 Principles of Ecology 2.1 Organisms and Their Environment 2.2 Nutrition and Energy Flow Chapter Assessment	5 2 2 1	2 1/2 1 1 1/2
3 Communities and Biomes 3.1 Communities 3.2 Biomes Chapter Assessment	5 2 2 1	2 1/2 1 1 1/2
4 Population Biology 4.1 Population Dynamics 4.2 Human Population Growth Chapter Assessment	5 3 1 1	2 1 1/2 1/2
5 Biological Diversity and Conservation 5.1 Vanishing Species 5.2 Conservation of Biodiversity Chapter Assessment	5 2 2 1	2 1 1/2 1/2
BioDigest Ecology	1/2	1/2
6 The Chemistry of Life 6.1 Atoms and Their Interactions 6.2 Water and Diffusion 6.3 Life Substances Chapter Assessment	5 1 1 2 1	2 1/2 1/2 1/2 1/2
7 A View of the Cell 7.1 The Discovery of Cells 7.2 The Plasma Membrane 7.3 Eukaryotic Cell Structure Chapter Assessment	6 1 2 2 1	3 1/2 1 1 1/2
8 Cellular Transport and the Cell Cycle 8.1 Cellular Transport 8.2 Cell Growth and Reproduction 8.3 Control of the Cell Cycle Chapter Assessment	6 2 2 1 1	3 1/2 1 2 — 1/2
9 Energy in a Cell 9.1 ATP in a Molecule 9.2 Photosynthesis: Trapping the Sun's Energy 9.3 Getting Energy to Make ATP Chapter Assessment	6 1 2 2 1	3 1/2 1 1 1/2

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BioDigest The Life of a Cell	1/2	1
10 Mendel and Meiosis	6	4
10.1 Mendel's Laws of Heredity	3	2
10.2 Meiosis	2	1 1/2
Chapter Assessment	1	1/2
11 DNA and Genes	6	4
11.1 DNA: The Molecule of Heredity	2	1
11.2 From DNA to Protein	2	2
11.3 Genetic Changes	1	1/2
Chapter Assessment	1	1/2
12 Patterns of Heredity and Human Genetics	6	4 1/2
12.1 Mendelian Inheritance of Human Traits	1	1/2
12.2 When Heredity Follows Different Rules	3	2 1/2
12.3 Complex Inheritance of Human Traits	1	1
Chapter Assessment	1	1/2
13 Genetic Technology	5	—
13.1 Applied Genetics	1	—
13.2 Recombinant DNA Technology	2	—
13.3 The Human Genome	1	—
Chapter Assessment	1	—
BioDigest Genetics	1/2	1
14 The History of Life	4	2
14.1 The Record of Life	2	1
14.2 The Origin of Life	1	1/2
Chapter Assessment	1	1/2
15 The Theory of Evolution	5	3
15.1 Natural Selection and the Evidence for Evolution	2	1
15.2 Mechanisms of Evolution	2	1 1/2
Chapter Assessment	1	1/2
16 Primate Evolution	3	—
16.1 Primate Adaptation and Evolution	1	—
16.2 Human Ancestry	1	—
Chapter Assessment	1	—
17 Organizing Life's Diversity	4	2
17.1 Classification	1	1/2
17.2 The Six Kingdoms	2	1
Chapter Assessment	1	1/2
BioDigest Change Through Time	1/2	1/2
18 Viruses and Bacteria	5	2
18.1 Viruses	2	1/2
18.2 Archaeobacteria and Eubacteria	2	1
Chapter Assessment	1	1/2
19 Protists	5	2 1/2
19.1 The World of Protists	1	1
19.2 Algae: Plantlike Protists	2	1
19.3 Slime Molds, Water Molds, and Downy Mildews	1	—
Chapter Assessment	1	1/2

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20 Fungi 20.1 What Is a Fungus? 20.2 The Diversity of Fungi Chapter Assessment	4 1 2 1	1 1/2 1 — 1/2
BioDigest Viruses, Bacteria, Protists, and Fungi	1/2	1/2
21 What Is a Plant? 21.1 Adapting to Life on Land 21.2 Survey of the Plant Kingdom Chapter Assessment	3 1 1 1	2 1 1/2 1/2
22 The Diversity of Plants 22.1 Nonvascular Plants 22.2 Non-Seed Vascular Plants 22.3 Seed Plants Chapter Assessment	4 1 1 1 1	1 1/2 — — 1 1/2
23 Plant Structure and Function 23.1 Plant Cells and Tissues 23.2 Roots, Stems, and Leaves 23.3 Plant Responses Chapter Assessment	4 1 1 1 1	2 1/2 1/2 1 1/2 1/2
24 Reproduction in Plants 24.1 Life Cycles of Mosses, Ferns, and Conifers 24.2 Flowers and Flowering 24.3 The Life Cycle of a Flowering Plant Chapter Assessment	4 1 1 1 1	1 1/2 — 1/2 1/2 1/2
BioDigest Plants	1/2	1
25 What Is an Animal? 25.1 Typical Animal Characteristics 25.2 Body Plans and Adaptations Chapter Assessment	3 1 1 1	2 1/2 1 1/2
26 Sponges, Cnidarians, Flatworms, and Roundworms 26.1 Sponges 26.2 Cnidarians 26.3 Flatworms 26.4 Roundworms Chapter Assessment	4 1/2 1 1 1/2 1	— — — — —
27 Mollusks and Segmented Worms 27.1 Mollusks 27.2 Segmented Worms Chapter Assessment	3 1 1 1	1 1/2 1/2 1/2 1/2
28 Arthropods 28.1 Characteristics of Arthropods 28.2 Diversity of Arthropods Chapter Assessment	3 1 1 1	1 1/2 1/2 1/2 1/2
29 Echinoderms and Invertebrate Chordates 29.1 Echinoderms 29.2 Invertebrate Chordates Chapter Assessment	3 1 1 1	1 1/2 — 1/2
BioDigest Invertebrates	1/2	2

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30 Fishes and Amphibians 30.1 Fishes 30.2 Amphibians Chapter Assessment	4 1 1/2 1 1/2 1	1 1/2 1/2 1/2 1/2
31 Reptiles and Birds 31.1 Reptiles 31.2 Birds Chapter Assessment	4 1 1/2 1 1/2 1	1 1/2 1/2 1/2 1/2
32 Mammals 32.1 Mammal Characteristics 32.2 Diversity of Mammals Chapter Assessment	4 1 2 1	1 1/2 1 — 1/2
33 Animal Behavior 33.1 Innate Behavior 33.2 Learned Behavior Chapter Assessment	3 1 1 1	— — — —
BioDigest Vertebrates	1/2	2
34 Protection, Support, and Locomotion 34.1 Skin: The Body's Protection 34.2 Bones: The Body's Support 34.3 Muscles for Locomotion Chapter Assessment	5 1 2 1 1	3 1/2 1 1 1/2
35 The Digestive and Endocrine Systems 35.1 Following Digestion of a Meal 35.2 Nutrition 35.3 The Endocrine System Chapter Assessment	4 1 1/2 1 1/2 1	2 1 — 1/2 1/2
36 The Nervous System 36.1 The Nervous System 36.2 The Senses 36.3 The Effects of Drugs Chapter Assessment	6 2 1 1 1	1 1/2 1 — — 1/2
37 Respiration, Circulation, and Excretion 37.1 The Respiratory System 37.2 The Circulatory System 37.3 The Urinary System Chapter Assessment	5 1 1/2 1 1/2 1 1	3 1 1 1/2 1/2
38 Reproduction and Development 38.1 Human Reproductive Systems 38.2 Development Before Birth 38.3 Birth, Growth, and Aging Chapter Assessment	6 2 2 1 1	3 1 1/2 1 — 1/2
39 Immunity from Disease 39.1 The Nature of Disease 39.2 Defense Against Infectious Diseases Chapter Assessment	4 1 2 1	— — — —
BioDigest The Human Body	1/2	3
Total sessions	180	90