
Honors Biology Syllabus

Unit 1: The Scientific Method

Class Note 1How to develop a Graph.
Lab # 1“Let’s Graph”
Class Note 2The Scientific Method
Lab # 2Scientific Method and
More
Lab # 3Metric Measurement Lab
Lab # 4Scientific Method - “Is it
My Pinto Bean?”

Unit 2: Chemistry

Class Note 3:Basic Chemistry
Worksheet 1Basic Chemistry
Lab # 5Using an Acid-Base
Indicator
Class Note 4:Chemistry in Biology
Worksheet 2Organic Chemistry
Lab # 6Macromolecules
(Dehydration Synthesis
and Hydrolysis)
Class Note 5Enzymes
Lab # 7Enzyme Concentration

Unit 3: The Cell

Class Note 6The Cell and its Parts
Lab # 8The Microscope
Worksheet 3The Cell and its Parts
Class Note 7Diffusion and Osmosis
Worksheet 4Osmosis and Diffusion
Class Note 8Cellular Respiration
Lab # 9Glycolysis Mapping
Worksheet 5Cellular Respiration

Unit 4: Nucleic Acids

Class Note 9Nucleic Acids
Worksheet 6DNA and RNA
Lab # 10DNA Modeling
Class Note 10Protein Synthesis
Lab # 11Protein Synthesis
Class Note 11DNA Technology
Lab # 12DNA Technology

Unit 5: Cell Reproduction

Class Note 12The Cell Cycle
Lab # 13Mitosis
Worksheet 7The Cell Cycle
Class Note 13Meiosis
Lab # 14Meiosis
Worksheet 8Meiosis

Unit 6: Basic Genetics

Class Note 14Mendel’s Genetics
Worksheet 9Basic Genetics
Lab # 15Chromosome Study –
Karyotyping
Lab # 16Pedigree Study

Unit 7: Principles of Biological Change

Class Note 15Theories on the Origin of
Life
Worksheet 10Theories on Origin of
Life
Class Note 16Biological Classification
(Taxonomy)
Worksheet 11Taxonomy
Lab # 17Laboratory Taxonomy
Lab # 18Grocery Store Taxonomy
Class Note 17Darwin and Natural
Selection
Lab # 19Natural Selection
Lab # 20Adaptation
Lab # 21Speciation “Aren’t All
Ants the Same?”

Unit 8: The Minor Kingdoms

Class Note 18The Virus
Worksheet 12The Virus
Class Note 19Bacteria
Worksheet 13Bacteria
Class Note 20Kingdom Protista
Lab # 22Protista

Worksheet 14Protista
Class Note 21The Kingdom Fungi
Worksheet 15Kingdom Fungi

Unit 9: The Animal Systems

Class Note 22Animal Kingdom
Class Note 23Circulation and
Respiration in an
Organism
Worksheet 16Circulation and
Respiration
Class Note 24Animal Digestion
Lab # 23Earthworm Dissection
Worksheet 17Animal Nutrition
Class Note 25Skeletal and
Muscular System
Worksheet 18Skeletal and Muscular
System
Lab # 24Clam Dissection
Class Note 26Nervous System
Worksheet 19Nervous System
Lab # 25Fish Dissection
Class Note 27Animal Reproduction
Worksheet 20Reproduction
Lab # 26My Egg is My Castle
Class Note 28Excretory System
/Immune System
Worksheet 21Excretory System
Worksheet 21B..Immune System
Lab # 27Frog Dissection

Unit 10: Plant Characteristics

Class Note 29General Plant
Characteristics
Worksheet 22General Plant
Characteristics
Class Note 30 ...Plant Tissues
Worksheet 23Plant Tissues

Unit 11: Plant Systems

Class Note 31Roots Form and Function
Lab # 28Root Lab
Worksheet 24Root of a Flowering Plant
Class Note 32Stem Form and Function
Worksheet 25Stem of a Flowering Plant
Class Note 33Photosynthesis

Lab # 29Plant Pigments
Worksheet 26Photosynthesis
Class Note 34Leaf of the
Flowering Plant
Lab # 30The Leaf
Worksheet 27Leaf of the
Flowering Plant
Lab # 31Is This Swiss cheese?
(Stomata)
Class Note 35Plant Reproduction
Lab # 32Flower Lab
Worksheet 28Flower of the
Flowering Plant
Lab # 33Pollination
Lab # 34Monocot – Dicot Seeds

Unit 12: Ecology

Class Note 36Introduction to Ecology
Class Note 37Aquatic Biomes
Worksheet 29Biomes (climatographs)
Class Note 38 ...Energy Flow and Nutrient
Cycles
Worksheet 30Energy Flow
Class Note 39Population Ecology
Worksheet 31Population Ecology