



Exploring Creation with Biology 2nd Edition



Video Instruction

Jump to Module: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [11](#) [12](#) [13](#) [14](#)
[15](#) [16](#)

Introduction to DVD



[Course Introduction \(1:40\)](#)



[Safety Message \(0:36\)](#)

Module 1: Biology: The Study Of Life



[Introduction \(0:56\)](#)



[What is Life? \(1:28\)](#)



[DNA and Life \(1:42\)](#)



[Energy Conversion and Life \(13:42\)](#)



[Sensing and Responding to Change \(0:49\)](#)



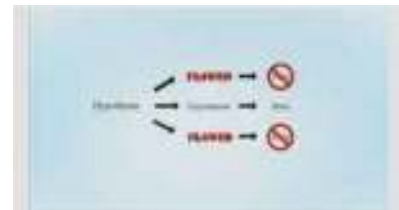
[All Life Forms Reproduce \(3:11\)](#)



[Life's Secret Ingredient \(3:06\)](#)



[The Scientific Method \(3:31\)](#)



[Limitations of the Scientific Method \(3:59\)](#)



[Spontaneous Generation: The Faithful Still Cling to It! \(2:41\)](#)



[Biological Classification \(3:47\)](#)



[Characteristics Used to Separate Organisms into Kingdoms \(5:21\)](#)



[The Definition of Species \(2:57\)](#)



[Biological Keys \(3:52\)](#)



[Experiment 1.1: Using a Biological Key \(11:43\)](#)



[Naming Organisms Based on Classification \(2:18\)](#)



[Alternate Forms of Taxonomy \(4:41\)](#)

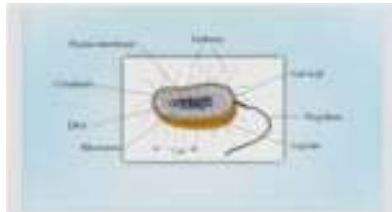


[The Microscope \(10:20\)](#)
Experiment 1.2: Introduction to the Microscope

Module 2: Kingdom Monera



[Introduction \(0:41\)](#)



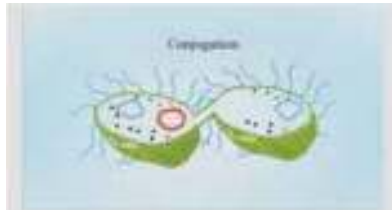
[Bacteria \(8:09\)](#)



[The Eating Habits of Bacteria \(5:36\)](#)



[Asexual Reproduction in Bacteria \(4:53\)](#)



[Genetic Recombination in Bacteria \(2:50\)](#)



[Transformation and Transduction \(1:26\)](#)



[Endospore Formation \(1:24\)](#)



[Bacterial Colonies \(3:34\)](#)



[Experiment 2.1: Pond Life, Part A \(4:13\)](#)



[Classification in Kingdom Monera \(3:05\)](#)



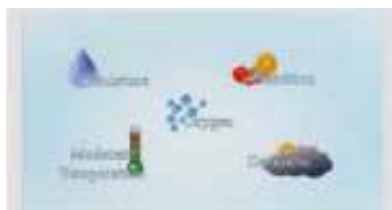
[Classes in Kingdom Monera \(4:13\)](#)



[A Few Words on Other Classification Systems \(1:29\)](#)



[Specific Bacteria \(5:19\)](#)



[Conditions for Bacterial Growth \(2:09\)](#)



[Preventing Bacterial Infections \(2:47\)](#)



[Experiment 2.2: Pond Life, Part B \(4:17\)](#)

Module 3: Kingdom Protista



[Introduction \(1:07\)](#)



[Experiment 3.1: Pond Life, Part C \(3:43\)](#)



[Classification in Kingdom Protista \(2:58\)](#)



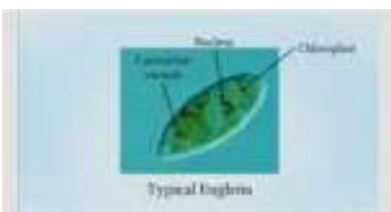
[Subkingdom Protozoa \(1:34\)](#)



[Phylum Sarcodina \(4:16\)](#)



[Other Sarcodines \(1:14\)](#)



[Phylum Mastigophora \(2:42\)](#)



[Other Mastigophorites \(5:03\)](#)



[Phylum Ciliophora \(3:27\)](#)



[Other Members of Phylum Ciliophora \(1:04\)](#)



[Phylum Sporozoa \(4:29\)](#)



[Experiment 3.2: Subkingdom Protozoa \(6:23\)](#)



[Subkingdom Algae \(4:03\)](#)



[Phylum Chlorophyta \(2:22\)](#)



[Phylum Chrysophyta \(3:02\)](#)



[Phylum Pyrrophyta \(2:09\)](#)



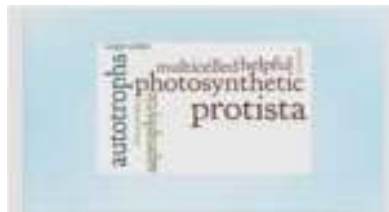
[Phylum Phaeophyta \(2:20\)](#)



[Phylum Rhodophyta \(0:49\)](#)



[Experiment 3.3: Subkingdom Algae \(2:26\)](#)



[Summing Up Kingdom Protista \(1:52\)](#)

Module 4: Kingdom Fungi



[Introduction \(1:19\)](#)



[General Characteristics of Fungi \(7:30\)](#)



[Reproduction in Kingdom Fungi \(2:02\)](#)



[Classification in Kingdom Fungi \(2:47\)](#)



[Phylum Basidiomycota \(5:09\)](#)



[Other Members of Phylum Basidiomycota \(3:43\)](#)



[Experiment 4.1: Phylum Basidiomycota \(3:42\)](#)



[Phylum Ascomycota \(0:34\)](#)



[Yeasts \(3:46\)](#)



[Experiment 4.2: Yeast and the Fermentation Process \(7:19\)](#)



[Other Members of Phylum Ascomycota \(2:05\)](#)



[Phylum Zygomycota \(1:47\)](#)



[Experiment 4.3: Molds \(5:17\)](#)



[Phylum Chytridiomycota \(1:05\)](#)



[Phylum Deuteromycota: The Imperfect Fungi \(3:37\)](#)



[Optional Experiment 4.4: Imperfect Fungi \(2:37\)](#)



[Phylum Myxomycota \(2:27\)](#)



[Symbiosis in Kingdom Fungi \(2:35\)](#)



[Summing Up Kingdom Fungi \(1:08\)](#)

Module 5: The Chemistry Of Life



[Introduction \(0:34\)](#)



[Atoms: The Basic Building Blocks of Matter \(5:58\)](#)



[Elements \(4:35\)](#)



[Molecules \(5:10\)](#)



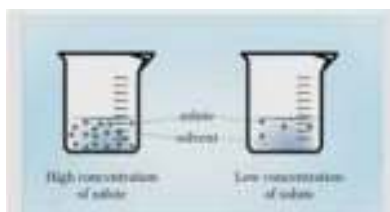
[Changes in Matter \(3:32\)](#)



[Physical Change, Part 1 \(2:38\)](#)



[Experiment 5.1: Diffusion \(1:47\)](#)



[Physical Change, Part 2 \(2:31\)](#)



[Experiment 5.2: Osmosis \(2:57\)](#)



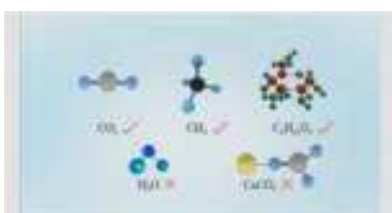
[Physical Change, Part 3 \(4:05\)](#)



[Chemical Change \(4:33\)](#)



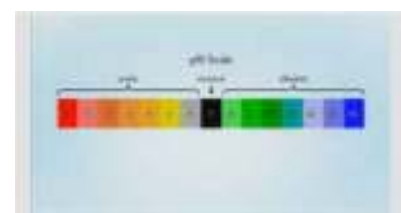
[Photosynthesis \(4:10\)](#)



[Organic Chemistry \(2:04\)](#)



[Carbohydrates \(9:17\)](#)



[Organic Acids and Bases \(2:33\)](#)



[Lipids \(3:57\)](#)



[Proteins and Enzymes \(5:02\)](#)



[Experiment 5.3: The Fragility of an Enzyme \(4:54\)](#)



[DNA \(4:18\)](#)

Module 6: The Cell



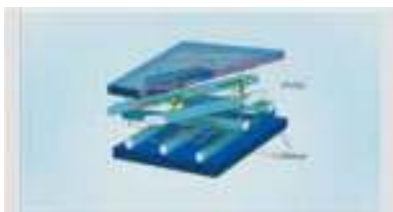
[Introduction \(1:05\)](#)



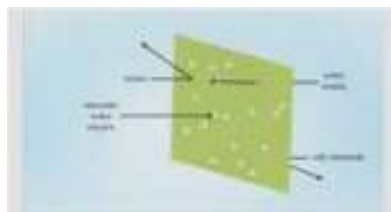
[Cellular Functions \(8:26\)](#)



[Cell Structure \(1:47\)](#)



[The Cell Wall \(2:09\)](#)



[The Plasma Membrane \(1:40\)](#)



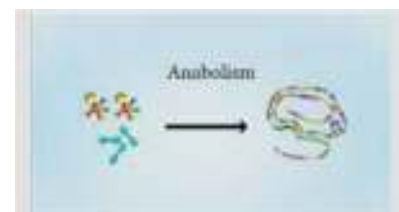
[The Cytoplasm \(2:17\)](#)



[The Mitochondrion \(0:41\)](#)



[The Lysosome \(1:57\)](#)



[Ribosomes \(0:47\)](#)



[The Endoplasmic Reticulum \(1:42\)](#)



[The Plastids \(1:30\)](#)



[Vacuoles and Vesicles \(3:25\)](#)



[Golgi Bodies \(1:42\)](#)



[Centrioles \(1:16\)](#)



[The Nucleus \(2:37\)](#)



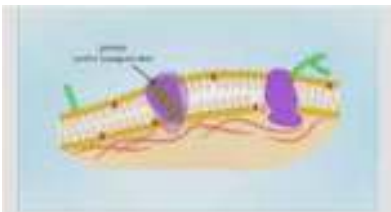
[The Cytoskeleton \(2:39\)](#)



[As If This Isn't Already Complicated Enough! \(0:52\)](#)



[Experiment 6.1: Cell Structure I \(5:26\)](#)



[How Substances Travel In and Out of Cells \(10:37\)](#)



[Experiment 6.2: Cell Structure II \(5:31\)](#)



[How Cells Get Their Energy \(13:03\)](#)



[ATP and ADP \(10:18\)](#)

Module 7: Cellular Reproduction And DNA



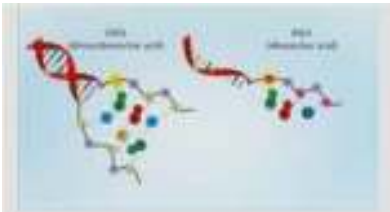
[Introduction \(2:03\)](#)



[Genes, Chromosomes, and DNA \(5:33\)](#)



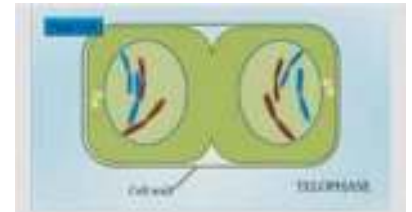
[Experiment 7.1: DNA Extraction \(5:27\)](#)



[Protein Synthesis – Part 1: Transcription \(5:36\)](#)



[Protein Synthesis – Part 2: Translation \(7:33\)](#)



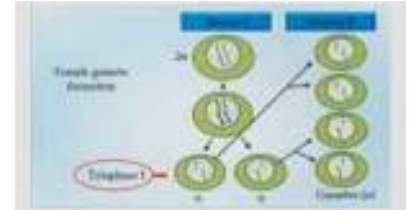
[Mitosis: Eukaryotic Asexual Reproduction \(10:28\)](#)



[Experiment 7.2: Mitosis \(2:33\)](#)



[Diploid and Haploid Cells \(4:53\)](#)



[Meiosis: The Cellular Basis of Sexual Reproduction \(12:32\)](#)



[Viruses \(7:09\)](#)

Module 8: Mendelian Genetics



[Introduction \(0:29\)](#)



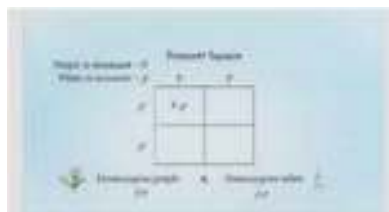
[Gregor Mendel \(2:55\)](#)



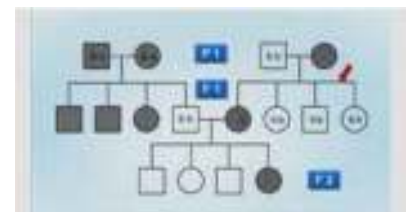
[Mendel's Experiments \(10:27\)](#)



[Updating the Terminology \(8:46\)](#)



[Punnett Squares \(8:23\)](#)



[Pedigrees \(9:10\)](#)



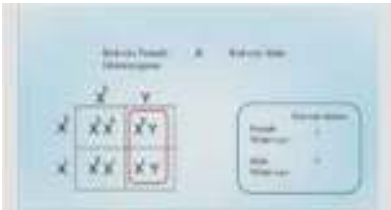
[Experiment 8.1: Making Your Own Earlobe Pedigree \(5:38\)](#)



[More Complex Crosses \(15:22\)](#)



["Experiment" 8.2: A Dihybrid Cross \(11:27\)](#)



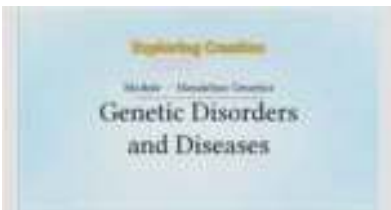
[Sex and Sex-linked Genetic Traits \(7:47\)](#)



["Experiment" 8.3: Sex-linked Genetic Traits \(6:10\)](#)



[A More Complete Understanding of Genetics \(8:49\)](#)



[Genetic Disorders and Diseases \(5:40\)](#)



[Experiment 8.4: Environmental Factors and their Effect on Radish Leaf Color \(6:09\)](#)

Module 9: Evolution: Part Scientific Theory, Part Unconfirmed Hypothesis



[Introduction \(1:27\)](#)



[Charles Darwin \(4:19\)](#)



[Darwin's Theory \(6:33\)](#)



[Microevolution and Macroevolution \(8:32\)](#)



[Inconclusive Evidence: The Geological Column \(9:07\)](#)



[The Details of the Fossil Record: Evidence Against Macroevolution \(13:10\)](#)



[The Cambrian Explosion \(4:49\)](#)



[Structural Homology: Formerly Evidence for Macroevolution, Now Evidence Against It \(4:09\)](#)



[Molecular Biology: The Nail in Macroevolution's Coffin \(6:12\)](#)



[Macroevolution Today \(10:12\)](#)



[Why Do So Many Scientists Believe in Macroevolution? \(2:59\)](#)

Module 10: Ecology



[Introduction \(5:13\)](#)



[Energy and Ecosystems \(7:18\)](#)



[Mutualism \(4:40\)](#)



[The Physical Environment \(2:02\)](#)



[The Water Cycle \(4:30\)](#)



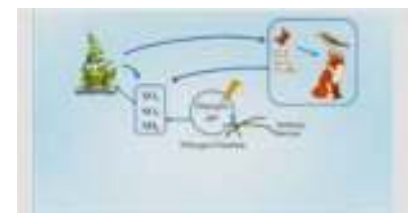
[The Oxygen Cycle \(3:07\)](#)



[The Carbon Cycle \(2:53\)](#)



[Experiment 10.1: Carbon Dioxide and the Greenhouse Effect \(11:58\)](#)



[The Nitrogen Cycle \(3:35\)](#)



[Summing Up \(1:01\)](#)

Module 11: The Invertebrates Of Kingdom Animalia



[Introduction \(1:42\)](#)



[Symmetry \(1:54\)](#)



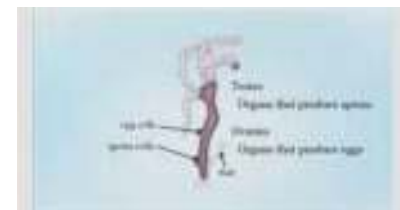
[Phylum Porifera: The Sponges \(5:37\)](#)



[Experiment 11.1: Observation of the Spicules of a Sponge \(3:48\)](#)



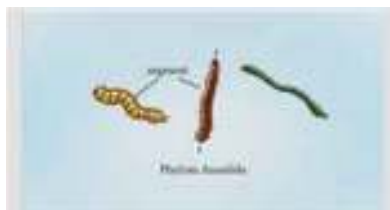
[Phylum Cnidaria \(3:27\)](#)



[Specific Members of Phylum Cnidaria \(2:31\)](#)



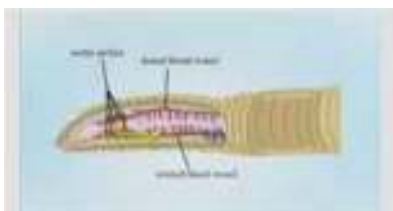
[Experiment 11.2: Observation of a Hydra \(6:09\)](#)



[Phylum Annelida \(2:14\)](#)



[Feeding Habits of the Earthworm \(2:37\)](#)



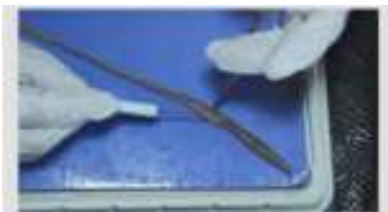
[The Respiratory and Circulatory Systems in an Earthworm \(3:27\)](#)



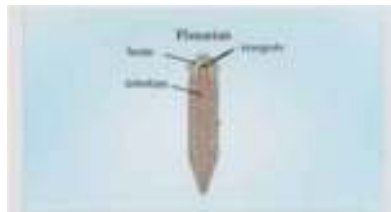
[The Earthworm's Reproductive System \(1:33\)](#)



[Other Segmented Worms \(1:37\)](#)



[Experiment 11.3: Earthworm Dissection \(12:45\)](#)



[Phylum Platyhelminthes: The Planarian \(2:09\)](#)



[Experiment 11.4: Observation of a Planarian \(2:02\)](#)



[Other Members of Phylum Platyhelminthes \(0:41\)](#)



[Phylum Nematoda \(3:41\)](#)



[Phylum Mollusca \(3:12\)](#)



[Summing Up the Invertebrates \(0:49\)](#)

Module 12: Phylum Arthropoda



[Introduction \(1:25\)](#)



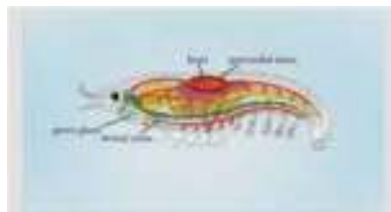
[General Characteristics of Arthropods \(7:38\)](#)



[Class Crustacea: The Crayfish \(2:24\)](#)



[The Crayfish's Respiratory System \(3:17\)](#)



[The Crayfish's Circulatory System \(4:16\)](#)



[The Crayfish's Digestive System \(1:06\)](#)



[The Crayfish's Nervous System \(2:32\)](#)



[The Crayfish's Reproductive System \(1:37\)](#)



[Other Crustaceans \(1:15\)](#)



[An Important Note \(0:36\)](#)



[Experiment 12.1: Crayfish Dissection \(15:31\)](#)



[Class Arachnida \(1:54\)](#)



[The Spider \(4:07\)](#)



[The Major Points of Interest in Spider Anatomy \(1:16\)](#)



[Class Chilopoda and Diplopoda \(1:32\)](#)



[Class Insecta \(2:23\)](#)



[The Basic Anatomy of an Insect \(0:21\)](#)



[Respiration and Circulation in Insects \(2:05\)](#)



[The Feeding Habits of Insects \(1:17\)](#)



[Reproduction and Development in Insects \(3:03\)](#)



[A Few Orders in Class Insecta \(10:32\)](#)



[Experiment 12.2: Insect Classification \(3:48\)](#)

Module 13: Phylum Chordata



[Introduction \(2:44\)](#)



[Subphylum Urochordata \(1:43\)](#)



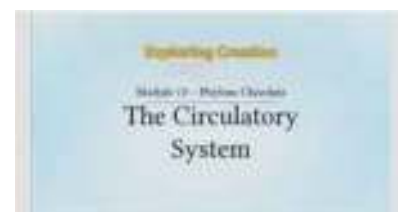
[Subphylum Cephalochordata \(1:11\)](#)



[Subphylum Vertebrata \(0:44\)](#)



[The Endoskeleton \(5:37\)](#)



[The Circulatory System \(3:02\)](#)



[The Nervous System \(5:09\)](#)



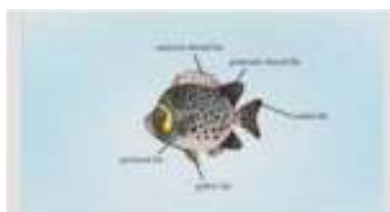
[Reproduction \(2:13\)](#)



[Class Agnatha \(2:57\)](#)



[Class Chondrichthyes \(7:57\)](#)



[Class Osteichthyes \(11:53\)](#)



[The Diversity of Class Osteichthyes \(4:42\)](#)



[Experiment 13.1: Perch Dissection \(15:37\)](#)



[Class Amphibia \(5:01\)](#)



[Specific Creatures in Class Amphibia \(1:06\)](#)



[Experiment 13.2: Frog Dissection \(6:39\)](#)



[Alternate Experiment for Module #13: Field Study II \(1:36\)](#)

Module 14: Kingdom Plantae: Anatomy And Classification



[Introduction \(1:14\)](#)



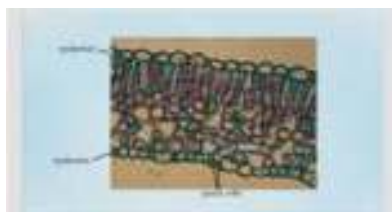
[Basic Plant Anatomy \(4:49\)](#)



[The Macroscopic Structure of a Leaf \(4:51\)](#)



[Experiment 14.1: Leaf Collection and Identification \(6:22\)](#)



[The Microscopic Structure of a Leaf \(5:00\)](#)



[Leaf Color \(1:59\)](#)



[Experiment 14.2: How Anthocyanins and pH Help Determine Leaf Color \(12:25\)](#)



[Roots \(5:30\)](#)



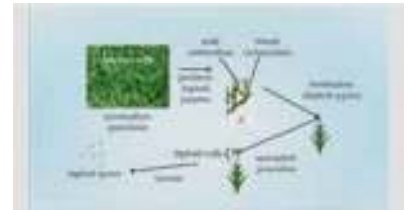
[Stems \(7:32\)](#)



[Experiment 14.3: Cross Section of Roots, Stems, and a Leaf \(7:16\)](#)



[Classification of Plants \(0:50\)](#)



[The Bryophytes \(5:30\)](#)



[Seedless Vascular Plants \(2:37\)](#)

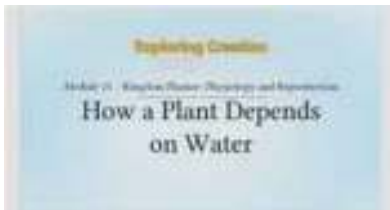


[Seed-Making Plants \(4:45\)](#)

Module 15: Kingdom Plantae: Physiology And Reproduction



[Introduction \(0:55\)](#)



[How a Plant Depends on Water \(4:54\)](#)



[Water Absorption in Plants \(2:30\)](#)



[Water Transport in Plants \(5:30\)](#)



[Plant Growth \(6:36\)](#)



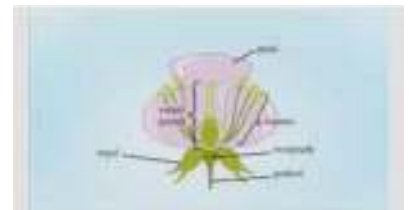
[Insectivorous Plants \(2:03\)](#)



[Reproduction in Plants \(0:38\)](#)



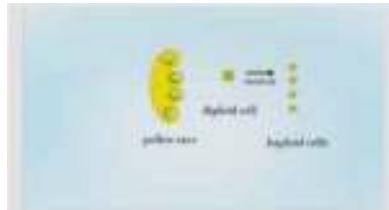
[Vegetative Reproduction \(3:51\)](#)



[Sexual Reproduction in Phylum Anthophyta \(4:16\)](#)



[Experiment 15.1: Flower Anatomy \(11:06\)](#)



[The Reproductive Process in Anthophytes, Part 1: Forming Pollen and Embryo Sacs \(3:19\)](#)



[The Reproductive Process in Anthophytes, Part 2: Pollination \(2:46\)](#)



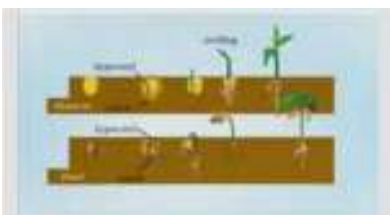
[The Reproduction Process in Anthophytes, Part 3: Fertilization \(2:41\)](#)



[Seeds and Fruits \(6:02\)](#)



[Experiment 15.2: Fruit Classification \(10:43\)](#)



[Germination and Early Growth \(2:34\)](#)

Module 16: Reptiles, Birds, And Mammals



[Introduction \(1:01\)](#)



[Class Reptilia \(6:11\)](#)



[Classification of Reptiles \(0:33\)](#)



[Order Rhynchocephalia \(1:49\)](#)



[Order Squamata \(0:47\)](#)



[Lizards \(3:51\)](#)



[Snakes \(6:12\)](#)



[Order Testudines \(1:28\)](#)



[Order Crocodilia \(1:37\)](#)



[Dinosaurs \(6:18\)](#)



[Class Aves \(2:55\)](#)



[Experiment 16.1: Bird Embryology \(5:46\)](#)



[A Bird's Ability to Fly \(8:00\)](#)



[Classification in Class Aves \(4:00\)](#)



[Experiment 16.2: Bird Identification \(1:35\)](#)



[Class Mammalia \(4:56\)](#)



[Classification in Class Mammalia \(10:37\)](#)



[Summing It All Up \(0:59\)](#)