

Texas Biology is specifically aligned with the Texas Essential Knowledge and Skills (TEKS) Biology Standards and Benchmarks. The course focuses on mastery of basic biological concepts and models while building scientific inquiry skills and exploring the connections between living things and their environment.

The course begins with an introduction to the nature of science and biology, including the major themes of structure and function, matter and energy, and the interconnectedness of life. Students then apply those themes to the structure and function of the cell, cellular metabolism, and biogeochemical cycles. Building on this foundation, students explore the connections and interactions between living things by studying genetics, ecosystems and natural selection, and evolution. The course ends with an applied look at human biology.

Scientific inquiry skills are embedded in the direct instruction, wherein students learn to ask scientific questions, form and test hypotheses, and use logic and evidence to draw conclusions about the concepts.

Lab activities reinforce critical thinking, writing, and communication skills and help students develop a deeper understanding of the nature of science.

The content is specifically aligned with the TEKS Biology Standards and Benchmarks.

Length: Two Semesters

UNIT 1: INTRODUCTION TO BIOLOGY

LESSON 1: BIOLOGY AS SCIENCE

Study: The Nature of Science

Learn about what a scientist does, and what is and is not science.

Duration: 0 hr 40 min

Scoring: 0 points

Quiz: The Nature of Science

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring:

20 points

Study: The Scientific Process

Learn about the scientific process and the scientific method.

Duration: 0 hr 40 min
Scoring: 0 points

Quiz: The Scientific Process

Take a quiz to assess your understanding of the material.
Duration: 0 hr 20 min Scoring:
20 points

Study: Laboratory Safety

Learn how to recognize and avoid common laboratory hazards and interpret safety symbols.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Laboratory Safety

Take a quiz to assess your understanding of the material.
Duration: 0 hr 20 min Scoring: 20
points

Journal: What Is a Biologist

Reflect on what it means to be a biologist and what type of questions biologists answer.

Duration: 0 hr 40 min Scoring: 20 points

LESSON 2: CONNECTIONS IN BIOLOGY

Study: Themes in Biology

Learn about the themes that connect all of biology.
Duration: 0 hr 40 min Scoring: 0 points

Quiz: Themes in Biology

Take a quiz to assess your understanding of the material.
Duration: 0 hr 20 min Scoring: 20
points

Study: Science, Society, and Technology

Learn about the connection between science and society.
Duration: 0 hr 40
min Scoring: 0 points

Quiz: Science, Society, and Technology

Take a quiz to assess your understanding of the material.
Duration: 0 hr 20
min Scoring: 20 points

Study: Evaluating Scientific Claims

Learn about the process of scientific inquiry.
Duration: 0 hr 40 min Scoring: 0

points

Quiz: Evaluating Scientific Claims

Take a quiz to assess your understanding of the material.

Duration: 0 hr Scoring: 0

points

Practice: Themes in Biology

Practice problem-solving skills related to concepts in the lesson.

Duration: 1 hr Scoring: 25

points

LESSON 3: DOING SCIENCE: INTRODUCTION TO BIOLOGY

Study: Making a Rip-O-Meter

Learn about the process of scientific inquiry.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Making a Rip-O-Meter

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20

points

Lab: Making a Rip-O-Meter

Use the scientific method to perform a lab experiment

Duration: 1 hr 30 min Scoring: 50

points

Discuss: Making a Rip-O-Meter

Discuss the results of your lab.

Duration: 0 hr 20 min Scoring: 15 points

LESSON 4: INTRODUCTION TO BIOLOGY WRAP-UP

Review: Unit Review

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hr 30 min Scoring: 0

points

Test (CS): Computer-Scored Unit Test

Take a computer-scored test to assess what you have learned in this unit.

Duration: 1 hr Scoring: 50 points

Test (TS): Teacher-Scored Unit Test

Take a teacher-scored test to assess what you have learned in this unit.

Duration:

1 hr Scoring: 50 points

LESSON 5: DIAGNOSTIC

Diagnostic: Introduction to Biology

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 1 hr Scoring: 25 points

UNIT 2: THE CHEMISTRY OF BIOLOGY

LESSON 1: CHEMISTRY OF LIFE

Study: Common Elements in Living Things

Learn about the structure of an atom, and the six main elements living things are made from.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Common Elements in Living Things

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20

min Scoring: 20 points

Study: Chemical Reactions and Bonding

Learn about covalent and ionic bonds. Learn the principles of the chemical reactions that occur in living things.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Chemical Reactions and Bonding

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20

min Scoring: 20 points

Journal: Chemistry in Biology

Reflect on the role of chemistry in the study of biology

Duration: 0 hr 40 min Scoring: 20

points

LESSON 2: CARBOHYDRATES, LIPIDS, AND NUCLEIC ACIDS

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Study: Carbohydrates

Learn about the structure and function of carbohydrate molecules.

Duration: 0 hr 40 min Scoring:

0 points

Quiz: Carbohydrates

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Study: Nucleic Acids and Lipids

Learn about the structure and function of DNA, RNA, and lipids.

Duration: 0 hr 40 min

Scoring: 0 points

Quiz: Nucleic Acids and Lipids

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min

Scoring: 20 points

LESSON 3: PROTEINS, ENZYMES, AND WATER**Study: Proteins and Enzymes**

Learn about the structure and function of protein molecules and enzymes

Duration: 0 hr

40 min Scoring: 0 points

Quiz: Proteins and Enzymes

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring:

20 points

Study: Water

Learn about the importance of water in living organisms, including the processes of hydrolysis, dehydration, and osmosis.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Water

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Practice: Proteins, Enzymes and Water

Practice problem-solving skills related to concepts in the lesson.

Duration: 1 hr

Scoring: 25 points

Explore: Trans Fats

Explore the topic of trans-fats in foods and their impact on the human body

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*Duration: 1 hr Scoring:
25 points*

LESSON 4: DOING SCIENCE: THE CHEMISTRY OF BIOLOGY

Study: Way to Go, Indigo

Learn about the different types of science and how scientific experiments are designed.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Way to Go, Indigo

Take a quiz to assess your understanding of the material.

*Duration: 0 hr 20 min Scoring: 20
points*

Lab: Way to Go, Indigo

Perform a lab to observe the effects of enzymes

Duration: 1 hr 30 min Scoring: 50 points

Discuss: Way to Go, Indigo

Discuss the results of your lab.

Duration: 0 hr 20 min Scoring: 15 points

LESSON 5: THE CHEMISTRY OF BIOLOGY WRAP-UP

Review: Unit Review

Prepare for the unit test by reviewing key concepts and skills.

*Duration: 0 hr 30 min Scoring: 0
points*

Test (CS): Computer-Scored Unit Test

Take a computer-scored test to assess what you have learned in this unit.

Duration: 1 hr Scoring: 50 points

Test (TS): Teacher-Scored Unit Test

Take a teacher-scored test to assess what you have learned in this unit.

*Duration:
1 hr Scoring: 50 points*

LESSON 6: DIAGNOSTIC

Diagnostic: The Chemistry of Biology

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 1 hr Scoring: 25 points

UNIT 3: CELLS

LESSON 1: CELL STRUCTURE

Study: General Structure of the Cell

Learn about the basic structure and function of cells.

Duration: 0 hr 40 min

Scoring: 0 points

Quiz: General Structure of the Cell

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min

Scoring: 20 points

Study: Detailed Structure of the Cell

Learn about the functions of cellular organelles.

Duration: 0 hr 40 min Scoring: 0

points

Quiz: Detailed Structure of the Cell

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min

Scoring: 20 points

Journal: Chloroplasts

Reflect on the structure and function of chloroplasts in plant cells

Duration: 0 hr 40 min Scoring:

20 points

LESSON 2: CELL MEMBRANE

Study: Cell Membrane Structure

Learn about the structure of the cell membrane.

Duration: 0 hr 40 min Scoring: 0

points

Quiz: Cell Membrane Structure

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min

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Scoring: 20 points

Study: Cellular Transport

Learn about the different ways that substances move in and out of cells

Duration: 0 hr 40 min

Scoring: 0 points

Quiz: Cellular Transport

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20

points

LESSON 3: CELL DIFFERENTIATION

Study: Specialized Cells and Tissues

Learn about how specialized cells in plants and animals perform many different functions

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Specialized Cells and Tissues

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min

Scoring: 20 points

Study: Cell Differentiation and Stem Cells

Learn about how cells in the body differentiate from stem cells and the controversies surrounding the use of stem cells in research.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Cell Differentiation and Stem Cells

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20

min Scoring: 20 points

Practice: Cell Differentiation

Practice problem-solving skills related to concepts in the lesson.

Duration: 1 hr Scoring: 25

points

LESSON 4: DOING SCIENCE: CELLS

Study: Design a Cell

Learn about the size of cells and how they can be observed

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Design a Cell

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Lab: Design a Cell

Perform a lab to observe how cell shape affects diffusion

Duration: 1 hr 30 min Scoring: 50 points

Discuss: Design a Cell

Discuss the results of your lab.

Duration: 0 hr 20 min Scoring: 15 points

LESSON 5: CELLS WRAP-UP**Review: Unit Review**

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hr 30 min Scoring: 0 points

Test (CS): Computer-Scored Unit Test

Take a computer-scored test to assess what you have learned in this unit.

Duration: 1 hr Scoring: 50 points

Test (TS): Teacher-Scored Unit Test

Take a teacher-scored test to assess what you have learned in this unit.

Duration: 1 hr Scoring: 50 points

LESSON 6: DIAGNOSTIC**Diagnostic: Cells**

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 1 hr Scoring: 25 points

UNIT 4: ENERGY TRANSFER

LESSON 1: PHOTOSYNTHESIS**Study: Photosynthesis Introduction**

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Learn about the main principles of photosynthesis.

Duration: 0 hr 40 min Scoring:

0 points

Quiz: Photosynthesis Introduction

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min

Scoring: 20 points

Study: Process of Photosynthesis

Learn about the chemical reactions of photosynthesis.

Duration: 0 hr 40 min

Scoring: 0 points

Quiz: Process of Photosynthesis

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min

Scoring: 20 points

Journal: Your Sources of Oxygen

Reflect on different global sources of oxygen

Duration: 0 hr 40 min Scoring: 20 points

LESSON 2: CELLULAR RESPIRATION

Study: Respiration Introduction

Learn about how living things use respiration to get cellular energy

Duration: 0 hr 40

min Scoring: 0 points

Quiz: Respiration Introduction

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring:

20 points

Study: Process of Respiration

Learn about the chemical reactions of respiration and compare the reactions of respiration and photosynthesis.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Process of Respiration

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring:

20 points

LESSON 3: MATTER AND ENERGY

Study: Relationships in an Ecosystem

Learn about the types of relationships between organisms in an ecosystem.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Relationships in an Ecosystem

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min

Scoring: 20 points

Study: Energy in the Food Web

Learn about how energy flows through ecosystems in complex food webs

Duration: 0

hr 40 min Scoring: 0 points

Quiz: Energy in the Food Web

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring:

20 points

Practice: Matter and Energy

Practice problem-solving skills related to concepts in the lesson.

Duration: 1 hr Scoring: 25

points

LESSON 4: DOING SCIENCE: ENERGY TRANSFER

Study: A Twist on Fermentation

Learn about writing predictions, reading graphs and analyzing variables in lab experiments.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: A Twist on Fermentation

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring:

20 points

Lab: A Twist on Fermentation

Perform a lab to observe how sugar availability affects fermentation

Duration: 1 hr 30 min

Scoring: 50 points

Discuss: A Twist on Fermentation

Discuss the results of your lab.

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Duration: 0 hr 20 min Scoring: 15 points

LESSON 5: ENERGY TRANSFER WRAP-UP

Review: Unit Review

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hr 30 min Scoring: 0 points

Test (CS): Computer-Scored Unit Test

Take a computer-scored test to assess what you have learned in this unit.

Duration: 1 hr Scoring: 50 points

Test (TS): Teacher-Scored Unit Test

Take a teacher-scored test to assess what you have learned in this unit.

Duration:
1 hr Scoring: 50 points

LESSON 6: DIAGNOSTIC

Diagnostic: Energy Transfer

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 1 hr Scoring: 25 points

UNIT 5: EARTH'S RESOURCES

LESSON 1: BIOGEOCHEMICAL CYCLES

Study: Water and Oxygen Cycles

Learn about the cycles of water and oxygen in the atmosphere and the importance of these to the preservation of life.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Water and Oxygen Cycles

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min
Scoring: 20 points

Study: Carbon and Nitrogen Cycles

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Learn about how carbon and nitrogen cycle through living things and the earth

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Carbon and Nitrogen Cycles

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min

Scoring: 20 points

Journal: Your Contribution

Reflect on how using coal for energy impacts the carbon cycle

Duration: 0 hr 40 min

Scoring: 20 points

Explore: Glaciers and Carbon Dioxide

Investigate more about glaciers and the water cycle

Duration: 1 hr Scoring: 25

points

LESSON 2: A CHANGING EARTH

Study: Climate Change

Learn about the growing problem of climate change.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Climate Change

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20

points

Study: Human Population

Learn about how the growing human population is impacting the earth

Duration: 0 hr 40 min

Scoring: 0 points

Quiz: Human Population

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20

points

LESSON 3: SOLUTIONS FOR THE FUTURE

Study: Sustaining Resources

Learn about how science can impact the use of resources and waste management

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Duration: 0 hr 40 min Scoring: 0 points

Quiz: Sustaining Resources

Take a quiz to assess your understanding of the material.

*Duration: 0 hr 20 min Scoring:
20 points*

Study: Alternative Energy

Learn about the different types of alternative energy

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Alternative Energy

Take a quiz to assess your understanding of the material.

*Duration: 0 hr 20 min Scoring: 20
points*

Practice: Solutions for the Future

Practice problem-solving skills related to concepts in the lesson.

*Duration: 1 hr
Scoring: 25 points*

LESSON 4: DOING SCIENCE: EARTH'S RESOURCES

Study: Can Lake Life Remain Despite Acid Rain?

Learn about pH acids and bases

*Duration: 0 hr 40 min Scoring: 0
points*

Quiz: Can Lake Life Remain Despite Acid Rain?

Take a quiz to assess your understanding of the material.

*Duration: 0
hr 20 min Scoring: 20 points*

Lab: Can Lake Life Remain Despite Acid Rain?

Perform a lab to observe the impacts of acid rain on the environment

Duration: 1 hr 30 min Scoring: 50 points

Discuss: Can Lake Life Remain Despite Acid Rain?

Discuss the results of your lab.

*Duration: 0 hr 20 min Scoring: 15
points*

LESSON 5: EARTH'S RESOURCES WRAP-UP

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Review: Unit Review

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hr 30 min Scoring: 0 points

Test (CS): Computer-Scored Unit Test

Take a computer-scored test to assess what you have learned in this unit.

Duration: 1 hr Scoring: 50 points

Test (TS): Teacher-Scored Unit Test

Take a teacher-scored test to assess what you have learned in this unit.

*Duration:
1 hr Scoring: 50 points*

LESSON 6: DIAGNOSTIC**Diagnostic: Earth's Resources**

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 1 hr Scoring: 25 points

UNIT 6: BIOLOGY SEMESTER 1 REVIEW AND EXAM

LESSON 1: BIOLOGY SEMESTER 1**Review: Biology Semester 1**

Prepare for the semester exam by reviewing key concepts covered in this semester.

Duration: 1 hr Scoring: 0 points

Exam: Biology Semester 1

Take a computer-scored exam to demonstrate your mastery of concepts and skills covered in this semester.

Duration: 1 hr Scoring: 100 points

Final Exam: Biology Semester 1

Take a teacher-scored exam to demonstrate your mastery of concepts and skills covered in this semester.

Duration: 1 hr Scoring: 100 points

UNIT 7: STAAR DIAGNOSTIC ASSESSMENT

LESSON 1: STAAR DIAGNOSTIC ASSESSMENT

Diagnostic: STAAR Diagnostic Assessment

Take a diagnostic test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points

UNIT 8: DNA AND HEREDITY

LESSON 1: THE CODE OF LIFE

Study: Organization of DNA

Learn about the organization of DNA into alleles, genes, and chromosomes.

Duration: 0 hr

40 min Scoring: 0 points

Quiz: Organization of DNA

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20

points

Study: Mitosis

Learn about the process of mitosis.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Mitosis

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Journal: Your Traits

Reflect on the uniqueness of human traits.

Duration: 0 hr 40 min Scoring: 20 points

LESSON 2: PASSING ON TRAITS

Study: Meiosis

Learn about the process of meiosis.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Meiosis

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Study: Principles of Heredity

Learn about the principles of heredity and the importance of genetics to organisms.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Principles of Heredity

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

LESSON 3: MENDELIAN GENETICS**Study: Basics of Mendelian Genetics**

Learn about the history and principles of Mendelian genetics.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Basics of Mendelian Genetics

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Study: Predicting Genetic Outcomes

Learn how to predict genetic outcomes. Learn how to use Punnett squares.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Predicting Genetic Outcomes

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Practice: DNA and Heredity

Practice problem-solving skills related to concepts in the lesson.

Duration: 1 hr Scoring: 25 points

LESSON 4: DOING SCIENCE: DNA AND HEREDITY**Study: The Right Prescription for Bacteria**

Learn about bacteria.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: The Right Prescription for Bacteria

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20

min Scoring: 20 points

Lab: The Right Prescription for Bacteria

Perform a lab about the effect of antibiotics on bacteria

Duration: 1 hr 30 min

Scoring: 50 points

Discuss: The Right Prescription for Bacteria

Discuss the results of your lab.

Duration: 0 hr 20 min Scoring: 15 points

LESSON 5: DNA AND HEREDITY WRAP-UP

Review: Unit Review

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hr 30 min Scoring: 0

points

Test (CS): Computer-Scored Unit Test

Take a computer-scored test to assess what you have learned in this unit.

Duration: 1 hr Scoring: 50 points

Test (TS): Teacher-Scored Unit Test

Take a teacher-scored test to assess what you have learned in this unit.

Duration:

1 hr Scoring: 50 points

LESSON 6: DIAGNOSTIC

Diagnostic: DNA and Heredity

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 1 hr Scoring: 25 points

UNIT 9: DNA TO PROTEIN

LESSON 1: STRUCTURE OF GENETIC MATERIAL

Study: DNA Replication

Learn about the structure of DNA. Learn about the process of DNA replication.

Duration: 0 hr

40 min Scoring: 0 points

Quiz: DNA Replication

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20

points

Study: Viruses and Bacteria

Learn about the structure of viruses and bacteria, how they obtain food and reproduce, and their significance to ecosystems.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Viruses and Bacteria

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20

points

Journal: Nucleic Acids

Reflect on how many scientists contributed to the discovery of the structure of DNA

Duration: 0

hr 40 min Scoring: 20 points

Explore: Diversity in Science

Investigate more about the contributions of different scientists

Duration: 1 hr Scoring: 25

points

LESSON 2: FROM DNA TO PROTEIN**Study: Transcription**

Learn about how DNA is read to make mRNA in the process of transcription

Duration: 0 hr 40 min

Scoring: 0 points

Quiz: Transcription

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Study: Translation

Learn about mRNA is used to build molecules of protein

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Translation

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

LESSON 3: CHANGES TO DNA

Study: Genetic Mutations

Learn how genetic mutations occur, the effect of mutations, and different types of mutations.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Genetic Mutations

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Study: DNA Technology

Learn about technologies related to DNA, their significance, and the ethical and societal issues related to them.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: DNA Technology

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Practice: DNA to Protein

Practice problem-solving skills related to concepts in the lesson.

Duration: 1 hr Scoring: 25 points

LESSON 4: DOING SCIENCE: DNA TO PROTEIN

Study: Radical Radishes

Learn about methods to study DNA.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Radical Radishes

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Lab: Radical Radishes

Perform a lab to test how radiation affects the germination of radish seedlings.

Duration: 1 hr 30 min Scoring: 50 points

Discuss: Radical Radishes

Discuss the results of your lab.

Duration: 0 hr 20 min Scoring: 15 points

LESSON 5: DNA TO PROTEIN WRAP-UP**Review: Unit Review**

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hr 30 min Scoring: 0 points

Test (CS): Computer-Scored Unit Test

Take a computer-scored test to assess what you have learned in this unit.

Duration: 1 hr Scoring: 50 points

Test (TS): Teacher-Scored Unit Test

Take a teacher-scored test to assess what you have learned in this unit.

Duration: 1 hr Scoring: 50 points

LESSON 6: DIAGNOSTIC**Diagnostic: DNA to Protein**

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 1 hr Scoring: 25 points

UNIT 10: ECOSYSTEMS AND NATURAL SELECTION

LESSON 1: ECOSYSTEMS**Study: Ecosystems and Biomes**

Learn about what makes up an ecosystem and about different types of ecosystems.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Ecosystems and Biomes

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Study: Stability and Change in an Ecosystem

Learn how an ecosystem responds to change.

Duration: 0 hr 40 min

Scoring: 0 points

Quiz: Stability and Change in an Ecosystem

Take a quiz to assess your understanding of the material.

Duration: 0 hr

20 min Scoring: 20 points

Journal: Your Ecosystem

Reflect on the qualities of the ecosystem you live in

Duration: 0 hr 40 min Scoring: 20 points

LESSON 2: POPULATIONS**Study: Population Structure**

Learn about factors that affect populations.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Population Structure

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20

points

Study: Population Dynamics

Learn about how genes are passed through populations.

Duration: 0 hr 40 min Scoring: 0

points

Quiz: Population Dynamics

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20

points

LESSON 3: ADAPTATION AND NATURAL SELECTION**Study: Variation and Adaptation**

Learn how species vary geographically and over time and how they adapt to their habitats.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Variation and Adaptation

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min
Scoring: 20 points

Study: Natural Selection

Learn how and why natural selection occurs, what affects natural selection, and what is and is not natural selection.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Natural Selection

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Practice: Adaptation and Natural Selection

Practice problem-solving skills related to concepts in the lesson.

Duration:

1 hr Scoring: 25 points

LESSON 4: DOING SCIENCE: ECOSYSTEMS AND NATURAL SELECTION

Study: Birds on an Island

Learn about using simulations models and other experimental techniques

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Birds on an Island

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Lab: Birds on an Island

Perform a lab to observe how the frequency of traits in a population changes over time

Duration: 1 hr 30 min Scoring: 50 points

Discuss: Birds on an Island

Discuss the results of your lab.

Duration: 0 hr 20 min Scoring: 15 points

LESSON 5: ECOSYSTEMS AND NATURAL SELECTION WRAP-UP

Review: Unit Review

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hr 30 min Scoring: 0

points

Test (CS): Computer-Scored Unit Test

Take a computer-scored test to assess what you have learned in this unit.

Duration: 1 hr Scoring: 50 points

Test (TS): Teacher-Scored Unit Test

Take a teacher-scored test to assess what you have learned in this unit.

Duration:

1 hr Scoring: 50 points

LESSON 6: DIAGNOSTIC

Diagnostic: Ecosystems and Natural Selection

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 1 hr Scoring: 25 points

UNIT 11: EVOLUTION AND CLASSIFICATION

LESSON 1: EVOLUTION

Study: Mechanism for Evolution

Learn about the process of evolution and the history of the theory of evolution.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Mechanism for Evolution

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min

Scoring: 20 points

Study: Evidence for Evolution

Learn about the fossil record and the implications for evolutionary thought.

Duration: 0 hr

40 min Scoring: 0 points

Quiz: Evidence for Evolution

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring:

20 points

Journal: Theories and Laws

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Reflect on the different of theories, hypotheses and laws
Duration: 0 hr 40 min Scoring: 20 points

LESSON 2: CLASSIFICATION

Study: Speciation

Learn what defines a living thing.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Speciation

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Study: Methods for Classification

Learn about the taxonomic systems for classifying organisms.

Duration: 0 hr 40 min

Scoring: 0 points

Quiz: Methods for Classification

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min

Scoring: 20 points

LESSON 3: DIVERSITY OF LIFE

Study: Life on Earth

Learn about microorganisms and fungi.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Life on Earth

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20 points

Study: Plants and Animals

Learn about plant and animal structure and function.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Plants and Animals

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20

points

Practice: Diversity of Life

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Practice problem-solving skills related to concepts in the lesson.

Duration: 1 hr Scoring: 25

points

LESSON 4: DOING SCIENCE: EVOLUTION AND CLASSIFICATION

Study: Bones, Feathers, and Fur

Learn about the scientific process of classifying living things.

Duration: 0 hr 40 min

Scoring: 0 points

Quiz: Bones, Feathers, and Fur

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min

Scoring: 20 points

Lab: Bones, Feathers, and Fur

Perform a lab to observe some characteristics of two classes of vertebrates.

Duration: 1

hr 30 min Scoring: 50 points

Discuss: Bones, Feathers, and Fur

Discuss the results of your lab.

Duration: 0 hr 20 min Scoring: 15 points

LESSON 5: EVOLUTION AND CLASSIFICATION WRAP-UP

Review: Unit Review

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hr 30 min Scoring: 0

points

Test (CS): Computer-Scored Unit Test

Take a computer-scored test to assess what you have learned in this unit.

Duration: 1 hr Scoring: 50 points

Test (TS): Teacher-Scored Unit Test

Take a teacher-scored test to assess what you have learned in this unit.

Duration:

1 hr Scoring: 50 points

LESSON 6: DIAGNOSTIC

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Diagnostic: Evolution and Classification

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 1 hr Scoring: 25 points

UNIT 12: HUMAN BIOLOGY

LESSON 1: STRUCTURE OF THE BODY

Study: The Nervous System

Learn about tissues and the muscular and skeletal systems.

*Duration: 0 hr 40 min Scoring:
0 points*

Quiz: The Nervous System

Take a quiz to assess your understanding of the material.

*Duration: 0 hr 20 min Scoring: 20
points*

Study: Respiration and Circulation

Learn about respiration and circulation.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Respiration and Circulation

Take a quiz to assess your understanding of the material.

*Duration: 0 hr 20 min
Scoring: 20 points*

Study: Bones and Muscles

Learn about bones and muscles.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Bones and Muscles

Take a quiz to assess your understanding of the material.

*Duration: 0 hr 20 min Scoring: 20
points*

Journal: Diet and Your Body

Reflect on how understanding biology helps you care for your body

*Duration: 0 hr 40 min
Scoring: 20 points*

LESSON 2: FUEL, DEFENSE, AND SIGNALING

Study: Digestive and Excretory Systems

Learn about the digestive and excretory systems.

Duration: 0 hr 40 min

Scoring: 0 points

Quiz: Digestive and Excretory Systems

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20

min Scoring: 20 points

Study: The Immune System

Learn about the immune system.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: The Immune System

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20

points

Study: The Endocrine System

Learn about the endocrine system.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: The Endocrine System

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring:

20 points

LESSON 3: REPRODUCTION AND DEVELOPMENT**Study: Males and Females**

Learn about males and females.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Males and Females

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20

points

Study: Fertilization and Development

Learn about fertilization and development.

Duration: 0 hr 40 min Scoring: 0

points

Quiz: Fertilization and Development

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min

Scoring: 20 points

Practice: Reproduction and Development

Practice problem-solving skills related to concepts in the lesson.

Duration: 1

hr Scoring: 25 points

Explore: Pollution and Brain Development

Investigate the relationship between pollution and brain defects

Duration: 1

hr Scoring: 25 points

LESSON 4: DOING SCIENCE: HUMAN BIOLOGY

Study: Breaking Down Fat

Learn about how the human body metabolizes lipids.

Duration: 0 hr 40 min Scoring: 0 points

Quiz: Breaking Down Fat

Take a quiz to assess your understanding of the material.

Duration: 0 hr 20 min Scoring: 20

points

Lab: Breaking Down Fat

Perform a lab to explore the breakdown of fat during digestion

Duration: 1 hr 30 min Scoring:

50 points

Discuss: Breaking Down Fat

Discuss the results of your lab.

Duration: 0 hr 20 min Scoring: 15 points

LESSON 5: HUMAN BIOLOGY WRAP-UP

Review: Unit Review

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hr 30 min Scoring: 0

points

Test (CS): Computer-Scored Unit Test

Take a computer-scored test to assess what you have learned in this unit.

Duration: 1 hr Scoring: 50 points

Test (TS): Teacher-Scored Unit Test

Take a teacher-scored test to assess what you have learned in this unit.

Duration:

1 hr Scoring: 50 points

LESSON 6: DIAGNOSTIC

Diagnostic: Human Biology

Take a diagnostic unit test that will generate a study plan based on your responses.

Duration: 1 hr Scoring: 25 points

UNIT 13: BIOLOGY SEMESTER 2 REVIEW AND EXAM

LESSON 1: BIOLOGY SEMESTER 2

Review: Biology Semester 2

Prepare for the semester exam by reviewing key concepts covered in this semester.

Duration: 1 hr Scoring: 0 points

Exam: Biology Semester 2

Take a computer-scored exam to demonstrate your mastery of concepts and skills covered in this semester.

Duration: 1 hr Scoring: 100 points

Final Exam: Biology Semester 2

Take a teacher-scored exam to demonstrate your mastery of concepts and skills covered in this semester.

Duration: 1 hr Scoring: 100 points

UNIT 14: STAAR DIAGNOSTIC ASSESSMENT

LESSON 1: STAAR DIAGNOSTIC ASSESSMENT

Diagnostic: STAAR Diagnostic Assessment

Take a diagnostic test that will generate a study plan based on your responses.

Duration: 0 hr 30 min Scoring: 30 points
