



Biology Syllabus

Course Description

Biology is a laboratory-based course that explores the structures, processes, and systems of living organisms. Students will investigate cell functions, genetics, evolution, ecological relationships, and biological systems. Emphasis is placed on scientific inquiry, real-world application, and STAAR Biology readiness.

Curriculum Overview

Quarter	Unit	Topic	Guiding Question	Standards
Q1	Unit 1	Cells & Cellular Processes	How do cells function and reproduce?	B.5A–D
Q2	Unit 2	Cell Growth & Differentiation	How do cells grow and differentiate?	B.6A–C
Q2	Unit 3	Nucleic Acid & Gene Expression	What is the role of nucleic acid in gene expression and inheritance?	B.7A–D
Q2	Unit 4	Inheritance	How do variations develop in genetics?	B.8A–B
Q2	Unit 5	Speciation & Common Ancestry	What evidence supports common ancestry?	B.9A–B
Q3	Unit 6	Biological Evolution	How does natural selection affect biological diversity?	B.10A–D
Q3	Unit 7	Matter & Energy in Living Systems	How is matter conserved and energy transferred in organisms?	B.11A–B



Q3	Unit 8	Biological Systems	How do multiple systems interact to perform complex functions?	B.12A–B
Q4	Unit 9	Environmental Interdependence	How do ecosystems maintain stability?	B.13A–D
Q4	STAAR Review	Meets/Masters Focus	How can we apply our knowledge for STAAR success?	Spiral Review

Skills & Standards

- Investigate cell structure, function, and division
 - Analyze DNA, RNA, and protein synthesis
 - Predict genetic outcomes using Punnett squares and pedigrees
 - Evaluate evidence of evolution and common ancestry
 - Explain principles of natural selection and biodiversity
 - Model energy transformations and matter cycling
 - Explore body systems and organism-level interactions
 - Analyze ecological relationships and environmental stability
 - Design and conduct scientific investigations
 - Prepare for STAAR Biology through rigorous content review
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Grading



Refer to the Forney ISD Grading Guidelines for expectations on assignments, assessments, late work, and opportunities for reassessment