State of Texas Assessments of Academic Readiness (STAAR™)
Performance Level Descriptors
Biology

Performance Level Descriptors
Scientific process skills are not assessed in isolation but are incorporated into questions that assess the biology content. These process skills focus on safe, environmentally appropriate, and ethical laboratory and field investigations; using scientific methods and equipment in investigations; and using critical thinking, scientific reasoning, and problem solving to make informed decisions.
Students achieving Level III: Advanced Academic Performance can • Evaluate the importance of changes to biological systems and the effect of these changes on homeostasis • Apply the regulation of gene expression to its role in protein synthesis • Evaluate how genes affect both Mendelian and non-Mendelian inheritance patterns • Analyze the impact of environmental change on ecosystem stability
Students achieving Level II: Satisfactory Academic Performance can • Summarize the role of biomolecules in the metabolic, homeostatic, and reproductive processes that occur in cells • Analyze how viruses are different from cells and how viruses can affect cells • Describe the roles of DNA and RNA in gene expression • Describe how genes affect inheritance patterns and use this information to predict outcomes of monohybrid and dihybrid crosses • Analyze and evaluate the evidence, processes, and effects of evolutionary theory • Classify organisms based upon similarities and differences • Interpret relationships among organisms and interactions between organisms and their environment • Describe how changes in the environment alter ecosystems
Students achieving Level I: Unsatisfactory Academic Performance can • Identify the structures and functions of cells, viruses, and biomolecules • Recognize that genes affect inheritance • Recognize the effects of evolution • Identify symbiotic relationships among organisms