



NORTHERN TARRANT SCHOOL DISTRICT
Building Opportunities

BIOLOGY

Key Practices

DEVELOPING AND USING MODELS

This practice involves creating and utilizing models to represent biological processes or structures. Students may be asked to interpret diagrams, construct models to explain phenomena, or use models to predict outcomes.

PLANNING AND CARRYING OUT INVESTIGATIONS

Students are assessed on their ability to design and conduct scientific investigations. This includes formulating hypotheses, designing experiments, collecting and analyzing data, and drawing conclusions based on evidence.

ANALYZING AND INTERPRETING DATA

This practice involves examining data collected from experiments or studies and using it to make sense of biological phenomena. Students need to be able to identify trends, make calculations, and interpret graphs and tables.

USING MATHEMATICS AND COMPUTATIONAL THINKING

Students are expected to apply mathematical concepts and computational tools to solve biological problems. This includes working with statistical data, performing calculations, and using mathematical models to understand biological systems.

CONSTRUCTING EXPLANATIONS AND DESIGNING SOLUTIONS

This practice involves using evidence to construct scientific explanations and propose solutions to biological problems. Students need to integrate their understanding of biological concepts to develop coherent explanations and solutions.

ENGAGING IN ARGUMENT FROM EVIDENCE

Students should be able to make and support claims based on evidence. This includes evaluating scientific arguments, defending their conclusions with data, and critically assessing the validity of different sources of evidence.

OBTAINING, EVALUATING, AND COMMUNICATING INFORMATION

This practice involves gathering information from various sources, evaluating its credibility, and effectively communicating scientific findings. Students need to be proficient in reading scientific texts, summarizing information, and presenting their conclusions clearly.