



Biology Lab Series 2 – Alignment

Anatomy

Performance Expectations

HS-LS1-2: Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.

Science and Engineering Practices

Developing and using models
Planning and carrying out investigations
Analyzing and interpreting data

Crosscutting Concepts

Systems and system models
Stability and Change of Systems

Plant Growth and Development

Performance Expectations

HS-LS3-3: Apply concepts of statistics and probability to explain the distribution of expressed traits in a population.

Science and Engineering Practices

Analyzing and interpreting data
Using mathematics and computational thinking
Obtaining, evaluating, and communicating information

Crosscutting Concepts

Scale, Proportion, and Quantity

Photosynthesis

Performance Expectations

HS-LS1-5: Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.

Science and Engineering Practices

Asking questions and defining problems
Analyzing and interpreting data
Using mathematics and computational thinking

Crosscutting Concepts

Energy and Matter in Systems



Rate of Transpiration

Performance Expectations

HS-LS1-3: Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.

Science and Engineering Practices

Analyzing and interpreting data
Using mathematics and computational thinking
Engaging in argument from evidence

Crosscutting concepts

Stability and Change of Systems

Fermentation

Performance Expectations

HS-LS1-3: Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.

Science and Engineering Practices

Analyzing and interpreting data
Using mathematics and computational thinking
Engaging in argument from evidence

Crosscutting concepts

Stability and Change of Systems

Taxonomy and Classification

Performance Expectations

HS-LS2-6: Evaluate claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions but changing conditions may result in a new ecosystem.

Science and Engineering Practices

Analyzing and interpreting data
Using mathematics and computational thinking
Engaging in Argument from Evidence
Constructing Explanations

Crosscutting Concepts

Cause and Effects
Patterns
Stability and Change



Evolution by Natural Selection

Performance Expectations

HS-LS3-3: Apply concepts of statistics and probability to explain the distribution of expressed traits in a population.

Science and Engineering Practices

Analyzing and interpreting data
Using mathematics and computational thinking
Obtaining, evaluating, and communicating information

Crosscutting Concepts

Scale, Proportion, and Quantity

Artificial Selection

Performance Expectations

HS-LS3-3: Apply concepts of statistics and probability to explain the distribution of expressed traits in a population.

Science and Engineering Practices

Analyzing and interpreting data
Using mathematics and computational thinking
Obtaining, evaluating, and communicating information

Crosscutting Concepts

Scale, Proportion, and Quantity

Taxis

Performance Expectations

HS-LS1-3: Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.

Science and Engineering Practices

Analyzing and interpreting data
Using mathematics and computational thinking
Engaging in argument from evidence

Crosscutting concepts

Stability and Change of Systems



Ecosystems

Performance Expectations

HS-LS2-6: Evaluate claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions but changing conditions may result in a new ecosystem.

Science and Engineering Practices

Analyzing and interpreting data

Using mathematics and computational thinking

Engaging in Argument from Evidence

Constructing Explanations

Crosscutting Concepts

Cause and Effects

Patterns

Stability and Change
