FLINN SCIENCE2GO

Science2Go is a digital learning solution that offers a new approach to laboratory education for middle and high school students. It allows students to engage in science and engineering practices in any learning environment without access to supplies or equipment. It can be used in-school as prelab work or in classrooms where complete hands-on labs are not possible.

Because the lab solutions are online, they are ideal for remote learning. Science2Go combines videos focused on lab techniques and data collection with prompts and analysis questions intentionally designed to engage students in science and engineering practices. Students observe and refine experiments, identify design flaws, analyze data, and practice scientific reasoning while connecting science to natural phenomena.

Science2Go: MS Life Science Lab Series includes 11 labs:

- Tree Rings and Climate
- Seed Genetics
- Building a Kidney Model
- Cell Diffusion and Osmosis
- Animal Behavior
- Life Cycles
- Carbon Dioxide Emissions and Climate Change
- Artificial Selection
- Ecosystems
- Photosynthesis
- Nutrition

The labs are aligned to the NGSS and other state science standards and can be used with any textbook curriculum. Labs can be accessed on any internet-capable device and can be completed in 30-45 minutes.

FLINN SCIENTIFIC

Tree Rings and Climate

Performance Expectations

MS-LS2-3: Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

Science and Engineering Practices

Asking questions and defining problems
Planning and carrying out investigations
Analyzing and Interpreting Data
Constructing Explanations

Crosscutting Concepts

Energy and Matter
Stability and Change
Cause and effect

Seed Genetics

Performance Expectations

MS-LS3-1: Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.

Science and Engineering Practices

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

Crosscutting Concepts

Cause and Effects
Structure and Function

Building a Kidney Model

Performance Expectations

MS-LS4-2: Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.

Science and Engineering Practices

Analyzing and Interpreting Data
Constructing Explanations

Crosscutting Concepts

Patterns
Cause and Effect

Cellular Diffusion and Osmosis

Performance Expectations

MS-LS1-2: Develop and use a model to describe the function of the cell as a whole and ways parts of the cells contribute to the function.

Science and Engineering Practices

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

Crosscutting Concepts

Cause and effect
Systems and system models

Animal Behavior

MS-LS2-2: Construct an explanation that predicts the patterns of interactions among organisms across multiple ecosystems.

Science and Engineering Practices

Analyzing and Interpreting Data
Constructing Explanations

Crosscutting Concepts

Patterns
Cause and Effect
Energy and Matter
Stability and Change

Life Cycles

Performance Expectations

MS-LS1-5: Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.

Science and Engineering Practices

Analyzing and interpreting data
Constructing explanations

Crosscutting concepts

Cause and Effect
Scale, Proportion, and Quantity
Systems and System Models

Carbon Dioxide Emissions and Climate Change

Performance Expectations

MS-LS2-3: Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

Science and Engineering Practices

Asking questions and defining problems
Planning and carrying out investigations
Analyzing and Interpreting Data
Constructing Explanations

Crosscutting Concepts

Energy and Matter
Stability and Change
Cause and effect

Artificial Selection

Performance Expectations

MS-LS3-2: Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.

Science and Engineering Practices

Analyzing and interpreting data
Engaging in Argument from Evidence
Constructing Explanations
Developing and Using Models

Crosscutting Concepts

Cause and Effect
Structure and Function

Ecosystems

MS-LS2-2: Construct an explanation that predicts the patterns of interactions among organisms across multiple ecosystems.

Science and Engineering Practices

Analyzing and Interpreting Data
Constructing Explanations

Crosscutting Concepts

Patterns
Cause and Effect
Stability and Change

Photosynthesis

Performance Expectations

MS-LS1-6: Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.

Science and Engineering Practices

Analyzing and Interpreting Data
Planning and Carrying Out Investigations
Constructing Explanations

Crosscutting Concepts

Structure and Function
Energy and Matter

Nutrition

Performance Expectations

MS-LS1-5: Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.

Science and Engineering Practices

Analyzing and interpreting data
Constructing explanations

Crosscutting concepts

Cause and Effect
Scale, Proportion, and Quantity
Systems and System Models
