

FARM IN A BOX

CAT# FIAB-BK001



The Farm in a Box Grow Kit is an excellent resource to promote STEM education in the classroom while fostering a sense of environmental stewardship. This kit offers a hands-on learning experience that integrates agriculture with science, technology, engineering, and mathematics (STEM). The kit supports mastery-based learning, allowing students to progress at their own pace as they observe plant growth, monitor environmental factors, and apply scientific principles.

PRIMARY DIVISION: GRADES 1-3

Overall Expectation: STEM, Structures and Life Systems Focus

Explore structures and mechanisms, including the roles of materials in supporting structures and making devices work.

Specific Expectation

Identify and describe the purpose of simple machines such as levers and pulleys.

Activity

Students use the Farm in a Box Grow Kit to understand the basics of plant growth, soil, water, and light. They learn about the role of each component in supporting plant life and explore how plants grow in different environments.

JUNIOR DIVISION: GRADES 4-6

Overall Expectation: STEM, Structures and Life Systems Focus

Investigate the principles of forces, energy, and control in simple machines and structures.

Specific Expectation

Explore the relationships between the components of simple machines and the forces acting on them.

Activity

With the Farm in a Box Grow Kit, students investigate the scientific principles behind plant growth, including photosynthesis, water uptake, and nutrient absorption. They analyze how environmental factors affect plant development and discuss sustainable farming practices.

INTERMEDIATE DIVISION: GRADES 7-8

Overall Expectation: STEM, Structures and Life Systems Focus

Investigate how technological problem-solving meets human needs and leads to innovation.

Specific Expectation

Analyze the impact of friction and lubrication on the efficiency of mechanisms.

Activity

Students use the Farm in a Box Grow Kit to explore advanced concepts such as hydroponics and LED lighting. They analyze the efficiency of different farming methods and investigate ways to optimize plant growth while conserving resources.

SECONDARY DIVISION: GRADES 9-12

Overall Expectation: Biology Focus

Apply principles of biology and environmental science to understand sustainable agriculture.

Specific Expectation

Analyze the impact of agricultural practices on ecosystems and biodiversity.

Activity

Using the Farm in a Box Grow Kit, students delve into topics such as plant biology, genetics, and environmental sustainability. They design experiments to study plant responses to environmental variables and discuss the implications of agricultural practices on ecosystems.

CROSS-CURRICULAR CONNECTIONS

Mathematics

Students can collect data on plant growth rates and analyze trends over time.

Technology

They explore the use of LED lighting and automated systems in modern agriculture.

Language Arts

Students can write reports or presentations on sustainable farming practices and their impact on food security.

Summary

The Farm in a Box Grow Kit not only educates students about plant biology and sustainable agriculture but also inspires them to become future innovators in food production and environmental conservation. It encourages critical thinking, problem-solving, and a deeper understanding of STEM concepts while promoting environmental stewardship.