

# THE SCIENCE BEHIND THE SEEDS

Designed for Students  
Grades K-12th  
Ages 5-18

Program Length  
3 hours

Park Location  
Epcot®

## SYNOPSIS

Students who embark on The Science Behind the Seeds program will discover exciting growing techniques which promote sustainability and allow growers to produce more using less space. By learning what plants need to grow, students will gain practical knowledge on how to implement various pruning and growing techniques, such as hydroponics in their own home or shared community gardens. Students will gain an awareness of the diversity of edible crops such as amaranth, flowers and jackfruit to expand their palette and diet.

Hands-on activities will engage students in various plant propagation methods ranging from the basics of seeding to the use of modern technology. They will work together to propagate plants and understand the advantages and limitations of each method. In teams, they will set up an example hydroponic system to be showcased on The Living With The Land attraction.

Our Integrated Pest Management (IPM) program provides students with an introduction to biological, cultural, and mechanical control methods used to reduce reliance on chemical controls. They will learn how each piece of the pest management puzzle fits together to protect crops and their yield. Through our extensive aquaculture program they will be introduced to commonly farmed fish and discover the positive influence sustainable aquaculture can have on the environment, daily diet and recreational activities.

## LEARNING OUTCOMES

After completing The Science Behind the Seeds, participants will be able to:

- ✓ Explain the value of sustainability and discuss various sustainable practices in plant and fish farming
- ✓ Discuss how various systems provide all the requirements for growing plants
- ✓ Apply knowledge gained to create an at home hydroponics system
- ✓ Apply various pest management practices to create an integrated pest management program for their at home or shared community garden
- ✓ Articulate and discuss the pros and cons to the different ways plants are propagated
- ✓ Discuss science as a human endeavor