



Water by Design - Aquaponics

Produced by [EarthEcho International](#)

Duration
6:38 (cc)

STEAM Curriculum Lesson Extension:

Energizing Your Lawn, 7th Grade

Goal

Students will learn about an innovative closed system of agriculture that creates an environmentally sustainable food source.

Overview

Phillippe and Ashlan Cousteau meet with executive chef and farmer Adam Navidi to find out how he uses aquaponics to grow food for his restaurant using less water than the average family uses at home on a daily basis.

Connections to EarthX STEAM Curriculum Lesson: *Energizing Your Lawn*

The growing of food to feed a growing population has changed from small farms feeding the local population, to food being sourced hundreds or even thousands of miles away. The resources demanded of this type of agriculture has environmental consequences. Alternative farming methods can help with these issues.

Guiding Questions

- Aquaponics provides many benefits. Which advantage to this type of agriculture do you think is the most important to Chef Navidi? Why?
- Hydroponics and aquaponics are similar forms of growing crops. Compare and contrast these two processes.
- How can you use the information about growing crops shared in this video as you make food choices in your life?

Vocabulary

- Aquaponics
- Agriculture
- Sustainable
- Closed Loop System
- Nitrosomonas
- Nitrobacters
- Hydroponics
- Tilapia

Standards

Next Generation Science

- 5-LS1-1
- 5-LS2-1
- 5-ESS3-1
- MS-LS2-3
- MS-ESS3-4

TEKS Science Objectives

- 4.b.9
- 5.b.9a
- 7.b.10b