

## Overview

In this activity, students will research and discuss ways in which technology might impact the future of farming. Specifically, students will learn more about hydroponics, one type of technology that has the potential to transform farming.

## Materials

- Access to the Internet to research hydroponics
- White board or poster board with markers

## Lesson structure

**0 - 10 minutes** – Introduce the term hydroponics to students. First, ask if students are familiar with the term, and have a volunteer define the term if possible. If pupils are unfamiliar

with the term, point out the word part hydro-. Explain that this word part means “water.” Then, tell pupils that hydroponics is a form of agriculture in which plants are grown in water that contains nutrients rather than soil.

**10 - 15 minutes** – Ask students to work as a class to brainstorm a list of questions about hydroponics. For example, students might wonder what nutrients are added to the water used in hydroponics. Record students’ questions on the white board or a poster board. Guide them to develop questions that relate to the “how” of hydroponics (for example, how it is carried out, what plants can be grown using hydroponics) as well as the “whys” of hydroponics (what advantages and disadvantages) does hydroponics have when compared to traditional agriculture).

**15 - 35 minutes** – Have the students work in pairs or small groups. Have each pair or group select (or assign to them) one or more of the questions about hydroponics. Ask each pair or group to research the question(s) they are assigned.

**35 - 50 minutes** – Once the research is complete read the recorded questions aloud one by one. When a group’s question is read, have them share an answer with the class. Continue until every question that was researched has been discussed.

**50 - 60 minutes** – Finally, have students work in their pairs or groups to write one or two sentences summarising what they have learned about hydroponics. Use these summaries to gauge students’ understanding of the topic.

