Name: _____

Lesson 2: Soil Nutrients

Self-Guided Experience

Use the steps below to navigate through the Journey 2050 Self-Guided Experience.

1. Begin the **Journey 2050 Lesson 2: Soil Nutrients | Self-Guided Experience** video. You will hear a brief introduction to this lesson.

2. Watch the **Journey 2050: Soil Nutrients** video. As you watch, record the answers to the following 4 questions:

   1- What three primary nutrients are necessary for healthy plant growth? How can they be replenished?

   2- How does a plant resist disease and pests?

   3- What are "best management practices?"

   4- What are the 4Rs?

3. Continue the **Journey 2050 Lesson 2: Soil Nutrients Self-Guided Experience** video. ("Step 3" chapter marker)

   1- Why does soil matter?

4. Play Level 2 of the Journey 2050 Sustainability Farming Game. The game can be downloaded to devices from Google Play or the App Store. It can also be **played online** using Chrome, Safari or Firefox.

5. Finish the **Journey 2050 Lesson 2: Self-Guided Experience** video ("Step 5" chapter marker). Then, answer the questions below and review the key points.

1- Which nutrient practice was best?

2- If nutrients were over or under applied, what impacts did you notice on crop yields, the environment, or economics?

3- How can farmers apply nutrients in a sustainable way?

Key Points:

- Agriculture provides our food supply. Growing our food requires the use of nutrients, which must be returned to the soil through proper application in order to continue growing healthy crops.
- Crops grown in soil without proper nutrients are less healthy, less resistant to insects and diseases, and produce a less abundant harvest than crops grown in nutrient-rich soil.
- When plant health is managed using best practices farmers can be more successful in harvesting an abundant crop of healthy foods.

Additional Activities:

- Complete a **word search, crossword puzzle, or matching activity** to study the relevant vocabulary terms in the Journey 2050 program.