**Farmers consider how their actions affect the environment**

Pillar 1 F (Grades 4th – 8th)

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| **Website:** Food System: Big picture lessons <http://www.foodspanlearning.org/_pdf/lesson-plan/unit1/lessona-food-system-lessonplan.pdf> **Hands On**: Play the game “Offset” found on iPads  |

Activity: Follow the journey of a food item through the **supply chain**

Digital Activity: Play the game “Offset” found on iPads

**Follow the journey of a food item through the supply chain**

Tools, Equipment, and Supplies

Paper and Pen

Ball of string

Food System Connection Cards\*

\*Found here: <http://www.foodspanlearning.org/_pdf/lesson-plan/unit1/lessona-food-system-handoutsandguides.pdf>

Teacher Background

The **food system** is a complex network that is deeply connected to
health, society, and the environment. This lesson lays the groundwork for understanding food through an integrated, systems-thinking lens.

Interest Approach

Ask a volunteer to list the ingredients in a recent meal they ate.

Ask the class: *What* ***activities*** *are involved in getting these ingredients to our plates? For example*, *how are the raw ingredients transformed into something we could eat? Who are the people involved at each step?*

Have students respond individually in pictures or diagrams. List students’ responses on the board in order from **field to plate**.

Warm Up Activity

Split the class into three groups. Have each group brainstorm one of the following themes. If time allows, students may add to their pictures or diagrams.

1. Effects of each **activity** on health, society, and the environment
2. Influences on each **activity**
3. Resources involved in each **activity**

Have a representative from each group share their responses. Add responses to the dry erase board in order from field to plate (or invite students to do so), adding lines or arrows between related concepts. Tell students they have created their first depictions of the food system, which includes the people, activities, resources, and impacts involved in feeding people.

Activity Part 1

Have students refer to the diagram on the board (or their own pictures or diagrams) from the warm-up.

Students will explore relationships among food, health, society, and the environment. Distribute the ***Food System Connection Cards***. Each card lists a part of the food system (on the front) and some of its relationships to other parts (on the back). Give students a minute to read their cards. If there are more students than cards, students can work in pairs or groups of three.

Have students stand up, form a circle, and hold their cards up so the fronts are visible. Give one student a ***ball of string***. Ask the student to state the part of the food system on their card and then toss the ball of string to another person while holding onto the end of the string. As they throw the ball, they should explain how the two parts are connected, for example: “I am a cow. I am connected to water because I drink it, it irrigates my feed crops, and my manure sometimes contaminates it.”

Continue until students have created a tangled web of connections. Students can throw to the same person more than once if there are multiple points of connection.

Once the web is complete, introduce events into the food system. For example, if a drought occurs, water should tug on their strings. Students who felt the tug should explain how they might be affected, then tug on their strings. Students who felt the second tug should explain how they might be affected, and so on. Students should see that stresses to one part of the system might have cascading consequences throughout the system.

Review/Summary

* *What did this activity show you about the food system?*
* *What connections stood out to you?*
* *What connections do you want to learn more about?*

**Digital Activity: Time permitting, students can play the game “Offset” found on iPads**