Activity
1. Punch a hole in the top of small jeweler sized plastic bags. Cut string/yarn in appropriate lengths for necklaces.
2. Give each student a jeweler bag, string/yarn piece, cotton ball and one soybean seed and one corn seed.
3. Instruct students to dip their cotton ball in the bowl of water. Give the cotton ball three “flat” squeezes to remove excess water.
4. Place the cotton ball in a jeweler-sized bag. Place one seed on each side of the damp cotton ball.
5. **DO NOT close or seal the plastic bag – the seed needs air to sprout!**
6. Thread the piece of string through the hole in the top of the bag and tie to make a necklace. Students can wear their Plant Pal necklace.
7. Discuss the ideal place to plant the seeds once they sprout. Also discuss what resources (natural, capital, human) are necessary to get the seed to produce food for people and animals.

Classroom Connections

**Science** – Using art supplies, students can construct a diagram of the plant growth process beginning with germination (sprouting). Label the natural resources, capital resources, and human resources needed for crop production.

**Social Studies** – Give each student a blank *Minnesota Counties Map* (Resource A). Where do corn and soybeans grow in Minnesota and why? Use colors to illustrate the best corn and soybean growing regions in Minnesota. Explain why Minnesota’s geography plays an integral role in United States’ corn and soybean production.

**English Language Arts** – Write in a notebook for 3-5 days, journaling the germination progress of their Plant Pals necklace. Students should share the status of their Plant Pals necklace using pictures or their journal entries.

Academic Standards

**Minnesota Social Studies Standards and Benchmarks**

- 2.2.3.5.1 Classify materials that come from nature as natural resources; tools, equipment and factories as capital resources; and workers as human resources.
- 2.3.1.1.3 Use maps, photos or other geographic tools to identify and locate major landmarks or physical features of the United States.

**Minnesota Science Standards and Benchmarks**

- 2.4.2.1.1 Recognize that plants need space, water, nutrients and air, and that they fulfill these needs in different ways.
- 2.4.3.1.1 Describe the characteristics of plants at different stages in their life cycles.

**National Agricultural Literacy Outcomes**

Identify plants and animals grown or raised locally that are used for food, clothing, shelter and landscapes.

Additional Resources

**Food for Thought Maps** – [www.mda.state.mn.us/kids/food4thought.aspx](http://www.mda.state.mn.us/kids/food4thought.aspx)

- *Minnesota Counties Map* (Resource A)
- *Soybeans in Minnesota Counties Map* (Resource B)
- *Corn for Grain in Minnesota Counties Map* (Resource C)

Concept and content for this Agventure is adapted from California Agriculture in the Classroom.
Soybeans in Minnesota Counties (2012)

Soybeans as percentage*

- <1% - 5%
- 6% - 20%
- 21% - 40%
- 41% - 48%
- No Data Reported

*Soybean acres harvested divided by acres of harvested cropland
Map 4

Corn as percentage*

*Corn acres harvested for grain divided by acres of harvested cropland

Legend:
- <1% - 12%
- 13% - 32%
- 33% - 43%
- >43%
- No Data Reported