**Agriculture in Society**

**Unit 3:** Plant Science in Agriculture

Crop Match Challenge

**Directions:** You will identify the ideal growing conditions for major Oklahoma crops and will learn more about ideal crop growing conditions through a matching and trading game.

1. Each student will get one crop card
   1. One of the following: wheat, hay, cotton, sorghum, soybeans
2. Each student will get a 3 **growing condition cards**.
   1. Will get a variety of the following growing condition cards: full sun, part sun, loamy soil, clay soil, sandy soil, hot summers, cool summers, tolerates drought, needs lots of water, cold-tolerant, mild winters, well-drained soil, moderate rainfall, etc.
3. Students will take a few minutes at their table, determine the **ideal** growing conditions for their crops, and will try to trade for the growing conditions of their crop.
   1. Trades are 1-for-1 only (Meaning you can only trade one card at a time for another)
4. At the completion of 3 5-minute rounds, each person at their group should have their completed set of ideal growing conditions, matching their crops.
5. You will share the results of your trading with the group, compare that to the key, and then your group will complete the questions below and submit them for a grade.

**Reflection Questions**

1. Which crop do you think would grow best at a location near our school? Why?
2. What do you think would happen if your crop wasn’t planted in the right growing conditions?
3. If you plant crops that don’t have everything they need, what are some things you could do to make sure you still have healthy crops?

**Key**

|  |  |
| --- | --- |
| **Crop** | **Ideal Conditions** |
| Wheat | Full sun, well-drained soil, drought-tolerant |
| Hay | Loamy soil, frequent watering, mild winters |
| Cotton | Full sun, hot summers, sandy/dry soil |
| Sorghum | Drought-tolerant, well-drained soil, hot climate |
| Soybeans | Moderate rainfall, loamy soil, full sun |

**Cards**

**Crop: WHEAT**  
 Goal: Trade for 2–3 cards that match wheat’s ideal growing conditions.

**Crop: HAY (ALFALFA)**  
Goal: Trade for 2–3 cards that match hay’s ideal growing conditions.

**Crop: COTTON**  
Goal: Trade for 2–3 cards that match cotton’s ideal growing conditions.

**Crop: SORGHUM**  
Goal: Trade for 2–3 cards that match sorghum’s ideal growing conditions.

**Crop: SOYBEANS**  
Goal: Trade for 2–3 cards that match soybean’s ideal growing conditions.

**Growing Condition:** 🌞 Full Sun  
 🔄 Trade this if it doesn’t match your crop.

**Growing Condition:** 🌧️ Moderate Rainfall  
 🔄 Trade this if it doesn’t match your crop.

**Growing Condition:** 🌾 Loamy Soil  
 🔄 Trade this if it doesn’t match your crop.

**Growing Condition:** 🌡️ Hot Summers  
 🔄 Trade this if it doesn’t match your crop.

**Growing Condition:** 💧 Needs Lots of Water  
 🔄 Trade this if it doesn’t match your crop.

**Growing Condition:** 🌬️ Tolerates Drought  
 🔄 Trade this if it doesn’t match your crop.

**Growing Condition:** 🧊 Cold-Tolerant  
 🔄 Trade this if it doesn’t match your crop.

**Growing Condition:** 🌬️ Well-Drained Soil  
 🔄 Trade this if it doesn’t match your crop.

**Growing Condition:** 🏖️ Sandy Soil  
 🔄 Trade this if it doesn’t match your crop.

**Growing Condition:** ☁️ Mild Winters  
 🔄 Trade this if it doesn’t match your crop.