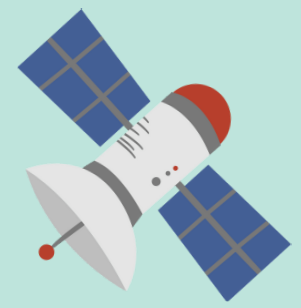


Data to Table



Ages: 7+ Players: 2-4

Background:

One of the UN's 2030 Sustainable Development Goals (SDGs) aims to promote sustainable agriculture, improve nutrition, and address food security (SDG 2). As the climate continues to change, we see direct effects on farmers and agricultural practices in the United States. It is with the help of satellite imagery and Earth observations data that we are able to track the effects of climate change on our food supply and provide farmers with the most helpful information for their farms. *Data to Table* aims to teach students about the different ways climate change affects crops through the lens of data that can be tracked by satellites. If you want to explore more of what members of the Earth observation community are doing, you can go to eo4sdg.org. For related Earth observation imagery, check out this [link](#)!

Materials:


Materials included: 1 game board, 17 event cards, and 12 player piece circles.

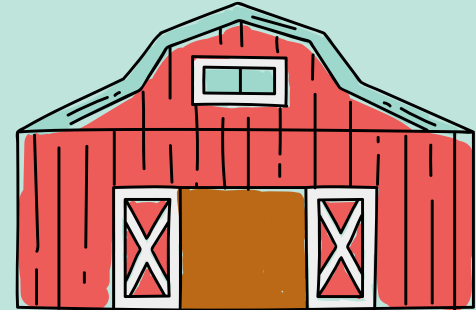
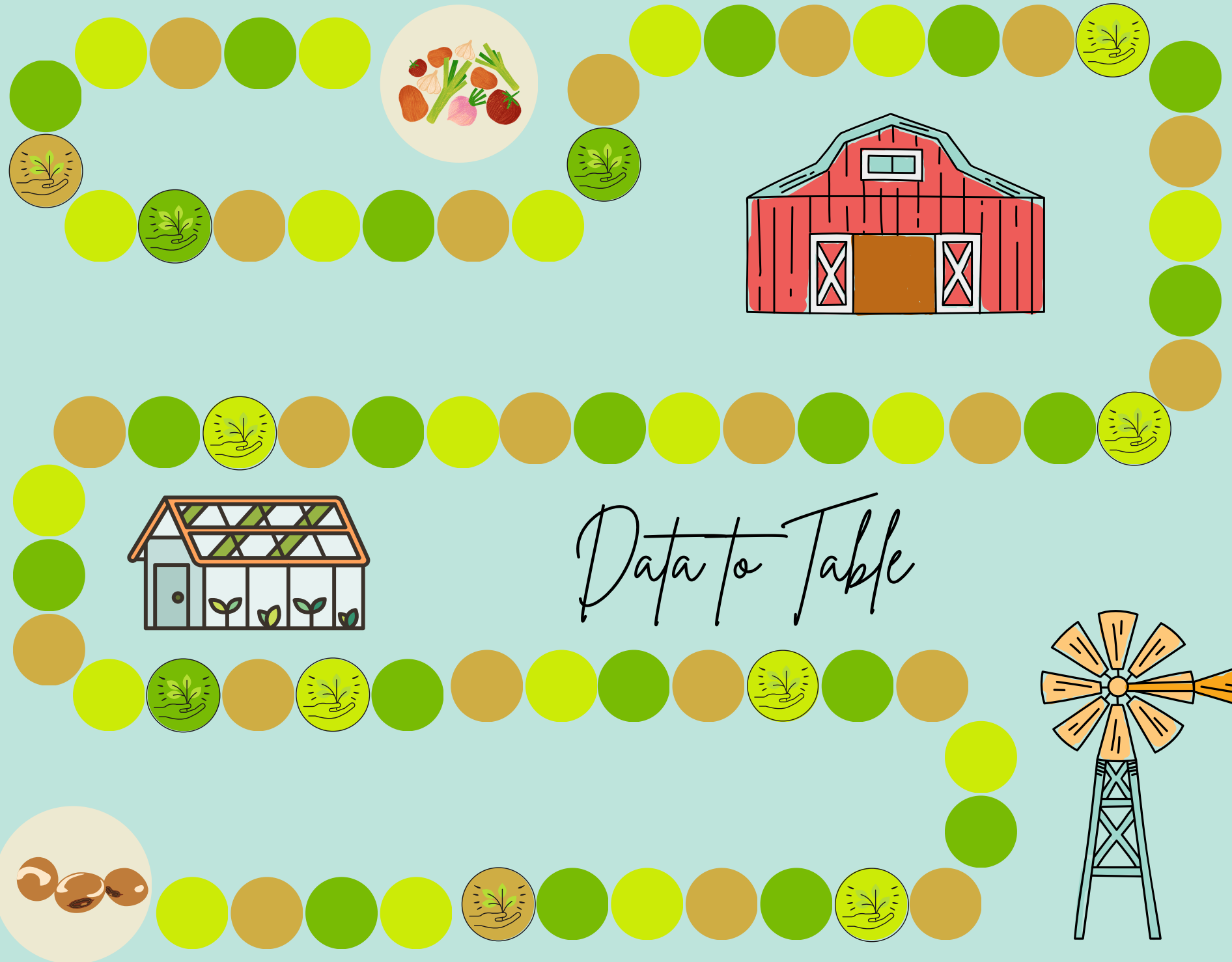
Additional materials needed: 1 pair of scissors (to cut out pieces) and 1 six-sided die.

Setup:

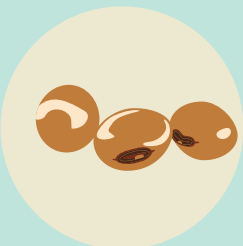
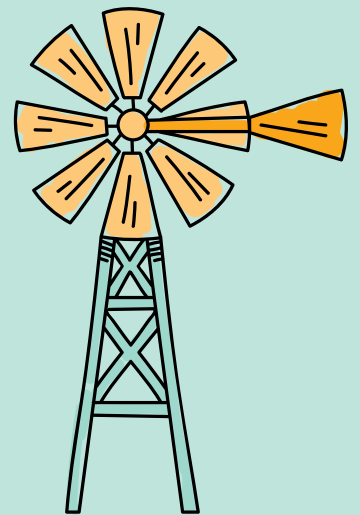
1. Cut along the dotted green lines on the two sheets of paper. This should result in 17 square cards and 6 small circles.
2. Place the game board face up and the 17 event cards face-down next to the board. Shuffle the cards before game play.
3. Each player will pick one of the small circle cut-outs to be their game piece for the game.
4. Place all player pieces on start (which is the bottom left tan circle with beans on it).

Instructions:

Each player will start by placing their circular game piece on the start circle. Players take turns, from youngest to oldest, rolling the six-sided die and moving that number of spaces. When a player lands on a circle with a , they will draw one card from the event cards pile and follow the instructions on the card. Some cards will tell the player to move backwards and some to move forwards. If you run out of event cards, shuffle the cards and reuse them. The game ends once one of the players reaches the circle at the top of the board with produce on it, indicating they have successfully completed the journey from seed to produce, deeming them the winner! Happy planting!



Data to Table



Oh no, not the soil moisture! Your plants lost a lot of water to the air in a process called evaporation. This resulted in some unhappy plants! **Move back three circles.**

Not enough rain! There has been a long period without rain, which is called a drought. Lack of rain can make your plants unable to grow! **Move back two circles.**

It is getting hot! The temperature outside has been very high. This makes it hard for farmers to grow food. **Move back one circle.**

What a fire! The dry land and hot climate led to a huge fire outside! This fire hurt many of your crops! **Move back three circles.**

It's raining, its pouring! It is raining faster than the soil can take in the water, resulting in flooding. Too much water makes it hard for your plants roots to breath! **Move back two circles.**

The rivers are flowing! The barrier that restricts the flow of water, called a dam, broke! The water now flows very fast causing flooding. **Move back four circles.**

Let is snow! There is less snow on the mountains this year! Families rely on snow to melt and give them water in spring and summer. It's going to be a dry season! **Move back one circle.**

Yuck! That's salty! Your soil has not had enough water in a long time, which causes the salt content in your soil to increase. Too much salt can slow plant growth! **Move back two circles.**

Your animals are hungry! Your animals ate too many of your crops this year, which is called overgrazing. Overgrazing can result in less healthy soil for your plants! **Move back three circles.**

Trees! You planted trees and shrubs around your crops this year in a process called agroforestry. This created more habitats for wildlife and made your soil healthy! **Move forward three circles.**

Buzz Buzz! Looks like you grew more plants this year that have a lot of pollen and nectar. These plants make the bees so happy! More bees led to happy plants as they do something called pollination. **Move forward three circles.**

Turn Turn Turn! You found a way to not turn your soil too much this year, a process called tillage. This allowed your soil to keep more carbon and stay healthy. **Move forward two circles.**

Wow! Looks like you made sure to plant different crops throughout the year in a process called plant rotation. This helps keep those stinky pests away from your plants! Nice job! **Move forward one circle.**

All that water! While you normally add water to your plants in a process called irrigation, you made sure any extra water had somewhere to go. This avoided flooding and too much salt. That's great! **Move forward four circles.**

What a waste! Animal waste can often lead to water pollution as yucky parts run off into water. You figured out how to use this waste as plant fertilizer instead! Our water thanks you! **Move forward two circles.**

Take cover! You decided to plant crops this year to cover your soil. Those crops are often called cover crops. This helped you have less weeds on your farm and helped healthy insects live happily. **Move forward three circles.**

Here comes the sun! You just built a solar panel on your barn that allows you to collect energy from the sun. This allowed you to save money on your energy bill! **Move forward two circles.**

