

Lesson Four: Fruit Basket In Your State (50 min)

Driving Question: How do the land and weather in our state help plants grow?
Can we grow healthy food using just water and nutrients?

Vocabulary:

cartographer, produce, compass rose, map legend, agriculture, researcher

Materials:

- Assembled Aquatree® garden
- State reference map
- Drawing supplies (pencils, colored pencils, markers)
- Poster board
- State Agriculture Department website or printed list of crops in the state
- Variety of sliced fruit in separate bowls

Resources:

- Seed to Salad Lab Books
- Fruit Basket Role Cards

Background Knowledge:

Different fruits and vegetables grow in each state, influenced by climate and geography. Mountains create rain shadows, causing high rainfall on one side and desert conditions on the other. Coastal areas also experience increased rainfall. Plants thrive in specific conditions - some prefer wet climates, others dry, and each has ideal temperature ranges. Farmers choose crops based on their region's climate, ensuring optimal growth and yield.

As part of the Tasting Lab (in the final lessons), your students will be creating a state map showing topography and climate variations. Research the different types of fruit that grow in your state. In addition, gather information about where they are grown, the climate they thrive in, and the nutritional value of the fruit. You can also use vegetables.

Plant the Seed (warm-up):

1. Have students take out their **Seed to Salad Lab Book**. Give students a few minutes to go to the Aquatree Garden and the seeds planted in the soil. At each station, the students should record their measurements and observations in their lab book.
2. Set up a tasting lab for the students to try new fruits and vegetables. Before class, slice several types of fruit or vegetables that grow in your state.
3. Explain to the class that at the end of next week they will set up a tasting lab for other classes to taste the microgreens they are growing in the Aquatree® Garden. Remind them to pay attention to the information they share and how the food is displayed.
4. Tell the students about each type of fruit. Where it is grown in your state, what climate it needs to grow, and the nutrients it contains.
5. Give each student an opportunity to try fruits from the tasting lab. Discuss which fruit they like most and why.

Grow Time (lesson):

1. Each student will create a topographical map of the state, including major landforms. They will indicate the areas the different fruits and vegetables are grown within the state. Start with creating a topological map of your state.
2. Example for Utah: [Topological Map](#)



Add features like:

Plateaus

Mountains

Basins

Plains

Lakes

Deserts

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3. Set up a research station for the students to create a map of the produce grown in the state. If you have a computer for the students, teach them to search for the best fruits and vegetables to grow in your state and where they are grown.
 4. Give each student a **Fruit Basket Role Card** and have them complete each job function.
 - a. Researcher - Using printed pages or a computer, the students will make a list of the fruits and vegetables grown in your state and where they are grown.
 - b. Cartographer - On a large piece of poster board, the students will draw the state. Looking at a reference map, they can draw symbols to indicate natural features - mountains, coastline, lakes, major rivers, forest, and deserts.
 - c. Agriculture Experts - Once the state map is drawn, the agricultural experts will draw symbols to represent the areas where specific produce is grown in the state.
 - d. The group will indicate the capital city location with a star and color their maps.
 5. The students will continue to work on the maps tomorrow.

Food for Thought (reflection/assessment):

1. Discuss with the class why certain crops grow best in different regions. If the climate in a region changes, would the crops still grow there? Why or why not. How could growing crops indoors help?
2. Ask the students if any fruits grown in their state surprised them. Follow up by inquiring if there are any locally grown fruits they haven't tried yet. Encourage students to share their answers and explain their thoughts.
3. Have students finish recording their measurements and drawings of their observations in their **Seed to Salad Lab Books**.