

Lesson Five: Fruit Basket In Your State cont'd (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
- Sidewalk chalk

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.

Plant the Seed (warm-up):

1. Have students take out their **Seed to Salad Lab Book**. Give each student a few minutes to go to the Aquatree Garden and the seeds planted in soil. At each station, the students should record their measurements and observations in their Lab Book.
2. If you have enough students, play the Compass Rose game.

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- a. With sidewalk chalk, draw a large compass rose on the ground, clearly labeling North, South, East, and West.
 - b. Choose one student to be "It" and stand in the center of the compass rose. The other students will spread out around the outside of the compass rose.
 - c. The "It" student calls out a direction (North, South, East, or West). All other students must quickly move to stand in that section of the compass rose. The first student to reach the correct section becomes the new "It".
 - d. For added difficulty, you can include intermediate directions (Northeast, Southeast, etc.) as students become more comfortable with the main directions.

Grow Time (lesson):

1. The students will resume working to complete the map they began on Day 4. Walk around and check to make sure they are creating a topographical map according to the instruction card.
2. Allow the students to continue to have access to the research station. They may need to double-check their information or find the exact locations where the fruit is grown.
3. The group members will continue to help create the map and work on their assigned job.
 - 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 cardboard, the students will draw the state. Looking at a reference map, they can draw symbols to indicate natural features - mountains, coastline, lakes, forests, and deserts. They will also add a compass rose on their map.
 - 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 add a legend defining the symbols they used to represent the geographical features and the fruit crops in the state.
 - e. The final step is for all the groups to color their maps.
4. Once all the students have completed their maps, they will present them to the class. They can show where the fruit grows, the different geographical features that create a good climate for a specific fruit, and which fruit they like to eat.

Food for Thought (reflection/assessment):

1. If time permits, lead a brief discussion about why these particular fruits thrive in your state's climate and conditions. This conversation can help connect students to local agriculture and potentially introduce them to new foods.
2. Have students finish recording their measurements and drawings of their observations in their **Seed to Salad Lab Books**.
3. In their Lab Books, students should also answer the statement: "Name one fruit or vegetable grown in your state and explain why it grows well."