



Plant Picasso



Grade Level: 6th – 8th Grade

Approximate Length: 125 – 180 minutes

Objectives:

- Learn the importance of decreasing waste and avoiding landfills
- Discuss the relationships between animals, people and the environment
- Learn about plant pigments and how to make plant paint
- Understand the importance of healthy soils

Science Standards Available (Teacher will identify which standards to bundle):

- ESS2-1 Cycling of Earth's materials
- ESS2-2 Geoscience processes at varying scales
- ESS3-3 Human Impacts on the Environment
- ESS3-4 Human consumption of natural resources
- LS1-6 Photosynthesis: Matter cycling – energy flow
- LS2-1 Effects of resource availability
- LS2-2 Interdependent relationships in ecosystems
- LS2-3 Matter cycling and energy flow in ecosystems
- LS4-5 Artificial Selection

Outline for Program:

- **Interest Approach (5-10 min):** Students will start the lesson by working as a team in small groups to create a description of what a healthy person looks like and then as a whole group we will come together to share our answers, to see how each groups perception might differ.
- **Opening Activity (15-20 min):** During this time, students will play fruit and veggie bingo. This activity will help students to realize the nutritional value of foods and the variety of plants raised in a garden. When the groups are all done, we will go over the answers as a large group.
- **Presentation (45-60 min):** The students will learn about the importance of healthy soil and how farmers raise food for us to help keep our bodies strong. We will go through the components of soil and how plants can take up water and nutrients differently in different types of soil. Students will be able to make the connection that the healthier the soil, the healthier the plants will be and in turn that means more vibrant and tasty food to enjoy. Together we will explore how chemistry plays an important role in the pigments of the plants and how student can make their own plant paints at home. Ultimately, students will learn how a variety of foods can be good for their bodies. The final discussion will be what types of foods are at their houses and discover new foods to include in their diets.
- **IQhub Scavenger Hunt (45-60 min):** The IQhub is an interactive museum, that will help the students build on topics they have already learned and grab their attention for some new ones as well. Students can work individually or in small groups to explore the IQhub and learn about agriculture and the environment. This museum incorporates Science, Technology, Engineering and Math (STEM) to give students a well-rounded and fun learning experience.
- **Closing Activity (15-30 min):** Since plants and animals play a key role in keeping people healthy, it's important to understand how a healthy environment effects all living things. Students will get a chance to stretch their legs and see some easy ways to care for the environment and how to create healthy habitats for living things. Erosion, wetlands and environmentally friendly buildings are other topics discussed during this activity

Additional Resources on YouTube:

<https://www.youtube.com/watch?v=-b2llaUj3sg&list=PLM9jntqmjKUBtcIl9ORrBjm3fdOrGy3D0&index=7>