



5th Grade

JK Community Farm



Field Trip

Objectives & Rules

The JK Community Farm is deeply grateful to the growing community of generous supporters who have fostered the development of our education programming

Young children are naturally curious and creative thinkers, we hope to help children develop a solid foundation for understanding of the natural world, nutrition, and agriculture.. Please use this time to explore the JK Community Farm and make connections with your child's curriculum and nature. Our education activities were carefully curated to meet Virginia's standards of learning for each grade level and integrated into the JK Community Farm.

For our self guided field trips, rules provide the structure necessary for an engaging and productive class. Please be mindful of social distancing at the JK Community Farm, masks are optional as long as distance is maintained. Please be gentle with our plants as they are growing to feed families in our community in need of our help.



Essential Questions

Discuss these questions with your student throughout the field trip.

**What is
compost?**

**What is
pollination?**

**What are food
groups?**

**What are
nutrients?**

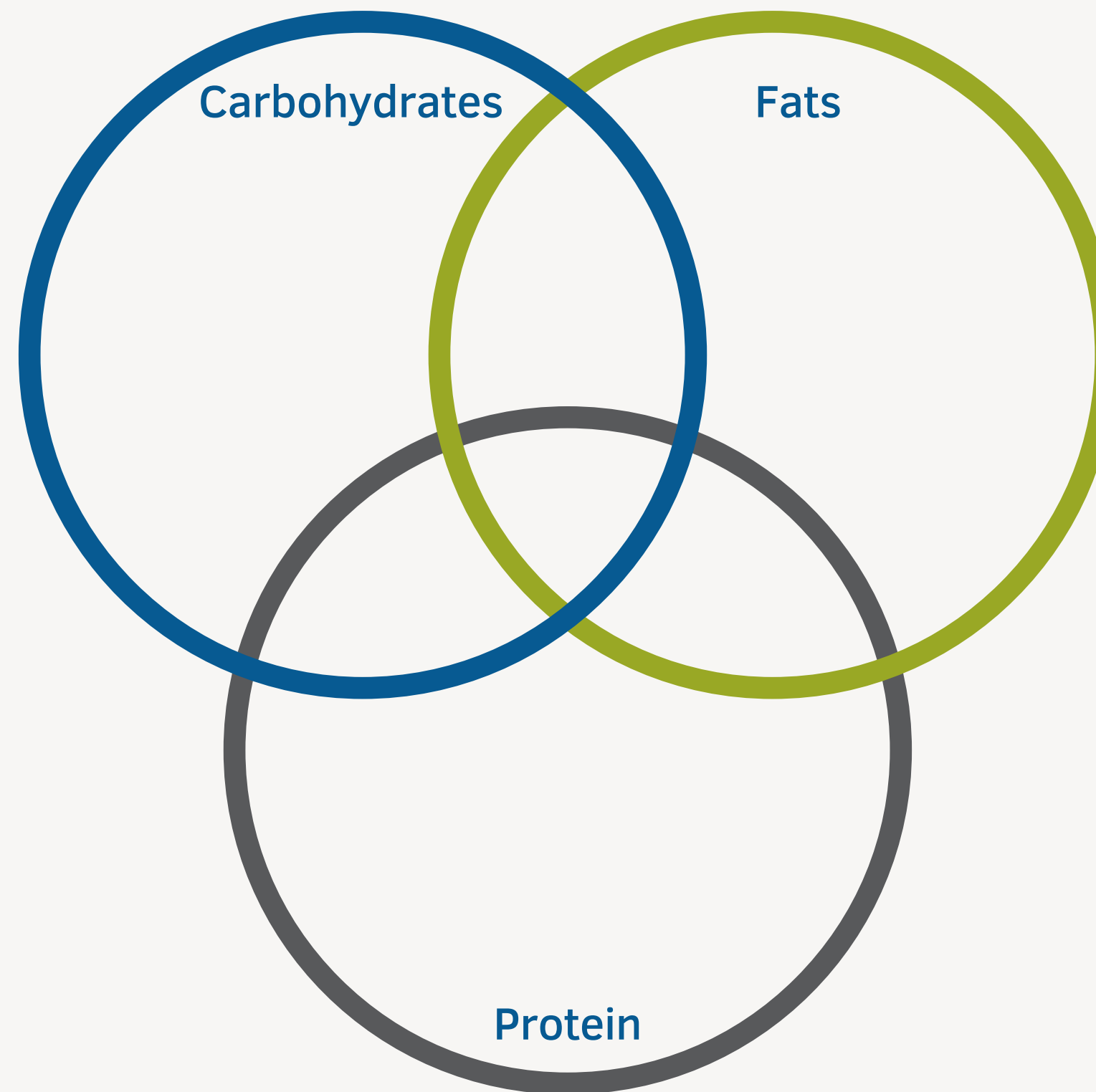
**What makes agriculture
"sustainable"?**

Macronutrients

Macronutrients are the nutrients that our body needs in large amounts in order to function properly. They are the only nutrients that contain energy from food, which is measured in calories. Energy in our food is necessary for activity, growth, thinking, breathing, digesting etc. Can you match the foods listed to the macronutrients?



Broccoli
Salmon
Carrots
Hummus
Beef
Strawberries
Avocado
Eggs
Chicken
Butter
Olive Oil
Pecans
Cheese
Shrimp
Kale
Banana



Multiplication in Nature



Activity

Walk down to the pepper plants, ask the student to select a row and count the plants in the row. **How many plants are in the row? If x plants are in one row, how many are in 2 rows, 6 rows, 10 rows?**

Ask the student to select a plant and count the peppers on the plant. **How many peppers are on 3 plants, 5 plants etc.? Check your math on a calculator!**

Questions

- If there are x peppers on a plant, and we harvested 3 how many would be left?
- Is it an even or odd number?
- Can you find a plant with a prime number of peppers?
- Can you find a plant with a composite number of peppers?

Materials

Blank paper
Crayons
Colored Pencils
Calculator

Compost and Sustainability



Activity

Start your activity by asking the student if they have ever thrown food away before? **What are some of the reasons that food gets thrown away at home?**

Discuss and show examples to the student of what it takes to grow food, the process of growing food and getting it to the grocery store.

Show how food can be composted and incorporated back into the soil (Our compost pile is the giant pile to the right of the raised beds).

Find a rotten pepper on a plant and toss it into the compost!

Questions

- How much time does it take for most vegetables to grow? (about 100 days)
- Can you guess how long it takes to harvest asparagus? (3 years)
- Where else do large quantities of food get thrown away?
- What do you think gets wasted when we throw out food?

Materials

Blank Paper
Crayons
Colored Pencils

Plant structure and Function



Activity

While in the greenhouse, explore and name the different parts of a plant. Ask the student to identify the stem, flower, root, and leaf? Use your magnifying glass to inspect the structure.

The cells in plants are always moving water, nutrients, and waste through the plant. The transport system is made of the roots, stem and leaves. Leaves have parts called veins that carry water and nutrients. The leaves also take in gases from the air.

Questions

- What is the plant height in cm?
- How many leaves are on the stem?
- Are there any open flowers?
- What will the plant produce?
- How does the plant perform photosynthesis?

Materials

Blank Paper
Colored Pencil
Crayon
Ruler or measuring tape

Ecosystems



Activity

An ecosystem is a biological community in a physical environment. **Ask the student what are some parts of an ecosystem?**

Plants, single celled organisms (fungi, bacteria), animals, people, solar energy, air, water, nutrients, and the physical environment.

Questions

- How does sunlight enter ecosystems, and how is it used?
- How are nutrients being recycled at the farm?
- Can you identify the water source?
- How is solar energy being used at the farm?

Materials

Blank Paper
Colored Pencil
Crayon

Signs of the Food Chain



Activity

Explore the JK Community Farm looking for signs of food chains such as holes in leaves, chewed leaves, animal tracks etc. Determine whether the food source is a producer, consumer, or decomposer.

Ask the student to record their observations.

Questions

- Can you find larva/caterpillars?
- Can you find an earthworm? what role does it play?
- Do you see any insects?
- What is a beneficial insect?

Materials

Blank Paper
Colored Pencil
Crayon
Magnifying glass

Elapsed Time in Nature



Activity

Walk to the human sundial at the top of the JK Community Farm.

Have the student stand in the middle of the sundial. The time will be shown by their shadow, ask the student to read the time.

Utilize the sundial to calculate problems with elapsed time. The sundial will help students visualize the question if they are having difficulty

Questions

- What time does the sundial show?
- What time does the analog clock show?
- What time will it be in two hours, 8 hours, 10 hours etc?
- If we eat lunch at 2pm and we are going on a walk 6 hours later what time will it be?

Materials

Blank Paper
Colored Pencil
Crayon

Moderation and Energy Balance



Activity

As you explore the JK Community Farm discuss with the student the food groups, fruits, vegetables, grains, dairy, and protein.

Food contains many different nutrients that help the body function, most foods are a mixture of different nutrients.

Can they name examples of each? What are macronutrients and their roles?

How do the food groups fit into them?

Questions

- What are the functions of protein, carbohydrates, and fats?
- What are Whole Foods?
- What foods are protein rich?
- Where should most carbohydrates come from?
- What sugar and sugary foods or beverages do you eat or drink? Why should we not eat too much sugar?

Materials

Blank Paper
Colored Pencil
Crayon

Pollination



Activity

Pollination is the transfer of pollen from the anther to the stigma. Insects, specifically bees, aid in pollination.

Cross pollination is the transfer of pollen from the anther of one plant to the stigma of the flower of another plant.

Self pollination is the transfer of pollen from the anther of one flower to the stigma of the same flower

Find the beehives at the JK Community Farm and observe the activities of the bees. Can you identify the parts of the bees used during pollination?

Questions

- What is pollination?
- What is the relationship between bees and flowers?
- Are flowers pollinated by any other means?
- How is honey produced?
- Why are beehives beneficial to the plants growing at the farm?

Materials

Blank Paper
Colored Pencil
Crayon
Magnifying glass

Explore and Discuss

At the JK Community Farm



Nutrition

Food contains nutrients that our bodies need to live and grow. Nutrients allow us to move, think, digest, rebuild, and heal.

We get the most nutrients from our food when it is local, seasonal, colorful, and organic.



Bee Hives

Discuss how bees play an essential role in agriculture - pollinating crops, increasing yields and producing honey.

Over 1/3 of the food we eat relies on pollination by bees.



Food Insecurity

Food Insecurity is when a person or family does not have consistent access to enough food for a healthy life.

The JK Community Farm donates all of the food grown to local food pantries to make sure everyone has access to healthy food



Here are some tips to cultivate a culture of caring in young children

Offering opportunities for outdoor play will promote an essential connection to nature. Through caring relationships with nature, our food and our communities, children become interested in engaging in a healthy and just present and future.



Duration

Try to keep the duration of the project short. Young children's interests change rapidly. Service learning will be most effective if children start and finish the project in a short amount of time.



Listen

Listen to children when they have an idea for making a difference. Ask them questions to guide their thinking about what may or may not be feasible.



Make Connections

Help children make connections between their interests, experiences, and learning by asking, "how can we help?" and "Is there something we can do?"

is everything clear?

Please find Samantha and Farmer Mike at the Farm for any questions.

We'd love to help!

www.jkcommunityfarm.org



Thank you for a lovely field trip

We hope you had a great time and learned a lot! Below is some additional information on the farm!

Volunteer

We welcome volunteers of all ages throughout the season to join us for planting and harvesting projects. Sign up is available at

www.jkcommunityfarm.org/volunteer

Donate

As a nonprofit, we rely on our community to help us grow. This year the JK Community Farm will donate 135,000 lbs of healthy food to the food insecure in our region, but we need your help to expand.

www.jkcommunityfarm.org/donate

Follow

Keep up with the farm and events on social media

[@jkcommunityfarm](https://www.instagram.com/jkcommunityfarm)

We're on instagram, Facebook, and LinkedIn!



JK COMMUNITY FARM