

**Guide
to Farm Field Trips
for farmers and teachers**

By the Appalachian Sustainable Agriculture Project (ASAP) with funding from USDA/RMA.

ASAP is an equal opportunity provider.



This guide is
dedicated to the farmers and teachers in western North Carolina

*"It is not through constantly seeking new landscapes
that we grow the most. We truly outgrow ourselves when
we take the time to look at familiar landscapes with new eyes."
-author unknown*

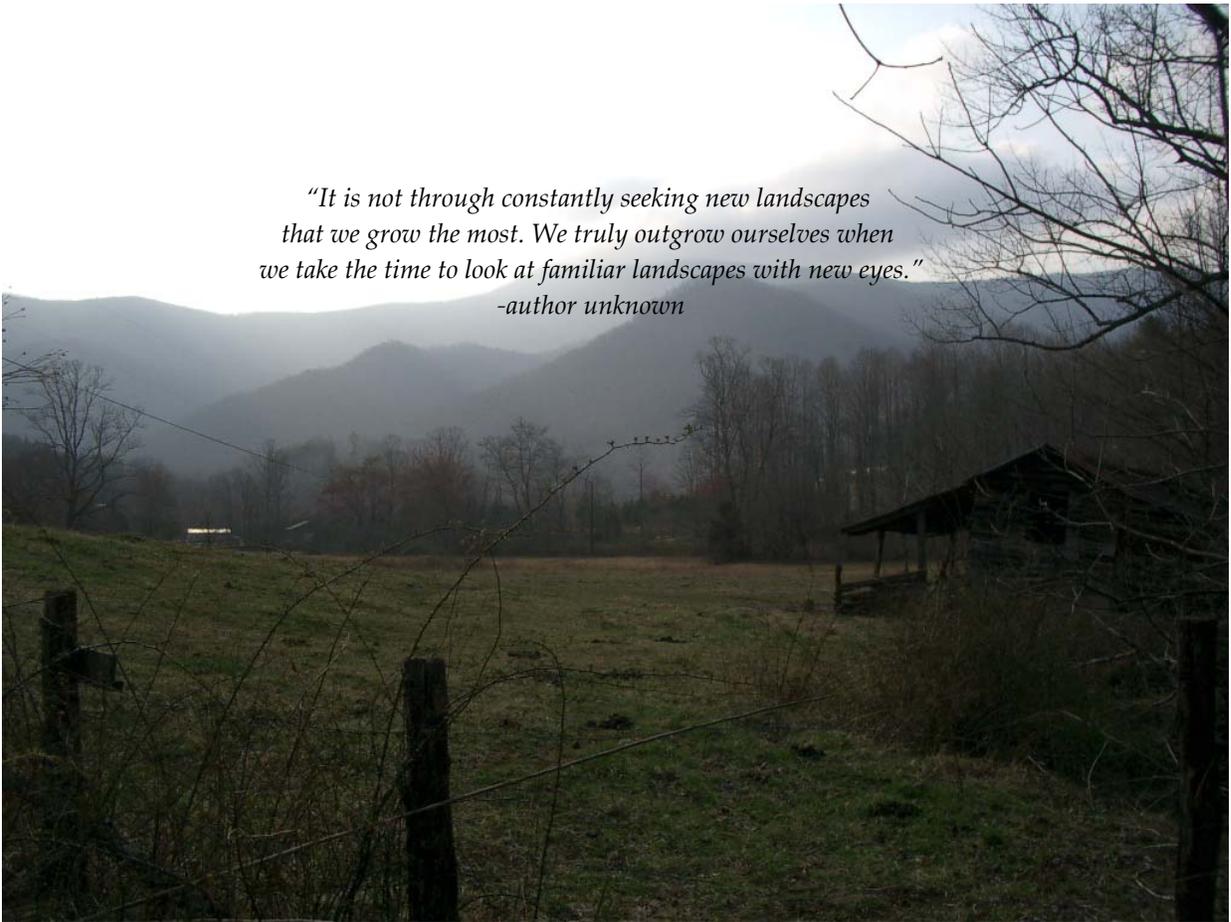




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THE IMPORTANCE OF FARM FIELD TRIPS

When you talk to children about gardens or farms or growing food, the response that you get usually has something to do with “grandmaw” or “grandpaw,” not “mom and dad.” Children today are one generation removed from agriculture and their connection to agriculture is through their grandparents, if at all. Most people bemoan the fact that children in inner cities don’t have a clue about farms. Children in **rural** areas don’t know about farms either and they should! You hear all the time that children believe that their food comes from the grocery store and it’s true. The most perplexing question you can ask a 9-year old is, “Where do pickles come from?” They look at you like they should know the answer and will eventually be able to figure it out, but it’s a tough one for them.

Why should children know where their food comes from? Why should we care?

There’s a quote that sums this up quite nicely – *What people do not understand, they do not value; what they do not value, they will not protect, and what they do not protect, they will lose* [Charles Jordan]. From an agricultural standpoint, we want children to be knowledgeable about local agriculture so they will appreciate it and want to preserve it (maybe become farmers?). Even adults don’t know where their food comes from and that has led us to depend on food grown thousands of miles away and to rely on an increasingly concentrated food system. Local agriculture supports our local economies and makes us more food secure. Local agriculture helps preserve our rural landscape. In western NC, tourism is our number one industry and local agriculture plays a key role in attracting those tourists.



From an educational perspective, there are ENDLESS lessons to be learned on the farm, while you are reconnecting children to local agriculture. Farms need to be more than an abstract notion; farms need to be a hands-on experience so that children can truly understand, with all their senses, just what it means to be on a farm. The more they can touch, smell, and taste the things they are learning about, the more deeply they will understand and remember what they learn. Don’t underestimate the simplest tasks – children absolutely love planting and harvesting and helping with chores. When children sense that the activities are authentic and not some made up activity, then they gain a sense of what it means to farm and can glean the most from the experience.

The goals of this guide are to share the good educational ideas that are already in practice on farms and to encourage and facilitate farm field trips by providing workable, effective ideas for planning

and hosting educationally powerful visits. We have focused suggested activities on elementary school students, though many activities are adaptable for other age groups. This guide can also serve as a resource and starting place for teachers who want to plan farm field trips.

CURRICULUM CONNECTIONS



By grade level (K-5) and subject, here are some of the goals outlined in the NC Standard Course of Study that can be applied to a farm field trip experience. For more information about the NC curriculum, go to <http://www.ncpublicschools.org/curriculum/>

Kindergarten Curriculum Focus Areas

English Language Arts

- Engage in word play.
- Listen and respond to children's literature.
- Build reading and writing concepts, skills, and strategies.

Mathematics

- Number sense 0 – 30
- Calendar time
- Recognize basic shapes
- Create and extend patterns
- Sort and classify

Science

The focus for kindergarten students is on using the five senses to make observations of events in both indoor and outdoor settings that make up their world. The observations that students make provide evidence and data on which to base their scientific explanations. Guide student learning of all goals on the unifying concepts of evidence, explanation, and measurement.

Competency Goal 1: The learner will make observations and build an understanding of similarities and differences in animals.

Competency Goal 2: The learner will make observations and build an understanding of weather concepts.

Competency Goal 3: The learner will make observations and build an understanding of the properties of common objects.

Competency Goal 4: The learner will use appropriate tools and measurements to increase their ability to describe their world.

Social Studies

KINDERGARTEN SELF AND FAMILY/FAMILIES AROUND THE WORLD

Students begin a global approach to social studies with a study of themselves, their families, and other families around the world. They learn how individuals and families grow and change and compare how they are alike and different. Students approach the understanding of self and family while developing and defining concepts about themselves and the family structure. They acquire the concept that all families worldwide have basic common needs, yet meet these needs in a variety of ways. Goals in kindergarten focus on developing positive attitudes about themselves, their families, and families of diverse cultures.

Healthful Living

Strands: Mental and Emotional Health, Personal and Consumer Health, Interpersonal Communication and Relationships, Nutrition and Weight Management, Substance Abuse Prevention, Movement Forms, Fitness and Sport Literacy, Healthful Lifestyles, Health-Related Fitness, Appreciation for Diversity/Social Responsibility

First Grade Curriculum Focus Areas

English Language Arts

- Read a variety of texts in different settings.
- Respond to texts in different ways.
- Use conversational and literary language to express themselves.
- Begin to develop effective listening and speaking skills.

Mathematics

- Number sense 0 – 99
- Single digit addition and subtraction
- Time
- Non-Standard Measurement
- Collect and display data
- Basic geometric shapes
- Create and extend patterns
- Sort and classify

Science

The focus for first grade is on students using their senses to make observations and using their own rules to classify living and nonliving objects. Identifying types and levels of organization helps students find useful ways of describing objects and organisms. Guide student learning to continue to emphasize the unifying concepts introduced in kindergarten, including evidence, explanation and measurement as well as the introduction at grade one of order and organization.

Competency Goal 1: The learner will conduct investigations and make observations to build an understanding of the needs of living organisms.

Competency Goal 2: The learner will make observations and use student-made rules to build an understanding of solid earth materials.

Competency Goal 3: The learner will make observations and conduct investigations to build an understanding of the properties and relationship of objects.

Competency Goal 4: The learner will make observations and conduct investigations to build an understanding of balance, motion and weighing of objects.

Social Studies

Students continue to develop concepts, generalizations, and skills introduced in kindergarten as they learn about their neighborhood and community, and extend their knowledge of others throughout the world. They examine a variety of neighborhoods and recognize the multiple roles of individuals and families. Students explore characteristics of the local government while expanding their understanding of justice, authority, and responsibility. They analyze and evaluate the effects of change and become more aware of diversity and cultural traditions throughout communities.

Healthful Living

Strands: Mental and Emotional Health, Personal and Consumer Health, Interpersonal Communication and Relationships, Nutrition and Weight Management, Substance Abuse Prevention, Movement Forms, Fitness and Sport Literacy, Healthful Lifestyles, Personal Fitness, Appreciation for Diversity, Social/Personal Responsibility

Second Grade Curriculum Focus Areas

English Language Arts

- Use acquired concepts and metacognitive skills to read and write more independently.
- Comprehend and respond to texts using multiple skills and strategies.
- Extend vocabulary skills to use oral and written communication effectively.
- Use reading and listening, speaking and writing, and media and technology resources to accomplish a purpose

Mathematics

- Number sense 0 – 999
- Place value
- Addition and subtraction of multi-digit numbers
- Length, time
- Symmetry and congruence
- Pictographs
- Probability experiments
- Number sentences
- Students will solve relevant and authentic problems using appropriate technology and apply these concepts as well as those developed in earlier years
- Patterns
- Sort and classify
- Line plots, tallies

Science

The focus for second grade students is on analyzing collected data over a period of time to make predictions and understand changes. Changes vary in rate, scale, and pattern, including trends and cycles. Changes in systems can be measured. Guide student learning to continue to emphasize the unifying concepts previously introduced, including evidence, explanation, measurement, order, and organization as well as the introduction at grade two of change. **Competency Goal 1: The learner will conduct investigations and build an understanding of animal life cycles.**

Competency Goal 2: The learner will conduct investigations and use appropriate tools to build an understanding of the changes in weather.

Competency Goal 3: The learner will observe and conduct investigations to build an understanding of changes in properties.

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of the concepts of sound.

Social Studies

The second grade study emphasizes community life in a variety of contexts with a major focus on geography. Students examine how communities may be linked to form larger political units, and how there are cultural, geographic, and economic ties. Through their study of various patterns of community living, the students begin to understand that people's activities are influenced not only by their geographic location, but also by how they use the earth's materials, the physical environment, and human traditions. By looking at communities from a geographic perspective, students become aware of some of the cultural, political, geographic, and economic factors that help bind communities together through both time and space.

Healthful Living

Strands: Mental and Emotional Health, Personal and Consumer Health, Interpersonal Communication and Relationships, Nutrition and Weight Management, Substance Abuse Prevention, Movement Forms, Fitness and Sport Literacy, Healthful Lifestyles, Personal Fitness, Appreciation for Diversity, Social/Personal Responsibility

Third Grade Curriculum Focus Areas

English Language Arts

- Read with fluency and comprehension fiction, nonfiction, poetry, and drama.
- Apply strategies flexibly and strategically for recognizing words, learning new words, and constructing meaning from text(s).
- Expand vocabulary through wide reading, word study, and discussion.
- Write for a variety of audiences and purposes using appropriate formats.
- Use active listening and effective oral communication.
- Use media, a variety of information sources, and technological resources as tools for learning.
- Apply grammar and language conventions to access and communicate information and ideas.
- Reflect upon and make connections among language, texts, and personal experience.
- Apply comprehension strategies and skills to a wide variety of genres.

Mathematics

- | | |
|--|---|
| <ul style="list-style-type: none"> • Number sense 0 – 9,999 • Multiplication and division • Non-negative rational numbers • Capacity and mass • Addition and subtraction of multi-digit numbers | <ul style="list-style-type: none"> • Length, time • Symmetry and congruence • Line plots, tallies, Pictographs • Venn diagrams • Coordinate grids • Circle graphs |
|--|---|

- Permutations and combinations
- Growing patterns
- Variables
- Students will solve relevant and authentic problems using appropriate technology and apply these concepts as well as those developed in earlier years

Science

The focus for third grade students is on identifying systems and patterns in systems. Systems are the units of investigations. A system is an interrelated group of objects or components that form a functioning unit. Students learn to identify portions of a system to facilitate investigation. Systems have boundaries, components, resources, flow and feedback. Guide student learning to continue to emphasize the unifying concepts previously introduced including evidence, explanation, measurement, order, organization, and change as well as the introduction at grade three of systems.

Competency Goal 1: The learner will conduct investigations and build an understanding of plant growth and adaptations.

Competency Goal 2: The learner will conduct investigations to build understanding of soil properties.

Competency Goal 3: The learner will make observations and use appropriate technology to build an understanding of the earth/moon/sun system.

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of the form and function of the skeletal and muscle systems of the human body.

Social Studies

The third grade study is designed to expand the students' concept of "leaders" in relationship to their communities. Students study people of diverse groups, their cultures, religions, traditions, and contributions to the community. Students compare aspects of familiar communities with those of other cultures and other times. They are introduced to problems that "leaders" and communities confront and how conflicts are resolved.

Third graders discover how literature is integrated in the social studies discipline by reading about local, state, national, and global leaders (fictional and non-fictional). They investigate the contributions that these individuals have made to society. Students make connections between deeds leaders perform and the character traits each hero possesses such as courage, self-discipline, perseverance, integrity, respect, responsibility, kindness, and good judgment.

Healthful Living

Strands: Mental and Emotional Health, Personal and Consumer Health, Interpersonal Communication and Relationships, Nutrition and Weight Management, Substance Abuse Prevention, Movement Forms, Fitness and Sport Literacy, Healthful Lifestyles, Personal Fitness, Appreciation for Diversity, Social/Personal Responsibility

Fourth Grade Curriculum Focus Areas

English Language Arts

- Explore a wide range of texts and their distinguishing features.
- Expand vocabulary through wide reading, word study, exposure to content area words, and discussion.
- Routinely spell high frequency words and use resources to check spelling.
- Write for a variety of purposes and audiences and use writing as a tool for learning.
- Communicate effectively with different audiences through spoken, written, and visual formats.
- Use media and technological resources for research and as tools for learning.
- Use increasingly sophisticated knowledge of grammar and language conventions in oral and written products and presentations.
- Apply comprehension strategies critically, creatively, and strategically.

Mathematics

- Number sense 0.01 – 99,999
- Multiplication and division of multi-digit numbers
- Perimeter and area
- Transformations
- Line graphs
- Median, mode, and range
- Variables in number sentences
- Proportional reasoning
- Whole number computation
- Non-negative rational numbers
- Capacity and mass
- Length, time, capacity, and mass
- Symmetry and congruence
- Coordinate grids
- Circle graphs
- Permutations and combinations
- Students will solve relevant and authentic problems using appropriate technology and apply these concepts as well as those developed in earlier years

Science

The focus for fourth grade students is on analyzing systems and learning how systems work. Thinking about and analyzing systems help students understand the relationships of mass, energy, objects, and organisms. Students learn that systems may be made up of subsystems and that systems have structure and function, feedback, equilibrium, and that there are both open and closed systems. Guide student learning to continue to emphasize the unifying concepts previously introduced (including evidence, explanation, measurement, order, organization and change, and systems) as well as the introduction at grade four of form and function.

Competency Goal 1: The learner will make observations and conduct investigations to build an understanding of animal behavior and adaptation.

Competency Goal 2: The learner will conduct investigations and use appropriate technology to build an understanding of the composition and uses of rocks and minerals.

Competency Goal 3: The learner will make observations and conduct investigations to build an understanding of magnetism and electricity.

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of how food provides energy and materials for growth and repair of the body.

Social Studies

Fourth grade students proceed from the study of individuals who make a difference in their communities and the world to a study of North Carolina. Students explore geographic regions, landforms, climate, and resources of the state. They learn about the state's social, economic, and political institutions and how these institutions respond to the needs of North Carolinians. Students build a base of knowledge about economic principles and technological developments, about past experiences in the state and about present day practices. They study the land and its people analyzing the diverse groups that have contributed to the development of North Carolina beginning with the American Indians up to the revolutionary period. Additionally, students have the opportunity to draw parallels between contemporary issues and their historical origins.

Healthful Living

Strands: Mental and Emotional Health, Personal and Consumer Health, Interpersonal Communication and Relationships, Nutrition and Weight Management, Substance Abuse Prevention, Movement Forms, Fitness and Sport Literacy, Healthful Lifestyles, Personal Fitness, Appreciation for Diversity, Social/Personal Responsibility

Fifth Grade Curriculum Focus Areas

English Language Arts

- Use reading and writing to learn about and understand their world and other cultures.
- Evaluate text to determine the author's purpose and point of view.
- Increase vocabulary knowledge through wide reading, word study, discussion, and content area study. Use print and non-print media to persuade an audience.
- Use metacognitive skills to accomplish a task independently or as a group member.
- Research multiple sources to deepen understanding and integrate information and ideas across varied sources and content areas.
- Apply comprehension strategies critically, creatively, and strategically.
- Use media and technology as resources for extended research and as tools for learning.

Mathematics

- Number sense 0.01 – 99,999
- Multiplication and division of multi-digit numbers
- Perimeter and area
- Transformations
- Line graphs
- Median, mode, and range
- Variables in number sentences
- Proportional reasoning
- Whole number computation
- Non-negative rational numbers
- Capacity and mass
- Length, time, capacity, and mass
- Symmetry and congruence
- Coordinate grids
- Circle graphs
- Permutations and combinations
- Students will solve relevant and authentic problems using appropriate technology and apply these concepts as well as those developed in earlier years

Science

Fifth grade students focus on evidence, models, and scientific explanations. Evidence consists of observations and data on which to base scientific explanations. Using evidence to understand interactions allows students to predict changes in natural and designed systems. Models are tentative schemes or structures that represent real objects. Models help students understand how things work. Explanations incorporate prior scientific knowledge and new evidence from observations, experiments, or models into consistent, logical statements. As students understand more science concepts and processes, their explanations should become more accurate and logical. Guide student learning to continue to emphasize the unifying concepts previously introduced as well as the introduction at grade five of models.

Competency Goal 1: The learner will conduct investigations to build an understanding of the interdependence of plants and animals.

Competency Goal 2: The learner will make observations and conduct investigations to build an understanding of landforms.

Competency Goal 3: The learner will conduct investigations and use appropriate technology to build an understanding of weather and climate.

Competency Goal 4: The learner will conduct investigations and use appropriate technologies to build an understanding of forces and motion in technological designs.

Social Studies

The fifth grade study extends the focus to geographic regions of the United States, Canada, Mexico, and Central America. Students learn about the people of these nations and the physical environments in which they live. As they examine social, economic, and political institutions, students analyze similarities and differences among societies. Concepts for this study are drawn from history and the social sciences, but the primary discipline is cultural geography. Given the swiftness of change and our global information systems, students' examinations of these concepts must require continuous reference to current events and trends.

Healthful Living

Strands: Mental and Emotional Health, Personal and Consumer Health, Interpersonal Communication and Relationships, Nutrition and Weight Management, Substance Abuse Prevention, Movement Forms, Fitness and Sport Literacy, Healthful Lifestyles, Personal Fitness, Appreciation for Diversity, Social/Personal Responsibility

FARMER CONSIDERATIONS

Why open your farm for field trips?

For many farmers opening their farms to school groups is a daunting concept. In addition to the time, planning and organization involved, issues of insurance and liability are usually at the forefront of considerations. Although these are important issues that farmers must consider, the benefits can outweigh these hassles. If a farmer is interested in farm field trips as a source of income it can be a viable supplement if there is a market in their community. Urban and rural students alike are disconnected from where their food comes from and lack experiences on a farm. Offering educational activities and programming on farms is an important piece of reconnecting children to their food and agricultural heritage and building future generations of citizens that care about farms and farming. Ideally farm field trips can be a source of income for farmers, while at the same time offering valuable real life experiences connecting students to food and community.



Before you begin

Before you begin advertising your farm as a field trip destination you may want to consider some logistics and what your focus or goals may be.

What you will need:

- **A Plan** -What activities do you plan to do? What age group(s) would you like to work with? What do you plan to charge per child? Per group? Do you plan on having a group minimum or maximum? Make a rain plan – have strategies for handling surprise weather changes and a

cancellation policy due to weather. The more specific your plans are for your farm field trips the smoother they will run.

- **Personnel** - How many groups do you expect to serve during a season? Are you and your family capable of providing the time for each group or does seasonal help need to be hired? Personnel can sometime be difficult to find on a seasonal basis, depending on the hours you plan to be open for visitors and the number of groups you can or are able to manage.
- **Parking** -To cater to school groups you need to make sure there is a site in which school buses have space to turn around, load and unload. What would be the flow of traffic? How much space do you have available for car parking?

- **Facilities** -At a minimum you will need a bathroom available. Many farms rent port-a-potties. If students will be petting farm animals or eating food, sites for hand washing should also be made easily accessible.
- **Insurance** – Find out what activities you are covered for and plan accordingly. Students may be covered through their schools. You may want to ask teachers to provide a letter from the school or school board saying the schools liability insurance covers students during field trips.

In 2005 the NC legislature passed “Limited Liability Arising from Certain Agritourism Activities”, a law intended to discourage lawsuits against agritourism operators. Signs were recommended as a way to make participants or visitors aware of the inherent risks of agritourism activities. For more information about this legislation, go to the limited liability section of the NCDA agritourism page www.ncagr.com/agritourism . For more information about how to purchase limited liability signage for your farm go to the NC Agritourism Networking Association page http://www.ncsu.edu/project/calcommblogs/archives/2005/12/agritoursim_ass.html .

Some programs include one or more of the following:

- Wagon rides
- Observational bee hive
- Farm animals
- Storytelling
- Take home a pumpkin/plant
- Planting seeds and take them home
- Corn maze
- Hay maze (younger children)
- You pick – berries/apples
- Pollination activities/games
- Heritage activities - seed saving, weaving, quilting, doll making
- Pony rides/horseback riding
- Picnic shelter/area
- Agricultural classes
- Farm tours
- Produce/product stands
- Taste testing/cooking
- Gifts/souvenirs
- Seasonal activities – pumpkin carving/egg painting
- Campfires
- Cut your own flowers
- Face painting
- Square dancing
- Scavenger hunts
- Bird watching
- Hiking
- Nature walks
- Farming demonstrations – sheep shearing, spinning wool, grinding corn, sheep herding, milking
- Pressing cider
- Farm/garden chores
- Sketching and painting
- Fishing



WHAT TEACHERS NEED TO KNOW

Please bring the following things:

- Good sun hat
- Sturdy shoes (no open toes)
- Water bottle
- Wind parka or rain gear (if rain is likely)
- T-shirt
- Long pants, with shorts as an option
- Notebooks, art paper, pens
- Recyclable (reusable) eating utensils and plates
- A bag lunch (minimal waste please)

Children should be prepared for both hot and cool weather.



Lunch, water and snacks:

If a farm is able, it is great to have a fresh farm snack for students. Whether or not the students will need to bring lunches should be predetermined so that students are prepared. Water is essential to ensure that students remain hydrated. Some days on the farm the students may wilt like plants due to the heat so it is imperative that they have a

refillable water bottle with them throughout the day. Encourage reusable containers for the students' lunches to minimize waste and bring garbage bags to carry your lunch waste (besides the compostable matter) out with you. Water is critical. If there isn't drinking water available, the teacher must know ahead of time. Hand washing stations are equally important.

Name tags

Using a student's name personalizes the experience for them. Ensuring that students, teachers, parents and chaperones all have name tags makes the day go smoother.

Weather

Make sure students are prepared for all types of weather. Determine if you will have a rain day for the farm visit. Does rain cancel the trip? Make sure to distinguish who is responsible for monitoring weather.

LOCAL FARM FIELD TRIP DESTINATIONS

For details and contact information, consult ASAP's Local Food Guide www.AppalachianGrown.org

Dairy/cheese making

Mountain Farm (goat dairy) – Burnsville/Yancey County

Yellow Branch Creamery and Pottery – Robbinsville/Graham County

Spinning Spider Creamery (goat dairy) – Marshall/Madison County

Bread

Natural Bridge Bakery – Marshall/Madison County

Wake Robin Farm Breads – Marshall/Madison County

Meat Production

Hickory Nut Gap Farm, Springhouse Meats –

Fairview/Buncombe County

Warren Wilson College – Swannanoa/Buncombe County

U-Picks (apples, berries, plus hayrides and corn mazes)

Altapass Orchard – Spruce Pine/Mitchell County

Hickory Nut Gap Farm – Fairview/Buncombe County

Sky Top Orchard – Hendersonville/Henderson County

Stapp's Hillcrest Orchard – Hendersonville/Henderson County



Soap Making

Blue Ridge Soap Shed – Spruce Pine/Mitchell County

Mountain Farm – Burnsville/Yancey County

Vegetable Production/CSA

Flying Cloud Farm – Fairview/Buncombe County

Full Sun Farm – Sandy Mush/Buncombe County

Green Toe Ground Farm – Burnsville/Yancey County

Holly Hill Farm – Pisgah Forest/Transylvania County

Warren Wilson College Garden – Swannanoa/Buncombe County

Whistlepig Farm – Candler/Buncombe County

Llamas, Tractor rides, Christmas trees

Sandy Holler Farm – Sandy Mush/Buncombe County

Draft Horses

Doubletree Farm – Marshall/Madison County

Apple Packing House Tour

Apple Wedge Packers and Cider – Hendersonville/Henderson County

Aquaponics

Energy Xchange – Burnsville/Yancey County

On the site of a capped landfill, the Energy Xchange uses landfill methane gas to heat an aquaponics greenhouse (raising fish and using fish waste water to grow basil) and greenhouses for native landscape plants. Gas also used to fuel potter's kiln and glassblowing studio. Good trip for older kids.

Sustainable Agriculture Program

Youth Fresh Food Initiative – Swannanoa/Buncombe County

Students at this alternative high school manage an organic garden, selling heirloom vegetables, herbs, and flowers at markets.



Berries/Mushrooms/Rabbits

Imladris Farm – Fairview/Buncombe County

Environmental Center

Long Branch Environmental Center – Sandy Mush/Buncombe County

Trout

Otter Creek Trout Farm – Topton/Cherokee County

Activity Plans from Hickory Nut Gap Farm-Spring House Meats (Provided by Amy Ager)

1ST GRADE: Basic Needs

Farm Tour

Objectives:

- Interact and observe plants and animals such as: corn, pumpkins, apples, sheep, pigs, cows, and chickens
- Introduce the concept of 'basic needs' in relation to plants and animals
- Investigate and compare the needs of farm animals and field crops

Materials:

Standard Course of Study Goals:

Science- 1.01, 1.02, 1.03

Time: 1 hour

Procedure:

1. Gather the group together at the barn before beginning the farm tour.
2. While walking around the farm stop at a designated location to begin the discussion on 'basic needs'. Ask students what they believe a basic need of a living thing is. Relate this to plants and animals found on the farm, touching on the basics such as air, water, food, and shelter.
3. Walk the group around the farm, stopping to observe farm animals while continuing the conversation on basic needs. Allow time to interact with the farm animals.
4. Stop the tour at the pumpkins and the corn to allow students to observe and inspect the plants. While looking at each crop instruct children to think about what the plants need to survive. After spending time with both the corn and the pumpkins begin a discussion relating to space, light, water, soil, and air needs for both crops.

Break Time

Objectives:

- Experience a farm fresh product and a healthy snack

Materials: An apple for each student and chaperone

Standard Course of Study:

NA

Time: 10 minutes

Procedure:

1. The group arrives back at the barn. Time is allowed for bathroom and hand washing. After the students are done, they are given an apple to snack on.

Lessons / ActivitiesActivity # 1

Brief Description: Children learn the names of farm animals, their babies, and the noise that particular animal makes.

Objectives:

- Recognize different names for adult and baby farm animals
- Understand the role of a parent animal for its offspring
- Connect animals noises with the correct farm animal

Materials: Large index cards with a picture of a particular farm animal and its name on the front. The reverse side of the card has a picture of that animal as a baby and the name of the baby. For example, cow and calf or sheep and lamb. Multiple pieces of cut-up paper with the names of each momma and baby written on them. There will be more than one of each pair.

Time: 15 minutes

Procedure:

1. Explain the next activity is a game called Animal Babies. Present the large index cards to the students. Explain the front of the card is the name and picture of an animal raised on the farm. The back is the name and picture of that animals' baby.
2. Show the student a picture and tell them say the name together. Then ask if anyone knows what the baby is called. After running through the names, tell the group to make the sound together.
3. Run through the cards twice. Saying the names of mommas, babies, and making the noises together.
4. Explain that they are going to play a game using the names they just learned. Give the directions to the game: Each child will receive one card with a name on it. The names correspond with the names that they just learned: cow, calf, horse, fowl, chick, chicken, pig, piglet, sheep, lamb. After they get their card, they are to look at the animal they are. Their job is to spread out and find their mother or baby. If they are a sheep, they must find a lamb and vice versa. In order to find their partner they must run around making the noise of the animal they are representing. For babies they get down really low and walk around, while mothers stand as tall as they can. This allows them to distinguish between mommas and babies. After they find each one and other, they must put their hand together high in the air and make their noise together.
5. Instruct students to stand in a line in order to receive their cards. Before handing out cards, explain that some of the words are hard to read but an adult will help them read their word.
6. Hand out cards to each student. After everyone knows what animal they are, allow the game to begin.
7. Assist students having trouble finding their partner.

8. Play the game at least twice, depending on group dynamic and time.
9. After playing lead children in a discussion of the importance of momma animals. Bridge this conversation into the basic needs discussion.

Adapted from: <http://www.eduplace.com/ss/act/farm.html>

Activity # 2

Brief Description: Children work in small groups to count the number of kernels found on one ear of corn.

Materials: Kernels of corn, previously taken off the ear and put into a glass jar.
A table to sort and count kernels, pen and paper.

Standard Course of Study Goals:
Math- 1.02, 1.04

Time: 15 minutes

Procedure:

1. Fill two or three glass jars (depending on the group size) with a designated amount of kernels. Place them out on tables for children to look at. Make sure that each child can see a jar.
2. Instruct students to make an educated guess of how many kernels are in the jar and write down the number.
3. With the instruction of a leader, students work in small groups to count the kernels. Depending on their ability, students can count by twos, fives, etc. Have students write their final number down on paper.
4. Discuss the difference between student's guesses and the actual amount of kernels.

5TH GRADE: Eco-Systems

Farm Tour

Objectives:

- Compare and contrast agricultural, forest, and stream eco-systems
- Explain an eco-system flow chart including: individual, population, community, and eco-system
- Review soil types and particle size in relation to eco-systems

Materials:

Standard Course of Study Goals:
Science: 1.01, 1.02

Time: 1 hour

Procedure:

1. Gather the group together at the barn before beginning the farm tour. Explain the importance of following the rules and staying with a leader.
2. Begin to discuss the definition of an eco-system. Start by explaining the definition of an individual, population, community, and finally an eco-system.
3. Describe the difference between an aquatic and terrestrial eco-system. Then lead into how agricultural, creek, and forest eco-systems are similar and different.
4. While walking around the farm, draw students' attention to the environment they are presently in. Question them as to what differentiates eco-systems from one and other.
5. After visiting all the animals, lead the tour back to the barn.

Break TimeObjectives:

- Experience a farm fresh product and a healthy snack

Materials: An apple for each student and chaperone

Standard Course of Study:

NA

Time: 10 minutes

Procedure:

2. The group arrives back at the barn. Time is allowed for bathroom and hand washing. After the students are done, they are given an apple to snack on.

Lessons/Activities**Activity #1**

Brief Description: Students work in small groups to complete an eco-system scavenger hunt around the farm.

Objectives:

- Imersion in each of three previously discussed eco-systems
- Applying concepts of eco-systems in scavenger hunt
- Understanding of an eco-system flow chart including: individual, population, community, and eco-system
- Explore the farm in small groups

Materials: A journal for each group. An eco-system tool kit for each group including: a list of questions, yarn, tape measurer, plastic containers, magnifying glass.

Standard Course of Study Goals:

Science: 1.01

Time: 1 hour

Procedure:

1. Explain the next activity is an Eco-system Scavenger Hunt. The class will be split into small groups, with each one receiving a tool kit. An adult supervisor is assigned to each small group.
2. Review the rules with the group, stressing the danger of the road.
3. Split up the groups and let the children begin.
4. After 45 minutes gather the groups back together in the barn. Begin a discussion on what each group found.

ECO-SYSTEM SCAVENGER HUNT

1. Gather a soil sample from each of the three eco-systems: forest, creek, and agricultural. Compare and contrast the texture, color, moisture, particle size, ect.
2. Collect a living organism from each of the terrestrial eco-systems. Collect a non living organism from the aquatic eco-system.
3. Choose one farm animal and walk to the pasture it is in. While looking at the animal, draw an eco-system flow chart. Be sure to include individual, population, community, and eco-system as a whole. Hint: Look at the sample flow chart for help.
4. Measure the circumference of the largest tree you can find in the forest eco-system.
5. Each member of the group needs to bring back the most colorful leaf he/she can find.

STARTING YOUR AGRITOURISM VENTURE

An agritourism farm is a value-added farm or ranch that provides pleasure as well as recreation, information, education or other experiences or services for which the public may or may not pay admission to participate in and/or purchase an agricultural product or activity. The following questions provide a starting place for farmers interested in developing agritourism farms.

First Steps

1. What do **you** want to do? Do you have a firm idea of your goal(s) for your agritourism farm?
 - Have you made a list of the activities you want to provide?
 - Have you made a list of the resources, both natural and man-made, that you have available on the farm and which are attractive to agritourism venues?
2. Who do you want to serve? Ages, size of groups, how often?
3. How much do you have to invest?
 - Time
 - Money
 - Other resources
4. How ready are you? How far along are you?
5. When do you want to open for business? Do you have a timetable or schedule?
6. Do you want to provide an educational program?
7. Do you have historical or cultural information to provide?

Beginning a Business

8. Do you have a business plan? A strategic plan?
9. Do you know your land use rights?
10. Do you want to charge for your services? Do you know how much money you need or want to make?
11. Have you talked with your insurance agent about the possible need to increase liability coverage? Do you need or want to provide health insurance for employees?

Other Support Agencies

12. Have you talked to the NCDA&CS Food and Drug staff, the Marketing Division, or the NCSU Food Science staff to see what resources are available to help you with valueadded processes, such as processing a commodity before it is marketed or changing the way a product is packaged?

Local Issues and Regulations

13. How much of your current land holdings do you plan to use? Are you planning to buy more land? Is the use of any of your land prohibited for agritourism activities? Have you talked to the local planning board?
14. Are there other agritourism farms nearby that could compete with you?
15. Are there land, water or wildlife issues that might impact your plans negatively? Positively?
16. Have you researched local legal and liability considerations or regulations such as planning and zoning, health, environmental quality through your local agricultural extension offices, business and economic development offices, Secretary of State, and tax

offices?

17. Have you talked to your neighbors about your plans? Will they be receptive and supportive, or irritated? Do you have a plan to overcome negative feedback?

18. Is there adequate parking for large groups?

19. Is your facility ADA accessible?

20. Do you have restroom and handwashing facilities?

Marketing Your New Agritourism Farm

21. Do you have a marketing plan?

22. Have you researched organizations to join to promote your farm, such as the Chamber of Commerce or the local Convention and Visitors Bureau, or other farm organizations that promote agritourism?

23. Have you researched other nearby crafts and rural entertainment resources to partner with?

24. Have you thought about off-site signage to offer advertising and directions to your farm?

25. Have you planned for on-site signage for highlighting activities and/or educational experiences?

26. Have you thought about hospitality services, such as who will welcome your visitors and who will show them around the farm? Will you have guides for guided tours?

27. Will you have a gift shop or sell souvenirs? Do you plan to sell homemade foods?

28. Will you have a plan for tracking your visitors to know where to increase or decrease marketing efforts?

29. Will you give away coupons for future visits? Discounts for large groups? Special incentives for school groups?

30. Do you want to advertise on the internet? Have you checked out the General Store in the Department of Agriculture and Consumer Services at www.ncagr.com/ncproducts?

31. Do you have access to email? Do you have or plan to have a webpage?

32. Do you want to have a newsletter or send out press releases or plan a media kit?

Networking with Other Agritourism Farmers

- North American Farmers Direct Marketing Association – www.nafdma.com

- NC Agritourism Networking Association – contact the Agritourism Office, NC Dept. of Agriculture and Consumer Services –

- www.ncagr.com/agritourism

This information is designed to help potential agritourism farmers do their research and gather information about developing an agritourism farm. It is published as the first of four documents. The other three in the series are Suggestions for Helping You Start an Agritourism Venture, Business Resources for Agritourism Farmers and Agritourism Resource Persons, published by the Agritourism Office of the North Carolina Department of Agriculture and Consumer Services. All four documents are available by request and can be emailed.

Developed by Martha Glass, Manager
Agritourism Office, Marketing Division
martha.glass@ncmail.net

919-733-7887 x.276

NC Department of Agriculture and Consumer Services

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