

SAE Idea Sheet

Submitted by Leland Bunting and used in cooperation with the University of Illinois at Urbana-Champaign.

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Agricultural Education Program
College of Agricultural,
Consumer and Environmental Sciences
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

National FFA Organization

Ideas for Student SAE Activities

P - placement

E - entrepreneurship

R - research/agriculture

X - exploratory/service

CAREER AREA: Animal Systems (1 of 7)

(livestock, wildlife, companion animals, aquaculture, poultry, equine)

SAE Activity Idea	Type of SAE
Buy and show a calf at fairs.	E
Form a cooperative with other students to raise broiler chickens.	E
Grow catfish for sale to local cafes.	E
Operate a pet sitting service.	E
Organize and/or run a petting zoo at local fairs or farmers markets.	E
Provide a kennel cleaning service.	E
Provide equine training services.	E
Provide fishing and hiking services for area youth groups and elementary students.	E
Raise and sell farm fresh eggs.	E
Raise and sell purebred dogs.	E
Raise and train hunting dogs.	E
Raise chinchillas, hamsters, gerbils and sell them on the Internet.	E
Raise fish for the state fish and game department.	E
Raise game birds to sell for the training of bird dogs.	E
Raise game fish for sale to stock ponds.	E
Raise indigenous snakes and release into the wild (at approved area) each summer.	E
Raise market pigs.	E
Raise pheasants or quail to be released into the wild.	E
Raise your own livestock or specialty animals.	E
Run a trapping business.	E
Start a dog obedience training service.	E
Start a dog walking business.	E
Assist a horse group that assists handicapped students.	P
Assist at a horse stable.	P
Create a classroom pet adoption program with elementary schools.	P
Maintain the school's aquaculture system.	P
Manage a small aquatics lab.	P
Participate in a mentorship program with a taxidermist.	P
Take care of classroom animals.	P
Work as a beef feedlot assistant.	P
Work as a veterinarian assistant.	P
Work as a wildlife outfitter or guide.	P
Work at a university research lab caring for small animals.	P
Work at livestock farms or a ranch.	P

Work at pet shop.	P
Work at the local livestock auction barn.	P
Work for a pet sitting service.	P
Work for a predator control service.	P
Work for a rodeo company caring for animals and assisting with rodeos.	P
Work for the state game and fish department.	P
Work in the grocery store meats department.	P
Work on a dairy farm or heifer raising farm.	P
Work on an exotic animal farm.	P
Conduct feed trials for growing broiler chickens.	R
Research cage layers versus floor layers for egg production.	R
Research effectiveness of various estrus synchronization hormones.	R
Research feed trial testing differing swine diets.	R
Research methods of predator control, methods of trapping.	R
Discover the number of pet owners in community and their priority concerns.	R
Research the best diet to help obese pets lose weight.	R
Study the effects of genetic selection in groups of animals over time.	R
Test the selection of young pigs based on grade and lean yield at slaughter.	R
Assist at local animal shelter.	X
Conduct a survey of all livestock operations in your area.	X
Conduct surveys of wildlife populations.	X
Coordinate and conduct a horse safety camp.	X
Maintain aquariums for local businesses.	X
Manage livestock show and supplies for FFA chapter.	X
Plan and implement a "hands on" livestock field trip.	X
Provide a lost home for homeless pets.	X
Staff FFA displays that have farm animals at county and state fairs.	X
Take small animals to nursing homes for visits.	X
Volunteer to assist with a livestock show or county fair.	X

CAREER AREA: Business Systems (2 of 7)

(sales, service, farm and ranch management, economics)

SAE Activity Idea	Type of SAE
Operate custom combining service.	E
Operate custom heifer raising service.	E
Operate custom hog raising business.	E
Work at a seed corn dealership.	E
Operate a poultry litter clean out service.	E
Operate a lawn maintenance/mowing service.	E
Start a franchise of existing fruit/vegetable stand.	E
Start service that cleans leaves from gutters.	E
Operate a hay hauling service.	E
Operate a custom spraying service.	E
Work as a service provider in grocery store.	P
Work for local cement company that installs ag applications.	P
Work as a grain tester/handler for a local elevator.	P
Be a sales associate at a garden or farm supply store.	P
Work at the local feed store.	P

Work for a local tax accountant that handles ag customers.	P
Work for the local ag insurance agency.	P
Work for an ag marketing services company.	P
Work as an intern for the local agriculture department.	P
Work for an irrigation service provider.	P
Work for an ag auctioneer service.	P
Work as an assistant sales manager at a turf equipment company.	P
Interview salespeople at the local greenhouse about customer buying habits.	R
Inventory and categorize all ag-related businesses in the community.	R
Research cost of production in your area to others areas of state/country.	R
Study the change in input costs over time for a given ag business.	R
Research the changes in buying habits among farmers over time.	R
Compare the role of women in operating ag businesses over time.	R
Conduct insect scouting for a seed corn company.	R
Assist other students in applying for youth loans.	X
Start a weekly price reporting service to publish in newsletter.	X
Create a 10 minute presentation for other members about careers in agribusiness.	X
Find two articles each week about the economics of the agriculture industry.	X
Volunteer to do website and brochure development for local ag businesses.	X
Volunteer to assist FFA members with records and applications.	X
Shadow an ag banker or loan officer.	X
Produce a weekly column for the local newspaper about agricultural issues.	X

CAREER AREA: Environmental Service Systems (3 of 7)

(pollution prevention, water and air quality, waste management, health and safety)

SAE Activity Idea	Type of SAE
Start a leaf collection service in the fall and sell mulch in the spring.	E
Own and operate a water systems farm drainage (tiling) company.	E
Start a service to collect used pesticide containers.	E
Sell shop safety equipment door to door.	E
Create service to remove algae from area lakes and fishing ponds.	E
Sell radon detectors and collect samples.	E
Start a water sample collecting service.	E
Start a manure removal business for acreage owners.	E
Start a wood chipping service for people and/or sell the chips as mulch.	E
Assist local agencies with data collection for watersheds.	P
Work for a company that installs plastic drainage tile farm fields.	P
Work for a testing laboratory.	P
Develop marshlands for game.	P
Work as a trencher for waste water lagoons.	P
Work at a fishery monitoring water quality.	P
Work for the natural resource and conservation district.	P
Assist landowners with installation of soil conservation practices.	P
Conduct a local water quality study.	R
Research area pollution concerns.	R
Study pollution control practices.	R
Research rate of accidents on area farms and compare to national averages.	R
Study animal waste legislation at local, state and federal level.	R

Research methods for preventing common accidents in agriculture dept. laboratory.	R
Monitor dust levels in air at various sites and various times throughout year.	R
Research the effects of livestock feed on waste issues.	R
Monitor pollen counts in an area by working with labs and weather stations.	R
Research the effects of various cover crops on erosion.	R
Work as a water quality lab assistant.	R
Conduct a tour of area farms and ranches that practice effective pollution control.	X
Develop plan to manage school food waste.	X
Lead farm safety program for elementary students.	X
Volunteer to monitor water quality for community pond.	X
Assist community watershed action groups.	X
Collect water samples for local or state agencies.	X
Conduct workshops for homeowners on composting.	X
Develop and implement a farm safety class for elementary school students.	X
Establish green belts along streams on your farm.	X
Research the benefits of CRP.	X
Put together a town safety package---mark all signs, fire hydrants and water drains.	X
Take part in a mentorship program with the local soil and water conservation district.	X

CAREER AREA: Food Products/Processing Systems (4 of 7)

(product development, processing, packaging, health and safety)

SAE Activity Idea	Type of SAE
Sell gourmet popcorn products.	E
Use unsalable zucchini in baked goods as a side to vegetable production.	E
Raise trout and sell to local restaurants.	E
Process and sell specialty products--bison, wild flowers, ostrich.	E
Process wild game for jerky, etc.	E
Collect wild mushrooms and sell to local vendors.	E
Sell picked vegetables.	E
Make jams and jellies for sale at a farmers market.	E
Start a service to grow gardens for the elderly.	E
Work for and/or operate a wild bird processing service.	E
Work at local bakery.	P
Work at a meat production plant.	P
Work at a produce facility that repackages and sells produce.	P
Work at a vegetable or fruit canning factory.	P
Work at a cranberry farm.	P
Work for an agricultural seed cleaning and bagging company.	P
Work in a deli or bakery at a grocery store.	P
Help at a local fruit/vegetable stand.	P
Assist at an herb farm.	P
Deliver sweet corn to customers for a local grower.	P
Assist with produce selection at a grocery store.	P
Research genetic crossings in winter squash.	R
Research the environmental effects on milk.	R
Create classroom activities.	R
Research genetic changes in various vegetable crops.	R
Test ideas for new food products.	R

Research incidents of food borne illnesses in a community.	R
Study the impact of various styles of labels on people's perception of the food product.	R
Research why new food products fail to sell.	R
Research the development and use of edible soybeans.	R
Prepare a food safety information kit covering safe handling of meat, eggs and other fresh food products.	X
Present a food safety demonstration to elementary students.	X
Work to establish a community vegetable garden.	X
Create posters that show foods from raw to finished product.	X
Interview three companies that process or package food products.	X
Create an ad promotion for local food products on chapter website.	X
Grow vegetables to give to local food pantry.	X
Ask farmers for permission to glean fields for food to give to homeless shelters.	X
Shadow a USDA meat inspector.	X

CAREER AREA: Natural Resources Systems (5 of 7)

(habitat conservation, forest products, parks and recreation, mining, fisheries, soil conservation)

SAE Activity Idea	Type of SAE
Raise wild game fowl for sale to local hunters.	E
Stock and maintain fish populations in ponds.	E
Raise Christmas trees and sell at Christmas time.	E
Cut fire wood and sell at local stores.	E
Raise fish for the state fish and game department.	E
Operate a trapping business.	E
Contract with landowners to plant food plots for wildlife.	E
Construct and sell game feeders.	E
Create and sell soil survey maps for area farmers and land owners.	E
Build bat, bird, duck, squirrel houses for use or sale.	E
Develop hunting ranges; set up indoor/outdoor ranges for bow competitions.	E
Develop a forest/wildlife management plan for a local landowner.	E
Clean and prune orchards.	P
Work in the logging business.	P
Work for a landowner to plant habitat for wild game.	P
Serve as hunting guide.	P
Maintain and supervise the school prairie or grounds.	P
Provide outdoor education material at camps.	P
Work at a saw mill.	P
Work for a park service during the summer.	P
Work for a nature center.	P
Assist Christmas tree farmers with planting and trimming.	P
Assist local city management with summer programs as a guide.	P
Work for the fish and game department.	P
Work for parks and recreation in maintenance.	P
Work at a bait shop.	P
Assist a timber stand improvement specialist.	P
Attend the meetings of local or state conservation boards.	X

Interview a naturalist.	X
Shadow officials at a government natural resources agency.	X
Start a fish pond and teach small children and adults to fish.	X
Habitat construction-----make brush piles, plant wildlife habitat.	X
Develop habitat trails for walking or hiking.	X
Woodlot management and improvement including firewood, habitat, etc.	X
Process and deliver seedlings to elementary school students.	X
Create activities or laboratories for a natural resources class.	X
Organize and participate in a wildlife field day.	X
Plan a wildlife field trip.	X
Clean shelterbelts and stack refuge in piles.	X
Volunteer to assist at campgrounds with cleanup and maintenance.	X
Research best practices for improving fish habitat in local ponds.	R
Research the benefits of using GIS mapping for natural resources.	R
Create posters on soil conservation practices for homeowners.	X
Create a brochure on creating wildlife habitat in backyards to share with community.	X
Study soil profiles from multiple locations in your community and develop a soil map.	R
Study the effects of excessive lawn chemicals on wildlife.	R
Research the effectiveness of habitat restoration projects in your community.	R
Study the changes in mining industry techniques over time.	R
Research your local parks to find out what activities people like and use the most.	R
Research the impact of various insects on woodlot management.	R
Discover the native plants for your ecological area and determine how prevalent they are currently.	R
Research impact of using ATVs on public lands.	R

CAREER AREA: Plant Systems (6 of 7)

(agronomy, horticulture, forestry, turf, viticulture, soils)

SAE Activity Idea	Type of SAE
Grow flowers for sale at a local farmers market.	E
Rent land from a neighbor and grow soybeans.	E
Start your own pruning business.	E
Start your own spraying business.	E
Start your own forage testing service.	E
Start your own soil sampling business.	E
Start your own lawn mowing business.	E
Grow and sell plants through the high school greenhouse.	E
Raise Christmas trees.	E
Raise and sell pumpkins.	E
Raise and sell strawberries.	E
Provide services to fertilize lawns, till garden spots, prune trees, etc.	E
Grow organic vegetables for a local café.	E
Grow and sell the red worms used to produce compost.	E
Sell and install water gardens.	E
Work as a range consultant.	P
Work for a sprinkler installation business.	P
Work for a grain farmer.	P
Conduct timber cruise and mark timber to be thinned.	P

Work for an agronomy service and collect soil samples.	P
Work for a lawn and landscape care business.	P
Work in and monitor the school forest.	P
Work at a nursery.	P
Work at a golf course.	P
Work for a local flower shop doing design, plant care, deliveries, etc.	P
Work at the grain elevator during the summer.	P
Work on turf farm.	P
Work in an orchard.	P
Work with county soil scientist to map soils.	P
Work at an area garden center.	P
Research the best turf grass varieties for your area.	R
Develop a test plot for various types of crops.	R
Use the school lab to manage small vegetable crop variety plots.	R
Test forage samples under various conditions to determine feed values.	R
Test organic versus inorganic fertilizers on plant development.	R
Research the effect of various planting times on yields of green beans.	R
Research the effectiveness of GM crops.	R
Discover the best types of artificial lights for plant growth.	R
Research plant propagation techniques.	R
Test drought tolerance of different types of watermelons.	R
Take care of flower beds/gardens on school property.	X
Build and maintain the compost units at the school.	X
Volunteer to work with landowners to improve their forest lots.	X
Provide forestry walk-thru tours for elementary students.	X
Plan plant-related activities and laboratories for your class.	X
Do a garden projection for school land and have it mapped out four years in advance.	X
Collect and laminate plants from a nursery landscape CDE at various stages of growth.	X
Create a brochure about common houseplant diseases and how to take care of them.	X
Complete a report on 10 food plants that includes origin, uses and cultivation practices.	X
Take pictures and make a CD for plant or insect identification.	X

CAREER AREA: Power, Structural & Technical Systems (7 of 7)

(power, structures, controls, GPS/GIS, computers, electronics, hydraulics)

SAE Activity Idea	Type of SAE
Restore a tractor and sell it or restore a tractor for someone else.	E
Design, build and sell lawn ornaments.	E
Operate a lawn mower service and repair business.	E
Build garden sheds for homeowners.	E
Start a basic computer help service for area ag producers.	E
Start a custom spraying service that utilizes GPS.	E
Design custom computer programs using Excel or other software to solve problems for producers.	E
Provide basic internet and email training to producers to increase their level of confidence in using technology.	E
Map fields, weeds, etc. for producers using GPS and GIS.	E
Operate a business that computerizes farmers' records.	E
Make business cards, stationary, etc., for businesses or chapter members.	E

Run a custom fence building and repair business.	E
Work as a diesel mechanic assistant.	P
Work for an irrigation service company.	P
Assist with GPS mapping for an agronomic services company.	P
Work in a welding shop.	P
Work as an assistant for an auto, truck or tractor mechanic.	P
Work for a local electrician.	P
Pour concrete forms for machine sheds or other buildings.	P
Work on plumbing waste systems, air and water systems.	P
Wire buildings for lights and receptacles.	P
Provide maintenance for school shop equipment.	P
Manage the steel inventory in the ag shop.	P
Machine and rebuild engine parts.	P
Work with county soil and water engineers - assist in measuring and engineer design.	P
Work for a small engine repair shop - overhaul and repair.	P
Work as a surveyor assistant.	P
Work for a plumbing business.	P
Work for local university in the area of robotics in agriculture.	P
Conduct a field demonstration on GPS systems for elementary students.	X
Develop "hands on" activities for the class.	X
Complete home or farmstead improvement construction activities.	X
Hold a classroom demonstration on automated systems.	X
Construct prototypes of hydraulic systems.	X
Create digital video programs about FFA.	X
Create and produce a weekly television or radio show about FFA and agriculture.	X
Maintain the chapter webpage.	X
Interview area ag producers about the changes in technology over the past 50 years.	X
Report on all of the control systems used in a typical greenhouse.	X
Share a 10-minute presentation on GIS mapping for forestry, wildlife, soil and water management.	X
Create a teaching model to show how a small gas engine works.	X
Create a demonstration model that shows proper and improper welding techniques.	X
Shadow a computer professional in any ag-related industry.	X
Volunteer to design a website for a local agriculture group.	X
Research the adoption of technology by ag producers in your area.	R
Research the differences among farm management software systems.	R
Test the strength of different types of welds.	R
Research the cost versus return of automating systems in an ag processing facility.	R
Study the latest advancements in robotics in agriculture.	R
Research the energy use of different types of lighting systems in farm buildings.	R
Research the water savings accomplished by new irrigation technologies.	R
Research the biggest challenges producers face when adopting new technology.	R
Research the differences in various styles of tillage equipment.	R
Study the modifications in ag equipment possible for persons with disabilities.	R