Curriculum Connections to Markham Fair

Grade One

Subject	Specific Expectations	Connection to Markham Fair
Healthy Living:	• Identify the four food groups and give examples of foods in each group	• Look in the General Exhibits building, Homecraft and around the fair for examples of fresh farm grown and home baked foods. • Can you find food from all four food groups in the General Exhibits building?
Life Systems- Characteristics and Needs of living things	• Compare the basics needs of humans with the need of other living things (e.g. The need for food, air, water, light, shelter);	• Check out Old MacDonald's Barn, Pet & Poultry Barn, and the Livestock Arena for examples of basic needs for animals and compare them to our own. What does an animal need to survive? Who provides these needs?
Structures and Mechanisms- Everyday Structures	• Explain the function of different structures (e.g. House, car, bridge, chair, umbrella, television, wheelbarrow, barn, shed)	• Look around the fair at the different structures we have. What are they used for? • Some examples to look for are: Old MacDonald's Barn, calf hutches, tents, race track tower, livestock arena, Exhibit buildings, trailers, bleachers and Windmill.
Canada and World Connections- The Local Community	• List the occupations of some people in the community (e.g. Storekeeper, mail carrier, farmer, teacher, salesperson) • Identify the places in which people work and describe the technologies, tools, and the vehicles they use. • List a variety of occupations in the community and explain how they meet people's needs.	• What are some occupations that can you find around the fair? (Farmer, Policeman, Fireman, EMS, Hydro worker, salesperson, wood worker, candy maker, entertainer, sheep shearer, Mascot) • Where do they work? Do they use special tools, machines, vehicles, or technology in order to do their job? • How are some of the jobs found at the fair meeting the needs of the community?

Grade Two

Subject	Specific Expectations	Connection to Markham Fair
Life Systems – Growth and Change in Animals	• Demonstrate awareness of ways of caring for animals properly (e.g. Avoid handling them too much, research and nutritional requirements) • Describe how humans produce food by raising livestock (e.g. Chickens, cows, pigs) • Describe changes in appearance and activity of an animal as it goes through a complete life cycle (e.g. Mealworm) • Compare ways in which different animals care for their young. • Identify and compare the effects of the seasons on animals (grow thicker coat in winter)	• Ask a farmer, 4-H member or volunteer at the fair, how they take proper care of their animals? Look in Old MacDonald's Barn, the Pet and Poultry barn and the livestock arena. • Check out the Our Amazing Farm Animals demonstrations, the Pig Mobile, Old MacDonald's Barn, and the Pet and Poultry Barn to find out how humans raise livestock for food. • Watch chicks hatch and grow at Old MacDonald's Barn, see all other farm animals and babies in the barn as well. What changes can you see happening? • How do the mother animals care for their young? (feed, house, teach, protect) • How do animals change to prepare for the different seasons? Check out the sheep shearing demonstrations. What do we use the sheep's wool for?
Matter and Materials – Properties of Liquids and Solids	• Identify liquids used in the home and describe how they are used (milk for drinking and cooking,)	• Take a look at the Our Amazing Farm Animals demonstrations. What types of milk are there? What form can milk come in? Name some dairy products that are made from milk? How are these dairy products used in your home? (Milk: skim, 1%, 2%. Cream, cheese, sour cream, ice-cream, whip cream, cottage

		cheese, butter) • Visit the Bee Man in the General Exhibits building: How is honey produced? What are the different states of honey (from liquid to solid)? What are the different uses for honey and honey combs (cooking to candles)? Can you identify different recipes? (take recipe cards from the table) - Apple Cider at the vegetable stands - Cleaning products in the Commercial Buildings • Visit the Antique Equipment(Special Displays?): Can you identify any machines that use liquids in other physical states? (Steam engines)

Grade Three

Subject	Specific Expectations	Connection to Markham Fair
Life Systems- Growth and Changes in Plants	• Describe ways in which plants and animals depend on each other (e.g. Plants provide food for energy, and animals help distribute pollen and seeds) • Compare the requirements of some plants and animals, and identify the requirements that are common to all living things • Identify some functions of different plants in their local area (e.g. Trees provide shade, grass binds soil to prevent erosion) • Describe ways in which humans use plants for food, shelter and clothing. • Describe various plants used in food preparation (e.g. Vegetables, fruits, spices, herbs) and identify places where they can be grown. • Describe various settings in which plant crops can be grown (e.g. Farms, orchards, gardens)	• Visit in the General Exhibits building: Bee Man, Dairy Farmers, Wheat Board, Beef Farmers, Ontario Federation of Agriculture, and the feed, vegetables exhibits. • What do plants need to survive? How are these similar to what humans or animals need to survive? Look in General Exhibits Building, Old MacDonald's Barn, Amazing Animals Demonstration • Around the fair we have taken measures to be more environmentally friendly. Look at your map to find the environmental areas. What has the fair done to prevent erosion? Provide shade? Drain Water? • Look around the fair: Where can you find ways in which humans have taken plants and used them for different purposes? What were these purposes? General Exhibits Building: Flowers and herbs, wheat, corn and grains. Commercial: Hemp clothing. Homecraft Building: baking and clothing. • Where can the different crops be grown? Are all farms the same? To find these answers look in the General Exhibits at the Federation of Agriculture exhibit. Or ask a farmer at the fair?

Earth and Space Systems – Soils in the Environment	• Compare different ways in which plant roots (fibrous roots, tap roots) grow through the soil • Demonstrate an awareness of the importance of recycling organic materials in soils • Recognize the importance of understanding different types of soils and their characteristics (enables people to determine which crops can be grown in a particular area; enables gardeners and farmers to improve plant growth)	• Around the fair we have taken measures to be more environmentally friendly. Look at your map to find the environmental areas. How do the roots of the trees help water to drain? Help prevent soil erosion? What kind of roots can you find at the fair? What plants can you find that you eat the roots? • Farmers are very good recyclers. How and what do they recycle that is good for the environment and helps to grow a better crop? Where would you find this and what is it called? (manure is spread on fields and acts as a fertilizer) How else does the Fair recycle? How do you recycle organic materials? • Do all plants need to have the same soil type to grow? What types of soils are there? General Exhibits: Federation of Agriculture or ask a farmer.

Heritage and Citizenship – Early Settlement in Upper Canada	• Compare and contrast aspects of life in early settler communities and in their own communities today (services, jobs, schools, stores, use of management of natural resources) • Compare and contrast buildings/dwellings in early settlements with buildings and dwellings of present day (log cabins/houses, stables or shelters/barns) • Compare and contrast tools and technologies used by early settlers with present day tools and technologies (quill/word processors, sickle/combine, methods of processing lumber, grain and other products)	**Visit the Heritage Showcase outside the Livestock Arena.** • What jobs and services do you see happening at the fair? Are some of these jobs and services similar to those of the early settlers? Different? Can you find some crops that were grown both in the 1800's as well as today? (General Exhibits, Old MacDonald's, Antique/Special Displays) How has the agricultural community come together here at the fair? Is this similar to communities of the early settlers? What is different? • In class you have talked about the buildings and dwellings of the early settlers. Can you find some of the same buildings and dwellings here at the fair? Are there new dwellings and buildings here that are used for the same purpose as one might have in the 1800's? Why might the buildings be different now then in the 1800's? What is the purpose of buildings and dwellings on a farm now in 2006, then in 1806? • See the various machines that were first created to make the life of a farmer easier. What are some of the machines? What was its use? How did it make life easier? What changes have occurred to some of the machines to make them even more efficient today? Are some of the machines recognizable for today's use? Can you find a new machine

		similar to the antique on the fair grounds? • What is the difference in clothing and other cloth materials from the 1800's to today? Visit the Homecraft building and take a look at the sewing, knitting, and quilting displays. Is there a difference in techniques in making these things? (hand sewn vs. machine) Ask the ladies in the rocking chairs questions on the different categories of quilts. Was quilt making a social event in the 1800's? Is it today? (quilting bees, church groups, chance for a woman to socialize with other women of the community)
Canada and World Connections - Urban and Rural Communities	• Compare land use (e.g. Houses, recreation, stores, industry) and access to natural resources in urban and rural communities • Compare population density and diversity in urban and rural communities • Compare buildings and structures in urban and rural communities • Describe ways in which people interact with other communities (e.g. Urban dwellers may travel to rural areas for recreation purposes, rural dwellers may make use of urban services such as hospitals)	**On your way to the fair:** • Search for urban development: What are some buildings, businesses that are found in an urban setting? What are some characteristics of a rural setting? What buildings would you find in a rural area? • Did you see a difference in population density? Land Use? Was there a clear line that showed an urban and a rural area? • Students can count the number of concessions (roads) they pass from the last development to the Markham Fairgrounds. What is happening to the rural community? **At the Fair:** • How has the rural and urban community united at the fair? What are some differences that

		you see from the two communities here at the fair? (Rural community has lots of entries, teaching people about agriculture, showing their animals. The urban communities are entering their photo, baking, vegetables, crafts and selling their products. Urban visitors learning about agriculture.)

Grade Four

Subject	Specific Expectations	Connection to Markham Fair
Life Systems – Habitats and Communities	• Identify various factors that affect plants and animals in a specific habitat (e.g. Availability of water, food sources, light, weather conditions) • Recognize that animals and plants live in specific habitats because they are dependant on those habitats and have become dependant on them (e.g. Ducks live in marshes because they need marsh plants for food and shelter and water for movement) • Classify plants and animals according to similarities and differences (shape, location, food) • Describe ways in which humans can affect the natural world (urban development forces some species to relocate, and enables others to multiply too rapidly) • Describe ways in which humans are dependant on plants and animals (food, medications, clothing, shelter)	• What are some differences in Habitats between wild and domestic animals? How has this changed over time? What are some similarities in habitats? • Check around the fair to find various habitats for different animals and plants. What is their habitat? How are they dependant on this habitat? • Visit the General Exhibits building to see various fruits, vegetables, field crops, flowers and plant exhibits, classify them by shape, colour, size, texture. Look outside the fair grounds at the farmers fields from the bus, what are they growing, how are they growing these crops? How do they maintain a healthy crop from seeding to harvesting? What machinery do you see at the fair that helps them do this? • How have humans changed the natural habitats of some animals? What did you see on the bus ride to the fair that would change the natural habitat? Where at the fair have we tried to protect the natural habitat? Change it to suit the needs of the fairgrounds and people? • Humans are dependant on plants and animals to survive. Find ways in which we survive off

		these species here at the fair? (Food: cows, poultry, pigs, sheep, goats, vegetables, fruits. Clothing: sheep, goat fur. Trees for housing and shelter from the sun, wind, rain.
Structures and Mechanisms – Pulleys and Gears	• Describe the function of pulley and gear systems (e.g. Make changes in direction, speed, and force) • Demonstrate an awareness of the concept of mechanical advantage by using a variety of pulleys and gears. • Identify common devices and systems that incorporate pulleys (clothesline, flagpole, cranes) and gears (bicycles, hand drills, grandfather clocks)	• Visit Special attractions, Heritage Showcase • How has pulleys and gears been used at the fair? How do they help or make things simpler? • On the fairgrounds identify some common devices that use systems of pulleys or gears. Where do you see them? How do they work? What is the purpose of using a pulley or gear? (move heavy load, change direction, speed, height)

Grade Five

Subject	Specific Expectations	Connection to Markham Fair
Life Systems – Human Organ Systems	• Identify types of industries involved in the processing and preserving of foods.	• Visit the Homecraft, General Exhibits, Concession stands, and demonstrations to find ways in which food is processed and preserved. (Canning, Pickling, refrigeration, freezing, vacuum package, dried fruit, deep frying, grilling, Cider) • How do farmers preserve feed and crops for their animals throughout the winter? (hay, silage, dry grain)
Structures and Mechanisms – Forces Acting on Structures	• Identify and measure forces acting on a structure (mass, air pressure) and describe the effects of their application • Identify parts of the structure that are under tension and those that are under compression when subjected to a load (wires in a suspension bridge is under tension, ladder bearing mass is under compression) • Compare a force that is needed to lift a load manually, with the force necessary to lift a load using a simple machine (lever, pulley, gear) • Recognize the advantages and disadvantages of using various mechanisms with respect to the amount of energy they require to move or lift a given load.	• Visit Special Attractions, Heritage Showcase, and the Midway to see how force is acting on structures. • What makes the windmill work? How is a milking machine able to stay on the cow's udder? What is used to take the milk out of a cow's udder? • Identify some structures that are under tension or compression at the fair? (tow trucks, hydro trucks, midway) • Find ways in which manual lifting or moving is used? How could it be made simpler with a simple machine (lever, pulley, gear, wheels)? (Old MacDonald's Barn, Livestock Arena, Special Attractions, Heritage Showcase) • What are the advantages of using a simple machine to move a load? Disadvantages?

Earth and Space Systems – Weather	• Describe ways in which weather conditions affect the activities of humans and other animals (people refrain from strenuous activity in extreme heat; farmers plant crops when the soil is moist; animals hibernate in extreme cold; people stay indoors during inclimate weather) • Understand and explain the importance of weather forecasts for people of certain occupations (farmers, pilots)	• How might weather affect the Markham Fair? Would it help or hurt the number of people attending the fair? What would the ideal weather forecast be for a 4 day fair? • The Markham Fair has planned and prepared for inclimate weather days. What do you think they have done to prepare for all types of weather? (tents, shelters, buildings, heaters, indoor and outdoor stages) • How would the weather affect farmers and their animals or crops? What sort of weather do you think would be ideal for growing crops? Raising animals? • Who relies on weather forecasts? Why? How might a farmer plan his seeding and harvesting around the weather? How do you plan around the weather? (clothes, boots, sunglasses) • How would Markham Fair rely on the weather forecast? Do you think they can predict attendance based on the weather forecast?

Grade Six

Subject	Specific Expectations	Connection to Markham Fair
Structures and Mechanisms – Motion	• Describe the purposes or uses of three classes of levers (wheelbarrow, tongs, seesaw) • Investigate ways of reducing friction (ball bearings, lubricants) so that an object can be moved easily. • Show an understanding of the impact of moving mechanisms (truck, snowmobiles) on the environment and on living things (loss of natural habitat) • Describe how different devices and systems have been used by different cultures to meet similar needs (irrigation systems for farms, temporary shelters, bicycles)	• Find on the fairgrounds, the three classes of levers. Where are they used? How are they used? Who uses them? • What machines can you find on the fairgrounds? How do they reduce friction for easier movement? (Ball bearings, lubricant such as oil and grease) • Farmers use large machines. What is the environmental impact of using these machines? Can you find examples on the fairgrounds of environmental damage due to heavy equipment or a lot of pedestrian traffic? (ruts, soil erosion, dead grass, mud, compaction) Can animals create environmental damage? (Hoof Prints in wet soil) How does some farm equipment repair damage such as ruts and soil erosion? (Ploughs and cultivators till the soil to remove ruts and no-till planters allow crop residue to be left on the field over winter to prevent soil erosion) • What are some devices and systems you have found on the fairgrounds that meet a particular need? (milking machines and pumps to extract milk from a cow, toilets, calf hutches, tractors, tents, buildings and shelters) Are some of these systems used in your home, school or office?