



**Educational Package of Suggested Activities for
GRADE FIVE**

WELCOME TO SAFARI NIAGARA

A class visit to a zoo or nature park such as Safari Niagara is an excellent learning opportunity for students in any grade level. For many grades the experience can fulfill program goals or expectations from Ministry of Education Curriculum Documents, notably Science and Technology 2007 and Social Studies 2004.

Even where, at a particular grade level, there is no direct link to the curriculum documents there are opportunities for you, the teacher, to connect pre visit, on-site and post visit classroom activities to the hands-on experience of the day. The management of Safari Niagara recognized these direct and implied connections beginning with the inception and opening of the park. To assist you in planning for your visit we assembled a team of teachers at all grade levels to produce materials which will hopefully be of use to you. These curriculum materials have been upgraded several times as Ministry of Education documents were revised. However, the suggested activities remain essentially the same because good teaching ideas are forever!

You may note that the format of the attached materials can vary from grade to grade. This reflects the philosophy, experience and teaching styles of the writers. It is expected that in using the materials you will adapt them to your own classroom environment, picking and choosing those most suited to your style.

Regardless of how you plan to enhance your visit to our facility by classroom activities the fundamental truths remain. Zoos and nature parks today are becoming both a last refuge for many endangered species and a hope for their recovery at some point in the future. Humankind must accept the responsibility for the recovery of the planet. The closer we can get our students to physical contact with the real world and the wonders of nature the more they will, as adults, appreciate the gravity of this task.

Safari Niagara: Unit for Grade Five

As Grade 5 teachers are aware, there are no specific science curriculum topics related to animals (at the zoo) in the Science and Technology 2009 curriculum. However, the visit to Safari Niagara can be used to cover many other areas of the Ontario Grade 5 Curriculum. The suggested activities described below are based on these skills, which are part of the Grade 5 Ontario Curriculum.

Reading:

- Read independently, selecting appropriate reading strategies.
- Decide on a specific purpose for reading, and select the material that they need from a variety of appropriate skills.
- Use research skills

Writing:

- Use writing for various purposes and in a range of contexts.
- Communicate information and ideas for a variety of purposes and to specific audiences.

Oral Communications:

- Communicate information, explain a variety of ideas and procedures.

Visual Arts:

- Produce two- and three- dimensional works of art that communicate a range of thoughts, feelings, and ideas for specific purposes and to specific audiences.
- Describe the connection between an element of design and a specific artistic purpose, using appropriate vocabulary.

Map Skills:

- as appropriate for this age level.

Mathematics:

- Collecting and organizing data:
- Design surveys, collect data, and record the results on given spreadsheets or tally charts.
- Display data on graphs (e.g. line graphs, bar graphs, pictographs, and circle graphs) by hand and by using a computer.

PRE-VISIT ACTIVITIES:

NOTE: Worksheets provided for the PRE-VISIT ACTIVITIES are located following this list of suggested activities.

1. As a class, develop a definition of the word “zoo”. Form small groups to discuss the good and bad features of a zoo. Their ideas can be listed on chart paper, and all groups will share their ideas with the class. The intent is to make students more aware of the responsibilities and concerns that are part of the operation of a zoo.
2. Students can conduct research about the animals that live at Safari Niagara, using the Internet. They could record the information on a fact sheet (see sample). This could be done as a research assignment in library class. Follow-up to this could be making an information chart or poster, using the facts that were learned and pictures of the animal. These could be put on display around the classroom.

Following this, students could be encouraged to read the information recorded on the posters by completing a questionnaire worksheet about these animals. (A sample of this is included.)

3. Make a copy of the Safari Niagara map to use on overhead projector. This would be a good way to help the class to become oriented with the grounds prior to their visit. This would also be useful in helping them to understand the plans that have been made for their visit to Safari Niagara.
4. Safari Niagara’s residents come from many different places (continents). Students can research where a particular animal can be found in the world and then mark and colour this location(s) on a map of the world. The map should have a title and the continents should be labeled. The maps could be displayed on a bulletin board.
(A world map outline is included.)
5. Class discussion on the importance of planning a good zoo. Relate to the class that Safari Niagara is a new zoo. Discuss what things must be included in planning and developing a zoo (e.g. habitat, homes, food, climate, safety for animals and visitors, etc.). The intent would be to prepare students so

that they are aware and can see how this has been accomplished when they visit Safari Niagara.

6. Visual Arts - Rod Dowling, a sculptor from St.Catharines, Ontario created many interesting sculptures, which are located in various areas of the grounds. These are made of steel objects that have been welded together. Prior to visiting Safari Niagara, a short introduction to this type of sculpture would help students to appreciate the work of this artist. (A follow-up activity on sculpture is suggested in the POST- VISIT ACTIVITIES.)
Map Skills - Students can locate Stevensville (where Safari Niagara is located) on the Ontario Road Map, using the map index to obtain the grid reference. They could decide which route would be appropriate for the bus to travel to Stevensville. Each student could write clear and complete directions for travelling to Safari Niagara, using the information found on the map in order to be as specific as possible. (Perhaps the bus driver could be persuaded to follow this route on the day of the class trip.)

Note: The Ontario Road Map and local brochure with map of the Niagara Region are usually available at the Ontario Travel Information Centres (local centres are in Fort Erie, Niagara Falls and St. Catharines).

7. Make a class book of animal riddles. Use the list of animals that live at Safari Niagara. Each student will select an animal (perhaps the names of the animals could be picked from a hat). Students will then write a page for the class book. The riddle should contain several specific (and hopefully challenging) clues about their animal. The answer and a drawing of the animal would be put on the back of the page.
8. Introduce the concept of Scientific Classification as a method to arrange all of the world's organisms in related groups (usually Latin and Greek words). Students may find the Scientific Classification of the animals that they are researching, especially the Species. Some information on Scientific Classification and a worksheet activity is provided.

RESEARCH:

Name of Animal: _____

Appearance:

Size: _____

Colour: _____

Description of Body: _____

Habitat:

Continents where the animal usually
lives: _____

Information about it's home: _____

Food:

Herbivore, Carnivore or Omnivore? _____

What it eats: _____

How it gets its food:

Family:

Number of young each year: _____

How parents care for their young: _____

Interesting Facts about the Animal:

WHO IS IT?

You can check the information posters that were made by the class to help you find the answers.

1. _____ is the tallest animal on four legs.
2. _____ comes from South America and is the smallest of the monkeys.
3. _____ feeds on fish and has a wingspan of 2.5 metres.
4. _____ has a spotted coat and a short, stumpy tail. It lives in North America.
5. _____ is a member of the CAT family and is the most powerful predator in South America.
6. When _____ walk on the ground, they keep their long bushy tails high in the air.
7. _____ is the biggest and most powerful member of the CAT family.
8. _____ is a long-legged Australian bird that is related to the ostrich.
9. _____ is the largest of all DEER, and has huge hand-shaped antlers.
10. _____ is graceful when swimming, but is slow and clumsy on land.
11. _____ has large feet and can go without water for up to five days.
12. _____ is a large-hoofed mammal that feeds on grass. The male has a shaggy mane that covers the head, back and front legs.

13. _____ is a large parrot that has brilliantly coloured feathers and very long tails.

14. _____ is a mammal with a long, shaggy coat and lives high in the Himalayas.

15. _____ is a type of ANTELOPE that lives in Africa. It has long, slender horns that have a slight backward curve.

Answers for WHO IS IT? (Some question may have more than one possible answer)

1. giraffe
2. marmoset
3. bald eagle
4. bobcat
5. jaguar
6. ring-tailed lemur
7. tiger
8. emu
9. moose
10. swan
11. camel
12. buffalo (bison)
13. macaw
14. yak
15. eland

SCIENTIFIC CLASSIFICATION

Scientists have developed a method to arrange all of the world's organisms in related groups. Latin and Greek words are used, because early scholars used these languages.

Every known organism belongs to a species.

Each species has a two-part scientific name.

The name that we usually call an organism is referred to as the common name.

An organism may be known by different common names in different regions of the world. However, the scientific classification is always the same. e.g. The same member of the cat family may be known as puma, cougar, mountain lion, catamount or panther. The scientific name for this animal is always *Panthera concolor*.

There are seven groups in Scientific Classification.

- 1 - Kingdom
- 2 - Phylum
- 3 - Class
- 4 - Order
- 5 - Family
- 6 - Genus
- 7 - Species

Kingdom is the largest group. Species is the smallest.

As you move from Kingdom down to Species, the animals or plants in each group have more and more common features. Individuals in Species have so many similar features that they look alike.

Here is the Scientific Classification for a red squirrel:

Kingdom: Animalia

Phylum: Chordata

Class: Mammalia

Order: Rodentia

Family: Sciuridae

Genus: *Tamiasciurus*

Species: *Tamiasciurus hudsonicus*

(Note: The second word in the Species group always begins with a lower case letter.)

When researching an organism, you will sometimes find that only the names of the smaller groups are given.

e.g. Order
 Family
 Genus
 Species

Sometimes only the Species name is given.

Here is a list of Species, some of which live at Safari Niagara. Try to find the Common Name for each.

SCIENTIFIC NAME (LATIN NAME)	COMMON NAME (ENGLISH NAME)
Lynx rufus	
Lemur catta	
Cebus capucinus	
Cygnus olor	
Camelus dromedarius	
Llama huanacos	
Ovis canadensis	
Canis lupis	
Ateles ater	
Branta canadensis	
Alces americana	
Wallabia elegans	
Struthio camelus	
Panthera tigris	
Giraffa camelopardalis	
Ursus americanus	
Macropus rufus	
Panthera concolor	
Bison bison	
Panthera leo	

SCIENTIFIC NAME (LATIN NAME)	COMMON NAME (ENGLISH NAME)
Lynx rufus	Bobcat
Lemur catta	Ring Tailed Lemur
Cebus capucinus	Capuchin Monkey
Cygnus olor	White Swan
Camelus dromedarius	Camel
Llama huanacos	Llama
Ovis canadensis	Big Horn Sheep
Canis lupis	Wolf
Ateles ater	Spider Monkey
Branta canadensis	Canada Goose
Alces americana	Moose
Wallabia elegans	Wallaby
Struthio camelus	Ostrich
Panthera tigris	Tiger
Giraffa camelopardalis	Giraffe
Ursus americanus	Black Bear
Macropus rufus	Kangaroo
Panthera concolor	Cougar
Bison bison	Buffalo
Panthera leo	Lion

ON-SITE ACTIVITIES:

Here are some ideas for student observation and discussion which could take place at this time.

1. Observe the homes and habitat of the animals as the class visits each area. Have students discuss why they feel that the habitat is appropriate for the animals.
2. Observe the appearance of the animals, in terms of colour, size, patterns or markings on body covering.
3. Observe and discuss the behaviour of the animals while visiting the various locations at Safari Niagara. Stress the interaction of the animals with each other and also how they relate/react to the people who are watching them.
4. Discuss why the animals at Safari Niagara have been grouped into the different areas (animal families, size, life-style, etc.).
5. Observe the patterns that are found in the body covering of the animals. Discuss the beauty of these designs and the reason why this is a form of protection (e.g. camouflage – a way for the animals to blend with their surrounding environment).
6. Observe the sculptures created by Rob Dowling. Briefly discuss their appearance, materials used in their construction, size, what they might represent, and how we may view this in different ways. (If you plan to do a follow- up activity related to this, it might be helpful to take photos of some of the sculptures.)
7. Write a group list poem of the sounds that the students hear as they are visiting Safari Niagara. This could be done as each group of students finish visiting the various sections of Safari Niagara. The teacher or parent supervisor could record several ideas each time. Later in the day (or back at the school), the group could organize their ideas into a list poem.

A list poem starts with an opening sentence or phrase. The phrases describing this are listed below, in an organized or interesting way. These are usually indented a few spaces. The poem ends with a final sentence or phrase.

Here is a short example.

My dog can do many tricks.

Sits and lays down,
Plays ball,
Rolls over,
Brings in the newspaper,
Jumps through a hula hoop,
Catches a frisbee,
Swims in the pool,

He is my best friend.

POST-VISIT ACTIVITIES:

NOTE: Worksheets provided for the POST-VISIT ACTIVITIES are located following this list of suggested activities.

1. Each student can write a short “newspaper” report of their trip to Safari Niagara. Stress the importance of clear and precise information. Perhaps some of the reports could be published in the school or class newsletter.
2. Small groups of students could make murals to represent their visit to Safari Niagara. This could be done on mural paper, using media such as paint, crayons or markers. Each group could choose a specific area of Safari Niagara, or they could include all areas in their mural.
3. Each student can make a poster to “advertise” Safari Niagara. It is helpful to review the skills of poster-making: short and relevant message or phrase, clear and legible lettering, interesting drawing.
4. Write and illustrate a storybook about one of the animals at Safari Niagara. This could be written for students in the primary grades. A variety of styles of books could be made: pop-up books; textured surfaces using fabrics, wallpaper, or paper rubbings; hide the animal in the drawings (“Where’s the animal?”). When completed, the “authors” can read their books to students in these grades.

5. Create a box sculpture of an animal that lives at Safari Niagara. The work of Rod Dowling could be reviewed. The animal sculpture could be created using paper and cardboard boxes of various sizes, and cardboard tubes. Students can find many useful boxes and tubes in their home Blue Boxes. It is best to encourage them to save these ahead of time, so that there will be a good selection for their sculpture. The sculptures could be large or small, depending on the size of the boxes that the students collect, and the amount of classroom space available for the students to work. It is probably more fun to construct individually, but this could also be done in small groups. Masking tape, paste, paper, and paint will be required. Scraps of yarn would also be useful. When completed, the animal sculptures could be put on display in a suitable place in the school.
6. Many people are employed to operate Safari Niagara and they must be trained to do their work. Have small groups of students discuss and list the types of jobs that must be done. These ideas will be shared with the whole class. This discussion could include what education and training is required for these forms of employment.
7. Students can conduct class surveys based on their visit to Safari Niagara (e.g. favourite animal, fastest animal, smallest animal, most interesting fur design). They can use their data to construct line graphs, bar graphs, pictographs, and circle graphs.
8. Students can write a letter to Safari Niagara, to express their thanks for their visit. This could be done individually, or as one letter from the whole class. This is a good opportunity to review the parts of a friendly letter: Heading, Greeting, Body, Closing, and Signature. (A worksheet is provided to review this. There is also a letter form, with space at the top of the page for students to illustrate their visit.)
9. Discuss the meaning of a secret code and have the class suggest some simple ways to create a code (e.g. move the letters of the Alphabet forward or back by one or more letters; use numbers or symbols to represent the letters.) A worksheet included for this activity has a sample code entered in a chart. (The sentence in code is: "A wallaby is smaller than a kangaroo.") Have the students create their own code, recording it neatly in the empty

chart on the page. Then have them write a simple message in code, about an animal that they saw on their visit to Safari Niagara. The objective would be to have a classmate solve the code and read the secret message. This usually works best in two sessions.

- 10 For teachers who have taken the workshop, Project WILD is a good source of games and activities which can be used in the study of Safari Niagara' animals.

e.g. Oh Deer!

Quick Frozen Critters

How Many Bears Can Live in This Forest?

11. Discuss the necessity that all animals receive proper care. Develop a flow chart with the class that includes what they saw and learned about this on their class trip.

Class Survey:

Write the question that you will use to conduct your survey.

List the responses for your survey on the tally sheet below.

Responses	Tally

- Use your results to construct:
1. Line Graph
 2. Bar Graph
 3. Pictograph
 4. Circle Graph

The FRIENDLY LETTER

The Friendly Letter is organized into 5 parts.

1. _____
This is found at the top of the page (on the right side). The return address is written on the first two lines: your street address on the top line, with the city, province and postal code on the second line. A comma is used after each line, and after the name of the town and province. The date is put on the third line, with a period at the end.
2. _____
This usually begins with the word "Dear" and the name of the person who will receive the letter. A comma is placed at the end.
3. _____
This contains your message. Each paragraph is indented.
4. _____
This is where you say "good-bye". If more than one word is used, only the first word begins with a capital letter. A comma is placed at the end.
5. _____
This tells who wrote the letter.

Write the names of the five parts of a Friendly Letter on the empty letter form to show where they are located.

CODES

A	B	C	D	E	F	G	H	I	J	K	L	M
Y	Z	A	B	C	D	E	F	G	H	I	J	K

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
L	M	N	O	P	Q	R	S	T	U	V	W	X

Solve the secret message.

Y U Y J J Y ZW GQ Q K Y J J C P R F Y L Y

I Y L E C P M M

-----.

Create your own secret code.

A	B	C	D	E	F	G	H	I	J	K	L	M

N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Think of a interesting fact about an animal that you saw at Safari Niagara. Write this in the space below. Now write this using your code. Then copy just the coded message on another paper. Later someone else will try to read your message.