



Museum  
School Program  
Development  
Template

## ***“Junior Scientists: *Discovering Nature with Nova Scotia’s Founding Cultures*”***

### **Grade 1 School Program for any NSM Site**

The following school program was designed for the “Toolbox for Museum School Programs” to be presented at any Nova Scotia Museum site, in a fashion similar to the previously developed “History Detectives” program for grade five students.

This program addresses both science and social studies outcomes for Primary and Grade One students.



## Program Overview Page

# “Junior Scientists: *Discovering Nature with Nova Scotia’s Founding Cultures*”

### Program Highlights (Description for Marketing Purposes):

Join the adventure of four friends who are discovering about the plants and animals that live in Nova Scotia. This program invites students to learn about nature through the cultural perspective of Nova Scotia’s four founding cultures – Mi’kmaq, African Nova Scotian, Acadian, and Gaelic. The program is broken into two components, which each can be presented as independent programs. The first component is a traditional museum school program which uses cultural stories and traditional knowledge to explore features of our natural world. The second component is a card-based exploration designed to take part in nature, which incorporates play, language and science.

## Content and Outcomes

<b>Overarching Objective:</b> <i>(1 sentence containing 1 idea that describes what the program is about.)</i>	Students will learn nature observation skills through the traditional knowledge of Nova Scotia’s four founding cultures.
<b>Curriculum Outcomes addressed by this program:</b>	<p><b>Primary Science</b>          Students will explore different living things (Outcome 2). Indicators...</p> <ul style="list-style-type: none"> <li>• Ask simple questions about different living things.</li> <li>• Observe and describe living things in familiar places</li> </ul> <p><b>Primary Social Studies</b>          Students will recognize that people (local) have varied traditions, historical roots, rituals, and celebrations, including Acadians, African Nova Scotians, Gaels, Mi’kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1)          Indicators...</p> <ul style="list-style-type: none"> <li>• Describe and discuss varied traditions, historical rooms, rituals, and celebrations, including Acadian, African Nova Scotian, Gaels, Mi’kmaq, including Treaty Education, and diverse cultural groups in the province.</li> </ul> <p><b>Grade 1 Science</b>          Students will investigate needs and characteristics of different living things, including humans. (Outcome 2). Indicators...</p> <ul style="list-style-type: none"> <li>• Investigate different living things to determine their characteristics.</li> <li>• Compare, through explorations, the needs of different living things.</li> <li>• Recognize and explain that humans and other living things depend upon their environment.</li> </ul> <p><b>Grade 1 Social Studies</b>          Students will demonstrate and understanding of the diversity of cultural groups, including Acadians, African Nova Scotians, Gaels, Mi’kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1). Indicators...</p> <ul style="list-style-type: none"> <li>• Ask questions to gain understanding of the diversity of cultural groups, including Acadians, African Nova Scotian, Gaels, Mi’kmaq, including Treaty Education, and additional diverse cultural groups in the province.</li> <li>• Discuss and share information about cultural groups in the community.</li> </ul> <p><b>Skills:</b> Citizenship, Personal-Career Development, Communication, Critical Thinking</p>

<b>IMP Content Area:</b>	<b>B. Evolving: Changing Life Through Time</b> B.1 Vegetation B.2 Birds, Fish, and Animals B.3 Exploring & Settling the Unknown B.5 Response to Place <b>D. Relating: Peoples and Groups</b> D.1 Peoples of Nova Scotia
<b>Culture Action Plan Theme:</b>	<b>Theme 1: Promote Mi'kmaq Culture</b> <ul style="list-style-type: none"> <li>Create opportunities for every Nova Scotian to learn about our shared history through enhancement of Treaty Education programs and services for the education system [...].</li> </ul> <b>Theme 3: Strengthen Education, Partnerships, and Understanding</b> <ul style="list-style-type: none"> <li>Support professional development in teaching with culture in the classroom.</li> <li>Promote cultural awareness and equity through classroom teaching and learning resources.</li> <li>Development equity education programs that highlight Acadian, African Nova Scotian and Mi'kmaq cultures. [adding Gaelic]</li> <li>Include the language, history, and culture of Acadians, African Nova Scotians, Gaels, and Mi'kmaq, including Treaty Education, in teaching grades primary to 12.</li> </ul>

## Basic Logistics

<b>Grade:</b>	Grades Primary and One		
<b>Program Created by:</b>	IWG Education Sub-Committee	<b>Date of Creation:</b>	Fall 2017
<b>Development Partners:</b>	Highland Village Museum Office of African Nova Scotian Affairs IWG Membership		
<b>Program Availability:</b>	By request for toolbox training and development purposes		

## Program Structure

<b>Program Length:</b>	70 minutes x 2 (70 minutes per component. Option to do only one component.)		
<b>Maximum Group Size:</b>	40 students – 2 classes		
<b>Student Groupings:</b>	20 students per component		
<b>Facilitation – # of Staff:</b>	Depends on students are grouped	<b># of Volunteers:</b>	Optional: 4 volunteers

## Program Outline – for Both Components

\*\*\*Museum can choose to do only one of the two components, with one class.

Component 1 – Discovering through Storytelling			
Activity	Location	Time	Featured Objects
<b>Introduction: “Meet the Junior Scientists”</b>	Communal area that can accommodate 20 students	10 minutes	<ul style="list-style-type: none"> <li>Paper puppets of four characters</li> </ul>
<b>Activity 1: “Mi’kmaq Story”</b>	Area where ¼ of group can sit in a circle	12 minutes	<ul style="list-style-type: none"> <li>5 NS seashells in cloth bags</li> </ul>
<b>Activity 2: “African Nova Scotian Story”</b>	Area where ¼ of group can sit at table to do craft	12 minutes	<ul style="list-style-type: none"> <li>Image of African Nova Scotian Basket</li> </ul>
<b>Activity 3: “Acadian Story”</b>	Area where ¼ of the group can gather around a table for experiment	12 minutes	<ul style="list-style-type: none"> <li>Images of NS Birds</li> </ul>
<b>Activity 4: “Gaelic Story”</b>	Area where ¼ of group can move and play	12 minutes	<ul style="list-style-type: none"> <li>Images of NS Animals</li> <li>Gaelic words</li> </ul>
<b>Conclusion: Classroom Story</b>	Communal area that can accommodate 20 students	10 minutes	<ul style="list-style-type: none"> <li>Paper puppets of four characters</li> </ul>

After a full group introduction, the students are divided into smaller groups which will rotate between Activity 1, 2, 3 and 4. They will all come back together for the conclusion

Component 2 – Cards in Nature – choose as many 3-5 activities as you have time for. Do not attempt to do all 6 activities.			
Activity	Location	Time	Featured Objects
<b>Introduction</b>	Communal area outside in nature	10 minutes	<ul style="list-style-type: none"> <li>Natural Environment</li> </ul>
<b>Nature Card Activity 1: Sorting</b>	Same as introduction	10 minutes	<ul style="list-style-type: none"> <li>Nature Cards</li> </ul>
<b>Nature Card Activity 2: Ring Around the Forest</b>	Same as introduction	10 minutes	<ul style="list-style-type: none"> <li>Nature Cards</li> </ul>
<b>Nature Card Activity 3: Memory Matching</b>	Same as introduction	10 minutes	<ul style="list-style-type: none"> <li>Nature Cards</li> </ul>
<b>Nature Card Activity 4: Guess Who</b>	Same as introduction	10 minutes	<ul style="list-style-type: none"> <li>Natural Environment</li> <li>Nature Cards</li> </ul>
<b>Nature Card Activity 5: I Spy</b>	Same as introduction	10 minutes	<ul style="list-style-type: none"> <li>Natural Environment</li> <li>Nature Cards</li> </ul>
<b>Nature Card Activity 4: Nature Walk</b>	Same as introduction	20 minutes	<ul style="list-style-type: none"> <li>Natural Environment</li> <li>Nature Cards</li> </ul>
<b>Break/Free time/Snack</b>	Same as introduction	20 minutes	<ul style="list-style-type: none"> <li>n/a</li> </ul>



## Museum School Program Development Template

### Program Research Page

## ***“Junior Scientists: Discovering Nature with Nova Scotia’s Founding Cultures”***

### Research

#### Background Information:

The four fictional characters used as representative puppets are all named after notable Nova Scotians identified as part of the #NSMRemarkable public voting for the Vanguard exhibit. The puppets however do not have the same backstory as the remarkable Nova Scotian’s for whom they were named. The character names are:

- Mi’kmaq – Mary Ellen (<https://museum.novascotia.ca/collections-research/vanguard/gallery/objects/mary-ellen-robinson-1927-2012>)
- African Nova Scotian – Desmond (<https://museum.novascotia.ca/collections-research/vanguard/gallery/objects/viola-desmond-1914-1965-and-dr-carrie-best-1903-2001>)
- Acadian – Léger – (<https://museum.novascotia.ca/collections-research/vanguard/gallery/objects/leger-comeau-1920-1996>)
- Gaelic – Margaret (<https://museum.novascotia.ca/collections-research/vanguard/gallery/objects/sister-margaret-beaton-1893-1975>)



## Museum School Program Development Template

### Activity Description Page

#### *“Discovering Nature with Nova Scotia’s Founding Cultures”*

#### Introduction: “Meet the Junior Nature Explorers”

##### Activity Highlights (Short Description for Marketing Purposes):

During the program introduction students will be welcomed to the museum and introduced to their four guides. The “Junior Nature Explorers” are four friends who want to explore nature, but are each bringing their own cultural perspective and knowledge to their explorations.

### Activity Logistics

Location	Time	Materials
Central location that can accommodate the whole group	10 minutes	<ul style="list-style-type: none"> <li>Four Paper Puppets of the “Junior Nature Explorers”</li> <li>Whiteboard with markers</li> <li>Easel or flipchart with paper</li> </ul>
<b>Purpose of Activity:</b>	Provide students with an orientation to the site and introduce to them the skills they will be using to discover nature through a cultural perspective.	
<b>Curriculum Outcomes addressed by this activity:</b>	<p><b>Primary Social Studies</b> Students will recognize that people (local) have varied traditions, historical roots, rituals, and celebrations, including Acadians, African Nova Scotians, Gaels, Mi’kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1)</p> <p><b>Grade 1 Social Studies</b> Students will demonstrate and understanding of the diversity of cultural groups, including Acadians, African Nova Scotians, Gaels, Mi’kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1).</p>	
<b>Set-Up:</b>	<ul style="list-style-type: none"> <li>Set-up in a large enough space where the children and chaperons can sit safely. Consider providing chairs for the teachers and chaperons.</li> <li>Set-up the whiteboard ahead of time with all four languages saying “hello, Bonjour, Pjila’si and Failte”, and place it facing the group.</li> <li>Have all four puppets turned over or hidden until they are introduced.</li> <li>Staff member sits next to the whiteboard and in front of the group.</li> <li>Have a Junior Nature Explorer badge to show what the groups will receive at the end of the program.</li> </ul>	

### Procedure

Timing	Instruction	Possible Script
Minute 1	1. <b>Welcome students to the museum.</b> Invite them to take a seat in the provided area. Tell them your	<i>“Welcome to the museum. My name is Gus. I would also like to introduce you to Jack</i>

	name and the names of the other staff/volunteers who will be presenting the program.	<i>and Jill. Today we will be your museum teachers."</i>
Minutes 2-3	<p>2. <b>Tell students what will be happening during their visit. (Set expectations.)</b> Explain that:</p> <ul style="list-style-type: none"> <li>• First, during the program, they will be learning about nature in Nova Scotia, through stories and hands on activities. Then become members of the Junior Nature Explores Club.</li> <li>• At the end of the introduction they will be divided into groups. Each group will visit four stations. At each station they will hear a story and do an activity based around nature and connected to one of the four communities within Nova Scotia.</li> <li>• After visiting all four stations they will return to the large group to discuss what they have learned. They will receive a membership badges to the Junior Nature Explorers Club which they will get to take back to school.</li> <li>• Hold up a Junior Explores Club member's badge</li> </ul>	<p><i>"We are very happy to you are here today to learn more about nature. Today we are going to do four activities that will help you discover nature and become a Member of the Junior Nature Explores Club. After this introduction you will be divided into smaller groups for the activities. Each group will visit four stations where you will hear four stories and do four activities which will help you learn more about nature. Once you are done you will come back here together, and we will discuss what you learned. Upon completion you will receive your membership badge to the Junior Nature Explores Club which you can take back to school."</i></p>
Minutes 4-5	<p>3. <b>Introduce program characters and communities.</b> Explain that:</p> <ul style="list-style-type: none"> <li>• They will meet four new friends who belong to the four cultural communities found in Nova Scotia.</li> <li>• Encourage the students and chaperons to participate in saying hello four different ways.</li> <li>• Hold up each puppet when saying their name. State which cultural community that puppet identifies with and point to the whiteboard when saying the appropriate "hello".</li> <li>• Repeat until all the puppets have been introduced and the group has repeated the phrase "Hello" in all the four main languages.</li> </ul>	<p><i>"To help you with the today's activities, you are going to meet four new friends who come from a different cultural community found in Nova Scotia. A few of these communities use a language unique to their culture, and I would like everyone to try with me to say "welcome" with me as I introduce each friend.</i></p> <p><i>This is Mary Ellen. Mary Ellen is from the Shubenacadie Mi'kmaq community and she is learning to speak Mi'kmaq. Can everyone say "Pjila'si"? Very good.</i></p> <p><i>This is Léger. Léger is from the Acadian community of Pubnico and he speaks French at home, but English with his friends. Can everyone say "Beinvenue"? Good.</i></p> <p><i>This is Desmond. Desmond is from the African Nova Scotian community of Preston. Desmond is learning to play African drums. Can you say welcome?</i></p>

		<i>This is Margret. Margret is from the Gaelic community of Iona and she is learning to sing in Gaelic. Can you say “Failte”? Great. You will see the friends again at each activity station.”</i>
Minute 6	<b>4. Expectations (Rules) for students, Teachers and Chaperones. (Set expectations)</b> <ul style="list-style-type: none"> <li>Have the students come up with their own rules that they will follow while in the museum. Use the white board to write down the agreed up on rules. Try to keep it to less than five rules</li> <li>Welcome teachers and chaperones, and just like with the students, set behaviour expectations at the start. Be sure they feel welcome to participate and help museum teachers with logistics. Use eye contact to connect with the chaperons.</li> </ul>	<i>“Being in a museum is different than being at school. Who here has ever been to a museum before? Great. Can we come up with some suggestions on ways we are supposed to behave when we are at a museum? This are going to be the rules we follow today.” [Possible rules include: Stay with your group. No running, yelling or pushing. Putting your hand up to talk. Etc.] For teachers and chaperones, we’re also very happy you came today too. We want to help you have a good time. We would really appreciate it if you can help us move quickly around the museum. We will also be doing some activities that involve you supporting students who might need help.”</i>
Minutes 7-9	<b>5. Introduce program content. Introduce program content.</b> Explain how: <ul style="list-style-type: none"> <li>museums collect stories just like collecting things, the sharing of different stories can tell us about nature, the past and different communities.</li> <li>Using the four puppets, introduce the Junior Nature Explorers Club, as a special way to learn about nature.</li> <li>Introduce the term culture, and how culture is made up of different elements from a certain community sharing things like language, food, music, where they live, generational stories and beliefs.</li> <li>Introduced how the students can learn about nature through a cultural perspective as well as from a scientific perspective.</li> <li>When referring to each different cultural community; Mi’kmaq, Acadian, African Nova Scotian and Gaels hold up each associated puppet.</li> </ul>	<i>“Did you know that one of the things we like to do in museums is tell stories? Stories are a way we learn about the past. This museum normally tells the story of [quick idea of what your museum is about]. That is not the only story we tell. Today we will hear other stories too.</i> <i>Remember our friends, Mary Ellen, Léger, Desmond, and Margret? Well, they are a part of a club called the Junior Nature Explorers. The Junior Nature Explorers enjoy going outside and learning about nature through books or sharing stories. How do you like to learn about nature?</i> <i>(invite students to share how they learn about nature – books, internet, movies, tv, going outside, talking to teachers, etc.) Those are all great ideas.</i> <i>While you are at each of the four stations you will hear different stories about nature. These are old stories. So old that our grandparents’ grandparents heard them when they were our age! Those really old</i>



		<p><i>stories make up a part of our culture. Culture is also made up of the special food eaten, music and language shared around a group of people who live in the same place.</i></p> <p><i>We are all from different cultures and communities. Remember Mary Ellen, Léger, Desmond and Margret, they come from four different cultures found here in Nova Scotia. Can you name all four communities?</i></p> <p><i>As you go around to all the activities you will hear a few of these old stories that can teach us about plants, animals and nature. But it's also fun, because we also get to learn about other cultures."</i></p>
Minute 10	<p>6. <b>Divide students into groups and start the program.</b> Teachers may already have divided the students into groups before arriving but if they haven't, work with them to quickly divide the students. Each Museum leader will take the correct puppet for the applicable station.</p>	<p><i>"We are now going to break into four groups and visit four stations. There will be one of the Junior Nature Explorers at each station to help remind you of the culture being shared, through a story and an activity. Is everyone ready?"</i></p>

## Additional Information

Possible Discussion Questions for Extension:	<ul style="list-style-type: none"> <li>Do not worry if this section ends a little early as it will allow for more time for discussion during the conclusion.</li> </ul>
Suggestions for Modifications:	<ul style="list-style-type: none"> <li>If you use two staff people for the introduction. Have one person hold the puppets while the other staff member leads the introduction.</li> </ul>
Safety Considerations:	<ul style="list-style-type: none"> <li>Ensure the space where students are seated does not block the natural flow of traffic in the museum more than necessary.</li> <li>Ensure students seated on the floor are safe from accidentally being stepped on by visitors or staff walking past the group.</li> </ul>



## Activity Description Page

### *“Discovering Nature with Nova Scotia’s Founding Cultures”*

## Activity: “Mi’kmaq Story and Activity”

#### Activity Highlights (Short Description for Marketing Purposes):


Students are introduced to an aspect of Mi’kmaq culture through the story “How the Raccoon Got its Stripes”. The story helps to illustrate one specific connection Mi’kmaq culture must nature.

Students will then participate in a blind-touch activity where they mimic the abilities of racoons as they test their skills of shell identification using only the sense of touch.

## Activity Logistics

Location	Time	Materials
Area where ¼ of group can sit in a circle	8 minutes	<ul style="list-style-type: none"> <li>Cloth bags with drawstring (one per student if possible)</li> <li>5 different shells (mussel, clam, periwinkle, dog whelk, oyster) for each bag – Shells can be provided to NSM Sites by contacting ICI Interpretive Researcher</li> <li>Printed version of the story “<i>How the Raccoon Got Its Stripes</i>”</li> </ul>
<b>Purpose of Activity:</b>	To learn about a living animal’s ability to identify objects, using only the sense of touch. To learn some identifying features of shells.	
<b>Curriculum Outcomes addressed by this activity:</b>	<p><b>Primary Science</b> Students will explore different living things (Outcome 2).</p> <p><b>Primary Social Studies</b> Students will recognize that people (local) have varied traditions, historical roots, rituals, and celebrations, including Acadians, African Nova Scotians, Gaels, Mi’kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1)</p> <p><b>Grade 1 Science</b> Students will investigate needs and characteristics of different living things, including humans. (Outcome 2).</p> <p><b>Grade 1 Social Studies</b> Students will demonstrate and understanding of the diversity of cultural groups, including Acadians, African Nova Scotians, Gaels, Mi’kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1).</p>	
<b>Set-Up:</b>	Fill one cloth bag with a drawstring per group containing five different shells.	

## Step-by-Step Procedure

Timing	Instruction	Possible Script
Minute 1	<p>1. <b>Introduce story and character.</b></p> <p>Hold up the Mary Ellen Puppet and have the students repeat the Mi'kmaw greeting.</p> <p>Introduce the story as “How the Raccoon Got Its Stripes”.</p>	<p><i>P'jilasi! Welcome!</i></p> <p><i>Remember, Mary Ellen of the Junior Nature Explorers? She lives in a Mi'kmaq community called Sipekne'katik, you might know it by its English name, Shubenacadie.</i></p> <p><i>I'd like to tell you the story of how raccoon got its markings around its eyes and tail.</i></p> <p><i>First, would you like to learn the Mi'kmaw word for raccoon?</i></p> <p><i>It is Amaljikwej. [a-mal-jug-wedge].</i></p> <p><i>Try it with me: amaljikwej</i></p>
Minutes 3	<p>Read the Mi'kmaw story, “How the Raccoon Got Its Stripes”</p> <p>Introduce the raccoon's special skill: manual dexterity. (Options: introduce the Mi'kmaw word for raccoon: <b>amaljikwej</b>, which may be repeated throughout the story. Pronounced: a-mal-jug-wedge. You may use the images in the attached pdf, arranges so that the script for each image is printed on the reverse side of each image. If available, you may prefer to use the Scholastic publication, <i>Glooscap and the Brothers</i>, by Chris Kientz, for images)</p> 	<p><i>Glooscap was a hero to the Mi'qmaq people. He was kind and took care of them.</i></p> <p><i>One day Glooscap came across two blind men who were all alone. They couldn't do anything for themselves, and were so unhappy, they left their village.</i></p> <p><i>Glooscap made a wigwam and built a fire for them. He made a basket and showed them how to get water from the river using a rope. He gave them a hook and line and taught them how to fish. Then they shared a meal while Raccoon watched from across the river. Do you remember the Mi'kmaw word for raccoon? Amaljikwej.</i></p> <p><i>The next day, one of the men went to the river for water. Raccoon saw what was going on and thought he would have some fun. The man threw the basket (like this one) into the water. Raccoon (Amaljikwej) snuck past and took the basket out of the water.</i></p>



*The blind man pulled the basket back with a rope and found only sand. "Our river has gone dry," he said.*

*The other man didn't believe him. He said, "You're just lazy! You didn't go for water."*

*Raccoon (Amaljikwej) put the basket back in the water. The second brother went down to the river and came back with water.*



*He was angry. "See! The river did not go dry," he said. The brothers started to fight.*

*Later, one of the brothers caught four fish. He told his brother, "We can each have two." He put the fish over the fire to cook (like these fish hanging here) but the raccoon snuck in and stole two of them.*



*The first brother began to eat his fish. When the second brother went for his, there were none left. He became very angry again. "First you won't get water, then you steal my supper," he said.*

*They began to fight again. Raccoon sat back and laughed at them.*


*Glooscap saw them and asked, "Why are you fighting?" One brother pointed to other and said, "He's lazy! He won't go for water, and he took my supper!"*



*Glooscap saw raccoon rolling on the ground, laughing, and knew what had happened.*

*He took a burnt piece of wood from the fire and marked black circles around Raccoon's eyes. He said, "This is for the fish you stole. These marks will show you are a thief."*

*Then he drew rings around his tail. "This is for making the brothers fight," he said.*

		<p><i>"You'll remember, because these marks will stay with you always."</i></p> <p><i>That's why, to this day, raccoon wears the marks of a bandit. Do you remember the Mi'kmaw word for raccoon? [Response: Amaljikwej.]</i></p> <p><i>While we know raccoons best for their markings, we also know that they have a super power... They have an amazing sense of touch and use their hands instead of their eyes to see in the dark.</i></p> <p><i>I wonder what it would be like to be a raccoon. Do you think you could identify something without looking at it but by only touching it? Why don't we try it?</i></p>
Minute 4	2. Distribute bags, providing one for each group. If there are enough provide one/child. Chaperones may help.	<i>I am going to give you a bag with shells in it. We will see if you can identify a shell that I describe for you using only your hands. You can't look in the bag, so no peeking!</i>
Minute 5	3. Ask the child to reach into the bag and determine which shell is the clam shell by touch alone. Provide clues about the shape. When the children think they have found the correct shell, ask them to take it out to see if it the right one. Have each child pass the bag on to the next.	<i>The first shell I want you to try to find is a clam shell. The clam shell is oval. A live clam has two shells, but there is only one in your bag. The clam shell is curved like a spoon. If you feel carefully along the edge of the shell, you can feel a big bump on one side. That is part of the hinge that holds the two shells together. When you think you have found the right shell, take it out of the bag to see if you are correct. If you are incorrect, try again; if you are correct, put it back in the bag, and pass the bag to the next person.</i>
Minute 6	4. <b>Do the second touching activity – mussel shell.</b> Ask the student to determine which shell is the mussel shell without looking at it. Again, provide clues based on touch and then take out the correct shell to confirm its identification. Once complete, pass the bag to the next student.	<i>The next shell to look for is a mussel shell. Like the clam shell, mussel shells come in pairs, but you only have one. The mussel shell is also curved like a spoon, but does not have a bumpy hinge that you can feel. It is narrow and pointy at one end. When you think you have found the right one, take it out of the bag to see if you are right.</i>

		<i>Put the shell back in the bag and pass it to your neighbour.</i>
Minute 7	5. <b>Do the third touching activity – periwinkle shell.</b> Ask the student to determine which shell is the periwinkle shell, once again, based solely on touch and your description.	<i>Now I would like you to try to find the periwinkle shell. The periwinkle is a round snail shell. There is a hole on one side, and it only has a bit of a point that you can hardly feel at all. This shell is smooth. When you think you have found the right shell, check to see if you are correct. If you are incorrect, try again; if you are correct, put it back in the bag, and pass the bag to the next person.</i>
Minute 8	6. <b>Do the final touching activity – dog whelk shell.</b> Ask the students to determine which shell is the dog whelk shell, once again, based solely on touch and your description.	<i>The next one is the dog whelk shell. Like the periwinkle, the dog whelk is a snail. It is round and has one hole where the snail lived, but this one is very pointy. You might be able to feel the spiral at the top of the shell and it is rough compared with the periwinkle. When you think you have found the dog whelk, take it out of the bag to see if you are correct.</i>
Minutes 9-10	7. <b>Wrap up the activity.</b> Allow students to share the observations. Relate the activity back to the story about the racoon and Mary Ellen.	<i>I think we can all agree that trying to figure out what something is can be pretty tricky when you can't see it. I don't know if raccoons are really as smart as our raccoon in the story, but now we all know that they are really good at using their hands!</i>

## Additional Information

<b>Possible Discussion Questions for Extension:</b>	Do you think you could recognize other items from nature or from your house by touch alone?
<b>Suggestions for Modifications:</b>	Do you think you could find your way around your house in the dark?
<b>Safety Considerations:</b>	Substitute shells for seeds or other items from nature (seeds) or household items (a coin, an empty thread spool, a clothespin, etc.)



## Activity Description Page

### *“Discovering Nature with Nova Scotia’s Founding Cultures”*

## Activity: “African Nova Scotia Story”

#### Activity Highlights (Short Description for Marketing Purposes):

Students are introduced to an aspect of African Nova Scotian culture through the story “Basket Weaving in African Nova Scotia Communities”. The story helps to illustrate one specific connection African Nova Scotian culture has to nature.

Students will then participate in a hands-on craft activity that has them weaving their own baskets out of paper.

## Activity Logistics

Location	Time	Materials
Area where ¼ of group can sit at table to do craft	10 mins	<ul style="list-style-type: none"> <li>8½ x 11 sheets of coloured paper (can be construction or printing paper)</li> <li>Safety scissors</li> <li>Glue, tape and/or a stapler – child appropriate</li> </ul>
<b>Purpose of Activity:</b>	The activity will introduce students to an aspect of African Nova Scotian culture that helps to illustrate a part of their history and connection to the natural world.	
<b>Curriculum Outcomes addressed by this activity:</b>	<p><b>Primary Science</b> Students will explore different living things (Outcome 2).</p> <p><b>Primary Social Studies</b> Students will recognize that people (local) have varied traditions, historical roots, rituals, and celebrations, including Acadians, African Nova Scotians, Gaels, Mi’kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1)</p> <p><b>Grade 1 Science</b> Students will investigate needs and characteristics of different living things, including humans. (Outcome 2).</p> <p><b>Grade 1 Social Studies</b> Students will demonstrate and understanding of the diversity of cultural groups, including Acadians, African Nova Scotians, Gaels, Mi’kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1).</p>	
<b>Set-Up:</b>	<p>One table, with materials, to act as a work area</p> <p><b>PLEASE NOTE:</b></p> <ul style="list-style-type: none"> <li>It is suggested that you do some prep of the craft activity before the program to save time.</li> <li>Children may need some help with the weaving and using the stapler, tape or glue. Extra chaperones or a teacher to assist during the assembling of the paper baskets would be helpful.</li> </ul>	

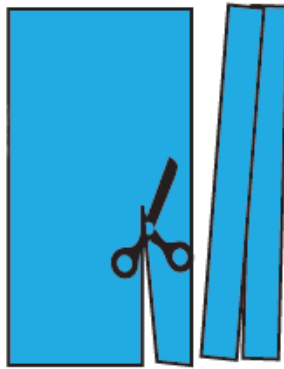


- It is likely that many of the children will not have time to finish their baskets. Reassure them that this is okay, that they will be able to take them and finish them up at home.

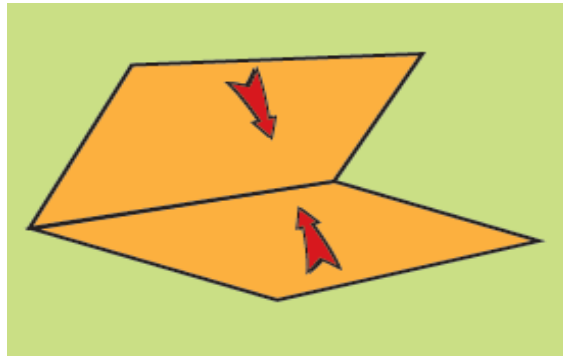
The craft activity involves creating a Paper Basket using two 8½ x 11 sheets of coloured paper -- one paper is used as the base for the basket, the other is used for making strips for weaving.

**To prep activity:**

**STEP 1:** Cut sheets of paper (of various colours) “vertically” into strips, approximately 6-8 strips per page

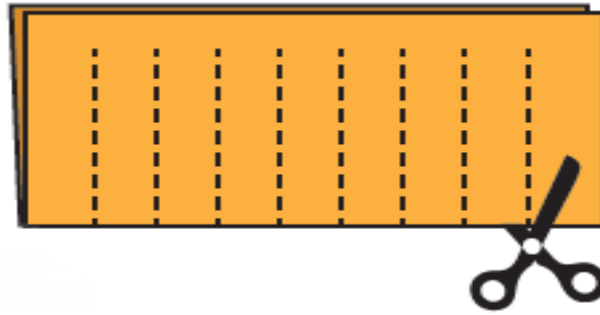


**STEP 2:** Select various 8½ x 11 sheets of coloured paper and fold it “vertically” in two (one piece of paper per child)





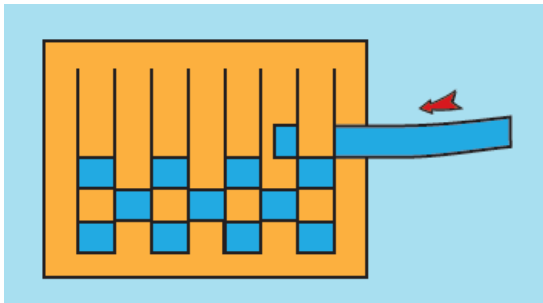

**STEP 3:** Cut the paper from the folded side towards the open side. Stop before you get to edge! Make your cuts equally spaced or not, straight or not—you can get creative to produce various designs.



## Step-by-Step Procedure

Timing	Instruction	Possible Script
Minute 1	<p><b>1. Welcome students to the activity and space.</b> introduce them to the story of basket weaving in African Nova Scotian Communities.</p> <p>Hold the Desmond puppet when introducing the community of Preston.</p>	<p><i>“Hi Everyone! Remember Desmond of the Junior Nature Explorers?</i></p> <p><i>Desmond lives in an African Nova Scotian Community called Preston, which isn’t too far from Halifax. He love’s living there with his family. He is very close to his neighbors, they feel like they are part of his family too, especially when they all get together on Sundays at church.</i></p> <p><i>I would like to tell you about Basket-Weaving in African Nova Scotian communities. Listen for how important the things from nature, trees and branches, are important to the community. After the story, we will be making our very own baskets using materials that we have here with us today – coloured paper.”</i></p>
Minutes 2-3	<p><b>2. Read story.</b> Read the story “<i>Basket Weaving in African Nova Scotian Communities</i>” which will introduce a special craft they are going to get to try.</p> <p><b>Pictures.</b> Use the basket weaving pictures on page 22 &amp; 23 to help the children visualize the process of basket weaving.</p>	<p><i>“Have any of you ever knitted, or made a paper chain for Christmas, or done any type of weaving with your mom or dad, friends or grandparents?</i></p> <p><i>Did you know that weaving is an art-form that can use a variety of different materials, including yarn, rope, wire, and even branches from trees?</i></p>

	<p><b>Note.</b> Pictures are from the book <i>“Baskets of Black Nova Scotians”</i> by Joleen Gordon, Crown Copyright 2013 Province of Nova Scotia The book is also available as an EPUB: <a href="https://ojs.library.dal.ca/NSM/article/view/4236">https://ojs.library.dal.ca/NSM/article/view/4236</a></p>	<p><i>Desmond’s grandmother taught him how to make weaved baskets using wood from Red Maple Trees, this is something she learned from her grandmother when she was a little girl. It is fun, but it takes a lot of practice!</i></p> <p><i>Basket weaving is a skill practiced by many African Nova Scotia communities for over 200 years.</i></p> <p><i>Like all crafts, basket weaving requires the commitment of someone who loves working with the material, and working with their hands.</i></p> <p><i>The wood that is used has to be straight, with no side branches, and free of knots.</i></p> <p><i>Making baskets is a family affair.</i></p> <p><i>The men gather the wood, the women prepare the wood and make the basket frame, and the students help with the weaving.</i></p> <p><i>The basket begins with two circles of wood... one circle is the rim, and the other circle is the handle. The basket is then weaved around this basic frame.</i></p> <p><b>**SHOW BASKET WEAVING PICTURES – PAGE 22 &amp; 23 **</b></p> <p><i>African Nova Scotian communities rely on nature and the trees to make these beautiful baskets, it is part of our traditions.</i></p> <p><i>There are different basket weaving cultures in Nova Scotia, including the Mi’kmaq, Gaelic, and Acadian.</i></p> <p><i>Did you know you can find African Nova Scotian baskets on display in many Nova Scotia Museums, in books, films, and in art galleries?”</i></p>
Minutes 4-9	<p><b>3. Do the Activity/Craft connecting it to the story.</b> Move students on to the activity, they will be making a Paper</p>	<p><i>“As we heard, African Nova Scotia communities used Red Maple trees, that are very common in Nova Scotia. They created weaved baskets to put things in,</i></p>

	<p>Basket. This is a simple activity that involves a minimal amount weaving and gluing, taping or stapling. See instructions below:</p>	<p><i>like fruits or vegetables, or to carry things, or to sell at local Markets.</i></p> <p><i>Today you will be weaving your own Baskets using materials that we have here in the museum – Paper.”</i></p>
	<p><b>Craft Instructions:</b></p> <ul style="list-style-type: none"> <li>• <b>STEP 1:</b> Students should choose one of the coloured sheets of paper that had been cut with slits.</li> <li>• <b>STEP 2:</b> Students should then choose 6-8 strips of paper (the strips can be all of one colour, or of various colours)</li> <li>• <b>STEP 3:</b> Students will then weave the strips—one at a time—over and under the slits cut into the first piece of paper.</li> </ul>  <ul style="list-style-type: none"> <li>• <b>STEP 4:</b> Glue, staple or tape the ends of the strips to the first piece of paper so they stay in place. Cut the ends of any strips that are too long.</li> <li>• <b>STEP 5:</b> Fold paper in half and glue the outside edges together, be sure to leave an opening at the top. Glue, staple or tape a paper strip handle.</li> </ul> 	
Minutes 9	<p><b>Wrap up the activity.</b> Allow students to share the observations. Relate the activity back to the story about the basket making and Desmond.</p>	<p><i>“Weaving is an art-form that can use a variety of different materials, including things from nature such as branches, or bark from trees, or yarn, rope, or wire.</i></p> <p><i>This knowledge of making maple baskets has been passed down in families, from parents to their children, for more than six</i></p>

		<p><i>generations in African Nova Scotian communities, who continue to make baskets for use in their communities.</i></p> <p><i>Thank you for trying your hand at it with me today!</i></p>
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## Additional Information

<b>Possible Discussion Questions for Extension:</b>	<ul style="list-style-type: none"> <li>African Nova Scotians made baskets from the trees, what other things can people make, from things that they find in nature?</li> <li>Are there any traditions that you have in your family? Any that bring you out into nature?..... blueberry picking, collecting special rocks or pine-cones, chopping down your own Xmas Tree?</li> </ul>
<b>Suggestions for Modifications:</b>	None
<b>Resources:</b>	<p>Baskets of Black Nova Scotians: by Joleen Gordon</p> <p><a href="https://ojs.library.dal.ca/NSM/article/view/4236">https://ojs.library.dal.ca/NSM/article/view/4236</a></p>
<b>Safety Considerations:</b>	<ul style="list-style-type: none"> <li>Sharp objects: safety scissors, stapler</li> </ul>

Pictures taken from:

***Baskets of Black Nova Scotians* / Joleen Gordon. Nova Scotia Museum, 2013.**

<https://ojs.library.dal.ca/NSM/article/view/4236>









## Activity Description Page

### *“Discovering Nature with Nova Scotia’s Founding Cultures”*

## Activity 3: “Acadian Story”

#### Activity Highlights (Description for Marketing Purposes):

Students are introduced to an aspect of Acadian culture through a story about salt marches. The story helps to illustrate one specific connection Acadian Communities culture had with nature. This story will examine how All animals are adapted to their environment in unique ways. A very important adaptation for food gathering in birds is the size and shape of the beak. In this activity, we will focus on different types of bird beaks and discover how each type of beak functions in collecting specific types of food.

Students will then participate in a hands-on experiment, using everyday objects that model different bird beaks, will try to gather the food and place it in their "stomachs". A class discussion on specialization of each beak type should follow.

### Activity Logistics:

Location	Time	Materials
Area where ¼ of the group can gather around a table for experiment	10 minutes	<ul style="list-style-type: none"> <li>• Safety scissors</li> <li>• Paper cup</li> <li>• Toothpick</li> <li>• Aquarium net</li> <li>• Paper plate or bowl</li> <li>• Paper cup</li> <li>• Popcorn / styro packing peanuts</li> <li>• Craft foam cut in shape of a fish</li> <li>• Foam pencil grips</li> <li>• Sand or potting soil</li> <li>• Raisins</li> <li>• Picture of osprey, heron, sandpiper, swallow (provided)</li> </ul>
<b>Purpose of Activity:</b>	The activity illustrates how animals adapt to their habitat. In this case, the focus is on how the beaks of birds have adapted to collect different types of food in the habitat of the salt marsh.	
<b>Curriculum Outcomes addressed by this activity:</b>	<p><b>Primary Science</b> Students will explore different living things (Outcome 2).</p> <p><b>Primary Social Studies</b> Students will recognize that people (local) have varied traditions, historical roots, rituals, and celebrations, including Acadians, African Nova Scotians, Gaels, Mi'kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1)</p> <p><b>Grade 1 Science</b> Students will investigate needs and characteristics of different living things, including humans. (Outcome 2).</p>	

	<b>Grade 1 Social Studies</b> Students will demonstrate and understanding of the diversity of cultural groups, including Acadians, African Nova Scotians, Gaels, Mi'kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1).
<b>Set-Up:</b>	Acadian story images and text (Appendix 1), printed double-sided and laminated One table, with “food” materials and tools assembled: <ul style="list-style-type: none"> <li>• Plate or bowl, raisins covered in soil or sand</li> <li>• Paper cup, foam pencil grips in bottom</li> <li>• Bowl of popped popcorn or styro peanuts</li> <li>• (optional) craft-foam fish</li> <li>• Toothpicks, net, chopsticks, (optional) scissors</li> <li>• Pictures of heron, swallow, sandpiper, (optional) osprey (Appendix 2)</li> <li>• Printed copy of Acadian story</li> <li>• <u>Note</u>: chopsticks will be easier to use with an elastic band around the handle ends of the sticks, and a wedge of folded paper inserted between the sticks just below the elastic band.</li> <li>• <u>Note</u>: Osprey – fish component is optional.</li> </ul>


## Procedure

Timing	Instruction	Possible Script
Minute 1	1. <b>Welcome students to the activity and space.</b> Introduce the Puppet Leger, and the story of the Acadian salt marsh Hold the Puppet when talking about Pubnico.	<i>Bonjour! Remember Leger, of the Junior Nature Explorers? Leger lives in the Acadian village of Pubnico. Most people there speak both French and English. Nature is very important to Acadians, many people in Pubnico are farmers and fishers.</i>  <i>I am going to read you a story about the salt marsh, and how Acadians used it to feed their farm animals. You should also listen to how wild birds and animals use the salt marsh to find food. After the story, we will find out how different birds use their beaks to find food on the marsh.</i>
Minutes 2-3	2. <b>Read Story.</b> See script on side. Five pictures of animals, people and landscapes are provided to illustrate story as it is being told.  Print the story and images from Appendix 1 double – sided, so that the story script can be read from the back of the pictures. The images and story segments are numbered to correspond with the script at right.	





- 1) *Leger's grandmère told him that when she was a little girl, she lived in Pubnico, an Acadian village near the ocean.*
  
- 2) *In Pubnico, when the tide is high, sea water covers the land and makes salt marshes. Special grass called cord grass grows on the marsh. The roots of the grass help to hold the marsh together so that the ocean waves don't wash the earth away. Lots of birds like sandpipers, herons and swallows find food in the salt marsh. The Acadians and Mi'kmaq found food like clams and seaside plantain at the salt marsh.*
  
- 3) *The Acadians cut the cord grass to make hay for their cows and horses and sheep to eat. All summer long, cord grass grew long on the salt marsh. In July and August, the Acadians waited until the tide was very low. Then, early in the morning, everyone went out to the salt marsh to cut the cord grass. Leger's grandmère remembers the sound of people walking down the road in their rubber boots – clomp, clomp, clomp.*
  
- 4) *The Acadians all worked together to cut the grass. They raked it into long rows (les grandes rouleaux) and bundles (les mulronds). Then they would pile the cord grass into haystacks (les barges) on square platforms made of logs (les chafauds / les carrés) to dry. Les*

		<p><i>carrés had to be high enough that the hay would not get wet when the tide came in.</i></p> <p>5) <i>When the hay was dry, the Acadians would wait until winter. When the marsh was frozen and hard, they would take ox carts onto the marsh and bring the dry hay into their barns. Then their farm animals would have hay to eat all winter long.</i></p>
Minute 4	<p><b>3. Introduce Activity.</b></p> <p>Birds that live in salt marshes have beaks that are specially adapted to eat one type of food. The group will look at tools (scissors, chop sticks, sieve, toothpick) that represent four special bird beaks (osprey, heron, swallow, sandpiper). There are also four types of food represented (craft foam / large fish, flying insects, large fish, minnows, burrowing invertebrates).</p> <p>Images of the four birds are provided in Appendix 2. Print the images, cut to size, and laminate for durability. Each image should be shown when discussing the corresponding bird.</p> <p>The correlations are:  Heron / Minnows: Chopsticks / Screws  Sandpiper/ Invertebrates: Toothpick/ Raisins  Osprey / Large Fish: Scissors / Craft Foam  Swallow / Insects: Net / Popcorn</p> <p>The task for the group is to match the bird beak best adapted for each food source.</p> <p>NOTE: Interpreters may choose <u>three</u> of the four bird – food combinations suggested.</p>	<p><i>The story told us how Acadians used the cord grass growing on salt marches to feed their cows and sheep. We're also going to think about how birds use the salt marsh for food.</i></p> <p><i>Many birds have special beaks that are adapted to help it eat the food it likes best.</i></p> <p><u>ASK:</u> <i>Do you know any birds with special beaks?</i></p> <p><i>We have three tools that work like different bird beaks, and three kinds of food.</i></p> <p><u>ASK:</u> <i>Can you figure out which tool is best for catching and eating each kind of food?</i></p>
Minutes 5-6	<p><b>4. Activity: Minnow &amp; Heron.</b></p> <p>Represented by foam pencil grips in a paper cup. Students explore and discuss which tools would be best for catching small fish from the water. The chopsticks allow you to reach down into the water to pick the screws off the bottom of the</p>	<p><i>Our first food source is minnows underwater. If you were a bird that eats minnows, what kind of beak would help best? Try using some of the tools to pick the screws out of the cup. Which of these tools</i></p>

	cup. This represents how a heron's long beak is specially adapted to catch minnows.	<i>works best? Why? A heron with its long beak catches minnows like this.</i>
Minutes 7-8	<p><b>5. Activity: Invertebrates &amp; Sandpiper.</b> Represented by raisins in a plate or bowl, covered with sand or soil. Students explore and discuss which tool would be best for probing for food you can't see, underground. Time permitting, students can be challenged to probe for raisins with their eyes closed. The toothpick allows you to feel for and pick up the hidden raisins. This represents how a sandpiper's beak is adapted to find tiny animals buried in sand or mud.</p> <p><u>Note:</u> "sand hoppers", as crustaceans, are small invertebrates related to crabs, shrimp, lobsters and can be used to represent this type of food.</p>	<i>Now imagine you like to eat tiny animals that live in the sand or mud, where you can't see them. How do you find them? Which tool would work best to feel for the raisins hidden in the sand, and pick them up? A sandpiper feels around under the sand for its food, just like you feel with a toothpick for the raisins.</i>
Minutes 9-10	<p><b>6. Activity: Flying Insects and Swallow.</b> Popcorn, tossed in the air, is used to represent flying insects. Students explore and discuss which tool is best for catching the popcorn. The aquarium net represents the swallow's beak, which opens wide to gulp insects in mid-air.</p>	<i>The next food source is flying insects, like mosquitos. If you wanted to catch something tiny flying through the air, which tool would be most helpful? Swallows have wide beaks to help catch insects, just like a net helps you to catch the popcorn.</i>
Alternative (2 minutes)	<p><b>Replace any of the three activities with this alternative option.</b></p> <p><b>7. Activity: Large Fish &amp; Osprey.</b> A sheet of craft foam is used to represent larger fish, such as flounders. Students explore and discuss which tool is best for eating a large fish. Several tools could be used to pick up the fish. The scissors allow you to cut the foam up into smaller pieces. This represents the osprey's sharp beak, which it uses to cut / tear its prey into pieces small enough to swallow.</p>	<i>Finally, imagine a bird that catches larger fish, like flounders / flatfish. What if the fish is too big to swallow whole? Which tool works best for this kind of food? The osprey's sharp beak cuts and tears its food into smaller pieces, just like the scissors cut up the foam.</i>
Minute 11	<p><b>8. Conclusion.</b> Acadians used the salt marsh to feed their animals. The marsh is also a natural habitat where animals like birds find food. Each of the birds featured in the activity has a special beak, adapted to help the bird find and eat its own type of food.</p>	<i>You can see from Léger's story how important the salt marsh was for both people and animals. The salt marsh is a natural <u>habitat</u> that provides homes and food for many different animals, plants, birds, fish, and insects. The birds we have</i>

		<i>look at have beaks that are <u>adapted</u> to help them catch their favorite foods.</i>
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## Additional Information

<b>Possible Discussion Questions for Extension:</b>	<p>If time allows, considering extending the discussion in step 4. Some additional questions to those included in the above suggested script could include:</p> <ul style="list-style-type: none"> <li>• Can you think of how other animals have adapted to eat a certain kind of food, or live in a certain habitat?</li> <li>• Think about the kinds of feet that different birds have. How are a bird's feet adapted to help it live in a special habitat? How are different birds' feet good at doing different things?</li> <li>• Do you, as a human, have special adaptations?</li> </ul>
<b>Resources:</b>	<p>Acadian Affairs (Department of Communities, Culture and Heritage):  <a href="https://acadien.novascotia.ca/en">https://acadien.novascotia.ca/en</a></p> <p>Le Village Historique Acadienne:  Salt Marshes: <a href="http://levillage.novascotia.ca/what-see-do/salt-marshes">http://levillage.novascotia.ca/what-see-do/salt-marshes</a>  Hay Stacks: <a href="http://levillage.novascotia.ca/what-see-do/salt-hay-stacks">http://levillage.novascotia.ca/what-see-do/salt-hay-stacks</a></p> <p>Argyle Archives: Acadian Traditions – Making Salt Haystacks  <a href="https://www.youtube.com/watch?v=GqVxQhx3LKU">https://www.youtube.com/watch?v=GqVxQhx3LKU</a></p>
<b>Vocabulary:</b>	<p><u>Adaptation</u> - A change in a living things or its parts that fits it better for the conditions if its environment.</p> <p><u>Habitat</u> - The place or environment where a plant or animal naturally lives and grows.</p> <p><u>Dike</u> – a dam made of earth</p> <p><u>Salt Marsh</u> – a coastal area, regularly flooded by high tides, and dominated by salt-tolerant plants.</p> <p><u>Halophytic</u> – A plant that can grow in salt water</p> <p><i>Acadian:</i></p> <p><u>Une barge</u> – A haystack</p> <p><u>Un chafaud</u> – A wooden platform for haystacks</p> <p><u>Un carré</u> – A square wooden platform for haystacks</p> <p><u>Un grande rouleau</u> – Hay raked into a long row</p> <p><u>Un mulrond</u> – A bundle of hay, a grand rouleaux raked into a bundle</p>
<b>Suggestions for Modifications:</b>	None
<b>Safety Considerations:</b>	<ul style="list-style-type: none"> <li>• Sharp objects: scissors, toothpicks.</li> <li>• Caution students not to eat raisins, popcorn or other foods used for the activity.</li> </ul>



## Museum School Program Development Template

### Activity Description Page

#### *“Discovering Nature with Nova Scotia’s Founding Cultures”*

### Activity 4: “Gaelic Story”

#### Activity Highlights (Short Description for Marketing Purposes):

Students will listen to a traditional Gaelic story “The Fox and the Hare” that was collected from the Oral tradition in Cape Breton and has been translated into English. One of the four founding cultures in the Nova Scotia, Gaelic is still spoken and taught in schools. This activity will allow a window into the stories that play a large role in Gaelic culture.

Location	Time	Materials
Area where ¼ of group can move and play	10 Minutes	<ul style="list-style-type: none"> <li>Mats or seating area on floor</li> <li>Chair for narrator – if needed</li> <li>Bushy tail – feather boas can be purchased from the dollar store and cut into small lengths to make tails. This can be optional.</li> </ul>
<b>Purpose of Activity:</b>	Students will listen to the story of why the hare has a small stumpy tail and the fox has a big bushy tail in Gaelic culture. Afterwards the students will play a version of duck, duck, goose, replacing the words with ‘fox’ and ‘hare’.	
<b>Curriculum Outcomes addressed by this activity:</b>	<p><b>Primary Science</b> Students will explore different living things (Outcome 2).</p> <p><b>Primary Social Studies</b> Students will recognize that people (local) have varied traditions, historical roots, rituals, and celebrations, including Acadians, African Nova Scotians, Gaels, Mi’kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1)</p> <p><b>Grade 1 Science</b> Students will investigate needs and characteristics of different living things, including humans. (Outcome 2).</p> <p><b>Grade 1 Social Studies</b> Students will demonstrate and understanding of the diversity of cultural groups, including Acadians, African Nova Scotians, Gaels, Mi’kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1).</p>	
<b>Set-Up:</b>	<ul style="list-style-type: none"> <li>Place mats on floor and arrange in a circle, or clear area on floor.</li> <li>Place a chair for the narrator to sit on if needed.</li> </ul>	

### Step-by-Step Procedure

Timing	Instruction	Possible Script
Minute 1	<p>1. <b>Welcome students to the activity and space.</b> Hold up the Margaret puppet up when talking about Iona.</p>	<p><i>Fàilte (Fal cha) Welcome, please come in and find a seat. Remember Margaret, the junior nature explorers? She lives in a Gaelic community in Iona, Cape Breton.</i></p> <p><i>How many of you have heard Gaelic spoken? What about sung? Singing is very important in Gaelic communities.</i></p> <p><i>Sometimes families and friends get together for a party where they sing in Gaelic, play music, and dance – it is call it a ceilidh. Not a lot of people speak Gaelic.</i></p> <p><i>I am going to read you a story that was recorded in Gaelic and translated into English so that you could understand it.</i></p>
Minute 2-3	<p>2. <b>Read Story.</b> See script on side. Use pictures of animals and landscapes to illustrate story as it is being told.</p>	<p><i>A long time ago there was a fox (Am Maigheach) and a hare (Am Madadh-Ruadh). The hare who had a beautiful bushy tail. Every time the fox saw the hare he was sad because he didn't have a beautiful tail of his own.</i></p> <p><i>One evening the fox was sitting down at the river eating fish. The hare came along and was so hungry. The fox said to the hare, "When you go down to fish, put your tail in the water at the end of the wharf. Plenty of fish will come right to your tail, and you can catch them."</i></p> <p><i>So, the hare put his long beautiful tail in the water. It was terribly cold that night. The hare waited and waited for the fish to come to the end of his tail. But, because it was so cold, that the water froze.</i></p> <p><i>When the hare tried to bring the fish onto the shore, his tail was frozen in the ice! He pulled and pulled to get free. He pulled so hard that his beautiful tail broke. The ice cut his tail right off and left him with a little stump of a tail.</i></p>

		<p><i>The hare ran away, happy to be free. The fox had been watching. We sat by the water and waited for it to thaw so that he could steal hare's tail.</i></p> <p><i>That's how the hare got the short, little tail. And, the fox got the beautiful tail that the hare lost.</i></p> <p><i>What do you think of that story?</i></p>
Minute 4-5	<p>3. <b>Explain rules of games.</b> Explain to the students the game of Duck, Duck, Goose and let them change the animals to Fox, Fox, Hare.</p> <p>The narrator will choose one student to be the fox. He/she will then walk around the circle saying 'fox, fox, fox...' as they pass each student. Once they choose a student they tap them on the shoulder and say 'hare'. The two students will walk quick in opposite directions to return to the open seat.</p>	<p><i>The story we just heard had two animals in it – a fox and a hare. Let's play a game with those two animals. Do you all know the game Duck, Duck, Goose? We're going to play Fox, Fox, Hare!</i></p> <p><i>Let's try saying fox and hare in Gaelic.</i></p> <p>Am Madadh-Ruadh – Hare Am Maigheach – Fox</p> <p><i>The fox will move in a circle going by each person saying Fox, fox, fox, fox and so on until they pick who the hare will be. Will the hare make it back to his or her spot before the fox steals a bushy tail?</i></p>
Minute 6-9	4. <b>Play the game.</b> Students can take four minutes taking turns to play the game.	<p><i>I'm going to pick the first person to be the fox who will they pick to be the hare. Who will get the lose their bushy tail?</i></p>
Minute 10	5. <b>Wrap up the activity.</b> Allow students to share the observations. Relate the activity back to the story about the fox and the hare and Margaret.	<p><i>We hope you have had fun and hopefully next time you see a fox and hare you will remember the Gaelic story of why they have the tails they do. Thank you for playing with me today!</i></p>

## Additional Information

### Possible Discussion Questions for Extension:

If times allow, ask the students to trying pronouncing the Gaelic word for Hare and Fox.

	Am Madadh-Ruadh – Hare Am Maigheach – Fox
<b>Suggestions for Modifications:</b>	Play game using Gaelic animal names.
<b>Safety Considerations:</b>	Make sure the area is clear and free of objects that students who will be moving quickly around the space.





## Museum School Program Development Template

### Activity Description Page

#### *“Discovering Nature with Nova Scotia’s Founding Cultures”*

## Conclusion: “You are a Junior Nature Explorer Too!”

### Activity Highlights (Description for Marketing Purposes):

The students will re-assemble as a large group and communicate what they have at the stations. They will then compare how their own family stories might tell be able to help them learn about nature.

### Activity Logistics:

Location	Time	Materials
Central location that can accommodate the whole group	10 minutes	<ul style="list-style-type: none"> <li>The four “Junior Nature Explorers” puppets</li> <li>Whiteboard with markers</li> <li>Printed Junior Nature Explorers membership badges</li> <li>Large print of the “Junior Nature Explorers pledge”</li> </ul>
<b>Purpose of Activity:</b>	Students will share the observations they made during the program resulting in a deeper understanding of nature and how it can be understood through different cultures.	
<b>Curriculum Outcomes addressed by this activity:</b>	<p><b>Primary Science</b> Students will explore different living things (Outcome 2). Indicators...</p> <ul style="list-style-type: none"> <li>Ask simple questions about different living things.</li> <li>Observe and describe living things in familiar places</li> </ul> <p><b>Primary Social Studies</b> Students will recognize that people (local) have varied traditions, historical roots, rituals, and celebrations, including Acadians, African Nova Scotians, Gaels, Mi’kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1) Indicators...</p> <ul style="list-style-type: none"> <li>Describe and discuss varied traditions, historical rooms, rituals, and celebrations, including Acadian, African Nova Scotian, Gaels, Mi’kmaq, including Treaty Education, and diverse cultural groups in the province.</li> </ul> <p><b>Grade 1 Science</b> Students will investigate needs and characteristics of different living things, including humans. (Outcome 2). Indicators...</p> <ul style="list-style-type: none"> <li>Investigate different living things to determine their characteristics.</li> <li>Compare, through explorations, the needs of different living things.</li> <li>Recognize and explain that humans and other living things depend upon their environment.</li> </ul> <p><b>Grade 1 Social Studies</b> Students will demonstrate and understanding of the diversity of cultural groups, including Acadians, African Nova Scotians, Gaels, Mi’kmaq, including Treaty Education, and additional diverse cultures. (Outcome 1). Indicators...</p>	

	<ul style="list-style-type: none"> <li>Ask questions to gain understanding of the diversity of cultural groups, including Acadians, African Nova Scotian, Gaels, Mi'kmaq, including Treaty Education, and additional diverse cultural groups in the province.</li> <li>Discuss and share information about cultural groups in the community.</li> </ul>
<b>Set-Up:</b>	<ul style="list-style-type: none"> <li>none</li> </ul>

## Procedure

Timing	Instruction	Possible Script
Minute 1	1. <b>Welcome students back from their stations.</b>	<i>"Welcome back Junior Nature Explorers. We hope you had fun, hearing stories, and doing activities."</i>
Minutes 2-5	2. <b>Invite students to share what they learned during their investigations.</b> Go through each activity and ask students what skills they learned. As you review each station hold up the correct puppet.	<p><i>"It has been a busy morning for you. You've heard four stories, which each told us a little bit about nature. Let's review those stories and what we learned."</i></p> <p><i>Let's say "Pjila'si" to Mary Ellen again. Good. What Mi'kmaq story did you hear at Mary Ellen's station, was it about a raccoon? Why do raccoons look the way they do? And what did you do? What did you learn about nature with Mary Ellen?</i></p> <p><i>Let's say "hello" to Desmond again. What African Nova Scotian family story did you hear at Desmond's station? Families worked together on making what? What did you learn about nature with Desmond? Let's say "hello" to Léger's again in French,</i></p> <p><i>Let's say "Bonjour" to Léger. What Acadian story did you hear at Léger's stations? Did you learn about some of the birds that live in the salt marshes? And what did you get to do? What did you learn about how birds catch their food?</i></p> <p><i>Let's say "Failter" to Margret again, in Gaelic. What Gaelic story did you hear at Margret's station? Was it about the fox "Maigheach" and the hare "Madadh-</i></p>

		<i>Ruadh". And what did you get to do? What did you learn about nature with Margret?</i>
Minutes 6-8	3. <b>Invite students to think about their own family stories and how they relate to nature.</b>	<i>"Just like Mary Ellen, Desmond, Léger and Margret we all come from different cultures and communities too. Stories are important to people from all around the world. In our families we might have our own stories about nature. Can anyone think of an example of a story that your family might tell about nature?" (Group Discussion)</i>
Minute 9	4. <b>Congratulate students on their hard work completing the stations and are now ready to join the Junior Nature Explorers Club.</b> Have the students repeat the Junior Nature Explorers promise aloud.	<i>"Great job. You have all proven that you learned about nature today through the sharing of different stories and culture. We have badges for all of you that we are going to send back to school for your teacher. But first, to make it official, we will say the Junior Nature Explorers promise. Repeat after me: <b>I am a Junior Nature Explorer. I promise to take care of the plants, the animals, the land and water all around me. I will learn about Nature by going on walks, Reading books or Listening to stories from different cultures. I will share what I learn with friends and family.</b></i>
Minute 10	5. <b>Thank students for coming and welcome them to come back another time.</b> Consider telling them about something exciting and relevant to them that they could experience at the museum if they return.  <b>If group is doing the card activity, arrange logistics of group switching here.</b>	<i>"We really enjoyed having you come visit us today and we hope you will come back. We would love to hear more of your family stories. Museums are great places to share family stories and learn the stories of other families. Today you only got to see a small section of the museum, but we hope you come back to visit us with your family."</i>

Minute 3	<p><b>6. End program, turning “control” back over to the teacher.</b> Be sure the teacher and chaperones understand the rules for your site re: lunch, post-visit exploration and visiting the gift shop. Provide the teacher with any evaluation forms you are asking them and/or the students to do. If possible, have them completed the evaluation before leaving the museum.</p> <p><b>If group is doing the card activity, arrange logistics of group switching here.</b></p>	<p><i>“I’m now going to ask your teacher to tell you what you will be doing now that the program is finished.”</i></p>
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## Additional Information

<b>Suggestions for Modifications:</b>	<ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Safety Considerations:</b>	<ul style="list-style-type: none"> <li>• See Introduction</li> </ul>

## Card Activities: “Cards in Nature”

The following are just a number of ideas for games and activities that involve the “Cards in Nature”. The activity is designed to run ~20 minutes including getting students settled and the explanation of the activity. Any number of activities can be created using the cards to engage students with questions, discussion and play activities involving nature.

### Sorting

In this activity, students are asked to sort into groups according to the creature on their card.

#### Activity Schedule:

1 – Cards are distributed to the students with the following instructions from the leader:

“I am going to give each of you a card, in this game I will ask you to sort into groups according to the creature on your card, such as: the number of legs, whether creature flies/walks, carnivore/herbivore, trees/plants/animals, etc.”

2 – Leader then asks students to sort and engaging them with questions about their creature. Remember to use questions students of this age would reasonably know the answers to (ideally ones they can observe from the illustration) and use questions that include both plants and animals. Examples of questions include:

- Can you move by yourself?
- Are you green?
- Are you bigger than an apple?
- Are you smaller than an apple seed?
- Do you have legs?

#### ALTERNATIVE SORTING ACTIVITY

This activity involves a lot of questions, discussion and working together. Cards are placed on the ground and students are asked for ways that they can sort them into groups,

#### Activity Schedule:

1 – Students are asked to form as circle and cards are laid down on the ground.

2 – Students are given the following instructions from the leader:


“As you can see there are many different types of creatures, animals, insects, trees and plant life that are native to Nova Scotia. Are there any that you have seen in nature or know about? Is there different ways we can sort them?

I am going to give each of you a card, in this game I will ask you to sort into groups according to the creature on your card, such as: the number of legs, whether creature flies/walks, carnivore/herbivore, trees/plants/animals, etc.”

	<p>2 – Leader then asks students to sort and engaging them with questions about their creature and encouraging them to work together.</p>
<b>Ring around the Forest</b>	<p>In this activity, students are asked to use the protection of the environment.</p> <ol style="list-style-type: none"> <li>1- Cards are distributed to the students with the following instructions from the leader.</li> <li>2- Have all the students with tree, flower or plant cards form a circle holding hands.</li> <li>3- Have all students with an animal or insect cards that is prey, stand in a line on one side of the habitat circle.</li> <li>4- Have all students with an animal or insect card that is a predator, stand on the opposite side of the habitat circle.</li> <li>5- The Leader counts down “one, two, three go” and a game of tag begins. The prey tries to reach the safety of the habitat before being tagged by a predator. Predators try to tag any prey before they reach the habitat. If a student is tagged they must freeze in place.</li> <li>6- A round is over when all unfrozen prey is safe inside the habitat circle.</li> <li>7- The leader asks questions before resetting for another round, “ask the prey to identify themselves by animal/insects” and ask, “which predators caught (tagged) someone”.</li> </ol>
<b>Memory Matching Game</b>	<p>In this activity, students are asked to use their observation and memorization skills, while playing the well-known memory matching game.</p> <ol style="list-style-type: none"> <li>1- Print two sets of cards. Create small decks of 6-8 animal/plant cards, including two copies of each card. (i.e. two grass, two mayflowers, two eagles, etc.)</li> <li>2- Have students sit in small teams and give each team a small deck. Have students place all the cards mixed up and face down.</li> <li>3- Students each take a turn flipping two cards trying to make a matching set. Students get to “keep” (for the round) any set they find as points.</li> <li>4- Have all students take turns in their teams trying to make pairs. Once all the pairs have been found the student with the most points wins the round.</li> <li>5- Rotate small decks amongst students to play multiple times, each time with different plants or animals.</li> </ol>
<b>Guess Who</b>	<p>In this activity, students are ask to “become” a plant or animal while listening to a leader’s description of a mystery plant or animal to see if they are what the leader is looking for.</p> <ol style="list-style-type: none"> <li>1- One card is distributed to each student.</li> <li>2- Leader, using a duplicate set of the cards given to the students randomly chooses one card (plant or animal) which becomes the mystery card the class is trying to figure out. Important – Make sure the mystery card is a</li> </ol>

	<p>duplicate of a card given to a student. This doesn't work if the mystery card's partner card is sitting in a pile of "extra cards" not given out.</p> <ol style="list-style-type: none"> <li>3- Have all students stand-up and look at their card.</li> <li>4- Leader starts giving clues about their mystery card. Students who match the clue remain standing but students who do not match have to sit down. Example – My mystery card is a plant. (Students who have animals or insects sit down.) My mystery card has a flower on it. (Students who have non-flowering plants sit-down). My mystery card had a yellow flower on it. (Students with other coloured flowers sit down.)</li> <li>5- Keep the clues as things students can easily identify based on the image provided on their card. Example – DO NOT say My mystery card is an animal that migrates in the winter.</li> <li>6- Once only one student remains reveal the mystery card to match their identity. Example – We are both dandelions!</li> <li>7- Repeat several times making sure to provide a diverse experience (don't always pick plants or always pick animals.)</li> </ol>
<b>I Spy Game</b>	<p>In this activity, students work together on observation skills to look at the plants and animals on the cards while the leader provides clues using the "I Spy" format.</p> <ol style="list-style-type: none"> <li>1- All the cards are laid face up on the floor (or on a table) with the students sitting around them where they can see all the cards.</li> <li>2- Leader starts with a simple "I spy" prompt. Example – "I spy with my little eye something that has legs."</li> <li>3- Students guess at the cards to see if they can identify the card the leader is referring to.</li> <li>4- Allow a few guesses before adding another clue. Example – "I spy with my little eye something that has legs and is smaller than a baseball."</li> <li>5- Repeat allowing students to guess and providing more clues until the correct card is identified.</li> <li>6- Repeat game several times, possibly allowing students to take on the role of leader giving out the "I spy" clues.</li> </ol>
<b>Nature Walk</b>	<p>In this activity, students take a walk around the museum's natural environment and look for plants and animals identified on the cards.</p> <ol style="list-style-type: none"> <li>1- Before starting, use the card deck to create a custom deck based on the museum's natural environment and season students are visiting. Select all the plants and animals that students are likely to see on their walk.</li> <li>2- Hand out cards to students, giving them each something to be responsible for finding.</li> <li>3- Bring students on walk around your site, stopping at several points to allow them to observe and see if they can find the plant or animal assigned to their card. For students who are having difficulty finding their plant or animal have conversations about why this might be the case. For example – it might be common to see bees on your site however during</li> </ol>





the walk none are seen. Discuss with the students where the bees might be.

- 4- Engage in conversations with the students throughout the walk as you encounter new habitats and they discover different plants and animals.