

Westmoreland School
Nature-based After
School Program
Evaluation Report

TRACKS

**FOREST SCHOOL &
OUTDOOR LEARNING**

Completed by Caylin Gans

You make
me
smile

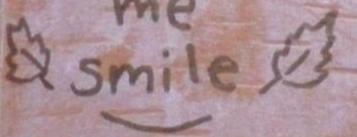


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EVALUATION REPORT SUMMARY: Westmoreland Nature-based After School Program

Purpose

This report is an evaluation of the Westmoreland Nature-based After School Program, which took place at the public school in Westmoreland, New Hampshire between March 2018 and June 2019. The intention is to (1) determine what participants perceive they have gained from taking part in the program, with a particular focus on social and emotional learning and connection to nature and (2) identify future areas for program improvement.

What is the nature-based after school program?

The Westmoreland after school program was based on a Forest School approach which aims to benefit participants' wellbeing, social connections, and environmental awareness through a play-based, place-based, and learner-led program design. It took place once a week for 2.5 hours after school and involved a total of 23 participants (ages 5 to 13), 3 educators, and 3 volunteers between March 2018 and June 2019.



Data collection methods

Data was collected between January 7th and May 20th 2019 through observations recorded during and after each session, an embedded reflection activity facilitated at the end of most sessions, and a caregiver survey completed in May 2019.

Evaluation questions

1. *How do participants describe what they're gaining from their experience in the program?*
 - a. *Based on those descriptions how is the program contributing to participants' social and emotional learning?*
 - b. *Based on those descriptions how is the program contributing to participants' connection to nature?*



What did we learn?

1. The participants described how the program provided opportunities to engage with the natural world, be creative, use their imaginations, and learn new things within a social setting. These experiences contributed to participants' social and emotional learning and connection to nature.
2. The activities and experiences that contributed most to participants' social and emotional learning were *playing with friends and learning how to get along together, playing active and imaginative games, and building forts and climbing trees.*
3. The activities and experiences that contributed most to participants' connection to nature were *encountering, interacting with, and learning about the natural world, experiencing various seasons and weathers, trying firelighting, foraging, and cooking, and playing active and imaginative games.*
4. The behavior, "Identifying natural phenomena (e.g. plants, animals, habitats, weather, etc.)" was observed the most. "Expression of empathy towards nature" and "Describing ways humans can mitigate impact on nature" were observed the least.
5. Caregivers perceived benefits to their children's social and emotional skills and connection to nature through spending time outdoors with their peers. Social interactions were challenging for some and could have benefited from additional support.



Recommendations

1. Continue to offer hands-on experiences for children to play and explore outdoors in all seasons and weathers with their peers to enhance children's connection to nature and social and emotional learning. Provide opportunities for participants to engage in activities like building forts, climbing trees, playing active and imaginary games, firelighting, foraging, and cooking to enhance their experiences.
2. Continue to model and encourage the demonstration of empathy towards nature and involve children in discussion and investigation around ways to mitigate human impact to improve participant's connection to nature. We recommend increasing the program to more than one afternoon per week, being more intentional about incorporating these practices, and building reciprocal relationships with Indigenous Abenaki people in the area to better understand traditional knowledge and cultures associated with the land. See [resource for building our understanding of Indigenous perspectives](#) for more information.
3. Provide additional support for children in navigating social and emotional challenges that arise during the program. The program was delivered with 1 experienced member of staff and 1 to 2 inconsistent support staff/volunteers. The program would be strengthened by having 2 to 3 consistent staff members/volunteers who are experienced and able to supervise and build strong relationships with the children in order to better support needs as they arise. It could also be beneficial to communicate more often with the school administrative staff, guidance counselor and caregivers, as sometimes issues that arise during the school day carry over into the after school program and vice versa. Specifically designating space and activities for quiet alone time or working in small groups could help ease emotional strain for some who struggle to be in a social setting for so many hours in one day.

Program Context

The Westmoreland after school program started in March 2018 in Westmoreland, New Hampshire as a response to families' requests for nature-based after school programming at the public school. The program took place at the school once per week on Mondays from 2:30 to 5:00 pm from March 2018 through June 2019 and involved a total of 23 participants (ages 5 to 13), 3 educators, and 3 volunteers.



Delivery of the program was based on a Forest School approach which aims to benefit participants' wellbeing, social connections, and environmental awareness through a play-based, place-based, and learner-led program design. Elements of a Forest School approach include:

- Takes place entirely outside, all year round, in all weather (except for dangerous weather conditions like extreme temperatures or thunderstorms)
- Supports the holistic development and needs of the participants
- Is learner-led and includes time for free exploration and play
- Involves regular and frequent visits, preferably to the same area with the same group of people
- Promotes appropriate levels of risk-taking, like climbing trees, firelighting, and using tools

This evaluation report provides an analysis of data collected between January 7th and May 20th 2019.

Why did we do this evaluation?

1. To determine what participants perceive they have gained from taking part in the program, with a particular focus on social and emotional learning and connection to nature.
2. To identify future areas for program improvement.

What were we trying to learn?

The following questions were developed through consultation with the families, the school principal, and program educators.

1. How do participants describe what they're gaining from their experience in the program?
 - a. Based on those descriptions how is the program contributing to participants' social and emotional learning*?
 - b. Based on those descriptions how is the program contributing to participants' connection to nature**?

*For the purposes of this evaluation, social and emotional learning is being defined as “the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions”¹.

**For the purposes of this evaluation, nature is being defined as “all the animals, plants, and other things in the world that are not made by people, and all the events and processes that are not caused by people”².

What data did we collect?

Bark & Spark: Bark & Spark was a group-scale embedded assessment activity facilitated at the end of most sessions. Children were given the opportunity to share a challenging experience they had (something that didn't go well, they didn't enjoy, they would change for next time). This was their “Bark” - something “rough” they went through. They were also given the opportunity to share a “Spark” - a positive experience (something that went well, they enjoyed, they want to do again). Responses were recorded on an observation form.

Observations: Educators and teachers took photographs, videos, and notes throughout each session. After each session educators recorded their observations of the children's play behaviors and dialogues and how they related to the social and emotional learning and nature connection indicators.

Caregiver Surveys: Surveys were conducted towards the end of the program in May 2019. Questions included a mix of closed and open questions to gather qualitative and quantitative data about the caregivers' perceptions of program as a whole and with regards to changes in their children's social and emotional development and connection to nature.

¹ CASEL. (n.d.). What is SEL? Retrieved December 3, 2018, from <https://casel.org/what-is-sel/>

² Nature definition and meaning | Collins English Dictionary. (n.d.). Retrieved November 23, 2018, from <https://www.collinsdictionary.com/us/dictionary/english/nature>

What did we learn?

This section of the evaluation report discusses themes that emerged through analysis of the data in relation to the evaluation question and sub-questions stated above.

To answer the questions, 261 written observations and “Bark & Spark” responses were recorded for 16 weekly sessions between January 7th and May 20th, 2019. These observations/responses were analyzed to discern any overarching themes relating to the described activity or experience as well as the number of links to social and emotional learning and nature connection indicators. These themes were reinforced during analysis of survey responses from caregivers.

1. How do participants describe what they're gaining from their experience in the program?

a. Based on those descriptions how is the program contributing to participants' social and emotional learning?

b. Based on those descriptions how is the program contributing to participants' connection to nature?



1.1 Participants described how the program provides opportunities for them to:

- *experience various seasons and weathers*
- *build forts and climb trees*
- *be creative and make things*
- *try firelighting, foraging, and cooking*
- *play active and imaginative games*
- *encounter, interact with, and learn about the natural world*
- *explore new places and notice new things*
- *play with friends and learn how to get along together*

Social and Emotional Learning & Connection to Nature

The following figures indicate the number of observations that were linked to the themes identified above and how they relate to social and emotional learning/connection to nature (Please note that some observations were linked to multiple indicators, so the total number of observations linked to indicators is greater than 261).

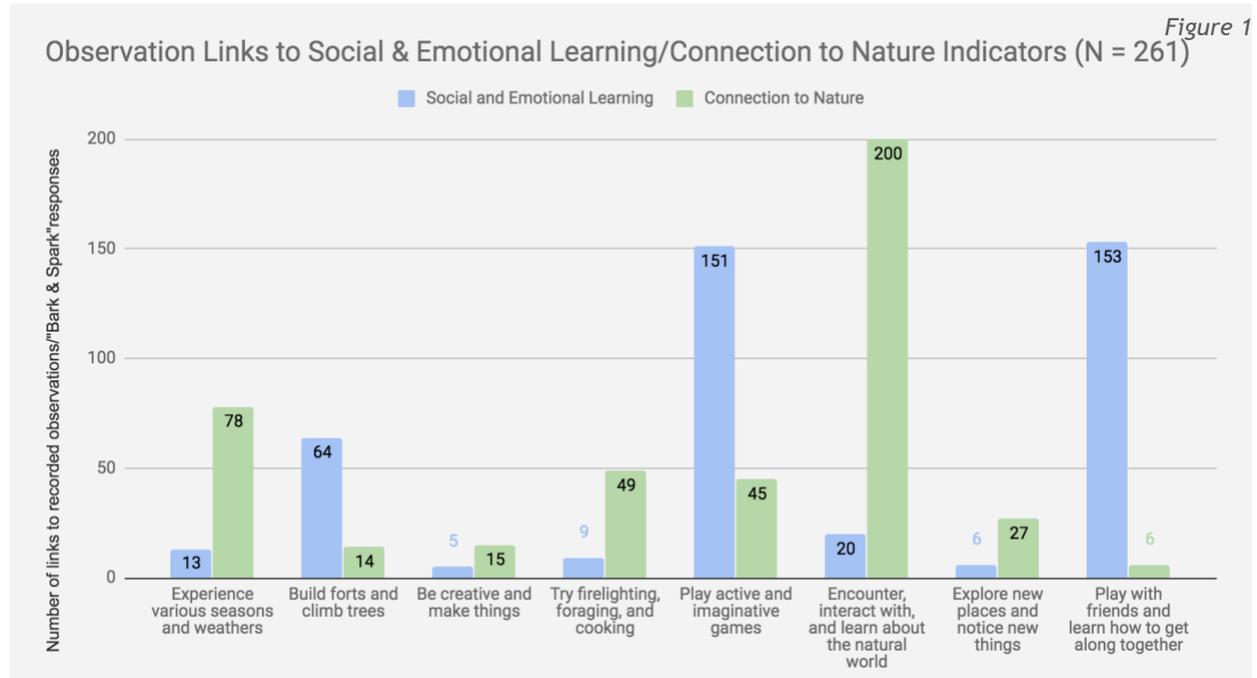
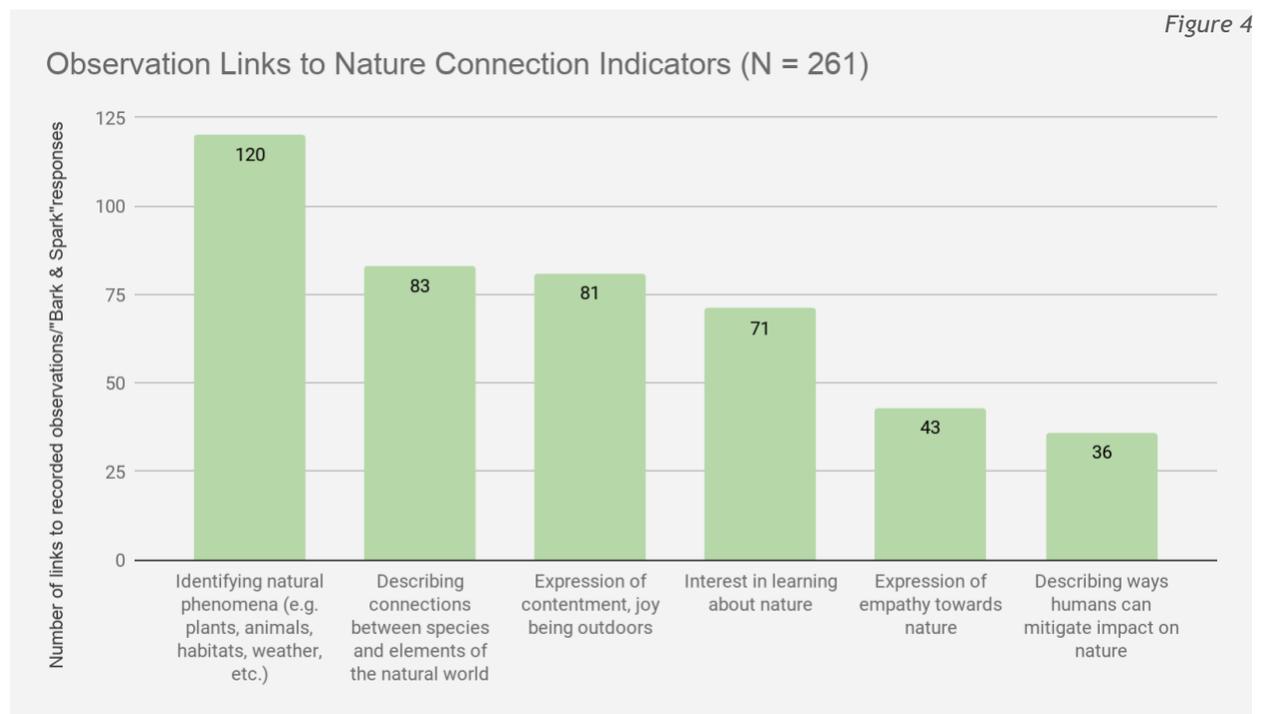
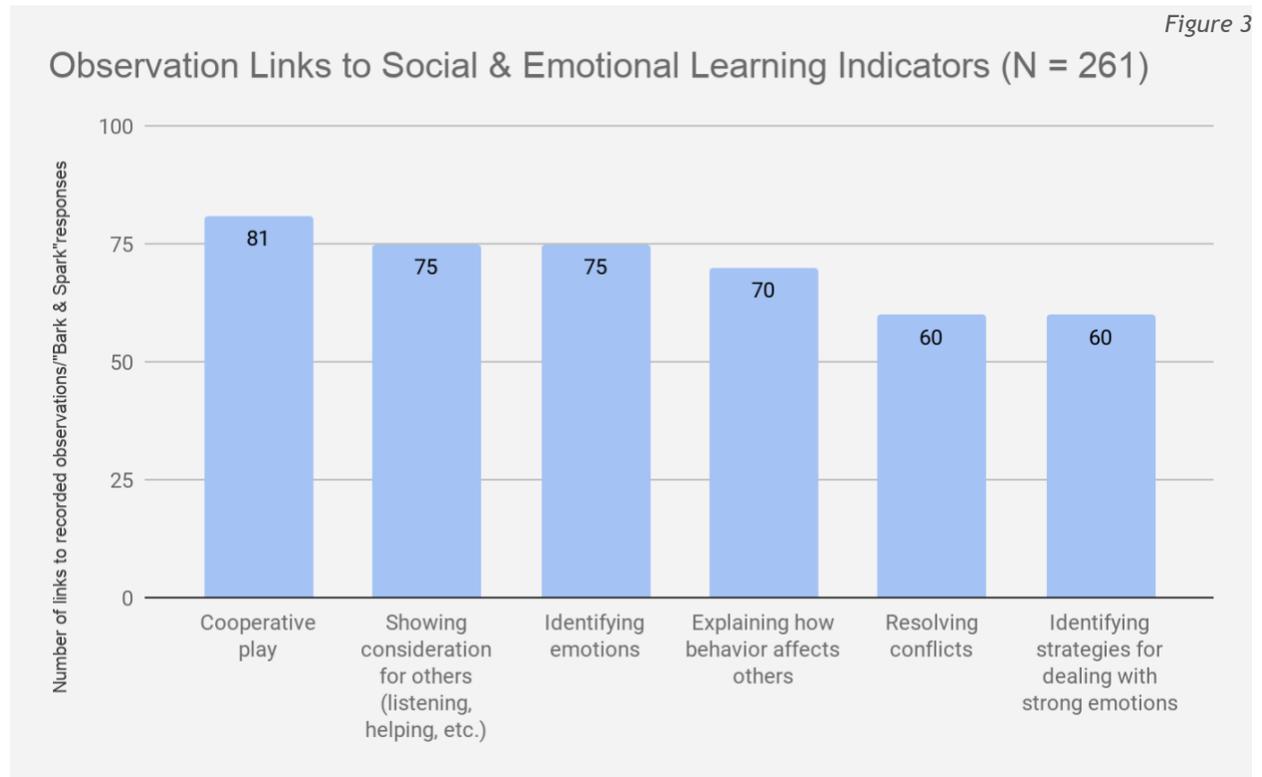


Figure 2

Theme	# of Links to Social & Emotional Learning Indicators
Play with friends and learn how to get along together	153
Play active and imaginative games	151
Build forts and climb trees	64
Encounter, interact with, and learn about the natural world	20
Experience various seasons and weathers	13
Try firelighting, foraging, and cooking	9
Explore new places and notice new things	6
Be creative and make things	5

Theme	# of Links to Nature Connection Indicators
Encounter, interact with, and learn about the natural world	200
Experience various seasons and weathers	78
Try firelighting, foraging, and cooking	49
Play active and imaginative games	45
Explore new places and notice new things	27
Be creative and make things	15
Build forts and climb trees	14
Play with friends and learn how to get along together	6

The following charts indicate the number of observations that were linked to 6 indicators for social and emotional learning and 6 indicators for connection to nature.



Our Stories

On the following pages we've shared a few of our stories, recorded through observation, "Bark & Spark" responses, and caregiver surveys, in order to illustrate the themes identified through this evaluation.

Experience various seasons and weathers

Observations

Discovering ice crystals in the ground, digging them out to explore more, chipping away at them with sticks.

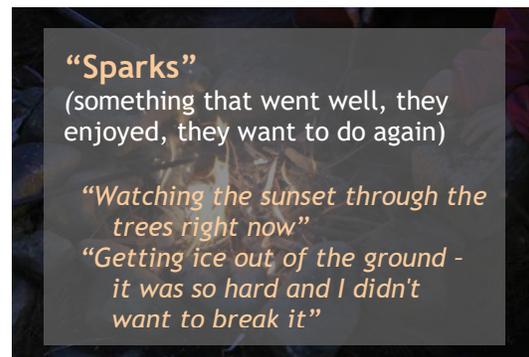
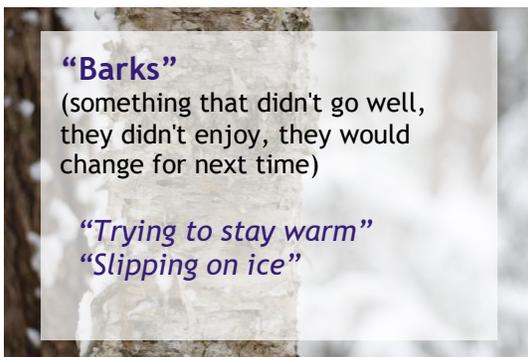
Toward the end of January, many children commented on how it wasn't getting dark at the end of the session anymore after several weeks of experiencing sunset, darkness, and using flashlights during the program.

Mid-spring on a humid and warm day, had lots of discussion about thunderstorms. "It feels like a storm is coming. The clouds are getting darker and the wind is stronger."

Down by the stream after not visiting for several weeks one child exclaims, "The bamboo forest is gone!" remembering last time we were down at the stream how it was thicker and lush with plants.



Bark & Spark Responses



Caregiver Survey: What did your child enjoy most about the program?
"Being outside" and "building forts and areas that they could return to each week."

Build forts and climb trees

Observations

One group was excluding others from accessing their fort. After discovering this was making many unhappy, they said others could come in if they passed a test. They created a series of tests that most could not pass, and the others expressed more frustration. Then they made it easier by giving out a password and said that all were welcome.

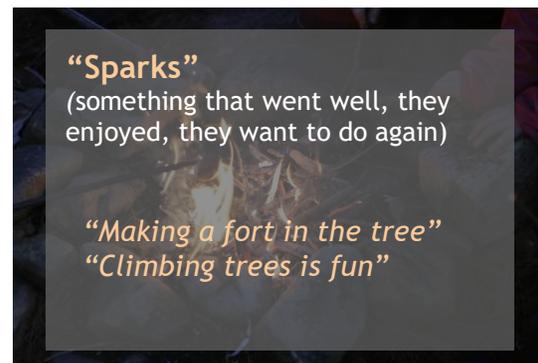
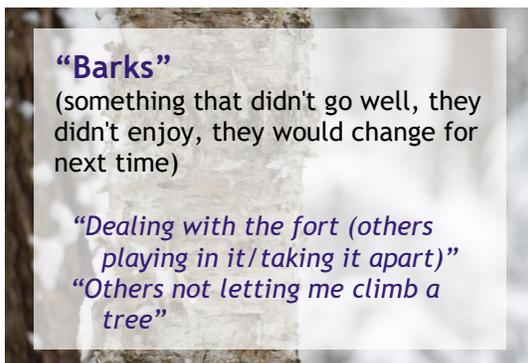


Some children were being excluded from going into a fort. I asked them, "What does it feel like to be excluded?" They all agreed they'd experienced that feeling before and how it made them feel sad. We came up with a solution to be more aware of how our actions can make others feel, try to notice if someone is feeling excluded and invite them to join in.



When climbing a tree quite high, one child said they were feeling uncomfortable "I'm not going higher because the branches are thinner and more breakable."

Bark & Spark Responses



Caregiver survey: What did your child enjoy most about the program?

"Building forts and climbing trees."

Be creative and make things

Observations

Making a sign for the forest and negotiating roles: "I'll draw the mountains." "I'll draw the trees." "Is it ok if you draw that and I'll draw this?" "How about you do the sun and I'll do the clouds."

Making bracelets together by swinging yarn tied to pieces of wood in a pattern. Communicating turns and using teamwork.

Expressing, "I'm bored," and then pulling out some yarn and making various crafts with sticks.

We made spiles out of sumac to tap maple trees and some of the children decided to make them into beads instead for necklaces. The next week one child said they'd used their spile at home to tap a maple tree too.



Bark & Spark Responses



"Sparks"

(something that went well, they enjoyed, they want to do again)

"Making a necklace with a wood bead on it"

"Drawing with charcoal on the birdhouse"

"Making a fairy house"

Caregiver Survey: What did your child enjoy most about the program?

"Crafts" and "Making stuff."

Try firelighting, foraging, and cooking

Observations

We roasted apples over the fire. We only had 5 whittled sticks, so the children negotiated taking turns roasting. We also had discussions about how many apples each should have and to wait for others to have one before having a second one.

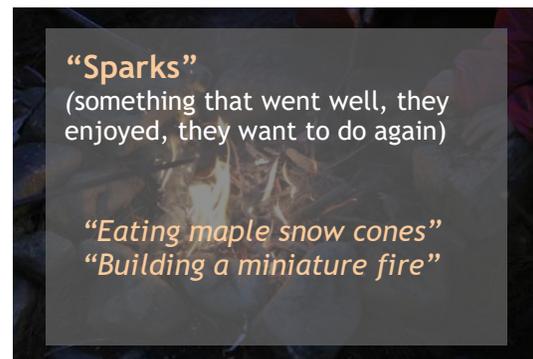
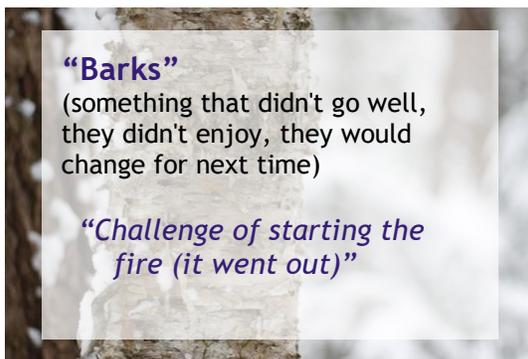
We tapped a maple tree today. We worked together to identify it by its leaves and bark, asked it permission first and listened for its answer. We left the bucket to collect sap and at the end we tasted it.

One child was harvesting beech buds to snack on and realized they didn't thank the tree after walking away. So they ran back to hug the tree and say thanks.

Several of us worked together to forage for spring edibles. We identified violets, ferns and cattails and learned about the honorable harvest and to take only 1 for every 10. We cooked what we collected over the fire to make "Spring Soup."



Bark & Spark Responses



Caregiver Survey: What did your child enjoy most about the program?

“Chance to build campfires.”

Play active and imaginary games

Observations

Taking turns using the sled, holding it steady for each other. Also having disagreements about turn taking and figuring out a system for that - waiting in line and having one turn each per round.

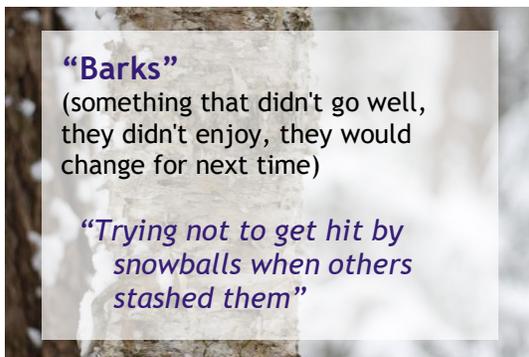
A few children wanted to play king of the hill and because it could get a little rough, they worked on deciding rules and agreements to keep it enjoyable for all: checking who is participating to avoid surprising someone who's not ready, if you don't want to play then stay clear of that particular area.

We had a group snowball fight which led to deciding together on rules like "no headshots" and not to gang up on one single person. To help avoid ganging up, they self-organized to divide into teams.

One child explained that they didn't like how others were ganging up on them during the snowball fight and that another child was telling them to do it. That child listened and said "I didn't realize that's what was happening. I'm really sorry." The first child expressed they were glad that they were "friends again."



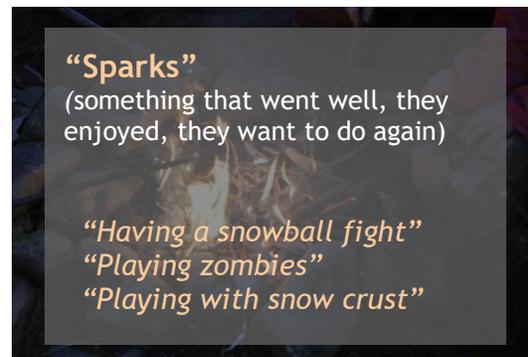
Bark & Spark Responses



"Barks"

(something that didn't go well, they didn't enjoy, they would change for next time)

"Trying not to get hit by snowballs when others stashed them"



"Sparks"

(something that went well, they enjoyed, they want to do again)

"Having a snowball fight"
"Playing zombies"
"Playing with snow crust"

Encounter, interact with, and learn about the natural world

Observations

A few children were interested in a puffball mushroom. They did a dissection with scissors and experimented with pouring water over it. They looked at it under magnifying glass, then made bracelets with it for each other.

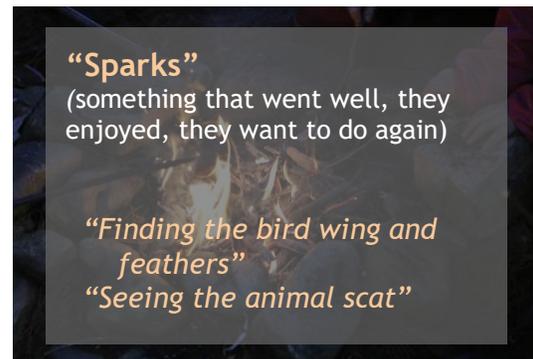
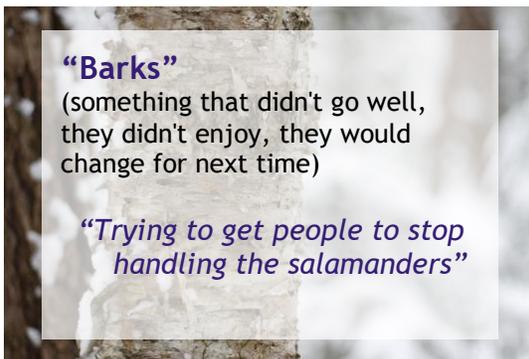
The group looked for tracks in the snow and discussed all the different animals they could be from (wolf, dogs, rabbit, bird). Then some created their own tracks with their gloves and made up stories about who made them.

Discussion between 2 children, "Trees don't have feelings." Response, "But they're alive!" One child also kissed a tree as we left the forest.

A few children have identified specific trees they call their "crying tree" that they go to when they feel sad. One child told me that they had come back to the area with their family one time and had visited their tree then to cry too.



Bark & Spark Responses



Caregiver Survey: What did your child enjoy most about the program?

“Being in the forest and learning about it.”

Explore new places and notice new things

Observations

Now that vegetation has died down (it's winter time) there is more visibility and several children found a trail towards the cattails that they wanted to explore.

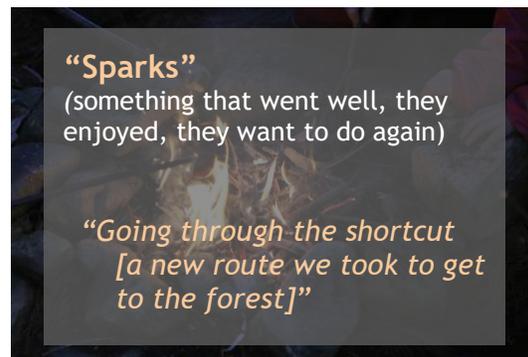
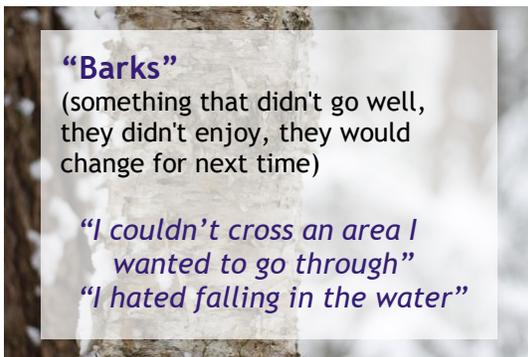
One child excitedly stated, "I'm going to be a nature scientist!" and walked around measuring the lengths of different things like sticks and rocks.

The children wanted to explore an area near the swampy part of the forest. They found litter there and then helped to pick it up.

One child stated, "It's a beautiful world here!" while exploring a new area down by the stream.



Bark & Spark Responses



Caregiver Survey: What did your child enjoy most about the program?

"Exploring nature and learning new things about animals and plants."

Play with friends and learn how to get along together

Observations

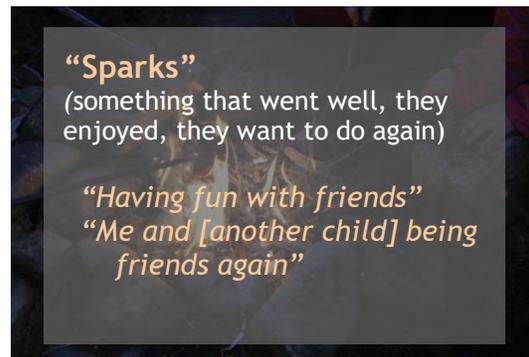
Conflicts arose with name calling. I asked, "What do you feel inside when you want to call someone a name?" They said, "I feel angry." I asked, "What can you do instead of calling names when we feel angry?" They suggested, "Cool down before deciding what to do" and agreed to practice that.

Two of the children were arguing today. I asked them to share what had happened, how they felt, and what were some ways to resolve the issue. One of them brought up a book they had read at school about emotions and described how everyone has a spectrum of emotions. They both realized that the situation was a good example of holding many emotions, being mad but also being able to forgive. I happened to be holding a grouse feather and I offered it to them and said, "Should this be our peace feather?" They suggested digging a hole and burying it. They covered it with snow and sticks and made note of the trees nearby so they could find the place again next time. One of them suggested that every time they get upset with each other that they could find a feather and bring it back to the spot and figure out how to be friends again.

One child got upset with another over taking turns during an activity. They took a break to cool down and then went to speak to the other child about it. They talked for a moment, resolved it, and both were able to resume the activity.



Bark & Spark Responses



Survey Responses

An online survey was sent to 15 caregivers and 10 responded. In general, survey responses indicated that caregivers perceived that the program had contributed to their children's social and emotional learning and connection to nature.

With regards to changes in the children's social and emotional skills, caregivers described how the program had helped their children face fears, feel more confident about themselves, practice taking responsibility for their actions, have a space to be creative and explore as an emotional release, handle frustrations, and find a sense of peace.



Caregivers also expressed how the program provided opportunities for the children to learn to cooperate with each other, which came with challenges and benefits. Some caregivers acknowledged how their children sometimes struggled to get along with others during the program and wanted staff to provide more support for their children in navigating social and emotional challenges. One caregiver expressed that participating in a social program after a full day of school can take an emotional toll, especially on younger children. Others indicated the program had helped their children to be more open about their problems, able to see other's perspectives, and show consideration for others. One caregiver acknowledged how *"interacting in a natural environment provides a supportive, cooperative environment."*



Caregivers also perceived some changes to their children's connection to nature. Though most caregivers indicated their children were generally interested in being outdoors in all seasons and weathers regardless of the program, a few expressed how the program had been a beneficial outlet for their children to spend time outside. Two caregivers described changes in their child's desire to be outdoors after participating in the program, such as *"always asking to go for walks!"* and being *"more likely to go out in the rain and cold."*

8 caregivers expressed that the program had increased or enhanced their children's interest in learning more about nature, including wanting to know more about trees, animal tracks,

wildlife, life cycles, and the process of maple sugaring. One parent described how their child liked to share what they've learned with their family at home too.

Overall caregivers were satisfied with the program and grateful for the opportunity for their children to participate. They indicated they liked most that the program was outside in all weathers, offered experiential free-choice play, focused on self-reliance and team-building, provided opportunities for children to get dirty, use their imaginations, learn about and appreciate nature, gain social skills, and play without electronics. One caregiver stated,

“I view this program as very successful and would like it used as an example to bring to the school or the school board in an attempt to get more outdoor activities created.”



Most caregivers indicated the main change they'd like to see in the future is for the program to be offered more days per week. One caregiver also indicated a desire for more structured time which may indicate an opportunity for clearer communication with caregivers about the play-based philosophy of the program and the rationale behind it. Changes that the children would want to see for future programs, as indicated through the caregiver survey, were to have more than one day per week, plan offsite adventures like hikes, have more hands-on learning with facts and crafts, look for more animals, and playing more “King of the Hill.”

What does it mean?

1. The participants of the after school program described how the program provided a variety of opportunities to engage with the natural world, be creative, use their imaginations, and learn new things within a social setting. These experiences contributed to participants' social and emotional learning and connection to nature.
2. The activities and experiences that contributed most to participants' social and emotional learning were *playing with friends and learning how to get along together, playing active and imaginative games, and building forts and climbing trees.*
3. The activities and experiences that contributed most to participants' connection to nature were *encountering, interacting with, and learning about the natural world, experiencing various seasons and weathers, trying firelighting, foraging, and cooking, and playing active and imaginative games.*
4. Of the 12 indicators for social and emotional learning and connection to nature used for the purposes of this evaluation, "*Identifying natural phenomena (e.g. plants, animals, habitats, weather, etc.)*" was observed the most (120 links). 9 other indicators were observed relatively consistently, with between 60 and 81 links. The 2 indicators that were observed the least related to connection to nature: (1) "*Expression of empathy towards nature,*" (43 links) and (2) "*Describe ways humans can mitigate impact on nature,*" (36 links).
5. Caregivers perceived benefits to their children's social and emotional skills and connection to nature through spending time outdoors with their peers. Social interactions were challenging for some and could have benefited from additional support.



What do we recommend?

1. Continue to offer hands-on experiences for children to play and explore outdoors in all seasons and weathers with their peers to enhance children's connection to nature and social and emotional learning. Provide opportunities for participants to engage in activities like building forts, climbing trees, playing active and imaginary games, firelighting, foraging, and cooking to enhance their experiences.

2. Continue to model and encourage the demonstration of empathy towards nature and involve children in discussion and investigation around ways to mitigate human impact to improve participant's connection to nature. In current US culture, these particular behaviors are not necessarily reinforced in children's day to day lives and can sometimes be challenging to



include. Increasing the program to more than one afternoon per week and being more intentional about incorporating these behaviors could help to address these challenges. We recommend exploring building reciprocal relationships with Indigenous Abenaki people in the area to better understand traditional knowledge and culture associated with the land. We also recommend incorporating practices to greet and thank the natural world, whilst acknowledging the Indigenous sources for these traditions. See [resource for building our understanding of Indigenous perspectives](#) for more information.

3. Provide additional support for children in navigating social and emotional challenges that arise during the program. The program was delivered with 1 experienced member of staff and 1 to 2 inconsistent support staff/volunteers. The program would be strengthened by having 2 to 3 consistent staff members/volunteers who are experienced and able to supervise and build strong relationships with the children in order to better support needs as they arise. It could also be beneficial to communicate more often with the school administrative staff, guidance counselor, and caregivers, as sometimes issues that arise during the school day carry over into the after school program and vice versa. Specifically designating space and activities for quiet alone time or working in small groups could help ease emotional strain for some who struggle to be in a social setting for so many hours in one day.

Limitations

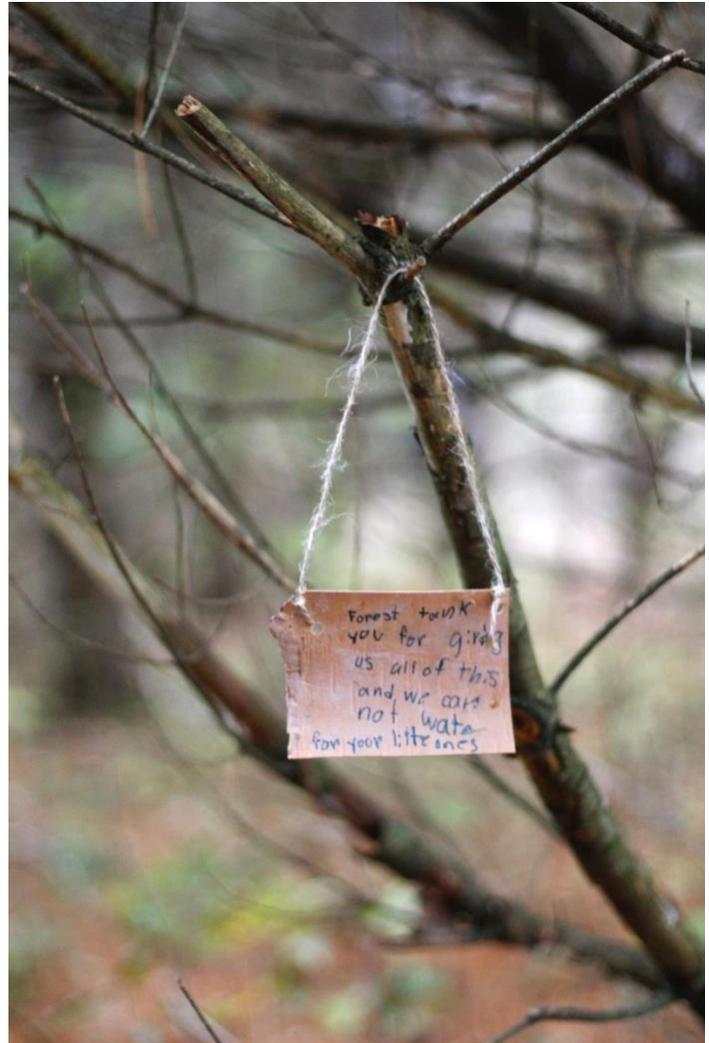
Every evaluation or research study has limitations. The limitations discussed here do not diminish the importance of the evaluation findings, but rather are presented to help readers of this report to better understand how the findings should be interpreted. Limitations of this evaluation include:

- Potential bias since the evaluation was conducted internally by the educators involved in the program. This could influence both the collection and interpretation of the data.
- Observations were mostly recorded by the lead educator and do not provide a complete picture since the other educators/volunteers would have observed different things. There are many experiences that occurred during the program that were not directly recorded so the evaluation provides a bare minimum of what indicators for social and emotional learning and connection to nature were observed rather than a comprehensive understanding.
- The evaluation reported on experiences that occurred during the program and did not encompass how the project impacted participants' experiences at home or at school. Understanding how the program may have influenced participants outside of the program would have provided a more holistic perspective of the program's impact.
- The evaluation spanned approximately 5 months and 2 seasons (winter to spring). Every season provides different affordances and opportunities for outdoor play. Experiences and subsequent behaviors observed through this evaluation directly correspond to the context (physical and cultural) in which it took place. Therefore, it should not be expected that other programs or that data collected at different times of the year would necessarily produce the same results.



Thank you!

Tracks Forest School & Outdoor Learning would like to thank all those who were involved in making this program successful. From the program educators and volunteers, school principal, school administrative staff, the many families and children, Westmoreland Fire Department, and the forest with the pine trees, salamanders, sunshine, snow, and rain - it would not have been possible without *all* of you. So please accept a heartfelt thank you!



TRACKS

FOREST SCHOOL &
OUTDOOR LEARNING

"WE BUILD FORTS AND CLIMB TREES IN THE FOREST!
SNOW AND RAIN AND COLD DON'T THROW US!"