FortWhyte Alive
HUMAN. NATURE.

WILDERNESS SURVIVAL

Grades 5-12
2 Hours

Thank you for booking our "Wilderness Survival" program at Fort Whyte Alive. This program is designed to help your students understand how to be prepared for of wilderness experiences, and the steps used to cope with survival situations. Students will learn how to prepare for a safe wilderness experience, and work as a team to complete basic survival skills of fire building and shelter building. Students will also ways to navigate and build signals to alert rescuers. This program will teach skills to help students feel more prepared for wilderness situations.

Appropriate Dress for Your Field Trip

To ensure that students get the most out of their FortWhyte experience, we ask that they be appropriately dressed for a 2-hour outdoor excursion. All of our programs include time outdoors, regardless of weather. Comfort and safety are key in making this an enjoyable and memorable experience.

Suggestions for Outdoor Dress

Layering of clothing is very important in maintaining body temperature and in remaining dry. Four thin garments may offer the same degree of warmth as one thick overcoat, but the four layers allow much greater flexibility. Layers can be shed or added as temperature, wind, exertion, or other variables dictate.

Waterproof outer layers are also important. Rain may get us wet but so will dew on grass, melting snow on pants and puddles in the spring. Boots in the winter are always important to keep moisture out and heat in. Young people are very concerned about their appearances. Remind them that they will enjoy their time better if they are prepared!

***Please share this information with other teachers that are coming to FWA with your group.**

GOAL

To introduce students to the hazards of wilderness travel and the steps used to cope with survival situations, including basic survival skills.

OBJECTIVES

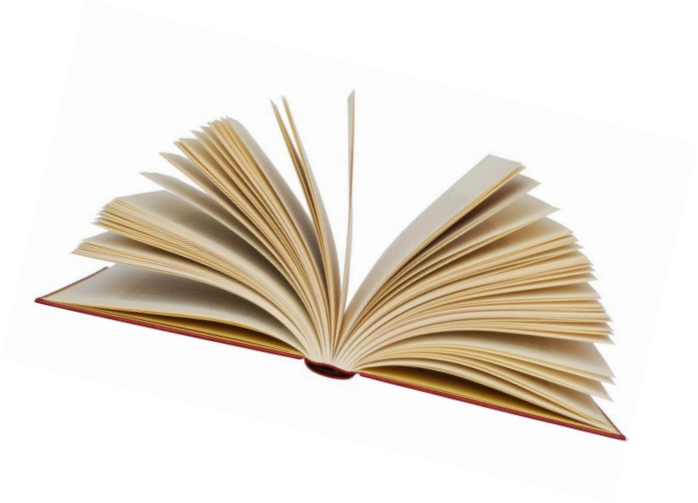
Students will:

1. Define the term "survival".
2. Explain the six survival steps.
3. Name preparations and equipment necessary for a safe wilderness experience.
4. Work as a team to complete basic survival skills, including fire and shelter building
5. Learn basic navigation and signal building skills used to alert rescuers.

VOCABULARY

Edible Wilds:	Plants that offer good taste and nutrition, which can be used as an emergency food supply in a survival situation.
Burrito Shelter:	This type of shelter is preferred for one or two people who need to stay warm and dry in a survival situation. A tarp is bound at both ends, leaving an open slit at the top, and then secured to the base of two trees.
Dehydration:	When the body does not have enough water to complete all of it's processes. Mild dehydration makes a person unwell, while severe dehydration is life-threatening. We need water at least once in three days to live.
Hypothermia:	When the core temperature of one's body drops so far below normal, the body cannot warm itself back to normal on it's own. This condition can be life-threatening and can occur within hours, even in mild weather.
Landmark:	A significant, easily observable, and immobile landscape feature. Used to determine one's position on the landscape, where one is traveling, and where one has been.
Landscape:	Any land area and its component features such as trees, elevations and depressions, and water features.
Map:	A picture of the landscape. Different maps contain different information, depending on the purpose of the map (road, topographical, aerial photo, etc.).
Navigation:	The process of finding one's location in space, and the process of moving from one place to another
Survival:	To stay alive: in this program, looking after one's basic needs in a wilderness area without regular supports.
Tinder:	Flammable fine material used to start a fire, including paper, birch bark or dry grass, or tiny twigs.
Kindling:	Small pieces of wood such as dry twigs or chopped pieces of firewood, which are used to build the heat when a fire is first lit.

LITERATURE CONNECTIONS



All of the books listed below relate to the theme of navigation, are recommended for young children and youth, and are available through the Winnipeg Public Libraries and/or the Manitoba Education Instructional Resources Library. You may wish to make these titles available in your classroom surrounding your 'Blazing Your Trail' field trip.

Books and activities with an Indigenous perspective are indicated with a medicine wheel.

Fiction

- **Hatchet, Brian's Winter, The River** all by Gary Paulsen
  Classic stories of a young boy's survival and navigation in the northern Canadian wilderness.
- **Stay Alive: Crash** by Joseph Monninger
  When the members of Junior Action News Team crash land in the Alaskan backwoods, one thing is clear: not everyone is going to survive. No cell phones. No internet. Their supplies are limited, as is their knowledge of the wilderness.
- **Red Wolf** by Jennifer Dance
  Life is changing for Canada's Anishnaabek Nation and for the wolf packs that share their territory. In the late 1800s, both Native people and wolves are being forced from the land. Starving and lonely, an orphaned timber wolf is befriended by a boy named Red Wolf. But under the Indian Act, Red Wolf is forced to attend a residential school far from the life he knows, and the wolf is alone once more. Courage, love and fate reunite the pair, and they embark on a perilous journey home.
- **Rabbit Proof Fence** by Doris Pilkington
  The story of three Indigenous girls in Australia running from a residential school and navigating their way through the wilderness. There are many connections to similar stories from Canadian residential schools (DVD available through public library; book only available on special order).

Non-Fiction

- **Survivor Kid: A Practical Guide to Wilderness Survival** by Denise Long
  This book is filled with safe and practical advice on building shelters and fires, signaling for help, finding water and food, dealing with dangerous animals, learning how to navigate, and avoiding injuries in the wilderness.
- **Camping & Wilderness Survival: The Ultimate Outdoors Book** by Paul Tawrell
  This guide covers everything from fire making to first aid, building shelters, winter travel and much more.

PRE-VISIT ACTIVITIES

HUG A TREE AND SURVIVE: CLASSROOM PRESENTATION (1 lesson)

Social Studies/Physical Education

AdventureSmart is a national program dedicated to encouraging Canadians and visitors to Canada to “Get informed and go outdoors”. AdventureSmart combines online and on-site awareness with targeted outreach to try and reduce the number and severity of Search and Rescue Incidents. Classroom presenters are available upon request, or you can deliver the presentation from online resources available. The website is full of great teaching resources around outdoor safety.

Hug A Tree (K-5): https://www.adventuresmart.ca/kids/hugatree.htm

Survive Outside (Age 12 and up) : https://www.adventuresmart.ca/land/surviveoutside.htm

PRIMITIVE TECHNOLOGY (1-3 lessons)

Language Arts/Science

The Primitive Technology YouTube channel includes a variety of videos from an Australian individual whose hobby is going out in the Australian bush building and foraging for food.

Watch Primitive Technology videos, for example, on how to make your own bow drill: https://www.youtube.com/watch?v=ZEI-Y1NvBVI

Discuss the science of friction behind the bow drill.

Making these items require use of knives or similar, as well as obtaining materials, and would require further teaching. One resource for instructions: https://makezine.com/projects/make-20/bow-drill/

Instead of making the tools, students could pick a favourite primitive technology and explain how it works from a scientific perspective, and write instructions on how to make it.

WINTER WEAR (1 lesson)

Physical Education

What should you wear or bring to the field trip that will be appropriate for a whole day outside?

Winter season: Watch FortWhyte Alive's How to Dress for Winter video online at www.fortwhyte.org/howtodressforwinter/

Materials*:* A trunk full of clothing including hats, mitts, gloves, long underwear, jackets, ski pants, fleece pants, boots, sneakers, t-shirts, sweatpants, jeans, wool socks, cotton socks, etc.

Procedure*:*

1. Split class into small teams. You may choose to have each group use all the clothing, or just focus on one body part (head, legs, torso, hands etc.).
2. Have each team brainstorm the important points of dressing for the outdoors.
3. Have one student from each team be the "dresser".
4. Assign each group a winter activity to dress for.
5. When you say start, with vocal help from teammates, the dressers will hurry and dress themselves.
6. Once a team thinks their outfit is complete, stop the activity and go through each team's outfit.

Winter Activities:

- Sitting down ice fishing all day
- Being active (eg. cross country skiing)
- Emergency clothes for the back of your car

Helpful Winter Dressing Tips:

- Always dress in layers. Use many thin, warm layers rather than a few thick layers. It will insulate better and allow you to take off layers to avoid sweating.
- Wear a base layer such as long underwear, or other warm, thin clothing that will wick moisture away from your skin.
- Don't wear cotton. It will get wet and cold.
- Wear a hat. While it's a myth that most body heat escapes through the head, covering any exposed body part helps retain body heat.
- Dress for the appropriate activity level. Dressing for an active day of skiing will be different than dressing for a sedentary day of ice fishing.
- Buy or find a pair of insulated boots.
- Wear warm socks. Wool is best, although good synthetic socks are often quite good. Avoid cotton as it soaks up sweat and will make feet wet and cold. You can layer socks, but be careful that socks aren't too tight as this will cut circulation.
- Use a good quality parka that breaks the wind. Make sure you wear warm layers underneath too.
- Wear mittens. Fingers and hands are very vulnerable to the cold, so keep them covered. Keeping fingers together in a mitten is warmer than wearing a glove.

- Hand warmers can be useful, but don't use these as a substitute for dressing warmly.
- Wear more than one layer on your legs. Oddly, some people will wear five layers on their torso, and only one layer on the legs.

Keep dry with a snow-repelling outer layer. Being wet will cause chill to set in more quickly

POST-VISIT ACTIVITIES

DIY PROJECT: MAKE FIRE STARTERS (1 lesson)

Science/Outdoor Education

At FortWhyte Alive, students will learn that bringing a firestarter is a good way to be prepared to start a fire in cold or wet conditions.

Homemade firestarters are a great gift made with recycled/upcycled materials, and step by step instructions can be found at: https://diyprojects.com/make-fire-starter-egg-carton-dryer-lint/

Link this project to curriculum by measuring melting points of wax, discussing heat transfer or concepts around chemical and physical changes.

YOU ATE WHAT? (1-3 lessons)

Social Studies

Growing around us are many types of plants that can and have been eaten for nourishment and survival. Though it is important to stress that one should never eat an unfamiliar plant, your students will be fascinated by what can and cannot be eaten.

Have students research a Manitoba edible plant from the provided list, what uses it has and how it can be prepared into a food or drink. If possible, obtain a few of these items and prepare a taste test for the class with an edible wild plant ingredient (with proper parental permissions!)

Common Edibles: Rosehip, Saskatoon berry, Chokecherry, Dandelion root, Cattail, Wild Mint

Note: When harvesting in the wild it is important to obtain plants from areas that are unpolluted and where herbicides have not been used. Some plants are available from health food or herbal stores (eg. Hollow Reed Holistic in Winnipeg).

Dandelion Root Brownie recipe: https://gathervictoria.com/2015/05/22/dandelion-root-fudge-brownies-with-dark-chocolate-chips/

THE MAP GAME (1 lesson)

Social Studies/Physical Education

The Map Game is a distinctly Métis Game that helped develop children's ability to follow directions as well as give them and to promote interaction between boys and girls.

Instructions:

1. Divide your group in two.
2. Choose one captain for each of the two groups.
3. One of the groups will hide while the other group is not looking. Only the Captain of the team may look and see where the opposing team has hidden and will then draw a map for his/her team, detailing the position of all the hidden children.
4. Using the map that the captain has drawn, the team will attempt to find the members of opposing team.
5. The Captain cannot contribute to the actual search but if his/her team is having trouble

understanding the map then he/she may help to guide them.

6. Once the team with the map has found the hidden team the other group will hide and the captain for that team will draw a map.

7. Repeat as many times as you would like with a new Captain each time! (time permitting)

What did this game teach you?
Why do you think this game was important to the Métis?

BUILDING SHELTERS AT SCHOOL (1-3 lessons)

Language Arts/Physical Education

You will need access to tarps and rope.

Have students build shelters using tarps and rope in the school yard.
Attachment #1 shows examples of different shelter types, or students can design their own.

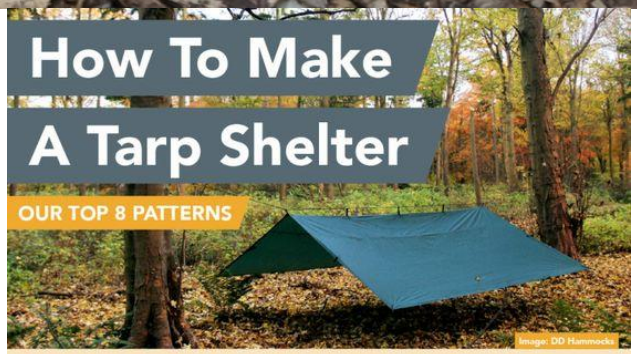
To extend skills, you can practice some knots before heading outside. A great online resource for knots is: https://www.animatedknots.com/
Basic knot recommendation: the clove hitch and bow line.

Once shelters have been built, have students read or write survival stories or observational journals while using the shelters.

Attachment #1

How To Make A Tarp Shelter

OUR TOP 8 PATTERNS



The A-frame

Probably the most common. Made by stringing the paracord between two trees, draping over the tarp and staking it down. Provides good rain and snow runoff and a good wind deflection.

The Sunshade (basic fly)

Needs four anchor points to tie with paracord. Shelter is parallel to the ground and provides a large area of shade. Can be used during the rain to collect water as it pools in the middle. However it can't support rain for too long.

The Diamond Fly

Easy to make. Secure the paracord to a tree and the ground, and drape over the tarp diagonally. The length of paracord and angle will determine the overall headroom and width of the shelter.

The Dining Fly

Popular with campers. Simple open air cover. Provides good sunshade and headroom without sacrificing too much space. It keeps away rain but provides limited protection against the other elements. When tied staked down, the dining fly becomes a sturdy shelter.

The Fold Over Wind Shed

Similar to traditional wind shed, but provides more coverage by sacrificing the groundsheet. The height of the paracord ridgeline determines the angle of the roof and the footprint of the shelter. Provides great wind deflection and rain runoff.

The Barn Stall

Either use four five foot poles for support or two poles and a paracord attached to two anchor points. 90 degree wall provides good protection, but strong wind can damage the structure. Large living area but no floor.

The Shade Sail

Easy and quick to build. Diagonally drape the tarp over paracord and attach to two anchor points. The opposite corners are staked to the ground. Open and airy shelter. The lower the angles of the sides, the better it will deflect wind. Provides all day shade.

The Wind Shed

Requires a little practice. Fold the tarp into thirds and make sure leading edge of roof hangs over groundsheet for adequate rain runoff. Main ridgeline has to be secured with paracord. Paracord must be added to the bottom fold, where back panel meets the groundsheet.

The Bushcraft cave

For more interesting articles and bushcraft gear head to:
thebushcraftcave.com