

# Survivor to the test!



Audubon Center  
of the North Woods

**Purpose:** To use the information gained in Survivor to create brochures to educate others.

**Concepts:**

- It is important to build a shelter and a fire in a survival situation.
- The rules of 3 explain why it is important to do what it takes to survive.
- It is important to educate others about survival techniques.

**Learning Outcomes: Students will be able to**

- Describe the most important skills to use in a survival situation for even beginners to understand.
- Decide what to do if they were in a real survival situation.
- Explain survival skills to another class that did not take "Survivor."

**Minnesota Academic Standards:**

4.2.3.2.1 Identify several ways to generate heat energy.

5.4.4.1.1: Give examples of beneficial and harmful human interaction with natural systems

6.1.2.1.1: Identify a common engineered system and evaluate its impact on the daily life of humans.

7.4.1.1.2: Describe how the organs in the respiratory, circulatory, digestive, nervous, skin and urinary systems interact to serve the needs of vertebrate organisms.

Language Arts Standards:

Grades 5 and 6

II. Writing

A. Types of Writing: The student will compose various pieces of writing.

B. Elements of Composition: The student will engage in a writing process with attention to organization, focus, quality of ideas, audience and a purpose.

C. Spelling, Grammar and Usage: The student will apply standard English conventions when writing.

**CLASS LENGTH:** 45+ MINUTES

**AGES:** 5<sup>TH</sup> AND 6<sup>TH</sup> GRADE

**SEASON:** ANY

**GROUP SIZE:** 16-20

**SAFETY:** No Concerns

**MATERIALS:** Paper (folded into 3s for making brochures), markers/crayons/colored pencils, examples of brochures, brochure checklists for each group

**PRE-CLASS PREP:** Choose brochures to show to the class, organize markers/crayons, fold paper into 3 sections, enough for 4 groups, print enough checklists for 4 groups.

**CLASS OUTLINE:**

**I. Introduction (5 min.)**

**II. Class Experiences (35 min.)**

**A. Project Explanation**

**B. Topics for the Brochures**

**C. Explanation of the Brochures**

**D. Work Time**

**III. Conclusion**

**A. Brochure Presentations**

## I. Introduction (5 min.)

**A. Lesson Preview** – Kids, especially, always want to know what comes next. Write a brief preview of the class schedule, on the whiteboard. This will decrease how many times they ask you what comes next during the class.

**Grabber** – Remind the students of their survivor class at the Audubon Center, and have students share their favorite memories of the class. Possible questions: How did your groups accomplish your tasks? Did you build a fire and shelter? What did you do to work well as a team? Then, split the class into four groups and ask the groups to come up with the 3 most important skills that they learned during the class, and share with the class.

## II. Class Experiences (35 min. +)

**A. Project Explanation:** The teacher will then explain their project: To create a brochure based on one area of survival that they learned, and be able to share these skills with another class/grade at school.

**B. Topics for the Brochures:** Introduce the topics for the brochures, which will be: How to Start a Fire, How to Build a Shelter, How to Make a Survival Kit and The Rules of 3. Students will make a brochure that has the basics facts for each, and this includes pictures, other information and information that they know from experience. Randomly assign each group a topic. Students in their group will make jobs for each group member so that everyone is participating and contributing important information.

**C. Explanation of the Brochures:** Give each group a checklist to follow, that explains what should be included in each brochure. Also explain that it should be visually pleasing, very concise and easy to understand. If possible, show examples of other brochures.

**D. Work Time:** Allow students to work in their groups and come up with the best information to put into their brochures. If necessary, give students information about each area, or allow them to research their topic. Make sure that all of the students are contributing to their group's brochure. This may take longer than 35 minutes, so it is best to have another class period to complete this.

## III. Conclusion (5 min.)

**A. Brochure Presentations:** When the class has completed their project, most likely during the second class period, have students present brochures to each other. Then, have the groups present their findings to another class that did not participate in the Survivor class (perhaps in another grade).

**B. Answer questions and give positive feedback about session**

## IV. Authentic Assessment

**A.** Assess the quality of the brochures that the students create in their groups, and if the entire group contributed to the creation of the brochure. Brochure must have accurate information and be easy to read.

**B. Participation-** make sure that all of the students are actively involved in the class time, creation of the brochure and the presentation of the brochure.

## V. Extensions/Variations

Have students research a topic in this area and write a paper about it. Topics: How to start a fire, The Rules of 3, How to Build a Shelter, and How to Make a Survival Kit.

## VI. Background Information

Extra information on each topic:

### **How to start a fire:**

Fire Building: Be sure to build yours in a sandy or rocky area or near a supply of sand and water as to avoid forest fires. The most common mistakes made by those attempting to build a fire are: choosing poor tinder, failing to shield

precious matches from the wind and smothering the flames with too large pieces of fuel. The four most important factors when starting a fire are spark - tinder - fuel - oxygen.

### What fires need

- **Initial spark:** Tell the students that a survival kit should contain three different ways to start a fire. Have them suggest some ways. Take fire-starting items from survival kit: double-wrapped, waterproof matches, lighter, lens, steel wool and battery, flint and steel.
- **Tinder:** small bits of material that light quickly and easily (film canister with Vaseline-covered cotton balls, fire-starter stick, birch bark, lint, paper, pine needles). Tinder should be arranged in a way that allows oxygen to enter the fire.
- **Kindling:** Pencil-sized wood that can be easily lit by tinder.
- **Fuel Wood:** wood that will keep the fire going. To find dry wood, check under conifers or other broad, standing trees, or take low dead branches off trees rather than off the ground. Arrange kindling and fuel wood in tipi, lean-to, or log cabin formation.
- **Oxygen:** One of the biggest mistakes with a fire is smothering it with pieces of fuel wood that are too big.

### How to Build a Shelter

**Debris (Fallen Tree) Shelter** - Select a dry area with plenty of sticks, leaves, and grass, near a fallen tree about 12 feet long (your ridgepole). If the tree has fallen but is still attached/on its stump, use this as your frame. If the tree is totally on the ground, drag it to a standing tree with a branch a few feet off the ground. Prop the ridgepole in the crook of the low branch. Use a large rock or stump as support if no standing trees have branches low enough. If your ridgepole has branches, then cut out the underneath layer to make room for you. Lay sticks or branches against the ridgepole on both sides, about a hands width apart. Branches with leaves or needles on them are easier to weatherproof. Crisscross the branches with sticks or thick grasses. Then cover the entire structure with a thick layer of boughs, grass, leaves, and bark pieces. Generously cover the ground with pine needles or leaves. Once you get inside, seal the entrance with more branches or your jacket.

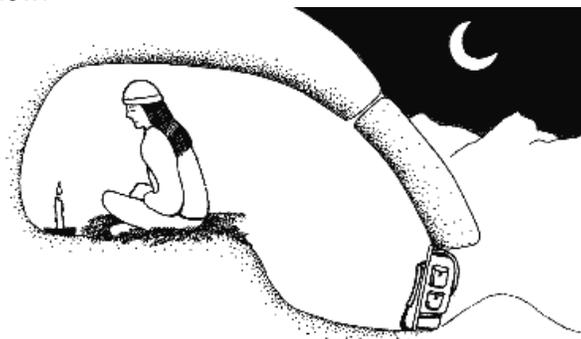
**Quinzhee** - Heap a pile of snow about 10-15 feet (3-5 meters) across and the same distance tall. Tightly pack down the pile from the outside. Then tunnel in from the side away from the wind, digging in a little, then up, then in, then up, so the tunnel doesn't collapse on you. The walls need to be at least 12in (30cm) thick.

### Building a Shelter (from <http://www.bcadventure.com/adventure/wilderness/survival/basic.htm> )

A small shelter which is insulated from the bottom, protected from wind and snow and contains a fire is extremely important in wilderness survival. Before building your shelter be sure that the surrounding area provides the materials needed to build a good fire, a good water source and shelter from the wind.

Wilderness shelters may include:

1. Natural shelters such as caves and overhanging cliffs. When exploring a possible shelter tie a piece of string to the outer mouth of the cave to ensure you will be able to find your way out. Keep in mind that these caves may already be occupied. If you do use a cave for shelter, build your fire near its mouth to prevent animals from entering.
2. Enlarge the natural pit under a fallen tree and line it with bark or tree boughs.
3. Near a rocky coastal area, build a rock shelter in the shape of a U, covering the roof with driftwood and a tarp or even seaweed for protection.
4. A lean-to made with poles or fallen trees and a covering of plastic, boughs, thick grasses or bark is effective to shelter you from wind, rain and snow.



6. If you find yourself in open terrain, a snow cave will provide good shelter. Find a drift and burrow a tunnel into the side for about 60 cm (24 in) then build your chamber. The entrance of the tunnel should lead to the lowest level of your chamber where the cooking and storage of equipment will be. A minimum of two ventilating holes are necessary, preferably one in the roof and one in the door.

## How to Make a Survival Kit

Survival Kit:

Examples of the contents of a survival kit:

Useful items to include on your hike are:

1. A map and compass.
2. A large, bright plastic bag will be useful as a shelter, signaling device or in lieu of raingear.
3. A flashlight with extra batteries.
4. Extra water and food.
5. Extra clothing such as raingear, a toque and gloves, a sweater and pants.
6. Sun protection such as sunglasses, sunscreen, a hat and long sleeved clothing.
7. A sharp pocket knife.
8. Waterproof matches, a lighter and/or a flint.
9. Candles and fire starter.
10. A first aid kit.
11. A whistle, flares, a tarp.

## Rules of 3

3 seconds: PMA

**Priority #1: PMA:** First, you need to admit that you are in a bad situation. Within three seconds of realizing you are lost, you will probably be overwhelmed with fear. Then you need to do everything you possibly can to improve your chances of survival. (S.T.O.P.)

3 minutes: AIR

**Priority #2: Air**

3 hours: WARMTH

**Priority #3: Shelter:** A shelter doesn't add heat, but it helps conserve it in three ways. Shelter provides insulation, protects you from the wind, which steals heat from your body, and keeps you dry. Building a shelter will also keep you busy while waiting for rescue, reducing your tendency to panic and keeping you from wandering so you will be easier to find.

**Priority #4: Fire:** While not usually as important as shelter, fire can boost your morale (PMA) and provide warmth.

**Priority #5: Signaling:** Allows rescuers to locate you, audibly or visibly. Groups of three are the international distress signal (three whistle blasts, gunshots, three fires in a triangle, three X's on ground, car horn blasts, etc.). Shouting wastes energy, so remember not to continually yell for help. Use green wood or jut-picked plants on a fire to make a smoke signal. Anything that can be seen from the air is good: spread out reflective blankets or bright colored clothes, make X's in the snow with juice, lay logs together at right angles—anything that doesn't look natural will be a clue for rescuers. Demonstrate how to use a signal mirror (can be broken CD, credit card, knife blade, chewing gum wrapper, etc). Start by reflecting the sunlight onto your free hand, and then position that hand so that it covers the target in your field of vision. Remove your hand and wobble the mirror back and forth.

3 days: WATER

**Priority #6: Water:** The longer you go without water, the weaker you will get. Dehydration will lower your ability to take care of yourself by dulling your mind. You are also more likely to become sick from the cold or heat if you are dehydrated. It is wise to conserve the water in your body by reducing activities that cause water loss. Before drinking, boil water or snow to kill bacteria. Eating snow doesn't provide much water, so if you must resort to this; pack snow in hand first to maximize the amount of moisture you get. Additionally, it takes a great deal of your body's energy to convert the snow to water, so eating snow for hydration is ill advised.

3 weeks: FOOD

**Priority #7: Food:** Your body can go for a long time without food, because it will start to use up fat and muscle to stay alive. However that time shortens as it gets colder and your body needs more energy for heat. Although not usually deadly, hunger is still dangerous, because it will make you weak, dull your mind and make you more susceptible to cold, pain, and fear. For example, in the winter, people will die of hypothermia long before they starve, so food is less important than the other needs.

## VII. References

<http://www.bcadventure.com/adventure/wilderness/survival/basic.htm>

Audubon Center Survivor Lesson Plan