Survival of the fittest
Inhoudsopgave

SURVIVAL OF THE FITTEST WEBQUEST

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Welcome to the survival of the fittest!

You all know the TV programme Robinson Island. A group of people have to survive on a deserted island with no facilities. How does this work, which skills are necessary to survive this adventure of a lifetime. In this webquest you are going to find out how to survive!

**TASK**

In groups, you are going to spend a month in the jungle, and you will have to design a guide about "survival in the wilderness".

**Introduction**
Robinson Crusoe is one of the most popular adventure stories in the world. But did you know that this novel is based on a real story? The real Robinson was a Scotsman named Alexander Selkirk. Few adventures seem to be left in a world where man has reached out the moon. But could it be possible to find a place in our world where no man has gone before? Maybe not, but we still have our imagination.

**TASK**

In groups, you are going to spend a month in the jungle with some other groups, and you will have to design a guide about “survival in the wilderness”.

**What to do in general**
Before you start writing your guide, I want you to search for more information about surviving in the wild. You will find information about different subjects on this page, but also through links and videos. At the end of this "webquest" you will be an expert on survival techniques.

HOW TO START:

1. Divide yourselves into groups of 3 and decide which is going to be your role:
   a. Food and water procurement and fire craft expert
   b. Sheltering and signalling for rescue expert
   c. Survival equipment and first aids expert

2. Brainstorming: Talk about what you already know about the topic you have been assigned and write down the different ideas. (This activity is made in a group). Make sure you work out your brainstorm results and include this with your guide.

3. Use the resources that have been selected for each role.

4. Make the individual assignments.
5. Write your own survival guide, complete with pictures, the individual assignments and the brainstorm results. Also include the map of the island (see "the Tape").

You will be graded on an individual and group basis. Your guide will be evaluated in a group, which means that all of you have to work hard to get a good mark. You must also take into account that visual aspects will be evaluated as well as grammatical and spelling correctness. Extra points will be awarded for creativity ;)

WHAT WILL YOU HAVE LEARNED:
- How to find out information on the web.
- How to translate that information into a guide.
- How to justify your decision.
- How to write a short story on consuming seawater.
- Some vocabulary on different survival aspects.

what to do ROLE A

Alright, so you are dropped off at a deserted Island.

Assignments:

1. Explain what the consequences are of consuming seawater. Write a short story (100-200 words).

2. Create a step-by-step manual on how to create fire. Include a list of needed items to make a fire!

You are trusted with important aspects, make sure your teammates can rely on you!!

What to do ROLE B

Alright, so you are dropped off at a deserted Island.
Assignments:

1. Click on the next link and send a message in a bottle.
   
   Send a message in a bottle

2. Vocabulary activity: look at the list below and match the words with their definitions. You can use your dictionary.

   UPRIGHT, SECURE, SEW, TREE LIMB, TREE TRUNK, LOG, LAY OUT, CRISSCROSS, CLUSTER, TRIPOD, UNFASTEN, TACK, HAMMOCK, CORD, HEIGHT, TENT, DRAW TIGHT, PROCEDURE, A-FRAME SET, FORKED END, PUSH, TEPEE, ENHANCE, CANOPE, DIAMETER, LASH, FRAMEWORK, WRAP, SAPLING, RACK
Make sure your teammates can rely on you!

What to do ROLE C

Alright, you are dropped off on a deserted Island.

Assignments:

1. Check the list below with the different items you should include in a first aid kit. Order them from most important to least important. Then make a list of fifteen items you would take to a deserted island. Ask your teammates to do the same and compare your answers.

2. Explain why you have chosen these items and include this with your list of chosen items.

The list:

- First-aid book.
- Sterile adhesive bandages in assorted sizes
- Small roll of absorbent gauze or gauze pads of different sizes
- Adhesive tape
- Triangular and roller bandages
- Cotton (1 roll)
- Band-aids (Plasters)
- Scissors
- Pen torch
- Latex gloves (2 pair)
- Tweezers
- Needle
- Moistened towels and clean dry cloth pieces.
- Antiseptic (Savlon or dettol)
- Thermometer
- Tube of petroleum jelly or other lubricant
- Assorted sizes of safety pins
- Cleansing agent/soap
- Non-prescription drugs
- Aspirin or paracetamol pain relievers
- Anti-diarrhea medication
- Antihistamine cream for Bee Stings.
- Antacid (for stomach upset)
- Laxative
Make sure your teammates can rely on you!

RESOURCES ROLE A

EDIBLE PLANTS
Plants are valuable sources of food because they are widely available, easily procured, and, in the proper combinations, can meet all your nutritional needs.

**WARNING**

The critical factor in using plants for food is to avoid accidental poisoning. Eat only those plants you can positively identify and you know are safe to eat.

Absolutely identify plants before using them as food. Poison hemlock has killed people who mistook it for its relatives, wild carrots and wild parsnips.

At times you may find yourself in a situation for which you could not plan. In this instance you may not have had the chance to learn the plant life of the region in which you must survive. In this case you can use **the Universal Edibility Test** to determine which plants you can eat and those to avoid.

**Remember the following when collecting wild plants for food:**

- Plants growing near homes and occupied buildings or along roadsides may have been sprayed with pesticides. Wash them thoroughly.
  In more highly developed countries with many automobiles, avoid roadside plants, if possible, due to contamination from exhaust emissions.
- Plants growing in contaminated water or in water containing *Giardia lamblia* and other parasites are
contaminated themselves. Boil or disinfect them.

- Some plants develop extremely dangerous fungal toxins. To lessen the chance of accidental poisoning, do not eat any fruit that is starting to spoil or showing signs of mildew or fungus.

- Avoid any weed, leaves, or seeds with an almondlike scent, a characteristic of the cyanide compounds.

- Some edible wild plants, such as acorns and water lily rhizomes, are bitter. These bitter substances, usually tannin compounds, make them unpalatable. Boiling them in several changes of water will usually remove these bitter properties.

**WARNING**

Do not eat mushrooms in a survival situation! The only way to tell if a mushroom is edible is by positive identification. There is no room for experimentation. Symptoms of the most dangerous mushrooms affecting the central nervous system may show up after several days have passed when it is too late to reverse their effects.

**Plant Identification**

You identify plants, other than by memorizing particular varieties through familiarity, by using such factors as leaf shape and margin, leaf arrangements, and root structure.

The basic leaf margins (Figure 9-1) are toothed, lobed, and toothless or smooth.

These leaves may be lance-shaped, elliptical, egg-shaped, oblong, wedge-shaped, triangular, long-pointed, or top-shaped (Figure 9-2).

The basic types of leaf arrangements (Figure 9-3) are opposite, alternate, compound, simple, and basal rosette.

Learn as much as possible about plants you intend to use for food and their unique characteristics. Some plants have both edible and poisonous parts. Many are edible only at certain times of the year. Others may have poisonous relatives that look very similar to the ones you can eat or use for medicine.

**Universal Edibility Test**

There are many plants throughout the world. Tasting or swallowing even a small portion of some can cause severe discomfort, extreme internal disorders, and even death. Therefore, if you have the slightest doubt about a plant's edibility, apply the [Universal Edibility Test](#) (Figure 9-5) before eating any portion of it.

Before testing a plant for edibility, make sure there are enough plants to make the testing worth your time and effort. Each part of a plant (roots, leaves, flowers, and so on) requires more than 24 hours to test. Do not waste time testing a plant that is not relatively abundant in the area.

Remember, eating large portions of plant food on an empty stomach may cause diarrhea, nausea, or cramps. Two good examples of this are such familiar foods as green apples and wild onions. Even after testing plant food and finding it safe, eat it in moderation.

You can see from the steps and time involved in testing for edibility just how important it is to be able to identify edible plants.
To avoid potentially poisonous plants, stay away from any wild or unknown plants that have:

- Milky or discolored sap.
- Beans, bulbs, or seeds inside pods.
- Bitter or soapy taste.
- Spines, fine hairs, or thorns.
- Dill, carrot, parsnip, or parsleylike foliage.
- "Almond" scent in woody parts and leaves.
- Grain heads with pink, purplish, or black spurs.
- Three-leaved growth pattern.

Using the above criteria as eliminators when choosing plants for the **Universal Edibility Test** will cause you to avoid some edible plants. More important, these criteria will often help you avoid plants that are potentially toxic to eat or touch.

An entire encyclopedia of edible wild plants could be written, but space limits the number of plants presented here. Learn as much as possible about the plant life of the areas where you train regularly and where you expect to be traveling or working.
Figure 9-2. Leaf shapes.

Figure 9-3. Leaf arrangements.
If you want to learn how to start a fire and keep it going long enough, you can learn from the video below.
It teaches you all the steps and necessary items to make a fire in the wild.

Later on you will need to make a step-by-step manual on creating a fire, so pay attention.

How to make a fire
kn.nu/ww.667fb2d (youtu.be)
If you want to learn more about different survival skills and tips, take a look at the website below. There are many other sites about wilderness survival, so if you can not find what you need on the site, you can look further.

Website Wilderness Survival

kn.nu/ww.91c9629 (wilderness-survival.net)

CONSUMING SEA WATER
"Water, water, every where, nor any drop to drink."

–Samuel Taylor Coleridge, The Rime of the Ancient Mariner, part II, stanza 9
What would happen to you if you drank seawater?

“Let’s say you’re alone on a raft in the middle of the South Pacific, with no fresh water to speak of. What are the health implications of drinking salt water—will it make you vomit, will it make you delirious, will it dehydrate you further, etc.?”

— Jesse Sussell

We need water to live, and we need salt to live, so what's the big deal about sailors not being able to drink saltwater?

The answer is that we only need a small amount of salt to live. According to the Salt Institute (a non-profit association of salt producers, founded in 1914), the recommended daily dose is around 500 mg/day—around a quarter of a teaspoonful. The optimal amount of salt varies based on the person's lifestyle, genetic makeup and geographic location (basically, all factors that affect how often and how much you sweat). Most Americans consume much more than they need, around 3500 mg/day.

But when we're talking about seawater, we're not just talking about common salt. Other compounds and elements and minerals called salts are found in ocean water, such as epsom salts, potassium salts, iodine salts, and so forth. Some of these taste bitter or sour, although they may be of value to the human diet, such as magnesium chloride and potassium chloride.

On this scale, the ocean is classified as "highly saline" (over 1.0% dissolved salts.) In fact, seawater is around 3.5% dissolved salts by weight. That's about three times as salty as human blood. That's way more salt than we can safely metabolize.

Which gets us at last to your question—what happens if you drink seawater? Bill Bryson puts it vividly:

Take a lot of salt into your body and your metabolism very quickly goes into crisis. From every cell, water molecules rush off like so many voluntary firemen to try to dilute and carry off the sudden intake of salt. This leaves the cells dangerously short of the water they need to carry out their normal functions. They become, in a word, dehydrated. In extreme situations, dehydration will lead to seizures, unconsciousness, and brain damage. Meanwhile, the overworked blood cells carry the salt to the kidneys, which eventually become overwhelmed and shut down. Without functioning kidneys you die. That is why we don't drink seawater.

In conclusion, if you drink too much salt water, you need to urinate more water than you drank to get rid of the excess salt, and dehydration sets in. Drinking even a little seawater starts you down a dangerous road: The more you drink, the thirstier you get.

RESOURCES ROLE B

INTERNATIONAL HUMANITARIAN LAW
When you find yourself stranded in the wilderness, it is important to know what rules apply for you. You always have rights. Below you will find a part of the Geneva Conventions. Every right of every person is described in these documents. There is also a part for shipwrecked people. See if you can translate it and find out what it means.

**Protocol Additional to the Geneva Conventions of 12 August**
1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977.

Part II: Wounded, sick and shipwrecked #Section I -- General protection

Article 10 -- Protection and care

1. All the wounded, sick and shipwrecked, to whichever Party they belong, shall be respected and protected.

2. In all circumstances they shall be treated humanely and shall receive, to the fullest extent practicable and with the least possible delay, the medical care and attention required by their condition. There shall be no distinction among them founded on any grounds other than medical ones.

WILDERNESS SURVIVAL

If you want to learn more about different survival skills and tips, take a look at the website below. There are many other sites about wilderness survival, so if you can not find what you need on the site, you can look further.

Website Wilderness Survival
kn.nu/ww.91c9629 (wilderness-survival.net)
EXPLORATION AND SURVIVAL

Survival of the fittest
Navigating with your brain

Oceanic or long-range navigation over the water always requires two things: suitable vessels and good means to establish positions and courses. Even in the middle of the most dire survival situation it is possible to navigate successfully, as many examples of shipwreck survivors stranded on boats and rafts prove: people have managed to survive thanks to good instruments or their navigational skills, or both.

It is incorrect to believe that in order to navigate over long distances, it is mandatory to have at hand any sort of sophisticated devices or instruments: the Phoenicians made incredible voyages along African coasts, reaching points very far away from their home cities and without any sort of instrumentation. By the proper use of pilotage techniques they went as far south as to get acquainted with gorillas, without a clue about the particular conditions of the waters that they were navigating over: and those events were not just incidental but repeated more than once.

In fact, the Phoenicians managed to navigate around the whole African continent, which they knew only as 'Libya' and initially believed it to be a relatively small island; it is certain that they did that because the navigators described how the position of the sun changed as they went on their trip and their descriptions match exactly what happens to the sun from the perspective of someone who navigates over the equator, going from the northern hemisphere to the south and vice versa: so there is no doubt that the Phoenicians managed to sail around Africa thousands of years before any other human accomplished the same thing. And this is a very significant history, for it shows that in any sort of outdoor activity or context that implies the need to find a bearing or navigate, mind remains more important that matter.

The moral is that you don't need to overload yourself with a lot of equipment: what you have between your ears is more than enough to go around any continent.

COOKING IN THE WILD
Below you will find a video about how to make an adjustable cooking hook. It is being explained by Ray Mears, an expert on survival in the wild.

How to make a cooking hook
kn.nu/www.aea6865 (youtube.com)

RESOURCES ROLE C

FIRST AID
There are certain things you should keep in handy and it is better to know how to deal with certain situations. So get an idea by going through the first aid section.

**Animal Bites:**

- Wash the wound for at least 5 minutes with soap and water to flush out animal saliva.
- Apply an antiseptic (i.e. hydrogen peroxide)
- Apply an antibiotic cream to prevent infection
- Rinse thoroughly and cover with a dressing or clean cloth.

**Snake Bite:**

- Check the snakebite for puncture wounds.
- The type of snake must be identified to help the doctor to recognise the poison gone in and if the snake is killed, it must be taken to the hospital with the patient.
- Clean the wound. Be sure to wipe away from the bite.
- Tie a piece of cloth or thread (just tight enough to cut off blood flow through the veins keeping the venom from reaching the heart) 2-3 inches above the injury. You can use a tie as a tourniquet and it
should be applied with in 30 minutes of the bite to be affective.
- Squeeze the incised area to extrude poison from the wound by mechanical suction or even a breast pump.
- Keep the wound at or below the heart level.
- Keep the victim calm and lying down. The more the victim moves, the faster the venom spreads through the body.
- Keep the part cool as warmth hastens the absorption of venom.
- Watch for general symptoms i.e. sharp pain, bruising, swelling around the bite, weakness, shortness of breath, blurred vision, drowsiness, or vomiting.

**Bee sting:**

- Remove the stinger by scraping with your fingernail or the blade of a knife
- Wash with soap and cold water over and around the sting to relieve pain and slow the absorption of the poison.
- Apply ice pack, calamine lotion, or baking soda-and-water mixture to relieve the swelling and pain.
- Application of juice of crushed onion also provides relief.
- Seek medical help if an allergic reaction develops such as difficulty breathing, coughing, headache, unconsciousness etc.

**External Bleeding:**

- Make the victim lie down to prevent fainting.
- Apply direct pressure to stop bleeding by placing a gauge or cleanest cloth available over the wound and press it firmly with the palm of your hand.
- Elevate the injury. Position the wounded part of the body above the level of the heart (to stop bleeding) if possible while you apply direct pressure.
- If the bleeding is from the ear, place a clean bandage over the ear, lay the victim on his side, and allow the blood to drain out through the bandage.
- Application of ice bag (ice cubes in a thick plastic bag) directly over the bleeding area is helpful.
- Know the pressure points. If direct pressure and elevation do not sufficiently slow the blood flow, find a pressure point. Large arteries found close to the skin's surface supply blood to the head and to each arm and leg. The most common pressure points used during first aid are located in the upper arms and in the creases above the upper legs. Apply pressure to the closest pressure point to the wound so that the artery is pressed between your fingers and the bone directly behind the artery.

**Internal Bleeding:**

Internal bleeding occurs as a result of a direct blow to the body, a fracture, a sprain, or a bleeding ulcer. During internal bleeding blood vessels rupture and blood leaks into body cavities. If a victim receives an injury to the chest or abdomen, internal bleeding should be suspected.
Symptoms of internal bleeding:

Symptoms include pain and tenderness in the affected area, cold, clammy skin, pale face and lips, weakness or fainting, nausea, thirstiness, rapid, weak or irregular pulse, shortness of breath, dilated pupils and swelling or bruising at the site of injury.

First Aid:

Check for an open airway and begin rescue breathing if necessary.

The victim may rinse his mouth with water, but do not give a victim of internal bleeding anything to drink.

Burns:

Burns are of 3 types first degree, second degree and third degree, depending on its penetration of the layers of the skin. First degree burn damages the outer layer of the skin, second degree burn go through the second layer of the skin and the third degree burn go through the third layer of the skin which is less painful but destroys the nerve cells in the affected tissue hence the damage will be greater.

- Try to put off the fire as soon as possible. If it is a flame burn, roll the victim on the ground and wrap with rugs, blanket or coat. In the case of chemical burn, keep burnt area under low pressure of water till the burning subsides.

- Never apply butter, gention violet, Ink, baking soda or greasy ointments on a burn. They seal heat into the wound and may cause infection.
- Loosen all the tight clothing and remove clothing on or near the burnt area. If it is over the burnt area do not try to peel it loose.
- Avoid undue contamination of burn wound and keep the victim in comfort draping him in clean laundry sheets.
- Apply ice pack or cloth soaked in ice water and change them constantly.
- It is not recommended to wash the burn if it is a third degree burn.
- Seek medical attention immediately if the burn covers more than one part of the body, if it is a third degree burn or caused by chemicals and is located on any sensitive area.
Survival of the fittest
First Aid: Convulsions

Loosen tight clothing

Lay the person on the ground

Cushion the person’s head
Survival of the fittest
If you want to learn more about different survival skills and tips, take a look at the website below. There are many other sites about wilderness survival, so if you cannot find what you need on the site, you can look further.

Website Wilderness Survival
kn.nu/ww.91c9629 (wilderness-survival.net)

CAMPING SUPPLIES
Below you will find a camping checklist. This is a list of items that can be useful while camping. Of course it can also be useful to know what kind of things you might need when you are trying to survive in the wilderness. You can use a dictionary or translation site to help you translate these words.

Camping Checklist

[link](kn.nu/ww.56e4aef) (lovetheoutdoors.com)
MAKE CORDAGE FROM NETTLES

Below you will find a video about how to make a rope from nettles. It is being explained by Ray Mears, an expert on survival in the wild.

"the Tape"

Make cordage from nettles
kn.nu/www.f37d9b (youtube.com)
While you are searching for wood on the beach, you find an old cassette tape. A few meters further, you find a cassette player. You play the cassette.

By reading the angles of the sun, you figured out you are on the south side of the island. Below you see the view from the beach when you look north.

After finding all this information about surviving in the wild, make the individual assignments. Include the results of these assignments in your guide.
HOW TO GET YOUR GRADE

How to get your grade?

You will be graded on an individual level and within your group.

Your guide will be evaluated in a group, which means that all of get you get a mark.

You must also take into account that visual aspects will be evaluated as well as grammar and spelling.

Extra points will be awarded for creativity.
Use of other information resources is allowed as long as it fits the subject.

Your individual grade will be on your own essay.
A maximum of 5 points is awarded for the groupwork.
A maximum of 5 points is awarded for your own work.
The highest grade is a 10.

REVIEW

WHAT WILL YOU HAVE LEARNED:

- How to find out information on the web.
- How to translate that information into a guide.
- How to justify your decision.
- How to write a short story on consuming seawater.
- Vocabulary on the subjects.

TEACHERS INFORMATION

Teachers information
You could leave out the tape information when short on time.
This section is not necessary to finish the assignment.
You could also add more websites.
Over dit lesmateriaal

Colofon
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Aanvullende informatie over dit lesmateriaal
Van dit lesmateriaal is de volgende aanvullende informatie beschikbaar:

Leerniveau
Eindgebruiker leraar
Moeilijkheidsgraad gemiddeld
Studiebelasting 1 uur en 0 minuten
Trefwoorden deserted island, make a fire, robinson, skills, survive

Bronnen
Bron
How to make a fire
http://youtu.be/wXverGSYw64

Website Wilderness Survival
http://www.wilderness-survival.net/chp1.php

Website Wilderness Survival
http://www.wilderness-survival.net/chp1.php

How to make a cooking hook
http://www.youtube.com/watch?v=EQqZfeM6_4s&feature=share&list=UU8TosB4kLeZBi6zwIkD8zw

Website Wilderness Survival
http://www.wilderness-survival.net/chp1.php

Camping Checklist
http://www.lovetheoutdoors.com/camping/checklists.htm

Make cordage from nettles
http://www.youtube.com/watch?v=iOHvqWCN5Eo&feature=share&list=UU8TosB4kLeZBi6zwIkD8zw

Survival of the fittest
Gebruikte Wikiwijs Arrangementen