SURVIVOR CHALLENGE

(a mini-holiday project)



Everyone always asks, “Why do we need to know about science?” The answers are different for everybody. Some will go on to a science career, others will teach, some will use their science knowledge to explain things to their children. These are nice enough reasons to understand science, but the best answer of all is that your knowledge of science may just help you… SURVIVE!

Imagine that your holiday plans to visit a beautiful warm climate are interrupted when your cruise ship is stranded on a desert island. There is NO fresh water to drink anywhere! You have a little food, but you will not live more than 3 or 4 days without water. There is NO rain in the weather forecast!

Lucky for you, you pay attention in science class! Think of a way to the remove the salt from the ocean water so that you will be able to drink it and survive. Your only materials are: clothing including a raincoat, a shampoo bottle, a glass bottle, duct tape, a paper cup, matches, a magnetic compass, toothpaste, many large shells, rocks, gravel, huge tropical leaves, firewood, a broken cell phone, and lots and lots of sand.

Good Luck!

**Requirements:**

**Make a model to explain the science of how you will survive on your island.** Be sure that you communicate how your idea works to separate salt from water. Also, your solution must actually work, if your basic idea is wrong you will not receive full credit!

Ideas:

1. Draw, label and describe how the method/device you could create to remove the salt from the sea water works.
2. Write an entry from your “diary” that explains how your method/device separated the salt from the water.
3. Write a set of detailed instructions that you could publish in a survival manual to help other people who need to separate salt from water in a survival situation.
4. Make a cartoon with at least 5 panels that show how your invention works and kept you alive.
5. Make a real life version of your idea. Take a picture, videos or bring it to school so we can see how it works.
6. Make a video documentary of your experience where you explain/show how you purify the saltwater.
7. Make an infographic or other online media diagram to show and explain the process of removing salt and water.

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Class Color \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Survival Project Scoring Guide**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Category** | **5** | **3-4** | **1-2** | **0** |
| **Classwork Time** | \*You read the directions and used class time well | \* You are on task(ish) | \*Not spending enough time on task | \*You are completely off task |
| **Explanation** | \*You completely explain the process of how salt and water can be separated | \* Your description mostly explains how salt and water can be separated | \* Your description partially explains what is going on | \*Descriptions are not clear |
| **Accuracy** | \*All facts are accurate, this would really work! You survived and thrived! | \*Most facts are accurate, you made it (barely)! | \* This is only partially correct- you probably won’t survive! | \*This would not work, your facts are incorrect. You’re a goner! |
| **Effort**  **Neatness**  **Typed** | \*Great, project complete, neat, and shows effort | \*Good, may be missing one part, reduced effort | \*Fair, major parts missing, unclear, not neat | \* Poor…did you read the directions? |

Total Points : \_\_\_\_\_\_/20