Plastic Made from Fish

(November 2019)

Lucy Hughes is a 23-year-old British woman who has invented something fantastic: a material that could replace plastic someday. The new product is made with fishing waste and algae. It is called MarinaTex. Lucy hopes it will be used to make products such as plastic bags.

Lucy invented MarinaTex for a project while she was a student at the University of Sussex. However, Lucy kept working on her project long after she left school. On November 13th, Lucy became the international winner of the 2019 James Dyson Award for design—and it was all because of her school project.

So what is MarinaTex? Well, for one thing, it is safe to dine upon. This means you can snack on it— not that you would want to—without risk of getting sick. In spite of this, it is strong and can withstand a

lot of wear and tear. However, unlike plastic, MarinaTex will degrade in about four to six weeks. When it does, it will not send any toxins into the water or land.

Lucy invented MarinaTex because she does not like the fact that there is a lot of plastic in the ocean. One report states that by 2050, there will be more plastic than fish in the water! At the moment, there are about 100 million tons of plastic junk in the water.

Another big problem for Lucy and others was the waste from the fishing industry. It is said that 50 million tons of waste are made worldwide each year. That is a lot, so Lucy wanted to find a way to use the waste.

To do this, Lucy inspected fish parts left over after processing and came up with a plan. She could make useful materials that would not pollute the environment. Lucy did not use manmade polymers because she got organic ones from leftover fish waste.

In case you do not know, polymers are natural and man-made substances with very large molecules. Using agar, a substance from red algae; the molecule chitosan, which comes from crabs and other sea creatures; and proteins, Lucy was able to make a strong material.

Inventor James Dyson took notice of Lucy's invention. He said MarinaTex is strong, safe, and much better for the environment than plastic. As a result, Lucy will receive a $41,000 prize as the winner of the award. She plans to use the cash to make her product better and find ways to mass-produce it as well. One could say Lucy is making the most out of a fishy situation.

Teacher Resources

Please note: this non-controlled readable text passage features a ***description text structure***. As such, it is written to be ***at least 80% decodable at Substep 4.2***. A specific decodability score is listed below.

- This text passage is 81.25% decodable at Substep 4.2.

Text Easability Scores
If you would like to measure the text easability scores of this passage, please follow the directions below.

1. Visit the Coh-Metrix Text Easability Assessor website at *http://tea.cohmetrix.com/*. If you do not already have a login and password, create one. It is free and easy to sign up for access to the website.

2. Once you have created an account and sign in, you will be taken to a page with an empty, white text box. Copy and paste the text from this passage into the empty, white text box. Make sure you are only copying and pasting the body of the passage. Do not include the title, date, or any of the resources present in the passage.

3. When you have pasted the passage into the text box, click on the red button beneath the text box that says "Analyze." There will be a short delay and after a few seconds, you will see a bar graph appear to the right of the screen.

4. The bar graph will give you the percentages for several text characteristics including: narrativity, syntactic simplicity, word concreteness, referential cohesion, and deep cohesion.

5. Below the bar graph, the Flesch Kincaid Grade Level is also included for your benefit.

6. Lastly, a paragraph is provided that explains the meaning of the measurements of the text characteristics for your particular passage.

7. Once you have completed measuring your passage, you can click on the "Clear" button below the text box and measure another passage, if you wish.

This text passage is archived under *Environment.*