



Downcycle

Age: Grades 4-8

Lesson Plan Four: Forever Plastic

Objective: To appreciate that many plastics can only be used once but that they will exist in our environments forever. To introduce the concept of down cycling and the limited recyclability of many plastics.

Background: When I was younger I learned a rhyme about which plastic numbers were “good” and which ones weren’t. I stopped using the rhyme to remember what numbers to look for on packaging because now I realize, there is no good plastic. This lesson may leave you feeling as I did – wanting to make changes.

Discussion: Each time plastics are “down cycled” their functionality as well as their quality are diminished when a new product is created from them. Down cycling makes the molecules in them weaker, more likely to leach out into surrounding materials (e.g. foods that they are containing), and less likely to be used again. Unlike the famous green recycling arrow that suggests a product, material or item is in a continual loop of reuse or recycling, plastics, more often than not, do not exist in such a loop.

Activity: Learn more about the plastics that cause the least harm to the environment. Investigate **bioplastics** which are made from things like cornstarch or soy. Maybe you’ve even come across those packaging chips that look like styrofoam but are really made of cornstarch. Bioplastics have the advantage of actually biodegrading. Can you find other alternatives that are environmentally friendly. See if you can find companies that use biodegradable packaging alternatives.

Challenge: Investigate businesses and stores that will “take back” their packaging. Some retailers will accept packaging that their products are wrapped in and they will in turn forward it back to the manufacturer of the product for reuse or recycling.

More info contact: info@enuffsaid.com