Plastic bags controlled assessment essay sample

Plastic is also a common name for polymers. They are made of long strings of carbon and other elements. Each unit in a string is called monomer and is a chemical, usually derived from oil. Plastic is used because they are good insulators of heat or electricity. Metals and plastics eventually can be broken down by weathering processes, but ordinarily soil microbes have little or nothing to do with their decomposition process. The cycling of decomposer of plastic is dependent on soil-dwelling decomposer organisms, including earthworms, snails, millipedes, and insects that will eat the plastic down into little pieces. These microbes are vital to the breakdown of dead and discarded organic materials, they help the process, go a little faster. The plastic is especially designed for soil. Some materials can last a long period of time because the chemicals bolds in order to hold the molecules together are sometimes often stronger than the nature’s power to take them apart. This also depends on the type of plastic. It also depends on the type of the environment to which it is exposed in. Plastic starts to decompose within a year. Some people say that it takes 500 years to decompose because of the microorganisms behind it.

the environmental impacts of supermarket bags are dominated by the energy and raw materials needed to manufacture them. Plastic bags are inexpensive because relatively small amounts of energy and raw materials are needed to make them. These same attributes that make plastic * bags affordable and light also make them easier on the environment than alternatives like paper bags and reusable cotton totes. * Critics of plastic bags frequently argue that they “ take hundreds of years to decompose,”

Second, even organic materials in landfills commonly take hundreds of years to decompose.

Decomposition is the chemical breakdown of organic matter into its constituents by the action of the bacteria. There are seven types of plastics. Some researchers said that plastic will never fully decompose instead they just turn into smaller and smaller pieces of plastic. The most common plastic bag is polyethylene a, Petroleum- derived polymer that the microorganisms don’t recognize as food. Even though polyethylene can’t biodegrade, it does break down when subject to ultraviolet radiation from the sun. This process is known as a photo degradation when exposed to sunshine. Plastic Decomposition In 2011, the United Kingdom’s Environment Agency released a study that evaluated nine categories of environmental impacts caused by different types of

supermarket bags. The study found that paper bags have a worse effect on the environment than plastic bags in all nine impact categories, which include global warming, abiotic depletion, acidification, eutrophication, human toxicity, fresh water toxicity, marine toxicity, terrestrial toxicity, and photochemical oxidation. Furthermore, the study found that the average supermarket shopper would have to reuse the same cotton tote from 94 up to 1, 899 times before it had less environmental impact than the disposable plastic bags needed to carry the same amount of groceries. This wide-varying amount of reuse that is required until the breakeven point is reached depends upon the type of environmental impact, but the median is 314 times, and it is more than 170 times for all but one of the 9 impact categories.

For example, a shopper would need to reuse the same cotton tote 350 times before it caused less fresh water aquatic ecotoxicity than all of the plastic bags that it would replace over this period. Given the improbability that the same cotton tote would last that long (its expected life is 52 reuses), in most cases plastic bags will have less environmental impact.

A study of landfills sponsored by the University of Arizona found that the tightly compacted contents of landfills create low-oxygen environments that inhibit decomposition. The details of the study were published in the book, Rubbish: The Archaeology of Garbage (2001), which explains that much of the organic material in an ancient Roman landfill that was twenty centuries old had not fully decomposed. Another common talking point about supermarket plastic bags is that they are rarely recycled, but this argument ignores the fact that a large portion of supermarket plastic bags (40% in the U. K.) are reused as garbage pail liners. Interestingly, the U. K. study found that it is better for the environment to reuse these bags as garbage pail liners ther than recycle them. This is due to the environmental “ benefits of avoiding the production of the bin liners they replace.”