

PLASTICS AND THE ENVIRONMENT

The development of plastics follows mankind's need for improved materials to adapt to future living. In the 1860's the first plastics were invented to replace dwindling supplies of ivory from elephants and whales as the earth's population passed one billion. Today, with our population at 6.5 billion, plastics consume around 4% of the world's oil production (with much of the 96% being used as fuel energy). Plastics play an increasing role in saving this energy by making cars, trucks and planes lighter. For example, 100 kg of plastic parts in cars reduce oil consumption by about 12 million tonnes each year in Europe, reducing CO2 emissions by 30 million tonnes.

Many plastics are durable and last in service for long periods of time - the polymer bank notes which outlast previous paper money by up to six times is one example. Plastics can reduce overall waste by preserving foods over long periods with plastics protecting over 50% of consumer goods, yet only accounting for 16% of packaging used by weight.

With plastics used for so many products, environmental problems can occur if they are not managed well at the end of their useful life. While plastic products can often be re-used, they can also end up as litter on the ground or in the water if people are careless or recycling or waste bins are unavailable at sports events or public places.

While plastics make up around 5% of landfill by weight, there are much better uses for it as a secondary resource. Plastic recycling continues to grow with many common plastic products remelted and reused for a range of new items, while others can be ground up and used as fillers in other products. Re-using the energy from waste plastics is also a technology used successfully overseas.

It all depends on the type of plastic. See which plastics you have around the school or home, and ask your councils which ones they can recycle. You can also contact recycling companies who may be able to work with your school and collect them for you.

Degradable Plastics

There is a range of newer types of plastics which break down when put into commercial compost systems, exposed to sunlight or dissolved in water. They provide properties helpful to a range of products and some people believe they may solve the problem of litter. People can also solve this problem by simply not littering. Some are able to be made from a renewable organic material like corn which is able to further save fossil fuels.

