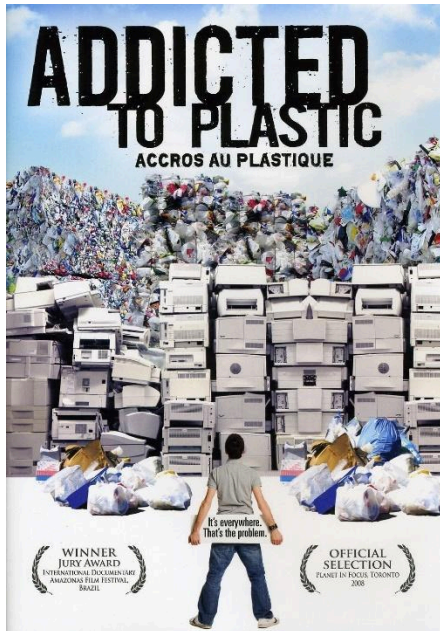


ES20-HP1

Investigate technologies and processes used for mitigating and managing resource use, waste generation and pollution associated with a growing human population.

Indicators for this outcome

- (b) Investigate the environmental impact of human population changes over the last century on a specific region or area with respect to resource use, waste generation and pollution. (STSE, K)
- (h) Investigate the waste generated throughout the life cycle of a product. (STSE, S)
- (j) Investigate advances in technologies and processes (e.g., sewage treatment plants, incineration, composting, engineered landfills and curbside recycling) used for storing, handling and disposing of human and/or livestock waste. (K, STSE)



"From Styrofoam cups to artificial organs, plastics are perhaps the most versatile material ever invented. But such progress has come at a cost. For better and for worse, no ecosystem or segment of human activity has escaped the shrink-wrapped grasp of plastic. ADDICTED TO PLASTIC is a documentary about solutions to plastic pollution."

<http://watchdocumentaries.com/addicted-to-plastic/>

1. What is a gyre? Where are they found? What is the Eastern Garbage Patch?
2. How many pieces of plastic are estimated to be in every square mile? This is why the ocean may be referred to as a "plastic soup."
3. What is a nertle and why are they so problematic?
4. Explain "throw away living" in the 1950s.
5. Create a T-Chart to compare the technology you use now and the technology that your grandparents grew up with.

6. Explain bioaccumulation.

7. What did Dr. Jan Van Franeker discover in Fomar Seabirds?

8. Unfortunately, there is a clearly inadequate plastic recycling infrastructure in most countries' around the world. List some of the problems that recycling presents.

9. Make a few notes about the following chemicals found in plastics.

DEHP:

BPA:

PET:

10. What are bioplastics? Provide a few examples.

11. In your own opinion, why do you believe Ian Connacher was driven to make this documentary? What was his goal? Do you believe he was able to get his message across? What, if anything will you take away from watching this film?