

Ocean Plastic Pollution Extra Credit Assignment

Due date: Wednesday 07/26/2017 by 11:59 pm

Introduction: As an extra credit research writing assignment, you need to research and write a 3 to 4 page paper (1.5 spacing) on plastic pollution in our oceans. Detailed directions are found below.

Grading: This assignment is worth up to 10 points –

What to Research and Write:

Part 1 - Overview of Plastics:

- a) What exactly are plastics?
- b) What are plastics made of (chemistry of plastics)?
- c) What major types of plastic are there?
- d) What are the major uses of plastics in our society? How important is plastic to your everyday life?
- e) How long does it take for plastics to break down (physically and chemically) in the environment?

Part 2 - Plastics Getting in the Ocean:

- a) What are the major sources of plastic items that find their way into the ocean?
- b) What are the primary means/avenues that plastic items get into the ocean? (Source to ocean)?
- c) List the principle types of plastic items that most commonly make it into the ocean.
- d) How much (kilograms) plastic is getting into the ocean every year?
- e) Which type of plastic getting into the ocean is probably the biggest concern?

Part 3 - Plastics in Our Ocean:

- a) How much plastic is estimated to currently reside in the ocean?
- b) What is the typical movement of plastics in the ocean, in terms of major ocean currents (gyres)?
- c) After plastic items spend a sufficient amount of time in the ocean, where does most it end up, in terms of a stable location in the major ocean gyres?
 - d) What exactly are the "Great Ocean Garbage Patches"? Note their number, location, patch size, individual particle size distribution, and any other characteristics.
- e) Once plastic gets into an ocean garbage patches, how long is it estimated to remain there?

Part 4) - Negative Effects and Solutions of Plastics on Sea Life:

- a) What are the harmful effects on marine life when they ingest plastics?
- b) Besides ingesting plastic, what are some of the other hazards that plastics have on sea life?
- c) How does plastic poisoning of sea life have negative effects on human health?
- d) What are some ways to reduce the amount of plastic getting into the ocean? Personal actions?
- e) What are some ideas/ways that have been proposed/tested to remove plastics from the ocean? Do you have any ideas or suggestions to reduce plastic pollution in our ocean?

Paper Format: You must adequately address all four parts to get full points. As far as how I want the research format set up, basically, you need to list the question - each of the four parts has five questions, a) through e) - and then write your response after the question. Skip a line, and then write your next question/answer set. Do that for all five questions within each part. Choose a different font color for your response to the listed question. Check the "Example" for exactly how I like the format of your paper to be set up. Here are links to DOC file version and format example:

http://www.seascisurf.com/plastic_pollution_ec.doc

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