SDG 14: Life Below Water - A Sea of Plastic

Topic Overview	Learning Objectives
Since the popularity of single use plastic cemented itself into society in the 1950s, the world has seen devastating impacts because of plastic pollution. Particularly, pollution in the ocean, often called marine pollution, is one of the most visible effects of the Anthropocene. This lesson covers the effects of plastic pollution in the ocean, how and why we got here, the role of businesses, and how COVID-19 has exacerbated the issue.	• Describe the current state of plastic pollution in the oceans. • Identify the benefits for businesses to reduce plastic waste. • Understand the underlying issues of plastic pollution, and identify possible solutions. • Debate the responsibilities of consumers and producers for the plastic pollution problem.

Resource Summary

Ecologyst. (2019, March 22). *Plastic Beach | A film about ocean plastics on BC's coast* [Video]. YouTube. https://www.youtube.com/watch?v=y6v8eRENow8

Summary: A short film on the plastic pollution in the Clayoquot Sound, on BC's coast, by the local retailer Ecologyst.

Napper, I. E. & Thompson, R. C. (2020, April 6). *Plastic Debris in the Marine Environment: History and Future Challenges*. Global Challenges, 4(6). https://doi.org/10.1002/gch2.201900081

Summary: This paper provides an overview of plastic debris in the ocean, discussing the evolution of plastic, the accumulation and distribution of plastic pollution in the environment, the impact, and solutions and future challenges.

Choi, A (2020, April 21). *Why Plastic Waste is a C-Suite Issue.* Harvard Business Review. https://hbr.org/2020/04/why-plastic-waste-is-a-c-suite-issue

Summary: Audrey Choi argues that plastic waste should receive greater attention from company executives. Choi discusses the five clear benefits from reducing plastic waste: to drive innovation, reduce operational costs, reduce capital costs, mitigate risk, and win new customers and increase loyalty.

Kaplan, R. & Stuchtey, M. (2020, October 30). Collateral damage: COVID-19's impact on ocean plastic pollution. *GreenBiz*. Link

Summary: This article discusses the effects of the wave of plastic pollution and medical waste because of the COVID-19 pandemic. "Fighting the pandemic should not come at the cost of stemming the flow of plastic pollution into the environment." They discuss how waste management is imperative for the environment to recover from the pandemic and long-term solutions.

Discussion and Exam Questions
1. Is the plastic pollution problem a result of actions by consumers or corporations? 2. Describe the opportunities and benefits available for businesses who work to fight against and reduce plastic waste. 3. What can we learn from the pollution caused by COVID-19, specifically the mismanagement of disposable masks and PPE, for similar situations in the future?
Additional Resources
The Social Cost of Water Pollution Breaking the Plastic Wave A Radical Plan to End Plastic Waste Introduction to Extended Producer Responsibility Examples of plastic alternatives Mushroom Packaging Haagen Daz Reusable Packaging Corona's Plastic-Free Six Pack Rings 16 Companies Rethinking Packaging Gone 4 Good
Related Business Topics
• Marketing • Consumer behaviour • Branding and packaging • Extended Producer Responsibility (EPR) • Corporate responsibility • Innovation and design thinking • Risk reduction

Related Sustainable Development Goal Targets
SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans 14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels 14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information 14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism
Suggested In-Class Activities
Activity: Consumer vs. Producer Debate – Who is to Blame? Split the class into small groups, assigning half of the groups the position of consumer, and the other half the position of producer. Using a debate format, facilitate a discussion on corporate responsibility. Students who are assigned the consumer role will debate that the plastic pollution is the fault of the producers for creating disposable products. Students assigned the producer role will debate that the pollution is the fault of consumers, for improper use and disposal of the goods. The purpose of this exercise is to teach students that assigning absolute blame is nearly impossible, and changing the trajectory of our future is dependent upon all stakeholders and decision makers. **Typical debate format:** The first speaker on the producer's team presents arguments stating that pollution is the fault of the consumer. (5 – 10 minutes) The first speaker on the consumer team presents arguments stating that pollution is the fault of the producer. (5 – 10 minutes) The second speaker on the producer team presents further arguments in support of single use plastics and other polluting items, identifies areas of conflict, and answers questions that may have been raised by the opposition speaker. (5 – 10 minutes)

The second speaker on the consumer team presents further arguments against single use plastics and other pollution, identifies further areas of conflict, and answers questions that may have been raised by the previous "producer" speaker. (5 – 10 minutes)

The rules may include a short recess for teams to prepare their rebuttals. (5 minutes)

The consumer team begins with the rebuttal, attempting to defend the opposing arguments and to defeat the supporting arguments without adding any new information. (3 – 5 minutes)

First rebuttal of the producer team (3 – 5 minutes)

Each team gets a second rebuttal for closing statements with the producer team having the last opportunity to speak. (3 – 5 minutes each)

Additional Debate Rules:
There cannot be any interruptions. Speakers must wait their turns. Decide if the class will vote for the winning debate or if the professor will make that decision.