Plastic In The Ocean Quiz 2 Questions and Answers PDF

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What is the most common type of plastic found in the ocean?

- ◯ Biodegradable plastics
- ◯ **Microplastics ✓**
- ◯ Metal-infused plastics
- ◯ Glass fibers

> The most common type of plastic found in the ocean is polyethylene, which is widely used in packaging and single-use items. Its prevalence in marine environments is largely due to its lightweight nature and widespread use in consumer products.

Which of the following are sources of plastic pollution in the oceans?

- ☐ **Urban runoff ✓**
- ☐ **Maritime activities ✓**
- ☐ Volcanic eruptions
- ☐ **Agricultural runoff ✓**

> Plastic pollution in the oceans primarily originates from land-based sources such as litter, waste mismanagement, and industrial runoff, as well as marine activities like fishing and shipping. These sources contribute to the accumulation of plastic debris in marine environments, posing significant threats to marine life and ecosystems.

Explain how plastic pollution affects marine life and ecosystems. Provide specific examples of species and the types of harm they experience.

Plastic pollution affects marine life through ingestion and entanglement. For example, sea turtles often mistake plastic bags for jellyfish, leading to ingestion that can block their digestive tracts. Marine mammals, like seals, can become entangled in discarded fishing nets, leading to injury or death. These plastics also disrupt ecosystems by altering habitats and food chains.

Which industry is most directly affected economically by oceanic plastic pollution?

- ◯ Agriculture
- ◯ **Fishing ✓**
- ◯ Automotive
- ◯ Textile

The fishing and tourism industries are most directly affected economically by oceanic plastic pollution, as it impacts marine life and the cleanliness of coastal areas, respectively.

Which of the following are impacts of plastic pollution on marine ecosystems?

- ☐ **Disruption of food chains ✓**
- ☐ Increased oxygen levels
- ☐ **Habitat destruction ✓**
- ☐ Enhanced coral growth

Plastic pollution significantly harms marine ecosystems by causing physical harm to marine life, disrupting food chains, and introducing toxic substances into the water. These impacts lead to biodiversity loss and long-term ecological changes.

Discuss the long-term ecological risks associated with the accumulation of plastics in the ocean. How might these risks evolve over time?

Long-term ecological risks include the persistent presence of microplastics in the food chain, which can lead to bioaccumulation of toxins in marine organisms and eventually humans. Over time, plastics can break down into smaller particles, making them more difficult to remove and increasing their potential to harm marine life. Additionally, plastics can alter habitats, leading to loss of biodiversity.

Which international agreement focuses on reducing marine plastic waste?

- ◯ Kyoto Protocol
- ◯ Paris Agreement
- ◯ **Basel Convention ✓**
- ◯ London Convention

> The international agreement that focuses on reducing marine plastic waste is the "Global Plastics Treaty," which aims to address the global plastic pollution crisis through comprehensive measures and cooperation among nations.

What are some strategies currently being implemented to reduce plastic pollution in oceans?

- ☐ **Development of biodegradable materials ✓**
- ☐ Increased oil drilling
- ☐ **International treaties ✓**
- ☐ Expansion of landfills

> Various strategies to combat plastic pollution in oceans include implementing bans on single-use plastics, promoting recycling initiatives, and developing innovative cleanup technologies like ocean-cleanup drones.

Evaluate the effectiveness of public awareness campaigns in reducing plastic pollution. What are some successful examples, and why did they work?

> **Public awareness campaigns have been effective in reducing plastic pollution by educating the public on the impacts of plastic waste and promoting behavioral changes. Successful examples include the "Beat Plastic Pollution" campaign by the UN, which encouraged the reduction of single-use plastics. These campaigns work by leveraging social media, engaging communities, and providing practical solutions.**

What is a major challenge in recycling plastics effectively?

- ◯ Lack of interest

- ◯ **Complexity of sorting different types of plastics ✓**
- ◯ Overabundance of recycling facilities
- ◯ High cost of raw plastic materials

> A major challenge in recycling plastics effectively is the contamination of materials, which can hinder the recycling process and reduce the quality of the recycled products.

Which marine animals are commonly affected by plastic pollution?

- ☐ **Sea turtles ✓**
- ☐ **Dolphins ✓**
- ☐ Penguins
- ☐ Sharks

> Plastic pollution significantly impacts various marine animals, including sea turtles, seabirds, fish, and marine mammals, as they often ingest plastic debris or become entangled in it.

Analyze the role of technology and innovation in addressing the problem of plastic pollution. What are some promising developments?

> **Technology and innovation play a crucial role in addressing plastic pollution through the development of biodegradable plastics, advanced recycling technologies, and ocean cleanup devices like the Ocean Cleanup Project. These innovations aim to reduce plastic production, improve waste management, and remove existing plastics from marine environments.**

What is a significant consequence of plastic ingestion by marine animals?

- ◯ Improved digestion
- ◯ Nutritional benefits
- ◯ **Blockage of digestive tracts ✓**
- ◯ Enhanced growth rates

> Plastic ingestion by marine animals can lead to severe health issues, including internal injuries, malnutrition, and even death. Additionally, it can disrupt marine ecosystems and food chains.

What are some economic implications of plastic pollution in the oceans?

- [x] **Loss of tourism revenue ✓**
- [ ] Increased fish populations
- [x] **Damage to fishing equipment ✓**
- [x] **Higher costs for coastal cleanups ✓**

> Plastic pollution in the oceans has significant economic implications, including the impact on fisheries, tourism, and increased cleanup costs.

Propose a comprehensive plan that communities could implement to significantly reduce local contributions to oceanic plastic pollution.

> **A comprehensive plan could include implementing local bans on single-use plastics, establishing community recycling programs, organizing regular beach clean-ups, and promoting education campaigns to raise awareness about the impacts of plastic pollution. Additionally, encouraging businesses to adopt sustainable practices and providing incentives for using biodegradable materials can further reduce plastic waste.**

Which of the following is a key focus of educational campaigns on plastic pollution?

- ◯ Promoting fossil fuel use
- ◯ Encouraging single-use plastics
- ◯ **Raising awareness about the impacts of plastic waste ✓**
- ◯ Supporting deforestation

> Educational campaigns on plastic pollution primarily focus on raising awareness about the environmental impacts of plastic waste and promoting sustainable practices to reduce plastic usage.

What are some potential solutions to the problem of plastic pollution in oceans?

- [x] **Banning single-use plastics ✓**
- [ ] Increasing plastic production
- [x] **Enhancing waste management systems ✓**
- [ ] Promoting oil spills

> Addressable solutions to plastic pollution in oceans include reducing plastic production, improving waste management systems, promoting recycling, and increasing public awareness about plastic use.

Critically assess the role of international collaborations in combating oceanic plastic pollution. What are the strengths and weaknesses of these efforts?

> **International collaborations are crucial in addressing oceanic plastic pollution as they facilitate the sharing of resources, knowledge, and technology. Strengths include coordinated efforts and global policy-making, such as the Basel Convention. However, weaknesses include varying levels of commitment and enforcement among countries, as well as differing economic interests that can hinder progress.**

Which of the following is NOT a source of ocean-based plastic pollution?

- ○ Fishing gear
- ○ Shipping activities
- ○ **Underwater volcanic activity ✓**
- ○ Maritime accidents

> Ocean-based plastic pollution primarily comes from activities at sea, such as fishing and shipping. Sources that are not ocean-based include land-based activities like litter and waste management issues.

Which of the following are long-term ecological risks of plastic accumulation in oceans?

- [x] **Permanent alteration of marine habitats ✓**
- [ ] Increased biodiversity
- [x] **Chemical leaching into water ✓**
- [ ] Decreased oceanic pH levels

> Plastic accumulation in oceans poses long-term ecological risks such as harm to marine life through ingestion and entanglement, disruption of marine ecosystems, and the introduction of toxic substances into the food chain.

Discuss the potential impact of biodegradable plastics on oceanic ecosystems. Are they a viable solution to the plastic pollution problem?

> **Biodegradable plastics have the potential to reduce the impact of plastic pollution by breaking down more quickly than traditional plastics. However, their effectiveness depends on environmental conditions, such as temperature and microbial activity. While they offer a promising alternative, they are not a complete solution, as they still require proper disposal and may not degrade effectively in marine environments.**