*Section 12.2 Managing Growth and Resources*

*ISP - Week 5*

*Read pg. 557-568 and answer the questions below.*

1. Describe the connection between burning coal and methylmercury. (K)
2. Explain why plastic items are harmful to marine life and explain why plastics will remain an environmental issue in the oceans for years to come. (K)
3. Every year, more and more garbage patches similar to the Great Pacific Garbage Patch are found. How are these patches created? What problems do such garbage patches cause? (K)
4. How are resource consumption and waste production by humans connected to biodiversity loss? (T)
5. China and the United States together produce just under half of all the carbon dioxide emissions. Based on this knowledge, do you think that all countries should be required to reduce their carbon dioxide emissions? Explain your reasoning. (T)
6. What should human populations do to make sure species to not become threatened or extinct due to human activity? (A)

ANSWER KEY

1. The burning of coal releases mercury into the atmosphere. The mercury falls to Earth through deposition (such as precipitation) and either settles directly in lakes or streams or is washed into them after being deposited on land. Within the waterways, the actions of anaerobic microorganisms transform the mercury into methylmercury.
2. Plastic items are harmful to marine life because they leach toxic substances and are often ingested, blocking the digestive system. Plastics are still being released into the oceans and will be a problem for a long time because they do not decompose quickly.
3. The millions of tonnes of garbage people dump into the sea gather where water flow is slow or where currents keep garbage in a certain location. The main problem with such garbage patches is that it releases toxins and is ingested by marine life. Either the toxins biomagnify along the food chain or the structure of the garbage harms the animals’ organs.
4. As humans consume more, we pollute more and produce more waste. Both of these can reduce biodiversity.
5. Answers should include that carbon dioxide emissions result in global warming, which affects the entire world.
6. Humans can make sure that they do not contribute to the loss of habitat, overexploitation, pollution, or the introduction of invasive species or disease.