

Name _____

SYNTHETIC MATERIALS

Directions: Read the information below.

When you think of the ocean, you probably think of blue water, sea life, and maybe even some ships passing through. The reality of today's oceans, however, is different. As humans interact with oceans and coastlines they increasingly leave behind their footprints in the form of pollution. Plastic bottles, food wrappers and other trash are deposited into the water. Some estimates show that up to 13 million tons, or 26 million pounds, of trash are put into oceans every year. The majority of the pollution comes from plastic items.

Plastic can be harmful because it is made of synthetic materials. Synthetic means artificial, manmade, unnatural. Plastics originate from natural elements such as carbon, hydrogen, and oxygen. However, they go through processing to form a new product that cannot be found in nature. One of the biggest dangers of plastic is that it cannot decompose. While we can recycle plastic material, it will never break down the way natural materials can. Additionally, another disadvantage is that plastics use up precious natural resources like oil. The manufacturing of plastics also contributes to air pollution through factories.

You may be wondering why, if plastics are so bad, we even use them. There are advantages of plastics to be sure. This synthetic material is highly versatile. It is used in everyday household items like cosmetics, food storage, dishes, toys, remote controls, headphones, and more. Medical professionals use plastics in the equipment that help them perform life-saving surgeries.

There are both advantages and disadvantages of plastics. It is important that we weigh the benefits versus the cost and work to find cleaner and more natural materials on which we can rely.

*Sources of statistics and facts: <http://www.nbcnews.com/science/environment/millions-tons-scientists-tally-plastic-pollution-oceans-n304956>, <https://www.plasticmakeitpossible.com/about-plastics/types-of-plastics/what-are-bioplastics/>, and <https://www.plasticmakeitpossible.com/about-plastics/types-of-plastics/what-are-plastics/>.

Directions: Answer the questions below.

1. List the pros (advantages) and cons (disadvantages) of creating and using plastics.

Pros	Cons

2. What are plastics made from?
3. Do you believe the benefit or the cost of using plastics is greater? Use evidence from the text and your own background knowledge to support your answer.
4. Look at the objects your teacher has. As they are sorted, record whether they do or do not use plastic.