

Task 1. Read the definitions of plastic and choose the correct one.

- 1) Plastic: A flexible material made from natural substances such as plant resins or animal fats, often used in crafting and art projects.
- 2) Plastic: A term used to describe someone who is fake or insincere in their behavior, often pretending to be someone they are not.
- 3) Plastic: A synthetic material made from polymers, which can be molded into various shapes and forms when heated, cooled, or subjected to pressure, widely used in manufacturing for packaging, construction, and consumer products.

Sources of Plastics**Task 2. Identify the word from the definition that represents a potential source of the plastic. The words in the box will help you.****Biomass:****Coal:****Synthetic Polymers:****Natural Gas:****Recycled Plastics:****Crude Oil:****Bioplastics:**

1. _____ Plastic materials that have been recovered from post-consumer or post-industrial waste streams, processed to remove impurities, and reprocessed or reused to manufacture new plastic products.
2. _____ Organic matter derived from plants, agricultural residues, or other renewable resources, which can be utilized as a sustainable alternative to fossil fuels in the production of bio-based plastics.
3. _____ Unrefined petroleum extracted from the earth, consisting of hydrocarbons and other organic compounds, which serves as a primary source of raw materials for plastic production.
4. _____ A combustible black or dark brown sedimentary rock composed mainly of carbon, often used as a source of energy and raw materials for various industrial processes, including the production of certain types of plastics.
5. _____ Plastics derived from renewable biomass sources, such as corn starch, sugarcane, or cellulose, which can be biodegradable or compostable, offering an environmentally friendly alternative to conventional petroleum-based plastics.

6. _____ A flammable fuel, primarily composed of methane, ethane, and other hydrocarbons, obtained from underground reservoirs and used as a feedstock for producing plastics.
7. _____ Chemical compounds synthesized through polymerization processes, forming long chains of repeating molecular units, which are used to produce a wide range of plastic materials, including polyethylene, polypropylene, polystyrene, and polyvinyl chloride (PVC).

Task 3. Match the words from the left to the words from the right to get a meaningful collocation.

1. refining	a) manufacturing
2. raw	b) plastic
3. inexpensive	c) compounds
4. plastic	d) process
5. chemical	e) biomass sources
6. remove	f) materials
7. environmentally	g) impurities
8. biodegradable	h) source
9. renewable	i) friendly

Task 4. Listen to the information about the history of plastic and answer the question below.

1. What was the name of the first synthetic polymer invented in 1869?
 - a) Celluloid
 - b) Bakelite
 - c) Plastic
2. Who is credited with inventing Bakelite, the first fully synthetic plastic?
 - a) John Wesley Hyatt
 - b) Leo Baekeland
 - c) Thomas Edison
3. During which historical event did plastic production experience a significant increase?
 - a) Industrial Revolution
 - b) World War II
 - c) Renaissance

4. What are some of the positive impacts of plastics mentioned in the text?
- a) Affordability, durability, and versatility
 - b) Environmental concerns, pollution, and waste
 - c) Innovation, creativity, and invention
5. What industry saw a significant increase in plastic usage during the post-war period?
- a) Agriculture
 - b) Entertainment
 - c) Healthcare
6. What are researchers and organizations focusing on in relation to plastics?
- a) Increasing plastic production
 - b) Reducing plastic waste and developing environmentally friendly solutions
 - c) Ignoring environmental concerns
7. Which term describes the negative impacts of plastics on the environment?
- a) Pollution
 - b) Affordability
 - c) Durability
8. What material did John Wesley Hyatt aim to substitute with the invention of celluloid?
- a) Wood
 - b) Metal
 - c) Ivory
9. What was the revolutionary aspect of Bakelite, according to the text?
- a) It was the first plastic made from natural materials.
 - b) It was the first fully synthetic plastic.
 - c) It was the first plastic used in everyday consumer products.
10. What is emphasized as essential when reflecting on the history of plastic?
- a) Acknowledging its transformative nature and the need for responsible usage
 - b) Celebrating its negative impacts on society
 - c) Ignoring environmental concerns and focusing solely on its benefits

Task 5. Fill in the gaps with the most appropriate words:

applications advancements responsible usage substitutes
increased sharply alternatives synthetic polymers
derived from pollution

Plastics, integral to modern life, are 1) _____ various sources, primarily crude oil, natural gas, coal, biomass, recycled materials, and 2) _____. Originally developed as 3) _____ for natural materials, plastics have undergone significant 4) _____ since the invention of celluloid in 1869 and the subsequent creation of Bakelite in 1907. Their production 5) _____ during World War II, proving essential for military 6) _____ and later becoming ubiquitous in everyday life. Despite their versatility and durability, plastics have raised environmental concerns due to 7) _____ and waste. Efforts are made to develop sustainable 8) _____, including bio-based plastics and recycling initiatives. In reflecting on the history of plastics, it is crucial to recognize both their transformative impact on society and the imperative of 9) _____ to weaken environmental harm.

Task 6. Read the text. Identify the word from the text for which the definition is provided below.

Chemical properties.

- They possess plasticity, a typical property of these materials. Plasticity is the ability of a material to deform without breaking.
- They are polymers, organic compounds with a macromolecular structure formed by groupings of monomers, which are obtained by polymerization processes.
- They are of low density.
- Easy to mould and work with due to their elasticity.
- Resistant to corrosion, as well as to other chemical formulas.
- Good thermal and electrical insulators, although they do not withstand high temperatures.
- They are pollutants, either when burned or because of their difficulty to be recycled or biodegradable.

_____ a substance made up of two or more different chemical elements combined in a fixed ratio.

_____ something that breaks down or decays naturally without any special scientific treatment, and can therefore be thrown away without causing pollution.

_____ a measurement that compares the amount of matter an object has to its volume.

_____ to mar the natural form or shape of; put out of shape; disfigure.

_____ a material of such low conductivity that the flow of current through it is negligible.

_____ to be strong enough not to be hurt or damaged by extreme conditions, the use of force, etc.

_____ a hollow container that you pour liquid into. When the liquid becomes solid, it takes the container's shape.