

SCH4U

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## Polymers

### 2.1 Vocabulary Define the following:

Concept	Definition
Polymer	
Monomer	
Homopolymer	
Copolymer	

Apply to real life: describe any everyday item created using a copolymer and a homopolymer.

### 2.2 Synthetic Addition Polymers

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Concept	Definition
Addition Polymer	

Create a polyvinyl chloride from a vinyl chloride monomer.

Create polystyrene from a styrene monomer.

Describe and analyze how these compounds (polyvinyl chloride, polypropylene) are used in our everyday lives.

Use the Internet and your textbook to help you answer these questions. How long does it take for plastic garbage bags to decompose in a landfill site? What biodegradable materials can be used to replace polystyrene as a packaging material?

#### 2.4 Synthetic Condensation Polymers

Concept	Definition
Condensation polymer	

What is polyester? Illustrate the formation of polyester by a hydrolysis reaction. Show an ester linkage and a balanced chemical equation.

Explain the difference between an addition reaction and a condensation

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polymerization reaction? (Reference p.98). Propose a personal course of action to reduce the use of compounds (such as phthalates) that are harmful to human health and the environment. Reference p. 98. Use your text and the Internet to help you.