Biofuel Production: How Ethanol is Made

	SAMPLE ESSAY	NOTES
INTRO	The diagram illustrates the cyclical process of ethanol production and its use as a renewable energy source.	
OVER VIEW	Overall, the process involves three main stages comprising nine steps, starting with plant growth, progressing through chemical steps, and ending with ethanol utilization in vrious vehicles.	
DETAIL 1	Initially, plants and trees absorb sunlight and carbon dioxide as energy from the atmosphere to thrive. Once mature, they are harvested as raw materials for ethanol manufaturing. The first stage is pre-processing the plant to extract cellulose with a specialized machines, ready for the chemical processing. Next, in the second stage, cellulose is then chemically broken down into simpler sugars. Then, microbes are introduced to the sugars to begin fermentation. This biological process converts the sugars into ethanol, which is subsequently purified to create the clean biofuel ethanol.	
DETAIL 2	The final stage involves using ethanol as a biofuel for various vehicles, including planes, cars, and trucks. During their operation, these vehicles release carbon dioxide, which is subsequently absorbed by plants as part of their growth process. This cyclical exchange not only completes the cycle but also highlights ethanol's role in maintaining an eco-friendly, sustainable energy system.	