

Name _____

3D Printing vs. Traditional Manufacturing: The Battle of the Makers!

Open-Ended Response Answer Key

1. In traditional manufacturing, material waste is generated through cutting and shaping processes, while 3D printing minimizes waste by adding material layer by layer. This reduces the environmental impact of manufacturing.
2. 3D printing could create a customized jewelry item by allowing the customer to design the piece on a computer, specifying details like size, shape, and material. The 3D printer would then produce the jewelry based on these specifications.
3. 3D printing is gaining popularity in aerospace and medicine due to its precision, customization, and efficiency. In aerospace, it can create lightweight and complex parts. In medicine, it can produce custom implants and prosthetics tailored to individual patients.
4. Future advancements in 3D printing could include the use of new materials, improved speed and precision, and the development of 3D printing for larger-scale applications like construction or even food production.

