name: class: date:

The Future of Manufacturing

1. Fill in the gaps with the right words!
2. Scan the QR code to check your answers interactively!
3. Copy the text in your exercise book!
4. Formulate the content of the text yourself!
   Use all gap words!

3D printing, also known as _____ manufacturing, has transformed the way we create and design _____. This technology allows for the layer-by-layer construction of a physical item from a _____ model. It has become a crucial tool in many _____, including hardware and robotics. With 3D printing, designers can quickly _____ new parts, reducing the development _____ and cost significantly.

One of the most significant advantages of 3D printing is its ability to produce _____ shapes that are difficult or impossible to achieve with traditional manufacturing methods. This has opened up new possibilities in the design of _____ components, where complexity often translates to better _____. For instance, lightweight but _____ materials can be used to enhance the efficiency of robots, making them faster and more energy-efficient.

In the field of hardware, 3D printing is enabling the creation of customized _____ on-demand, which is especially beneficial for small-scale production or for components that would be too costly to manufacture using conventional methods. This flexibility is crucial for startups and _____, as it allows for rapid iteration and testing of new ideas.

Moreover, 3D printing is also making strides in the _____ of manufacturing. By using materials more efficiently and reducing waste, it contributes to more environmentally friendly production processes. This aspect is particularly appealing in the context of global efforts to reduce the _____ impact of industrial activities.

In education, 3D printing has become a valuable tool for teaching students about _____, design, and technology. It encourages creativity and hands-on learning, providing a tangible connection between theoretical concepts and real-world _____. As 3D printing technology continues to evolve, its role in hardware and robotics is set to become even more _____, shaping the future of how we design, produce, and interact with the physical world.

innovation | additive | functionality | sustainability | prototype | strong | integral | time | environmental | objects | engineering | digital | industries | applications | robotic | complex | parts

Reference: https://materials.school/educational-activities/task-collection/computer-science/future-manufacturing (created with ChatGPT)