3D PRINTING: A WHOLE NEW WORLD

Most people today know about 3D printers. These are machines that "print" three-dimensional objects from a computer program. The objects are built using thousands of tiny little slices. The slices are layered together to form a solid object. At first, 3D printers only made small, simple plastic objects. But the technology behind them is improving every day. So, what will we be "printing" in the future?

New Ways to Make Food

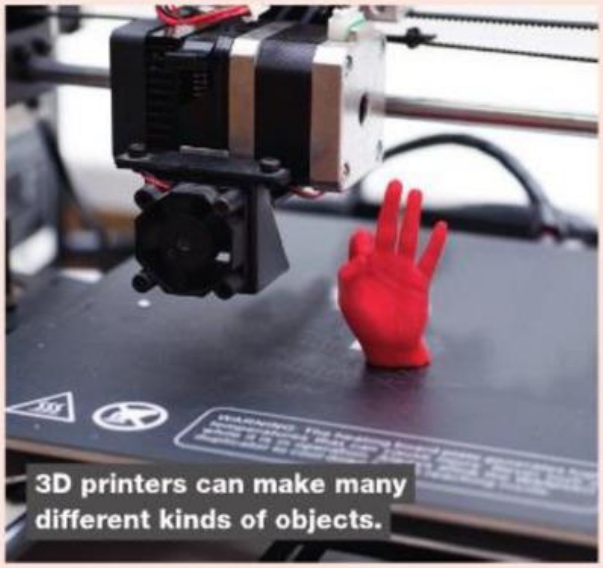
Today, many people do not have enough food, but 3D printing will soon be able to help. Scientists are creating new 3D-printed foods which could be given to people without food, such as those who have been through a disaster. 3D foods can be made with the vitamins and minerals that people need to be healthy using ingredients that are grown quickly and easily. For example, different types of plants like algae and grass. These foods can also be designed so that they are easy to move and deliver.

New Ways to Build

There are places around the world where it is hard to find a clean and inexpensive place to live. In addition, a lot of natural resources are used in traditional building. But scientists have found a way to build homes with the help of a huge 3D printer. These homes are cheaper but still strong, and produce less

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waste. In China, an entire 3D-printed house was made in one month. In the future, all new homes might be made with 3D printers.



3D printers can make many different kinds of objects.

New Ways to Save Lives

The strangest and most exciting area of 3D printing could be medicine. Today, we are able to print medical equipment, prosthetics, like artificial arms and legs, and even skin! But we could do so much more. Take organs, for example. They're not always available, so people often have to wait a long time for one. But someday, doctors might be able to print out a new lung for someone or even a new heart if the "ink" of a 3D printer was made of cells.

Clearly the future of 3D printing is so much more than simple plastic objects. Someday, 3D printing will likely be involved in every part of our lives!

CHECK YOUR UNDERSTANDING

Go to the next page and answer the questions A-C based on the reading.

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A **Which statement best describes the main idea of the article?**

a. 3D printing is a fun way to create small plastic objects.
b. 3D printing can change the way we do many things.
c. 3D printing is a technology that has been completely developed.

B **Read the article again. Complete the sentences.**

1. 3D-printed food can be made out of _____ like algae and grass.
2. 3D-printed houses are less _____ and produce less _____.
3. When 3D printers use _____ as the ink, they will be able to print _____ like a new lung or heart.
4. 3D printing will change _____ because it will help heal people.

C FOCUS ON LANGUAGE **Reread lines 5–7 in the article. Think about the words *behind* and *"printing"*. Then answer the questions.**

1. What does the word *behind* mean in this sentence? _____
   _____
2. Why is the word *"printing"* in quotation marks? What does it mean in this sentence?
   _____

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