

3D-printer homes to reduce homelessness

15th March, 2018



Having a roof over your head is a basic human need, but there are 1.2 billion people in the world without adequate housing. This may change thanks to a revolutionary, low-cost use of 3D printers to construct houses. With 3D printing, materials are joined together or reinforced by using a computer-controlled device to create a three-dimensional object. Two companies have joined forces to try and ease homelessness around the world by building affordable homes using 3D printing. Tech company ICON has developed a method for printing a one-floor, 60-square-meter house out of cement in a day for just \$10,000. This is a fraction of both the time and cost needed to build a similar construction using conventional methods.

ICON has teamed up with the non-profit, international housing organization New Story. Together, they will start building homes in developing countries. Their joint venture will see 100 new homes constructed in El Salvador next year. New Story's co-founder Alexandria Lafci acknowledged that the 100 homes were just a drop in the ocean. She said: "There are over 100 million people living in slum conditions, in what we call survival mode." She also saw possibilities for 3D-printed houses to become common in richer countries in years to come. However, she said that for the moment: "The tech is ready now to print very high-quality, safe homes in the places we're building."

Sources: theverge.com / wired.com / qz.com

Writing

Homelessness will be a thing of the past one day. Discuss.

Chat

Talk about these words from the article.

roof / human need / housing / revolutionary / low-cost / 3D / affordable homes / cost non-profit / developing countries / joint venture / a drop in the ocean / slums / tech

True / False

- The article says 1.2 billion people have no proper place to live. T / F
- The article says 3D printing is very expensive. T / F
- Three companies have united to make homes for the homeless. T / F
- A company can make a home for \$10,000 in just 24 hours. T / F
- A new project will build 1,000 homes in El Salvador next year. T / F
- A non-profit co-founder wants to build homes on the ocean. T / F
- 100 million people worldwide live in slum conditions. T / F
- People in rich countries may live in 3D-printed homes in the future. T / F

Synonym Match

(The words in **bold** are from the news article.)

- | | |
|------------------------|-----------------|
| 1. basic | a. collaborated |
| 2. adequate | b. inexpensive |
| 3. reinforced | c. set |
| 4. affordable | d. sufficient |
| 5. fraction | e. enterprise |
| 6. teamed up | f. admitted |
| 7. venture | g. fundamental |
| 8. acknowledged | h. prevalent |
| 9. common | i. strengthened |
| 10. ready | j. tiny amount |

Discussion – Student A

- What do you think about what you read?
- How might 3D-printed homes be different from regular homes?
- What's the difference between a house and a home?
- What does 'Home is where the heart is' mean?
- Is 100 3D-printed homes really a 'drop in the ocean'?
- What must it be like to live in a slum?
- How popular will 3D-printed homes be in richer countries?
- What questions would you like to ask the printers?

BreakingNewsEnglish - The Mini Lesson

Phrase Match

- | | |
|--|-----------------------------|
| 1. Having a roof over your head is a basic | a. time and cost needed |
| 2. 1.2 billion people in the world | b. dimensional object |
| 3. thanks to a revolutionary, low- | c. in the ocean |
| 4. create a three- | d. without adequate housing |
| 5. a fraction of both the | e. venture |
| 6. ICON has teamed | f. to come |
| 7. joint | g. human need |
| 8. the 100 homes were just a drop | h. slum conditions |
| 9. 100 million people living in | i. cost use of 3D printers |
| 10. in years | j. up with the non-profit |

Discussion – Student B

- How important is having a roof over your head?
- Why is there not enough adequate housing?
- Why is there so much inequality in the world?
- What do you know about 3D printers?
- Would you like to print your own house?
- How can countries tackle homelessness?
- What do you think of a \$10,000 house?
- What other buildings could the printer print?

Spelling

- without daeteuqa housing
- joined together or recfrnieod
- a three-nisdnmoaeil object
- building raofdafbel homes
- a cotnrifa of both the time and cost
- using ovninnecatol methods
- building homes in vdlpeoenig countries
- joint retveun
- New Story's ofdr-ocnue
- Alexandria Lafci enodalwdkgce that
- isvvural mode
- She also saw iessotsiblip

Answers – Synonym Match

1. g	2. d	3. i	4. b	5. j
6. a	7. e	8. f	9. h	10. c

Role Play

Role A – Houses

You think houses are the best things 3D printers can print. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the worst of these (and why): food, bags or toys.

Role B – Food

You think food is the best thing 3D printers can print. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the worst of these (and why): houses, bags or toys.

Role C – Bags

You think bags are the best things 3D printers can print. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the worst of these (and why): food, houses or toys.

Role D – Toys

You think toys are the best things 3D printers can print. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the worst of these (and why): food, bags or houses.

Speaking – 3D

Rank these with your partner. Put the best 3d-printed things at the top. Change partners often and share your rankings.

- | | |
|-----------|----------|
| • statues | • houses |
| • roads | • food |
| • bags | • toys |
| • cars | • cups |

Answers – True False

a	T	b	F	c	F	d	T	e	F	f	F	g	T	h	T
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Answers to Phrase Match and Spelling are in the text.