Breaking News English.com

Ready-to-Use English Lessons by Sean Banville

Level 3 – 2nd December, 2021

Scientists create living robots that can have babies

FREE online quizzes, mp3 listening and more for this lesson here:
https://breakingnewsenglish.com/2112/211202-xenobots.html

Contents

Please try Levels 0, 1 and 2 (they are easier).

THE ARTICLE

From https://breakingnewsenglish.com/2112/211202-xenobots.html

Scientists say that a new kind of robot can reproduce - it can create baby robots. This is an example of science fiction becoming science fact. The scientists, from the Universities of Vermont, Tufts and Harvard, created the world's first "living" robots. They are called "xenobots". Scientists created them in 2020 from the stem cells of an African frog. Its scientific name - "xenopus laevis" - gave the xenobot its name. The xenobots are less than a millimetre wide. They can move, work together in groups and self-heal. Although they are not what we imagine robots to be, scientists say they are technically robots. They are a machine-animal hybrid. The scientists say xenobots are "an entirely new life-form".

The scientists explained that the bots reproduce because of their shape. Researchers used artificial intelligence (AI) to test billions of body shapes. The result was a C-shaped robot. It was able to find tiny stem cells in a petri dish. It gathered the cells in its mouth. A few days later, the cells became a new, "baby" xenobot. The xenobots are very early technology. However, they could change science, medicine, technology and the way we live. They could carry out tasks inside our body to repair damage to organs. They could also help the environment by attacking micro-plastics in our oceans, or by cleaning up oil spills. Despite the possible benefits, some people are worried about robots that can reproduce.

Sources: https://edition.**cnn.com**/2021/11/29/americas/xenobots-self-replicating-robots-scn/index.html
https://**inews.co.uk**/news/scientists-create-worlds-first-reproductive-robots-1325805
https://www.**gizmodo.com.au**/2021/11/xenobots-reproduce/

WARM-UPS

1. XENOBOTS: Students walk around the class and talk to other students about xenobots. Change partners often and share your findings.

2. CHAT: In pairs / groups, talk about these topics or words from the article. What will the article say about them? What can you say about these words and your life?

> scientists / robot / reproduce / baby / robot / science fiction / stem cell / imagine / life shape / artificial intelligence / body shapes / cell / medicine / organs / oceans / oil spill

Have a chat about the topics you liked. Change topics and partners frequently.

3. DANGEROUS: Students A **strongly** believe robots that can have babies are dangerous to humans; Students B **strongly** believe the opposite. Change partners again and talk about your conversations.

4. ROBOT HELP: How can robots help us in these areas? Would you like this help? Complete this table with your partner(s). Change partners often and share what you wrote.

	Help	Me
Learning English		
Health		
Transport		
Friendship		
Housework		
Exercise		

5. BABY: Spend one minute writing down all of the different words you associate with the word "baby". Share your words with your partner(s) and talk about them. Together, put the words into different categories.

6. BENEFITS: Rank these with your partner. Put the things robots could change most at the top. Change partners often and share your rankings.

- Medicine
- Food
- Education
- Entertainment
- Housework
- Loneliness
- Transport
- Learning languages

VOCABULARY MATCHING

Paragraph 1

1.	reproduce	a.	The smallest part of a body, plant, or other life form that can function.
2.	science fiction	b.	Completely; totally.
3.	fact	c.	Create / have babies.
4.	cell	d.	Something that is true.
5.	heal	e.	Stories about the future, time travel and life on other planets.
6.	hybrid	f.	Become healthy again.
7.	entirely	g.	A thing made by joining two different things.

Paragraph 2

8.	artificial	h.	Very, very, very small.
9.	tiny	i.	Brought together or collected.
10.	gathered	j.	A part of an organism that has a special and important job (like the heart, liver, eyes, etc.).
11.	medicine	k.	Not real; made by human beings rather than by nature.
12.	task	l.	A good thing to come from something.
13.	organ	m.	One piece of work to be done.
14.	benefit	n.	The science of finding, helping with, and stopping disease and illness.

BEFORE READING / LISTENING

From https://breakingnewsenglish.com/2112/211202-xenobots.html

1. TRUE / FALSE: Read the headline. Guess if a-h below are true (T) or false (F).

1. The article says science fact has become science fiction. **T / F**
2. Scientists made the first living robots in 2020. **T / F**
3. The xenobots got their name from an African frog. **T / F**
4. The xenobots are less than a hundredth of a millimetre wide. **T / F**
5. Scientists tested hundreds of thousands of xenobot shapes. **T / F**
6. The xenobots create babies by gathering cells in their mouth. **T / F**
7. Xenobots could increase the risk of oil spills in our oceans. **T / F**
8. Some people are worried about robots that can have babies. **T / F**

2. SYNONYM MATCH: (The words in **bold** are from the news article.)

1. reproduce	a. collected
2. fact	b. totally
3. created	c. visualize
4. imagine	d. fix
5. entirely	e. give birth
6. shape	f. do
7. gathered	g. made
8. carry out	h. advantages
9. repair	i. reality
10. benefits	j. form

3. PHRASE MATCH: (Sometimes more than one choice is possible.)

1. a new kind of robot	a. intelligence
2. science	b. cells
3. stem	c. of their shape
4. work together	d. live
5. an entirely new life	e. can reproduce
6. the bots reproduce because	f. organs
7. artificial	g. form
8. the way we	h. micro-plastics
9. repair damage to	i. in groups
10. help the environment by attacking	j. fiction

GAP FILL

From https://breakingnewsenglish.com/2112/211202-xenobots.html

Scientists say that a new (1) _____ of robot can reproduce - it can create baby robots. This is an (2) _____ of science fiction becoming science (3) _____. The scientists, from the Universities of Vermont, Tufts and Harvard, created the world's (4) _____ "living" robots. They are called "xenobots". Scientists created them in 2020 from the (5) _____ cells of an African frog. Its scientific name - "xenopus laevis" - gave the xenobot its name. The xenobots are less than a millimetre (6) _____. They can move, work together in groups and self-heal. Although they are not what we (7) _____ robots to be, scientists say they are technically robots. They are a machine-animal hybrid. The scientists say xenobots are "an (8) _____ new life-form".

first

wide

fact

entirely

kind

imagine

stem

example

The scientists explained that the bots reproduce because of their (9) _____. Researchers used artificial intelligence (AI) to test billions of body shapes. The (10) _____ was a C-shaped robot. It was able to find (11) _____ stem cells in a petri dish. It gathered the cells in its mouth. A few days (12) _____, the cells became a new, "baby" xenobot. The xenobots are very (13) _____ technology. However, they could change science, medicine, technology and the way we live. They could carry (14) _____ tasks inside our body to repair damage to organs. They could also help the environment by attacking micro-plastics in our (15) _____, or by cleaning up oil spills. Despite the possible benefits, some people are (16) _____ about robots that can reproduce.

tiny

worried

shape

early

oceans

result

out

later

LISTENING – Guess the answers. Listen to check.

From https://breakingnewsenglish.com/2112/211202-xenobots.html

1) This is an example of science fiction _____
   a. becoming science factual
   b. becoming science pact
   c. becoming science face
   d. becoming science fact
2) They can move, work together in groups _____
   a. and self-heel
   b. and self-wheel
   c. and self-heal
   d. and selfie-heal
3) they are not what we imagine robots to be, scientists say they _____
   a. art technically robots
   b. all technically robots
   c. ate technically robots
   d. are technically robots
4) They are a machine-_____
   a. animal hi breed
   b. animal hay breed
   c. animal high bread
   d. animal hybrid
5) The scientists say xenobots are "an entirely _____
   a. new life fame
   b. new life firm
   c. new life farm
   d. new life form
6) The scientists explained that the bots reproduce because _____
   a. of their shape
   b. of their sharp
   c. of their sheep
   d. of their chap
7) test billions of body shapes. The result was a _____
   a. C-shapes robot
   b. C-shaped robot
   c. C-shaped robots
   d. sea-shaped robot
8) However, they could change science, medicine, technology and the _____
   a. way we live
   b. way we life
   c. way we lively
   d. way we lives
9) They could carry out tasks inside our body to repair _____
   a. damage to organs
   b. damage to pianos
   c. damage to keyboards
   d. damage to synthesizers
10) attacking micro-plastics in our oceans, or by cleaning _____
   a. up oil pills
   b. up oil spills
   c. up oil bills
   d. up oil fills

LISTENING – Listen and fill in the gaps

From https://breakingnewsenglish.com/2112/211202-xenobots.html

Scientists say that a (1) _____ robot can reproduce - it can create baby robots. This is (2) _____ science fiction becoming science fact. The scientists, from the Universities of Vermont, Tufts and Harvard, created the world's (3) _____. They are called "xenobots". Scientists created them in 2020 from the stem cells of an African frog. (4) _____ - "xenopus laevis" - gave the xenobot its name. The xenobots are less than a millimetre wide. They can move, work (5) _____ and self-heal. Although they are not what we imagine robots to be, scientists say they are technically robots. They are a machine-animal hybrid. The scientists say xenobots are "an entirely (6) _____".

The scientists explained that the bots reproduce because (7) _____. Researchers used artificial intelligence (AI) to test billions of body shapes. The result was a C-shaped robot. It was able to find (8) _____ in a petri dish. It gathered the cells in its mouth. A few days later, the cells became a new, "baby" xenobot. The xenobots (9) _____ technology. However, they could change science, medicine, technology and the way we live. They could (10) _____ inside our body to repair damage to organs. They could also help the environment by attacking micro-plastics (11) _____, or by cleaning up oil spills. Despite (12) _____, some people are worried about robots that can reproduce.

COMPREHENSION QUESTIONS

From https://breakingnewsenglish.com/2112/211202-xenobots.html

1. What does the article say science fiction is becoming?

2. How many universities are the researchers from?

3. What animal does the xenobot get its name from?

4. How wide are the xenobots?

5. What kind of hybrid did a researcher say xenobots were?

6. What allowed the bots to reproduce?

7. Where did the xenobots find tiny stem cells?

8. What could xenobots repair damage to in our body?

9. What could xenobots clean up in our oceans?

10. What are some people worried about?

MULTIPLE CHOICE - QUIZ

From https://breakingnewsenglish.com/2112/211202-xenobots.html

1) What does the article say science fiction is becoming?
a) dull and boring
b) science fact
c) interesting
d) difficult to understand

2) How many universities are the researchers from?
a) one
b) four
c) three
d) two

3) What animal does the xenobot get its name from?
a) an Indian beetle
b) a South American lizard
c) an Australian snake
d) an African frog

4) How wide are the xenobots?
a) less than a hundredth of a millimetre
b) less than a millimetre
c) less than a micron
d) less than a nanometre

5) What kind of hybrid did a researcher say xenobots were?
a) a machine-animal hybrid
b) a life-imagination hybrid
c) an electric-diesel hybrid
d) a robot-C hybrid

6) What allowed the bots to reproduce?
a) its shape
b) chemicals
c) electricity
d) medicine

7) Where did the xenobots find tiny stem cells?
a) in chemicals
b) in the air
c) in water
d) in a petri dish

8) What could xenobots repair damage to in our body?
a) our mental health
b) the aging process
c) organs
d) cuts

9) What could xenobots clean up in our oceans?
a) chemicals
b) shipwrecks
c) dead coral
d) oil spills

10) What are some people worried about?
a) robots taking over the world
b) robots that can reproduce
c) how lonely the xenobots are
d) naming the xenobots

ROLE PLAY

From https://breakingnewsenglish.com/2112/211202-xenobots.html

Role A – Food

You think food is the thing that robots can improve most. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which of these robots could change least (and why): education, housework or loneliness.

Role B – Education

You think education is the thing that robots can improve most. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which of these robots could change least (and why): food, housework or loneliness.

Role C – Housework

You think housework is the thing that robots can improve most. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which of these robots could change least (and why): education, food or loneliness.

Role D – Loneliness

You think loneliness is the thing that robots can improve most. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which of these robots could change least (and why): education, housework or food.

AFTER READING / LISTENING

From https://breakingnewsenglish.com/2112/211202-xenobots.html

1. WORD SEARCH: Look in your dictionary / computer to find collocates, other meanings, information, synonyms … for the words 'robot' and 'baby'.

robot	**baby**

- Share your findings with your partners.
- Make questions using the words you found.
- Ask your partner / group your questions.

2. ARTICLE QUESTIONS: Look back at the article and write down some questions you would like to ask the class about the text.

- Share your questions with other classmates / groups.
- Ask your partner / group your questions.

3. GAP FILL: In pairs / groups, compare your answers to this exercise. Check your answers. Talk about the words from the activity. Were they new, interesting, worth learning…?

4. VOCABULARY: Circle any words you do not understand. In groups, pool unknown words and use dictionaries to find their meanings.

5. TEST EACH OTHER: Look at the words below. With your partner, try to recall how they were used in the text:

• kind • fact • stem • work • animal • entirely	• shape • able • few • early • help • worried

XENOBOTS SURVEY

From https://breakingnewsenglish.com/2112/211202-xenobots.html

Write five GOOD questions about xenobots in the table. Do this in pairs. Each student must write the questions on his / her own paper.
When you have finished, interview other students. Write down their answers.

	STUDENT 1 _____	STUDENT 2 _____	STUDENT 3 _____
Q.1.			
Q.2.			
Q.3.			
Q.4.			
Q.5.			

- Now return to your original partner and share and talk about what you found out. Change partners often.
- Make mini-presentations to other groups on your findings.

XENOBOTS DISCUSSION

STUDENT A's QUESTIONS (Do not show these to student B)

1. What did you think when you read the headline?
2. What images are in your mind when you hear the word 'robot'?
3. What do you think of robots?
4. Would you like a robot?
5. Are robots dangerous?
6. What do you think of the idea of baby robots?
7. What do you think of 'living robots'?
8. Do you think these xenobots are really robots?
9. What do you think of machine-animal hybrids?
10. Is it good we have created an 'entirely new life form'?

Scientists create living robots that can have babies – 2nd December, 2021
Thousands more free lessons at breakingnewsenglish.com

XENOBOTS DISCUSSION

STUDENT B's QUESTIONS (Do not show these to student A)

11. Did you like reading this article? Why/not?
12. What do you think of when you hear the word 'baby'?
13. What do you think about what you read?
14. What do you think of artificial intelligence?
15. Is it good that xenobots could change science and medicine?
16. How could the xenobots help the environment?
17. What could this technology be like in 50 years from now?
18. Could xenobots help to fight viruses?
19. Why might people be worried about the xenobots?
20. What questions would you like to ask the researchers?

DISCUSSION (Write your own questions)

STUDENT A's QUESTIONS (Do not show these to student B)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

DISCUSSION (Write your own questions)

STUDENT B's QUESTIONS (Do not show these to student A)

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

LANGUAGE - CLOZE

From https://breakingnewsenglish.com/2112/211202-xenobots.html

Scientists say that a new (1) _____ of robot can reproduce - it can create baby robots. This is an example of science fiction becoming science (2) _____. The scientists, from the Universities of Vermont, Tufts and Harvard, created the world's first "living" robots. They are called "xenobots". Scientists created them in 2020 from the (3) _____ cells of an African frog. Its scientific name - "xenopus laevis" - gave the xenobot its name. The xenobots are (4) _____ than a millimetre wide. They can move, work together in groups and self-heal. Although they are not what we imagine robots to (5) _____, scientists say they are technically robots. They are a machine-animal hybrid. The scientists say xenobots are "an (6) _____ new life-form".

The scientists explained that the bots reproduce (7) _____ of their shape. Researchers used artificial intelligence (AI) to test billions of body shapes. The result was a C-shaped robot. It was (8) _____ to find tiny stem cells in a petri dish. It gathered the cells in its mouth. A few days later, the cells became a new, "baby" xenobot. The xenobots are very (9) _____ technology. However, they could change science, medicine, technology and the way we (10) _____. They could carry out tasks inside our body to repair damage to (11) _____. They could also help the environment by attacking micro-plastics in our oceans, or by cleaning up oil spills. Despite the possible benefits, some people are (12) _____ about robots that can reproduce.

Put the correct words from the table below in the above article.

1.	(a)	kinder	(b)	kind	(c)	kindly	(d)	kinds
2.	(a)	novel	(b)	fact	(c)	true	(d)	experimental
3.	(a)	strum	(b)	stump	(c)	storm	(d)	stem
4.	(a)	below	(b)	less	(c)	under	(d)	fewer
5.	(a)	been	(b)	be	(c)	being	(d)	bin
6.	(a)	entry	(b)	enters	(c)	entirely	(d)	entrance
7.	(a)	however	(b)	although	(c)	because	(d)	such
8.	(a)	ability	(b)	abled	(c)	able	(d)	enable
9.	(a)	high	(b)	fast	(c)	cell	(d)	early
10.	(a)	live	(b)	life	(c)	lifetime	(d)	lively
11.	(a)	organs	(b)	keyboards	(c)	pianos	(d)	harpsichords
12.	(a)	worry	(b)	worries	(c)	worried	(d)	worn

SPELLING

From https://breakingnewsenglish.com/2112/211202-xenobots.html

Paragraph 1

1. a new kind of robot can uoedrperc
2. This is an example of ciesenc fiction
3. what we mnagiei robots to be
4. scientists say they are nhcitllycae robots
5. They are a machine-animal bihyrd
6. an itylnere new life-form

Paragraph 2

7. ciltariafi intelligence (AI)
8. It etdrgeha the cells in its mouth
9. goconlthey and the way we live
10. repair damage to sgraon
11. attacking micro-plastics in our onceas
12. cleaning up oil isslpl

PUT THE TEXT BACK TOGETHER

From https://breakingnewsenglish.com/2112/211202-xenobots.html

Number these lines in the correct order.

( ) technically robots. They are a machine-animal hybrid. The scientists say xenobots are "an entirely new life-form".

(***1***) Scientists say that a new kind of robot can reproduce - it can create baby robots. This is an example of science

( ) cells in a petri dish. It gathered the cells in its mouth. A few days later, the cells became a new,

( ) name. The xenobots are less than a millimetre wide. They can move, work together in groups and self-

( ) fiction becoming science fact. The scientists, from the Universities of Vermont, Tufts and Harvard, created

( ) benefits, some people are worried about robots that can reproduce.

( ) heal. Although they are not what we imagine robots to be, scientists say they are

( ) environment by attacking micro-plastics in our oceans, or by cleaning up oil spills. Despite the possible

( ) "baby" xenobot. The xenobots are very early technology. However, they could change science, medicine,

( ) intelligence (AI) to test billions of body shapes. The result was a C-shaped robot. It was able to find tiny stem

( ) The scientists explained that the bots reproduce because of their shape. Researchers used artificial

( ) technology and the way we live. They could carry out tasks inside our body to repair damage to organs. They could also help the

( ) the world's first "living" robots. They are called "xenobots". Scientists created them

( ) in 2020 from the stem cells of an African frog. Its scientific name - "xenopus laevis" - gave the xenobot its

PUT THE WORDS IN THE RIGHT ORDER

From https://breakingnewsenglish.com/2112/211202-xenobots.html

1. that say reproduce . robot Scientists a can new

2. of science science fiction example fact . An becoming

3. created stem in Scientists 2020 from them cells .

4. than a less wide . The are millimetre xenobots

5. to be . what aren't imagine They robots we

6. shapes . of AI used Researchers billions test to

7. carry inside out tasks could They body . our

8. could help the by attacking micro-plastics . environment They

9. spills . up oil oceans Help our cleaning by

10. about can robots are People reproduce . that worried

CIRCLE THE CORRECT WORD (20 PAIRS)

From https://breakingnewsenglish.com/2112/211202-xenobots.html

Scientists say that a new kind of robot can *represent / reproduce* - it can create baby robots. This is an example of science *faction / fiction* becoming science fact. The *sciences / scientists*, from the Universities of Vermont, Tufts and Harvard, *created / creations* the world's first "living" robots. They are called "xenobots". Scientists created them in 2020 from the *stem / storm* cells of an African frog. Its *scientific / scientifically* name - "xenopus laevis" - gave the xenobot *their / its* name. The xenobots are *less / fewer* than a millimetre wide. They can move, work together in *group / groups* and self-heal. Although they are not what we *imagine / image* robots to be, scientists say they are technically robots. They are a machine-animal hybrid. The scientists say xenobots are "an *entry / entirely* new life-form".

The scientists explained that the bots reproduce *however / because* of their shape. Researchers used *arty / artificial* intelligence (AI) to test billions of body *shape / shapes*. The result was a C-shaped robot. It was able to find tiny stem cells in a petri *plate / dish*. It gathered the cells in its mouth. A few days *later / late*, the cells became a new, "baby" xenobot. The xenobots are very early technology. However, they could change science, *medical / medicine*, technology and the way we *live / life*. They could carry *out / in* tasks inside our body to repair damage to organs. They could also help the environment *by / to* attacking micro-plastics in our oceans, or by cleaning up oil spills. Despite the possible *benefits / beneficial*, some people are worried about robots that can reproduce.

Talk about the connection between each pair of words in italics, and why the correct word is correct.

INSERT THE VOWELS (a, e, i, o, u)

From https://breakingnewsenglish.com/2112/211202-xenobots.html

Sc__nt_sts s_y th_t _ n_w k_nd _f r_b_t c_n r_pr_d_c_ -_t c_n cr__t_ b_by r_b_ts. Th_s _s _n _x_mpl_ _f sc__nc_ f_ct__n b_c_m_ng sc__nc_ f_ct. Th_ sc__nt_sts, fr_m th_ _n_v_rs_t__s _f V_rm_nt, T_fts _nd H_rv_rd, cr__t_d th_ w_rld's f_rst "l_v_ng" r_b_ts. Th_y _r_ c_ll_d "x_n_b_ts". Sc__nt_sts cr__t_d th_m _n 2020 fr_m th_ st_m c_lls _f _n _fr_c_n fr_g. _ts sc__nt_f_c n_m_ - "x_n_p_s l__v_s" - g_v_ th_ x_n_b_t _ts n_m_. Th_ x_n_b_ts _r_ l_ss th_n _ m_ll_m_tr_ w_d_. Th_y c_n m_v_, w_rk t_g_th_r _n gr__ps _nd s_lf-h__l. _lth__gh th_y _r_ n_t wh_t w_ _m_g_n_ r_b_ts t_ b_, sc__nt_sts s_y th_y _r_ t_chn_c_lly r_b_ts. Th_y _r_ _ m_ch_n_-_n_m_l hybr_d. Th_ sc__nt_sts s_y x_n_b_ts _r_ "_n _nt_r_ly n_w l_f_-f_rm".

Th_ sc__nt_sts _xpl__n_d th_t th_ b_ts r_pr_d_c_ b_c__s_ _f th__r sh_p_. R_s__rch_rs _s_d _rt_f_c__l _nt_ll_g_nc_ (__) t_ t_st b_ll__ns _f b_dy sh_p_s. Th_ r_s_lt w_s _ C-sh_p_d r_b_t. _t w_s _bl_ t_ f_nd t_ny st_m c_lls _n _ p_tr_ d_sh. _t g_th_r_d th_ c_lls _n _ts m__th. _ f_w d_ys l_t_r, th_ c_lls b_c_m_ _ n_w, "b_by" x_n_b_t. Th_ x_n_b_ts _r_ v_ry __rly t_chn_l_gy. H_w_v_r, th_y c__ld ch_ng_ sc__nc_, m_d_c_n_, t_chn_l_gy _nd th_ w_y w_ l_v_. Th_y c__ld c_rry __t t_sks _ns_d_ __r b_dy t_ r_p__r d_m_g_ t_ _rg_ns. Th_y c__ld _ls_ h_lp th_ _nv_r_nm_nt by _tt_ck_ng m_cr_-pl_st_cs _n __r _c__ns, _r by cl__n_ng _p __l sp_lls. D_sp_t_ th_ p_ss_bl_ b_n_f_ts, s_m_ p__pl_ _r_ w_rr__d _b__t r_b_ts th_t c_n r_pr_d_c_.

PUNCTUATE THE TEXT AND ADD CAPITALS

From https://breakingnewsenglish.com/2112/211202-xenobots.html

scientists say that a new kind of robot can reproduce it can create baby robots this is an example of science fiction becoming science fact the scientists from the universities of vermont tufts and harvard created the worlds first living robots they are called xenobots scientists created them in 2020 from the stem cells of an african frog its scientific name xenopus laevis gave the xenobot its name the xenobots are less than a millimetre wide they can move work together in groups and selfheal although they are not what we imagine robots to be scientists say they are technically robots they are a machineanimal hybrid the scientists say xenobots are an entirely new lifeform

the scientists explained that the bots reproduce because of their shape researchers used artificial intelligence ai to test billions of body shapes the result was a cshaped robot it was able to find tiny stem cells in a petri dish it gathered the cells in its mouth a few days later the cells became a new baby xenobot the xenobots are very early technology however they could change science medicine technology and the way we live they could carry out tasks inside our body to repair damage to organs they could also help the environment by attacking microplastics in our oceans or by cleaning up oil spills despite the possible benefits some people are worried about robots that can reproduce

PUT A SLASH (/) WHERE THE SPACES ARE

From https://breakingnewsenglish.com/2112/211202-xenobots.html

Scientistssaythatanewkindofrobotcanreproduce-itcancreatebabyr
obots.Thisisanexampleofsciencefictionbecomingsciencefact.Thesci
entists,fromtheUniversitiesofVermont,TuftsandHarvard,createdthe
world'sfirst"living"robots.Theyarecalled"xenobots".Scientistscreate
dthemin2020fromthestemcellsofanAfricanfrog.Itsscientificname-"x
enopuslaevis"-gavethexenobotitsname.Thexenobotsarelessthan
amillimetrewide.Theycanmove,worktogetheringroupsandself-he
al.Althoughtheyarenotwhatweimaginerobotstobe,scientistssaythey
aretechnicallyrobots.Theyareamachine-animalhybrid.Thescientist
ssayxenobotsare"anentirelynewlife-form".Thescientistsexplainedth
atthebotsreproducebecauseoftheirshape.Researchersusedartificiali
ntelligence(AI)totestbillionsofbodyshapes.TheresultwasaC-shape
drobot.Itwasabletofindtinystemcellsinapetridish.Itgatheredthecells
initsmouth.Afewdayslater,thecellsbecameanew,"baby"xenobot.Th
exenobotsareveryearlytechnology.However,theycouldchangescien
ce,medicine,technologyandthewaywelive.Theycouldcarryouttasksi
nsideourbodytorepairdamagetoorgans.Theycouldalsohelptheenvir
onmentbyattackingmicro-plasticsinouroceans,orbycleaningupoilsp
ills.Despitethepossiblebenefits,somepeopleareworriedaboutrobotst
hatcanreproduce.

FREE WRITING

From https://breakingnewsenglish.com/2112/211202-xenobots.html

Write about **xenobots** for 10 minutes. Comment on your partner's paper.

ACADEMIC WRITING

From https://breakingnewsenglish.com/2112/211202-xenobots.html

Robots that can reproduce are dangerous. Discuss.

HOMEWORK

1. VOCABULARY EXTENSION: Choose several of the words from the text. Use a dictionary or Google's search field (or another search engine) to build up more associations / collocations of each word.

2. INTERNET: Search the Internet and find out more about this news story. Share what you discover with your partner(s) in the next lesson.

3. XENOBOTS: Make a poster about xenobots. Show your work to your classmates in the next lesson. Did you all have similar things?

4. ROBOTS: Write a magazine article about introducing billions of robots into our lives to help us. Include imaginary interviews with people who are for and against this.

Read what you wrote to your classmates in the next lesson. Write down any new words and expressions you hear from your partner(s).

5. WHAT HAPPENED NEXT? Write a newspaper article about the next stage in this news story. Read what you wrote to your classmates in the next lesson. Give each other feedback on your articles.

6. LETTER: Write a letter to an expert on robots. Ask him/her three questions about them. Give him/her three of your opinions on robots. Read your letter to your partner(s) in your next lesson. Your partner(s) will answer your questions.

ANSWERS

VOCABULARY (p.4)

1.	c	2.	e	3.	d	4.	a	5.	f	6.	g	7.	b
8.	k	9.	h	10.	i	11.	n	12.	m	13.	j	14.	l

TRUE / FALSE (p.5)

1 F 2 T 3 T 4 F 5 F 6 T 7 F 8 T

SYNONYM MATCH (p.5)

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

COMPREHENSION QUESTIONS (p.9)

1. Science fact
2. Three
3. An African frog
4. Less than a millimetre
5. A machine-animal hybrid
6. Its shape
7. In a petri dish
8. Organs
9. Oil spills
10. Robots that can reproduce

WORDS IN THE RIGHT ORDER (p.19)

1. Scientists say that a new robot can reproduce.
2. An example of science fiction becoming science fact.
3. Scientists created them in 2020 from stem cells.
4. The xenobots are less than a millimetre wide.
5. They aren't what we imagine robots to be.
6. Researchers used AI to test billions of shapes.
7. They could carry out tasks inside our body.
8. They could help the environment by attacking micro-plastics.
9. Help our oceans by cleaning up oil spills.
10. People are worried about robots that can reproduce.

MULTIPLE CHOICE - QUIZ (p.10)

1. b 2. c 3. d 4. b 5. a 6. a 7. d 8. c 9. d 10. b

ALL OTHER EXERCISES

Please check for yourself by looking at the Article on page 2.
(It's good for your English ;-)