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Level 6 - 3rd April 2023

Scientists say plants 'scream' when stressed

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<https://breakingnewsenglish.com//2304/230403-plants-scream.html>

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Please try Levels 4 and 5 (they are easier).

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THE ARTICLE

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

Plant lovers believe that talking to plants helps them grow. Scientists have discovered there could be a grain of truth in this belief. Researchers have discovered that plants emit sounds when they are stressed. The noises are akin to a human cry or scream. The scientists believe the sounds are specific enough for us to be able to interpret them and to attend to their needs. Unfortunately, plant sounds are at too high a frequency for the human ear to pick up. Humans can only hear frequencies of up to 16 kilohertz. The scientists used special AI algorithms to detect ultrasonic sounds emitted by plants that were up to 250 kilohertz. The AI also differentiated between different types of plant sounds.

The research was conducted in an acoustic chamber in an adapted greenhouse at Israel's Tel Aviv University. Scientists discovered that vibrations from stressed tobacco and tomato plants turned into sound waves. Lead researcher Professor Lilach Hadany said: "Plants usually emit sounds when they are under stress. Each plant and each type of stress is associated with a specific identifiable sound." She suggested that fields of crops could be quite noisy, saying: "While imperceptible to the human ear, the sounds emitted by plants can be heard by...bats, mice, and insects." Interpreting these sounds could help us understand when crops are dehydrated. Farmers could irrigate their crops more efficiently, and thus conserve water.

Sources: <https://www.cbsnews.com/news/plants-emit-a-rather-noisy-cry-for-help-when-under-stress-scientists-find/>
<https://www.sciencealert.com/plants-really-do-scream-out-loud-we-just-never-heard-it-until-now>
<https://gizmodo.com/plants-make-popping-sounds-when-stressed-study-1850283774>

WARM-UPS

1. PLANTS: Students walk around the class and talk to other students about plants. 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?

plants / lovers / truth / belief / scream / frequency / human ear / ultrasonic / sounds / research / acoustic / greenhouse / stress / crops / bats / farmers / dehydrated / water

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

3. PLANT CHAT: Students A **strongly** believe we should spend more money on researching how we can talk to plants; Students B **strongly** believe the opposite. Change partners again and talk about your conversations.

4. INTERPRETING PLANTS: What would these plants want to say? What would you want to ask them? Complete this table with your partner(s). Change partners often and share what you wrote.

	What They Would Say	What You Would Ask Them
A tomato plant		
Bamboo		
Cactus		
Grass		
A rose		
Moss		

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

6. PLANT HELP: Rank these with your partner. Put the best ways plants could help us if we understood them at the top. Change partners often and share your rankings.

- Farm irrigation
- Better medicines
- Tastier food
- Pest control
- Colour
- Climate change
- Mental health
- Water conservation

VOCABULARY MATCHING

Paragraph 1

- | | |
|-------------------|--|
| 1. grain | a. Produce and discharge something, especially gas or radiation. |
| 2. emit | b. The rate per second of a vibration constituting a wave, such as a sound wave. |
| 3. akin to | c. Clearly defined or identified. |
| 4. specific | d. Of similar character. |
| 5. frequency | e. The smallest possible quantity or amount of a quality. |
| 6. algorithm | f. Recognized or found out what makes someone or something unlike someone of something else. |
| 7. differentiated | g. A process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer. |

Paragraph 2

- | | |
|-------------------|--|
| 8. acoustic | h. Having lost a large amount of water to the extent of needing some. |
| 9. chamber | i. Relating to sound or the sense of hearing. |
| 10. vibration | j. Understanding an action, mood, or way of behaving as having a particular meaning. |
| 11. imperceptible | k. Stop the wasteful overuse of a resource. |
| 12. interpreting | l. An instance of moving continuously and rapidly to and fro. |
| 13. dehydrated | m. So slight, gradual, or subtle as not to be sensed, understood or felt. |
| 14. conserve | n. A room used for a special purpose, especially in science. |

BEFORE READING / LISTENING

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

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

1. Talking to plants makes people better lovers. **T / F**
2. Scientists said it was true that grains emit sounds. **T / F**
3. Scientists said plant sounds are too high-pitched for us to hear. **T / F**
4. Scientists said plants make different types of sounds. **T / F**
5. The research was conducted in a special greenhouse. **T / F**
6. The scientists said farmers' fields could be quite noisy to bats and mice. **T / F**
7. Understanding plant sounds could help us to hydrate them. **T / F**
8. Understanding plant sounds could help us to save water. **T / F**

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

- | | |
|--------------------------|------------------|
| 1. lovers | a. unnoticeable |
| 2. emit | b. distinguished |
| 3. akin to | c. carried out |
| 4. detect | d. release |
| 5. differentiated | e. water |
| 6. conducted | f. similar |
| 7. stress | g. decoding |
| 8. imperceptible | h. fans |
| 9. interpreting | i. strain |
| 10. irrigate | j. notice |

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

- | | |
|---|-------------------------|
| 1. there could be a grain of | a. to a human cry |
| 2. The noises are akin | b. an acoustic chamber |
| 3. plant sounds are at too high a frequency | c. different types |
| 4. detect ultrasonic | d. human ear |
| 5. The AI also differentiated between | e. are dehydrated |
| 6. research was conducted in | f. for the human ear |
| 7. Plants usually emit sounds when they | g. irrigate their crops |
| 8. imperceptible to the | h. are under stress |
| 9. help us understand when crops | i. sounds |
| 10. Farmers could | j. truth in this belief |

GAP FILL

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

Plant (1) _____ believe that talking to plants helps them grow. Scientists have discovered there could be a (2) _____ of truth in this belief. Researchers have discovered that plants (3) _____ sounds when they are stressed. The noises are (4) _____ to a human cry or scream. The scientists believe the sounds are (5) _____ enough for us to be able to interpret them and to attend to their needs. Unfortunately, plant sounds are at too high a (6) _____ for the human ear to pick up. Humans can only hear frequencies of up to 16 kilohertz. The scientists used special AI (7) _____ to detect ultrasonic sounds emitted by plants that were up to 250 kilohertz. The AI also differentiated between different (8) _____ of plant sounds.

frequency
akin
lovers
grain
algorithms
specific
types
emit

The research was conducted in an (9) _____ chamber in an adapted greenhouse at Israel's Tel Aviv University. Scientists discovered that (10) _____ from stressed tobacco and tomato plants turned into sound (11) _____. Lead researcher Professor Lilach Hadany said: "Plants usually emit sounds when they are under stress. Each plant and each type of stress is (12) _____ with a specific identifiable sound." She suggested that fields of (13) _____ could be quite noisy, saying: "While imperceptible to the human ear, the sounds emitted by plants can be heard by...bats, (14) _____, and insects." Interpreting these sounds could help us understand when crops are (15) _____. Farmers could irrigate their crops more efficiently, and thus (16) _____ water.

vibrations
conserve
associated
dehydrated
acoustic
crops
waves
mice

LISTENING – Guess the answers. Listen to check.

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

- 1) Scientists have discovered there could be a grain of truth _____
 - a. in this believe
 - b. in this belief
 - c. in his belief
 - d. in this relief
- 2) Researchers have discovered that _____
 - a. plant termite sounds
 - b. plant summit sounds
 - c. plants emit sounds
 - d. plants omit sounds
- 3) The scientists believe the sounds are specific enough for us to be able _____
 - a. to interpret then
 - b. to interpreter them
 - c. toing turnip them
 - d. to interpret them
- 4) Unfortunately, plant sounds are at too _____
 - a. high a frequency
 - b. higher frequency
 - c. hire frequency
 - d. high the frequency
- 5) The AI also differentiated _____
 - a. between different tripes
 - b. between different tips
 - c. between different types
 - d. between different ties
- 6) The research was conducted in an acoustic chamber in _____
 - a. an adapted greenhouse
 - b. an adopted greenhouse
 - c. an redacted greenhouse
 - d. an alerted greenhouse
- 7) vibrations from stressed tobacco and tomato plants turned _____
 - a. unto sound weaves
 - b. onto sound doves
 - c. into sound waves
 - d. as to sound vapes
- 8) Each plant and each type of stress is associated with a _____
 - a. specific identi-pliable sound
 - b. specific identi-flyable sound
 - c. specific I dent fallible sound
 - d. specific identifiable sound
- 9) the sounds emitted by plants can be heard by...bats, _____
 - a. mice, and insect
 - b. mouse, and insects
 - c. nice, and insects
 - d. mice, and insects
- 10) help us understand when crops are dehydrated. Farmers could _____
 - a. irrigate their crops
 - b. irrigate their crocs
 - c. irrigate their claps
 - d. irrigate their clops

LISTENING – Listen and fill in the gaps

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

Plant lovers believe that (1) _____ helps them grow. Scientists have discovered there could be a (2) _____ in this belief. Researchers have discovered that plants emit sounds when they are stressed. The noises (3) _____ a human cry or scream. The scientists believe the sounds are specific enough for us to be able to interpret them and (4) _____ their needs. Unfortunately, plant sounds are at too high a frequency for the human ear to pick up. Humans can only hear (5) _____ to 16 kilohertz. The scientists used special AI algorithms (6) _____ sounds emitted by plants that were up to 250 kilohertz. The AI also differentiated between different types of plant sounds.

The research was conducted in (7) _____ in an adapted greenhouse at Israel's Tel Aviv University. Scientists discovered (8) _____ stressed tobacco and tomato plants turned into sound waves. Lead researcher Professor Lilach Hadany said: "Plants (9) _____ when they are under stress. Each plant and each type of stress (10) _____ a specific identifiable sound." She suggested that fields of crops could be quite noisy, saying: "While (11) _____ human ear, the sounds emitted by plants can be heard by...bats, mice, and insects." Interpreting these sounds could help us understand when crops are dehydrated. Farmers could (12) _____ more efficiently, and thus conserve water.

COMPREHENSION QUESTIONS

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

1. What do plant lovers believe plants do when they talk to them?
2. What do scientists believe there is a grain of in a belief about plants?
3. When do researchers say plants emit sound?
4. At what frequency can humans hear?
5. What's the highest frequency that plants make a sound at?
6. In what kind of place was the researcher conducted?
7. What turned into sound waves?
8. What did the researcher suggest could be quite noisy?
9. What does the article say can hear plants?
10. What could farmers do to their crops if we understood plants more?

MULTIPLE CHOICE - QUIZ

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

- 1) What do plant lovers believe plants do when they talk to them?
 - a) They smile.
 - b) They cry.
 - c) They grow.
 - d) They flower sooner.
- 2) What do scientists believe there is a grain of in a belief about plants?
 - a) truth
 - b) rice
 - c) wheat
 - d) sand
- 3) When do researchers say plants emit sound?
 - a) in the early morning
 - b) When they're stressed.
 - c) when people talk to them
 - d) when they've had no water
- 4) At what frequency can humans hear?
 - a) at 160 kilohertz
 - b) exactly 16 kilohertz
 - c) over 16 kilohertz
 - d) up to 16 kilohertz
- 5) What's the highest frequency that plants make a sound at?
 - a) 260 kilohertz
 - b) 280 kilohertz
 - c) 250 kilohertz
 - d) 270 kilohertz
- 6) In what kind of place was the researcher conducted?
 - a) a desert
 - b) an acoustic chamber
 - c) a rainforest
 - d) a sterile laboratory
- 7) What turned into sound waves?
 - a) water
 - b) the roots of plants
 - c) photosynthesis
 - d) vibrations from plants
- 8) What did the researcher suggest could be quite noisy?
 - a) the research
 - b) fields of crops
 - c) plant lovers
 - d) plants growing
- 9) What does the article say can hear plants?
 - a) children
 - b) bats, mice, and insects
 - c) farmers
 - d) birds and worms
- 10) What could farmers do to their crops if we understood plants more?
 - a) irrigate them
 - b) grow them
 - c) create hybrids
 - d) make them bigger

ROLE PLAY

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

Role A – Farm Irrigation

You think farm irrigation will be the biggest benefit from communicating with plants. Tell the others three reasons why. Tell them why their things won't be as beneficial. Also, tell the others which is the least beneficial of these (and why): tastier food, better medicines or mental health.

Role B – Tastier Food

You think tastier food will be the biggest benefit from communicating with plants. Tell the others three reasons why. Tell them why their things won't be as beneficial. Also, tell the others which is the least beneficial of these (and why): farm irrigation, better medicines or mental health.

Role C – Better Medicines

You think better medicines will be the biggest benefit from communicating with plants. Tell the others three reasons why. Tell them why their things won't be as beneficial. Also, tell the others which is the least beneficial of these (and why): tastier food, farm irrigation or mental health.

Role D – Mental Health

You think mental health will be the biggest benefit from communicating with plants. Tell the others three reasons why. Tell them why their things won't be as beneficial. Also, tell the others which is the least beneficial of these (and why): tastier food, better medicines or farm irrigation.

AFTER READING / LISTENING

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

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

plant	scream

- 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:

<ul style="list-style-type: none">• lovers• belief• akin• attend• pick• 250	<ul style="list-style-type: none">• adapted• usually• identifiable• noisy• mice• water
--	---

PLANTS SURVEY

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

Write five GOOD questions about plants 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.

PLANTS 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 'plant'?
3. What do you think of plants?
4. Do you think plants have feelings?
5. What would you do if you heard a plant scream?
6. How much of a plant lover are you?
7. What do you think plants might communicate?
8. What would you like to ask plants?
9. How will life change if we can understand plants?
10. What advice do you have for plants?

Scientists say plants 'scream' when stressed – 3rd April 2023
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PLANTS 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 'scream'?
13. What do you think about what you read?
14. Would you like to hear plants screaming?
15. What's your favourite plant?
16. What would plants say about climate change?
17. What might plants say to each other?
18. Would we get tastier food if we could understand plants' feelings?
19. Could plants help us to conserve water?
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. _____

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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//2304/230403-plants-scream.html>

Plant (1) _____ believe that talking to plants helps them grow. Scientists have discovered there could be a (2) _____ of truth in this belief. Researchers have discovered that plants emit sounds when they are stressed. The noises are (3) _____ to a human cry or scream. The scientists believe the sounds are specific enough for us to be able to interpret them and to attend (4) _____ their needs. Unfortunately, plant sounds are at too high a frequency for the human ear to pick up. Humans can only hear frequencies of (5) _____ to 16 kilohertz. The scientists used special AI algorithms to detect ultrasonic sounds emitted by plants that were up to 250 kilohertz. The AI also (6) _____ between different types of plant sounds.

The research was conducted in an (7) _____ chamber in an adapted greenhouse at Israel's Tel Aviv University. Scientists discovered that vibrations from stressed tobacco and tomato plants turned into sound (8) _____. Lead researcher Professor Lilach Hadany said: "Plants usually emit sounds when they are (9) _____ stress. Each plant and each type of stress is associated (10) _____ a specific identifiable sound." She suggested that fields of crops could be quite noisy, saying: "While imperceptible to the human ear, the sounds emitted by plants can be heard by...bats, (11) _____, and insects." Interpreting these sounds could help us understand when crops are dehydrated. Farmers could (12) _____ their crops more efficiently, and thus conserve water.

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

- | | | | | |
|-----|------------------|---------------|--------------|--------------------|
| 1. | (a) loves | (b) lovelies | (c) lovers | (d) love-ins |
| 2. | (a) grain | (b) husk | (c) ear | (d) chaff |
| 3. | (a) akin | (b) skin | (c) aching | (d) eking |
| 4. | (a) to | (b) of | (c) at | (d) in |
| 5. | (a) as | (b) up | (c) on | (d) down |
| 6. | (a) differential | (b) diffident | (c) differed | (d) differentiated |
| 7. | (a) accoutrement | (b) actuarial | (c) acoustic | (d) acolyte |
| 8. | (a) tides | (b) currents | (c) surfs | (d) waves |
| 9. | (a) under | (b) above | (c) about | (d) around |
| 10. | (a) on | (b) with | (c) at | (d) by |
| 11. | (a) moose | (b) mice | (c) mouse | (d) moussaka |
| 12. | (a) congregate | (b) irradiate | (c) irrigate | (d) aggregate |

SPELLING

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

Paragraph 1

1. noises are kani to a human cry
2. be able to tetinprer them
3. sounds are at too high a ycrnfeeug
4. scientists used special AI gamoitlrhs
5. detect laosunictr sounds
6. dttiardfineeef between different types

Paragraph 2

7. conducted in an asuccoit chamber
8. viitrnboas from stressed tobacco
9. specific inebdtieafil sound
10. eptprimeeiblc to the human ear
11. etepgtrnrnij these sounds
12. Farmers could tragriie their crops

PUT THE TEXT BACK TOGETHER

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

Number these lines in the correct order.

- (**1**) Plant lovers believe that talking to plants helps them grow. Scientists have discovered there could be a grain
- () to 16 kilohertz. The scientists used special AI algorithms to detect ultrasonic sounds emitted
- () us understand when crops are dehydrated. Farmers could irrigate their crops more efficiently, and thus conserve water.
- () The research was conducted in an acoustic chamber in an adapted greenhouse
- () sound." She suggested that fields of crops could be quite noisy, saying: "While imperceptible to the human
- () a frequency for the human ear to pick up. Humans can only hear frequencies of up
- () by plants that were up to 250 kilohertz. The AI also differentiated between different types of plant sounds.
- () of truth in this belief. Researchers have discovered that plants emit sounds when they are
- () enough for us to be able to interpret them and to attend to their needs. Unfortunately, plant sounds are at too high
- () ear, the sounds emitted by plants can be heard by...bats, mice, and insects." Interpreting these sounds could help
- () at Israel's Tel Aviv University. Scientists discovered that vibrations from stressed tobacco and tomato
- () stressed. The noises are akin to a human cry or scream. The scientists believe the sounds are specific
- () plants turned into sound waves. Lead researcher Professor Lilach Hadany said: "Plants usually emit sounds
- () when they are under stress. Each plant and each type of stress is associated with a specific identifiable

PUT THE WORDS IN THE RIGHT ORDER

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

1. talking Plant to helps lovers them . believe plants
2. in grain There truth of a this is .
3. Plants when stressed . are sounds emit they
4. at high Plant sounds frequency . a too are
5. sounds . types differentiated AI of different The between
6. acoustic The research was conducted in an chamber .
7. when they Plants sounds usually are stressed . emit
8. could of quite be crops Fields noisy .
9. us Help crops understand are when dehydrated .
10. irrigate their efficiently . Farmers could more crops

CIRCLE THE CORRECT WORD (20 PAIRS)

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

Plant *lovers / loves* believe that talking to plants helps them grow. Scientists have discovered there could be a *grin / grain* of truth in this belief. Researchers have discovered that plants *omit / emit* sounds when they are stressed. The noises are *akin / skin* to a human cry or scream. The scientists believe the sounds are specific enough *for / from* us to be able to interpret them and to attend *of / to* their needs. Unfortunately, plant sounds are at too *high / height* a frequency for the human ear to pick up. Humans can only hear frequencies of *over / up* to 16 kilohertz. The scientists used special AI algorithms to *detect / defect* ultrasonic sounds emitted by plants that were up to 250 kilohertz. The AI also differentiated between different *type / types* of plant sounds.

The research was conducted in an *acoustic / accoutrement* chamber in an adapted greenhouse at Israel's Tel Aviv University. Scientists discovered that *vibrations / vibes* from stressed tobacco and tomato plants turned *onto / into* sound waves. Lead researcher Professor Lilach Hadany said: "Plants usually emit sounds when they are *over / under* stress. Each plant and each type of stress is *associate / associated* with a specific identifiable sound." She suggested that *fields / field* of crops could be quite noisy, saying: "While imperceptible *to / at* the human ear, the sounds emitted by plants can be heard by...bats, *mice / mouse*, and insects." Interpreting these sounds could help *us / them* understand when crops are dehydrated. Farmers could irrigate their crops more efficiently, and thus *reserve / conserve* water.

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

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

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

Pl_nt l_v_rs b_l__v_ th_t t_lk_ng t_ pl_nts h_lps th_m
gr_w. Sc__nt_sts h_v_ d_sc_v_r_d th_r_ c__ld b_ _
gr__n _f tr_th _n th_s b_l__f. R_s__rch_rs h_v_
d_sc_v_r_d th_t pl_nts _m_t s__nds wh_n th_y _r_
str_ss_d. Th_ n__s_s _r_ _k_n t_ _ h_m_n cry _r_
scr__m. Th_ sc__nt_sts b_l__v_ th_ s__nds _r_
sp_c_f_c _n__gh f_r _s t_ b_ _bl_ t_ _nt_rpr_t th_m
nd t _tt_nd t_ th__r n__ds. _nf_rtn_t_ly, pl_nt
s__nds _r_ _t t__ h_g_h _ fr_q__ncy f_r th_ h_m_n
__r t_ p_ck _p. H_m_ns c_n _nly h__r fr_q__nc__s _f
p t 16 k_l_h_rtz. Th_ sc__nt_sts _s_d sp_c__l __
_lg_r_thms t_ d_t_ct _ltr_s_n_c s__nds _m_tt_d by
pl_nts th_t w_r_ _p t_ 250 k_l_h_rtz. Th_ __ _ls_
d_ff_rnt__t_d b_tw__n d_ff_rnt typ_s _f pl_nt s__nds.

Th_ r_s__rch w_s c_nd_ct_d _n _n _c__st_c ch_mbr
_n _n _d_pt_d gr__nh__s_ _t _sr__l's T_l _v_v
_n_v_rs_ty. Sc__nt_sts d_sc_v_r_d th_t v_br_t__ns fr_m
str_ss_d t_b_cc_ _nd t_m_t_ pl_nts t_rn_d _nt_ s__nd
w_v_s. L__d r_s__rch_r Pr_f_ss_r L_l_ch H_d_ny s__d:
"Pl_nts _s__lly _m_t s__nds wh_n th_y _r_ _nd_r
str_ss. __ch pl_nt _nd __ch typ_ _f str_ss _s
_ss_c__t_d w_th _ sp_c_f_c _d_nt_f__bl_ s__nd." Sh_
s_gg_st_d th_t f__lds _f cr_ps c__ld b_ q__t_ n__sy,
s_y_ng: "Wh_l_ _mp_rc_pt_bl_ t_ th_ h_m_n __r, th_
s__nds _m_tt_d by pl_nts c_n b_ h__rd by...b_ts, m_c_,
_nd _ns_cts." _nt_rpr_t_ng th_s_ s__nds c__ld h_lp _s
_nd_rst_nd wh_n cr_ps _r_ d_hydr_t_d. F_r_m_rs c__ld
_rr_g_t_ th__r cr_ps m_r_ _ff_c__ntly, _nd th_s
c_ns_rv_ w_t_r.

PUNCTUATE THE TEXT AND ADD CAPITALS

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

plant lovers believe that talking to plants helps them grow scientists have discovered there could be a grain of truth in this belief researchers have discovered that plants emit sounds when they are stressed the noises are akin to a human cry or scream the scientists believe the sounds are specific enough for us to be able to interpret them and to attend to their needs unfortunately plant sounds are at too high a frequency for the human ear to pick up humans can only hear frequencies of up to 16 kilohertz the scientists used special ai algorithms to detect ultrasonic sounds emitted by plants that were up to 250 kilohertz the ai also differentiated between different types of plant sounds

the research was conducted in an acoustic chamber in an adapted greenhouse at israel's tel aviv university scientists discovered that vibrations from stressed tobacco and tomato plants turned into sound waves lead researcher professor lilach hadany said plants usually emit sounds when they are under stress each plant and each type of stress is associated with a specific identifiable sound she suggested that fields of crops could be quite noisy saying while imperceptible to the human ear the sounds emitted by plants can be heard by bats mice and insects interpreting these sounds could help us understand when crops are dehydrated farmers could irrigate their crops more efficiently and thus conserve water

PUT A SLASH (/) WHERE THE SPACES ARE

From <https://breakingnewsenglish.com//2304/230403-plants-scream.html>

Plant lovers believe that talking to plants helps them grow. Scientists have discovered there could be a grain of truth in this belief. Researchers have discovered that plants emit sounds when they are stressed. The noises are like a human cry or scream. These scientists believe the sounds are specific enough for us to be able to interpret them and to attend to their needs. Unfortunately, plant sounds are at too high a frequency for the human ear to pick up. Humans can only hear frequencies of up to 16 kilohertz. These scientists used special AI algorithms to detect ultrasonic sounds emitted by plants that were up to 250 kilohertz. The AI also differentiated between different types of plant sounds. The research was conducted in an acoustic chamber in an adapted greenhouse at Israel's Tel Aviv University. Scientists discovered that vibrations from stressed tobacco and tomato plants turned into sound waves. Lead researcher Professor Lilach Hadany said: "Plants usually emit sounds when they are under stress. Each plant and each type of stress is associated with a specific identifiable sound." She suggested that fields of crops could be quite noisy, saying: "While imperceptible to the human ear, the sound emitted by plants can be heard by... bats, mice, and insects." Interpreting these sounds could help us understand when crops are dehydrated. Farmers could irrigate their crops more efficiently, and thus conserve water.

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

4. PLANT TALK: Write a magazine article about communicating with plants. 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 plants. Ask him/her three questions about plants. Give him/her three of your ideas. Read your letter to your partner(s) in your next lesson. Your partner(s) will answer your questions.

ANSWERS

VOCABULARY (p.4)

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

TRUE / FALSE (p.5)

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

SYNONYM MATCH (p.5)

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

COMPREHENSION QUESTIONS (p.9)

1. They grow
2. Truth
3. When they're stressed
4. Up to 16 kilohertz
5. 250 kilohertz
6. An acoustic chamber
7. Vibrations from plants
8. Fields of crops
9. Bats, mice, and insects
10. Irrigate them

WORDS IN THE RIGHT ORDER (p.19)

1. Plant lovers believe talking to plants helps them.
2. There's a grain of truth in this.
3. Plants emit sounds when they are stressed.
4. Plant sounds are at too high a frequency.
5. The AI differentiated between different types of sounds.
6. The research was conducted in an acoustic chamber.
7. Plants usually emit sounds when they are stressed.
8. Fields of crops could be quite noisy.
9. Help us understand when crops are dehydrated.
10. Farmers could irrigate their crops more efficiently.

MULTIPLE CHOICE - QUIZ (p.10)

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

ALL OTHER EXERCISES

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