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Level 6 – 27th October 2025

Snake 'pee crystals' could help treat kidney stones

FREE online quizzes, mp3 listening and more for this lesson here:

<https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

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

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THE ARTICLE

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

The natural world contains a yet-to-be-discovered, untapped bounty of remedies to help doctors. The latest discovery comes from researchers from Georgetown University and other research institutions in the USA. They believe their exploration of how reptiles excrete waste could help treat human ailments. The scientists analysed the tiny "pee crystals" that reptiles use in place of urine to excrete waste. The crystals are a solid form of uric acid, which is a potentially harmful by-product created when the body breaks down nitrogen in food. Too much nitrogen in our bodies can lead to health problems like gout and kidney stones. Our bodies flush most of the uric acid waste away when we pass water.

The study is published in the Journal of the American Chemical Society. A team of organic chemists and herpetologists (scientists who study reptiles and amphibians) examined the excreta and waste elimination processes of more than 20 reptile species. They focused their attention on the excess nitrogen that crystallised into tiny microcrystals. Researcher Dr Jennifer Swift believes the team's findings could help us better understand and treat uric acid-related problems like gout and kidney stones. She said: "This research was really inspired by a desire to understand the ways reptiles are able to excrete this material safely, in the hope it might inspire new approaches to disease prevention and treatment."

Sources: <https://gizmodo.com/scientists-have-cracked-the-mystery-of-snake-pee-2000675053>
<https://www.popsci.com/science/reptile-pee-kidney-stones/>
<https://www.iflscience.com/reptiles-pee-crystals-but-what-are-they-made-of-scientists-wanted-to-find-out-81278>

WARM-UPS

1. SNAKES: Students walk around the class and talk to other students about snakes. 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?

the natural world / bounty / remedies / reptiles / by-product / nitrogen / acid / water / study / chemists / amphibians / microcrystals / kidney / desire / disease prevention

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

3. NATURAL REMEDIES: Students A **strongly** believe natural remedies are better than those from drug companies; Students B **strongly** believe the opposite. Change partners again and talk about your conversations.

4. THE NATURAL WORLD: How can these animals help our health? Check on the Internet and write your answers. Complete this table with your partner(s). Change partners often and share what you wrote.

	How These Animals Help Us	Internet Check
Cows		
Leeches		
Bees		
Frogs		
Sharks		
Spiders		

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

6. REPTILES: Rank these with your partner. Put the most interesting reptiles at the top. Change partners often and share your rankings.

- Komodo dragon
- Iguana
- Chameleon
- Python
- Cobra
- Crocodile
- Tortoise
- Sea turtle

VOCABULARY MATCHING

Paragraph 1

- | | |
|---------------|--|
| 1. untapped | a. Things that make you better when you are sick. |
| 2. bounty | b. Clean or wash away with a lot of water. |
| 3. remedies | c. Of a resource not used yet. |
| 4. excrete | d. A large amount of something good. |
| 5. by-product | e. Get rid of waste from your body. |
| 6. flush | f. Something that is made while making something else. |
| 7. pass water | g. Urinate; pee (informal) |

Paragraph 2

- | | |
|-----------------|---|
| 8. reptiles | h. More than is needed; too much/many. |
| 9. amphibians | i. Animals with dry skin and scales, like snakes and lizards. |
| 10. species | j. The act of getting rid of something. |
| 11. elimination | k. A sickness that makes your joints (especially in the feet) very painful. |
| 12. excess | l. Animals that live in water and on land, like frogs. |
| 13. gout | m. Make someone feel excited or want to do something. |
| 14. inspire | n. A group of animals or plants that are the same type. |

BEFORE READING / LISTENING

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

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

1. The article says most natural medicinal remedies have been discovered. **T / F**
2. Reptiles largely excrete crystals rather than liquid urine. **T / F**
3. The "pee crystals" largely consist of amino and citric acids. **T / F**
4. Doctors use nitrogen injections to treat problems like kidney stones. **T / F**
5. A herpetologist is someone who studies excreta. **T / F**
6. Scientists looked at the excretion processes of over 20 reptile species. **T / F**
7. A researcher said her research could treat a problem called gout. **T / F**
8. The researcher said she wants humans to excrete waste safely. **T / F**

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

- | | |
|-----------------------|-----------------|
| 1. untapped | a. investigated |
| 2. remedies | b. illnesses |
| 3. ailments | c. motivated |
| 4. excrete | d. removal |
| 5. flush | e. treatments |
| 6. examined | f. belief |
| 7. elimination | g. wash out |
| 8. excess | h. untouched |
| 9. inspired | i. surplus |
| 10. hope | j. pass |

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

- | | |
|---|---------------------------|
| 1. a yet-to-be-discovered, untapped | a. product |
| 2. help treat human | b. water |
| 3. The crystals are a solid | c. processes |
| 4. a potentially harmful by- | d. and treatment |
| 5. when we pass | e. amphibians |
| 6. A team of organic chemists | f. bounty of remedies |
| 7. scientists who study reptiles and | g. form of uric acid |
| 8. examined the excreta and waste elimination | h. on the excess nitrogen |
| 9. They focused their attention | i. ailments |
| 10. new approaches to disease prevention | j. and herpetologists |

GAP FILL

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

The natural world contains a (1) _____-to-be-discovered, untapped bounty of remedies to help doctors. The (2) _____ discovery comes from researchers from Georgetown University and other research institutions in the USA. They believe their exploration of how reptiles excrete waste could help treat human (3) _____. The scientists analysed the tiny "pee crystals" that reptiles use in (4) _____ of urine to excrete waste. The crystals are a solid (5) _____ of uric acid, which is a potentially harmful by-(6) _____ created when the body breaks (7) _____ nitrogen in food. Too much nitrogen in our bodies can lead to health problems like gout and kidney stones. Our bodies flush most of the uric acid waste away when we (8) _____ water.

ailments
product
yet
down
latest
form
pass
place

The study is published in the Journal of the American Chemical Society. A team of organic (9) _____ and herpetologists (scientists who study reptiles and (10) _____) examined the (11) _____ and waste elimination processes of more than 20 reptile species. They focused their (12) _____ on the excess nitrogen that crystallised into tiny microcrystals. Researcher Dr Jennifer Swift believes the team's (13) _____ could help us better understand and (14) _____ uric acid-related problems like gout and kidney stones. She said: "This research was really (15) _____ by a desire to understand the ways reptiles are able to excrete this material safely, in the hope it might inspire new (16) _____ to disease prevention and treatment."

attention
approaches
amphibians
findings
inspired
chemists
excreta
treat

LISTENING – Guess the answers. Listen to check.

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

- 1) The natural world contains a yet-to-be-_____
 - a. discovered, untapped bountiful
 - b. discovered, untrapped bounty
 - c. discovery, untapped bounty
 - d. discovered, untapped bounty
- 2) comes from researchers from Georgetown University and _____.
 - a. other researched institutions
 - b. other research institutions
 - c. other research institution
 - d. another research institutions
- 3) their exploration of how reptiles excrete waste could help _____.
 - a. treat human ailments
 - b. treat human nail mints
 - c. threat human ailments
 - d. treat humane ailments
- 4) The crystals are a solid form of uric acid, which is a potentially _____.
 - a. harmful buy-a-product
 - b. harmed full by-product
 - c. harmful by-production
 - d. harmful by-product
- 5) Our bodies flush most of the uric acid waste away _____.
 - a. when we paste water
 - b. when we parse water
 - c. when we pass water
 - d. when we past water
- 6) chemists and herpetologists (scientists who study _____).
 - a. reptiles and amphibians
 - b. reptiles and amphibious
 - c. reptile and amphibians
 - d. reptiles and amphibian
- 7) examined the excreta and waste elimination processes of more than _____.
 - a. 20 reptile specials
 - b. 20 reptile species
 - c. 20 reptile specimen
 - d. 20 reptile specs
- 8) the team's findings could help us better understand and treat uric _____.
 - a. acid-relate problems
 - b. acid-related problems
 - c. acid-relation problems
 - d. acid-relative problems
- 9) This research was really inspired by a desire to understand the ways reptiles are _____.
 - a. able to expect
 - b. able to excrete
 - c. able to extol
 - d. able to except
- 10) in the hope it might inspire new approaches _____.
 - a. to disease prevent shun
 - b. to disease preventing
 - c. too disease prevention
 - d. to disease prevention

LISTENING – Listen and fill in the gaps

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

The natural world contains a (1) _____, untapped bounty of remedies to help doctors. The latest discovery comes from researchers from Georgetown University and other (2) _____ the USA. They believe their exploration of how reptiles excrete waste could help (3) _____. The scientists analysed the tiny "pee crystals" that reptiles use in place of urine (4) _____. The crystals are a solid form of uric acid, which is a potentially harmful by-product created when the body (5) _____ in food. Too much nitrogen in our bodies can lead to health problems like gout and kidney stones. Our bodies flush most of the uric (6) _____ when we pass water.

The study is published in the Journal of the American Chemical Society. A team (7) _____ and herpetologists (scientists who study reptiles and amphibians) examined the excreta and waste elimination processes of more than (8) _____. They focused their attention on (9) _____ that crystallised into tiny microcrystals. Researcher Dr Jennifer Swift believes the team's findings could help us better understand and treat uric acid-related problems like gout and kidney stones. She said: "This research was (10) _____ a desire to understand the ways reptiles are (11) _____ this material safely, in the hope it might (12) _____ to disease prevention and treatment."

COMPREHENSION QUESTIONS

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

1. What contains a bounty of untapped remedies?
2. Which research institution was mentioned in the article?
3. What do the "pee crystals" replace in snakes' waste elimination process?
4. What does the article say about uric acid?
5. What health problem can too much uric acid lead to besides gout?
6. What do herpetologists study?
7. How many different reptile species did the researchers look at?
8. What does excess nitrogen turn into?
9. What did a researcher say the findings could help us treat?
10. What might the study inspire new approaches to?

MULTIPLE CHOICE - QUIZ

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

- 1) What contains a bounty of untapped remedies?
 - a) pharmacists
 - b) the natural world
 - c) the bodies of snakes
 - d) amphibians
- 2) Which research institution was mentioned in the article?
 - a) Harvard
 - b) MIT
 - c) Georgia University
 - d) Georgetown University
- 3) What do the "pee crystals" replace in snakes' waste elimination process?
 - a) sweat
 - b) faeces
 - c) urine
 - d) scales
- 4) What does the article say about uric acid?
 - a) It's a potentially harmful by-product.
 - b) It's caustic.
 - c) It helps regenerate muscle.
 - d) It helps to reduce kidney stones.
- 5) What health problem can too much uric acid lead to besides gout?
 - a) high blood pressure
 - b) kidney stones
 - c) varicose veins
 - d) migraines
- 6) What do herpetologists study?
 - a) reptiles and amphibians
 - b) reptiles and crustacea
 - c) invertebrates and crustacea
 - d) amphibians and invertebrates
- 7) How many different reptile species did the researchers look at?
 - a) twenty
 - b) around 20
 - c) more than 20
 - d) just fewer than 20
- 8) What does excess nitrogen turn into?
 - a) tiny microcrystals
 - b) has
 - c) scales
 - d) snake fat
- 9) What did a researcher say the findings could help us treat?
 - a) migraines
 - b) snake bites
 - c) skin problems
 - d) uric acid-related problems
- 10) What might the study inspire new approaches to?
 - a) microcrystals
 - b) understanding snake venom
 - c) disease prevention and treatment
 - d) toiletry habits

ROLE PLAY

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

Role A – Komodo Dragon

You think Komodo dragons are the most interesting reptiles. Tell the others three reasons why. Tell them what is wrong with their reptiles. Also, tell the others which is the least interesting of these (and why): cobras, crocodiles or turtles.

Role B – Cobras

You think cobras are the most interesting reptiles. Tell the others three reasons why. Tell them what is wrong with their reptiles. Also, tell the others which is the least interesting of these (and why): Komodo dragons, crocodiles or turtles.

Role C – Crocodiles

You think crocodiles are the most interesting reptiles. Tell the others three reasons why. Tell them what is wrong with their reptiles. Also, tell the others which is the least interesting of these (and why): cobras, Komodo dragons or turtles.

Role D – Turtles

You think turtles are the most interesting reptiles. Tell the others three reasons why. Tell them what is wrong with their reptiles. Also, tell the others which is the least interesting of these (and why): cobras, crocodiles or Komodo dragons.

AFTER READING / LISTENING

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

1. WORD SEARCH: Look online / in your dictionary to find collocates, information on, synonyms for... the words 'snake' and 'crystal'.

snake	crystal

- 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:

• yet • latest • human • solid • breaks • flush	• published • organic • attention • believes • inspired • hope
---	--

SNAKES SURVEY

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

Write five GOOD questions about snakes 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.

SNAKES 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 'snake'?
3. What do you know about snakes?
4. Are natural remedies better than those from drug companies?
5. What can we learn from snakes?
6. What animals provide us with treatments and medicines?
7. How interesting would it be to study snake 'pee crystals'?
8. How many of our health problems are because of poor diet?
9. What do you know about gout?
10. What are your favourite reptiles and amphibians?

Snake 'pee crystals' could help treat kidney stones – 27th October 2025
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SNAKES 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 'pee'?
13. What do you think about what you read?
14. What do you think of snakes?
15. Would you like to read the research in the journal?
16. What do you know about amphibians?
17. What would you like to do research on?
18. What do you know about kidney stones?
19. Why are people afraid of snakes?
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/2510/251027-snake-pee-crystals.html>

The natural world contains a yet-to-be-discovered, untapped bounty of (1) _____ to help doctors. The latest discovery comes from researchers from Georgetown University and other research (2) _____ in the USA. They believe their exploration of how reptiles excrete waste could help treat human ailments. The scientists analysed the tiny "pee crystals" that reptiles use (3) _____ place of urine to excrete waste. The crystals are a solid form of uric acid, which is a (4) _____ harmful by-product created when the body breaks down nitrogen in food. Too much nitrogen in our bodies can lead to health problems like gout and kidney stones. Our bodies (5) _____ most of the uric acid waste away when we (6) _____ water.

The study is published in the Journal of the American Chemical Society. A team of (7) _____ chemists and herpetologists (scientists who study reptiles and amphibians) examined the (8) _____ and waste elimination processes of more than 20 reptile species. They focused their attention (9) _____ the excess nitrogen that crystallised into tiny microcrystals. Researcher Dr Jennifer Swift believes the team's findings could help us better understand and (10) _____ uric acid-related problems like gout and kidney stones. She said: "This research was really inspired (11) _____ a desire to understand the ways reptiles are able to excrete this material safely, (12) _____ the hope it might inspire new approaches to disease prevention and treatment."

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

- | | | | | |
|-----|-----------------|------------------|-------------------|------------------|
| 1. | (a) remediation | (b) remedial | (c) remedy | (d) remedies |
| 2. | (a) absolutions | (b) restitutions | (c) constitutions | (d) institutions |
| 3. | (a) at | (b) in | (c) of | (d) to |
| 4. | (a) potentate | (b) potentials | (c) potentially | (d) potential |
| 5. | (a) blush | (b) flush | (c) brush | (d) trash |
| 6. | (a) pass | (b) pour | (c) push | (d) pain |
| 7. | (a) ogre | (b) organist | (c) organism | (d) organic |
| 8. | (a) excreta | (b) exacting | (c) exert | (d) except |
| 9. | (a) of | (b) on | (c) at | (d) by |
| 10. | (a) threat | (b) threaten | (c) treat | (d) treatise |
| 11. | (a) at | (b) of | (c) by | (d) as |
| 12. | (a) to | (b) in | (c) at | (d) up |

SPELLING

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

Paragraph 1

1. untapped ynoutb
2. sreedime to help doctors
3. how reptiles reeexct waste
4. help treat human aeislntm
5. when the body breaks down ntogeri
6. problems like gout and knydie stones

Paragraph 2

7. A team of organic smctihse
8. scientists who study reptiles and saihpamibn
9. waste animientiol
10. more than 20 reptile iecpsse
11. This research was really snerdpii
12. disease tprveinnoe and treatment

PUT THE TEXT BACK TOGETHER

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

Number these lines in the correct order.

- () ailments. The scientists analysed the tiny "pee crystals" that reptiles use in place of urine to excrete
- () and herpetologists (scientists who study reptiles and amphibians) examined the excreta and waste elimination processes
- () and treat uric acid-related problems like gout and kidney stones. She said: "This research was really inspired
- () by a desire to understand the ways reptiles are able to excrete this material safely, in the hope
- () institutions in the USA. They believe their exploration of how reptiles excrete waste could help treat human
- () it might inspire new approaches to disease prevention and treatment."
- () like gout and kidney stones. Our bodies flush most of the uric acid waste away when we pass water.
- () microcrystals. Researcher Dr Jennifer Swift believes the team's findings could help us better understand
- () of more than 20 reptile species. They focused their attention on the excess nitrogen that crystallised into tiny
- () product created when the body breaks down nitrogen in food. Too much nitrogen in our bodies can lead to health problems
- (**1**) The natural world contains a yet-to-be-discovered, untapped bounty of remedies
- () The study is published in the Journal of the American Chemical Society. A team of organic chemists
- () to help doctors. The latest discovery comes from researchers from Georgetown University and other research
- () waste. The crystals are a solid form of uric acid, which is a potentially harmful by-

PUT THE WORDS IN THE RIGHT ORDER

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

1. untapped An of bounty to remedies doctors help .
2. Their of exploration reptiles how waste excrete .
3. When body the down breaks in nitrogen food .
4. in Nitrogen bodies our lead can problems to .
5. Flush of most uric the waste acid away .
6. elimination Waste of processes 20 over species reptile .
7. They their focused on attention excess the nitrogen .
8. and Understand uric treat problems acid-related gout like .
9. Inspired a by to desire the understand ways .
10. might It new inspire to approaches prevention disease .

CIRCLE THE CORRECT WORD (20 PAIRS)

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

The natural world contains a yet-to-be-discovered, untapped bounty of *remedial* / *remedies* to help doctors. The *latest* / *latter* discovery comes from researchers from Georgetown University and other research institutions in the USA. They *believe* / *belief* their exploration of how reptiles *exert* / *excrete* waste could help treat human *ointments* / *ailments*. The scientists analysed the tiny "pee crystals" that reptiles use in place of *urine* / *saline* to excrete waste. The crystals are a solid form *at* / *of* uric acid, which is a potentially harmful *by-product* / *in-product* created when the body breaks down nitrogen in food. Too much nitrogen in our bodies can lead to health problems like gout and kidney *rocks* / *stones*. Our bodies flush most of the uric acid waste away when we *push* / *pass* water.

The study is published *up* / *in* the Journal of the American Chemical Society. A team of *organic* / *organist* chemists and herpetologists (scientists who study *reptiles* / *reptilian* and amphibians) examined *the* / *an* excreta and waste elimination processes of more than 20 reptile species. They focused their *attentive* / *attention* on the *excess* / *access* nitrogen that crystallised into tiny microcrystals. Researcher Dr Jennifer Swift believes the team's findings could help us better understand and *threaten* / *treat* uric acid-related problems like gout and kidney stones. She said: "This research was really inspired *by* / *to* a desire to understand the ways reptiles are able to excrete this material safely, *in* / *at* the hope it might *inspire* / *insipid* new approaches to disease prevention and treatment."

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/2510/251027-snake-pee-crystals.html>

Th_ n_t_r_l w_rld c_nt__ns _ y_t-t_-b_-d_sc_v_r_d,
_nt_pp_d b__nty _f r_m_d__s t_ h_lp d_ct_rs. Th_
l_t_st d_sc_v_ry c_m_s fr_m r_s__rch_rs fr_m
G__rg_t_wn _n_v_rs_ty _nd _th_r r_s__rch _nst_t_t__ns
n th _S_. Th_y b_l__v_ th__r _xpl_r_t__n _f h_w
r_pt_l_s _xcr_t_ w_st_ c__ld h_lp tr__t h_m_n
__lm_nts. Th_ sc__nt_sts _n_lys_d th_ t_ny "p__
cryst_ls" th_t r_pt_l_s _s_ _n pl_c_ _f _r_n_ t_
_xcr_t_ w_st_. Th_ cryst_ls _r_ _ s_l_d f_rm _f _r_c
_c_d, wh_ch _s _ p_t_nt__lly h_rmf_l by-pr_d_ct
cr__t_d wh_n th_ b_dy br__ks d_wn n_tr_g_n _n f__d.
T__ m_ch n_tr_g_n _n __r b_d__s c_n l__d t_ h__lth
pr_bl_ms l_k_ g__t _nd k_dn_y st_n_s. __r b_d__s
fl_sh m_st _f th_ _r_c _c_d w_st_ _w_y wh_n w_ p_ss
w_t_r.

Th_ st_dy _s p_bl_sh_d _n th_ J__rn_l _f th_
_m_r_c_n Ch_m_c_l S_c__ty. _ t__m _f _rg_n_c
ch_m_sts _nd h_rp_t_l_g_sts (sc__nt_sts wh_ st_dy
r_pt_l_s _nd _mph_b__ns) _x_m_n_d th_ _xcr_t_ _nd
w_st_ _l_m_n_t__n pr_c_ss_s _f m_r_ th_n 20 r_pt_l_
sp_c__s. Th_y f_c_s_d th__r _tt_nt__n _n th_ _xc_ss
n_tr_g_n th_t cryst_ll_s_d _nt_ t_ny m_cr_cryst_ls.
R_s__rch_r Dr J_nn_f_r Sw_ft b_l__v_s th_ t__m's
f_nd_ngs c__ld h_lp _s b_tt_r _nd_rst_nd _nd tr__t
_r_c _c_d-r_l_t_d pr_bl_ms l_k_ g__t _nd k_dn_y
st_n_s. Sh_ s__d: "Th_s r_s__rch w_s r__lly _nsp_r_d
by _ d_s_r_ t_ _nd_rst_nd th_ w_ys r_pt_l_s _r_ _bl_
t_ _xcr_t_ th_s m_t_r__l s_f_ly, _n th_ h_p_ _t m_ght
_nsp_r_ n_w _ppr__ch_s t_ d_s__s_ pr_v_nt__n _nd
tr__tm_nt."

PUNCTUATE THE TEXT AND ADD CAPITALS

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

the natural world contains a yet to be discovered untapped bounty of remedies to help doctors the latest discovery comes from researchers from georgetown university and other research institutions in the usa they believe their exploration of how reptiles excrete waste could help treat human ailments the scientists analysed the tiny pee crystals that reptiles use in place of urine to excrete waste the crystals are a solid form of uric acid which is a potentially harmful by product created when the body breaks down nitrogen in food too much nitrogen in our bodies can lead to health problems like gout and kidney stones our bodies flush most of the uric acid waste away when we pass water

the study is published in the journal of the american chemical society a team of organic chemists and herpetologists scientists who study reptiles and amphibians examined the excreta and waste elimination processes of more than 20 reptile species they focused their attention on the excess nitrogen that crystallised into tiny microcrystals researcher dr jennifer swift believes the teams findings could help us better understand and treat uric acid related problems like gout and kidney stones she said this research was really inspired by a desire to understand the ways reptiles are able to excrete this material safely in the hope it might inspire new approaches to disease prevention and treatment

PUT A SLASH (/) WHERE THE SPACES ARE

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

Thenaturalworldcontainsayet-to-be-discovered,untappedbountyofremediestohelpdoctors.ThelatestdiscoverycomesfromresearchersfromGeorgetownUniversityandotherresearchinstitutionsintheUSA.Theybelievethirexplorationofhowreptilesexcretewastecouldhelptreathumanailments.Thescientistsanalysedthetiny"peecrystals"thatreptilesuseinplaceofurinetorexcretewaste.Thecrystalsareasolidformofuricacid,whichisapotentiallyharmfulby-productcreatedwhenthebodybreaksdownnitrogeninfood.Toomuchnitrogeninourbodiescanleadtohealthproblemslikegoutandkidneystones.Ourbodiesflushmostoftheuricacidwasteawaywhenwepasswater.ThestudyispublishedintheJournaloftheAmericanChemicalSociety.Ateamoforganicchemistsandherpetologists(scientistswhostudyreptilesandamphibians)examinedtheexcretaandwasteeliminationprocessesofmorethan20reptilespecies.Theyfocusedtheirattentionontheexcessnitrogenthatcrystallisedintotinymicrocrystals.ResearcherDrJenniferSwiftbelievestheteam'sfindingscouldhelpusbetterunderstandandtreaturicacid-relatedproblemslikegoutandkidneystones.Shesaid:"Thisresearchwasreallyinspiredbyadesiretounderstandthewaysreptilesareabletoexcretethismaterialsafely,inthehopeitmightinspirenewapproachestodiseasepreventionandtreatment."

FREE WRITING

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

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

[illegible]

ACADEMIC WRITING

From <https://breakingnewsenglish.com/2510/251027-snake-pee-crystals.html>

Governments need to spend money of disease prevention and not weapons. Discuss.

[illegible]

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

4. NATURAL REMEDIES: Write a magazine article about all drugs being from natural sources and not lab-made. 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 snakes. Ask him/her three questions about them. Give him/her three of your opinions on them. Read your letter to your partner(s) in your next lesson. Your partner(s) will answer your questions.

ANSWERS

VOCABULARY (p.4)

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

TRUE / FALSE (p.5)

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

SYNONYM MATCH (p.5)

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

COMPREHENSION QUESTIONS (p.9)

1. The natural world
2. Georgetown University
3. Urine
4. It's a potentially harmful by-product.
5. Kidney stones
6. Reptiles and amphibians
7. More than 20
8. Tiny microcrystals
9. Uric acid-related problems
10. Disease prevention and treatment

WORDS IN THE RIGHT ORDER (p.19)

1. An untapped bounty of remedies to help doctors.
2. Their exploration of how reptiles excrete waste.
3. When the body breaks down nitrogen in food.
4. Nitrogen in our bodies can lead to problems.
5. Flush most of the uric acid waste away.
6. Waste elimination processes of over 20 reptile species.
7. They focused their attention on the excess nitrogen.
8. Understand and treat uric acid-related problems like gout.
9. Inspired by a desire to understand the ways.
10. It might inspire new approaches to disease prevention.

MULTIPLE CHOICE - QUIZ (p.10)

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

ALL OTHER EXERCISES

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