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#### Level 6

# Centipedes eat animals 15 times their size

**26th January, 2018** 

https://breakingnewsenglish.com/1801/180126-centipede.html

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

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## THE ARTICLE

From https://breakingnewsenglish.com/1801/180126-centipede.html

Centipedes are the kind of creatures that are not to be messed with. Their venom packs a serious punch and can cause rapid paralysis and death in insects and small animals. They have even been known to kill people with their highly venomous sting. Scientists have now discovered a deadly toxin in centipede venom that can shut down the hearts of animals that are 15 times bigger than them. The scientists isolated a toxin in the Chinese red-headed centipede. This beast can grow to roughly eight inches in length. The toxin in its venom blocks potassium from moving in and out of cells. This blocking of potassium prevents the brain from sending signals to the heart to beat, thus causing a rapid death.

The venom is rarely fatal for humans, but it can cause agonizing pain and swelling for up to two weeks. The scientists have called it SSM Spooky Toxin. Researcher Shilong Yang, an expert in toxins at China's Kunming Institute of Zoology, explained: "The "centipede's venom has evolved to simultaneously disrupt cardiovascular, respiratory, muscular and nervous systems. This molecular strategy has not been found in other venomous animals." Despite their name (*centi* is "hundred" in Latin and *pedis* is "foot"), centipedes do not have 100 legs. They have a varying number of legs, ranging from 30 to 354. Centipedes always have an odd number of pairs of legs. This means no centipede has exactly 100 legs.

Sources: https://news.sky.com/story/giant-centipede-can-kill-animals-15-times-bigger-and-scientists-have-just-discovered-how-11220533

https://www.**mnn.com**/earth-matters/animals/blogs/centipede-toxin-potent-venom

https://www.washingtonpost.com/news/speaking-of-science/wp/2018/01/22/centipedes-eat-animals-15-times-their-size-thanks-to-this-powerful-toxin-study-finds/?utm\_term=.5bb67ddc33d4

#### **WARM-UPS**

- **1. CENTIPEDES:** Students walk around the class and talk to other students about centipedes. 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?

careful / centipedes / poisonous / deadly / small animals / venom / potassium / heart fatal / scientist / expert / cardiovascular / strategy / hundred / varying / odd numbers

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

- **3. INSECTS:** Students A **strongly** believe we should never kill insects; Students B **strongly** believe the opposite. Change partners again and talk about your conversations.
- **4. CREATURES:** How dangerous are these creatures? Are there good things about them? Complete this table with your partner(s). Change partners often and share what you wrote.

	How dangerous?	Good things?
Centipedes		
Scorpions		
Snakes		
Spiders		
Hornets		
Frogs		

- **5. POISONOUS:** Spend one minute writing down all of the different words you associate with the word "poisonous". Share your words with your partner(s) and talk about them. Together, put the words into different categories.
- **6. INSECTS:** Rank these with your partner. Put the best insects / creatures at the top. Change partners often and share your rankings.

centipedes

ants

butterflies

• worms

wasps

beetles

· mosquitos

• bees

#### **VOCABULARY MATCHING**

#### Paragraph 1

- creatures
   Has something that is capable of hitting something powerfully.
- 2. messed with b. Animals, birds, insects and similar living things, except human beings.
- 3. venom c. A poisonous liquid that animals such as snakes, spiders, and scorpions inject into other animals by biting or stinging them.
- 4. packs
  d. The loss of the ability to move (and sometimes to feel anything) in part or most of the body (due to illness, poison, or injury).
- 5. rapid e. Identified something and examined or dealt with it separately.
- 6. paralysis f. Got involved with something that could cause you (big) trouble.
- 7. isolated g. Happening in a short time or at a fast pace.

#### Paragraph 2

- 8. fatal h. A person who has a great deal of knowledge of or skill in a particular area.
- 9. agonizing i. Causing great physical or mental pain.
- 10. swelling j. Relating to or affecting breathing or the organs of breathing (i.e. the lungs).
- 11. expert k. An abnormal enlargement of a part of the body, usually because of a build-up of liquid or fluid.
- 12. disrupt I. Interrupt an event, activity, or process by causing a disturbance or problem.
- 13. respiratory m. Causing death.
- 14. varying n. Differing in size, amount, degree, or nature from something else of the same general class.

## **BEFORE READING / LISTENING**

From https://breakingnewsenglish.com/1801/180126-centipede.html

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

- a. The article suggests people should mess with centipedes. T/F
- b. Centipedes punch insects and small animals. T / F
- c. Scientists looked at a toxin in a Chinese centipede. T/F
- d. The toxin pumps potassium from cells to an animal's brain. T / F
- e. A centipede sting can swell up for two weeks. **T/F**
- f. Scientists named the toxin SSM Spooky. T / F
- g. Centipede means 100 legs. T / F
- h. A centipede can have fifty pairs of legs. **T/F**

#### 2. SYNONYM MATCH:

Match the following synonyms. The words in **bold** are from the news article.

- 1. creatures
- 2. paralysis
- 3. deadly
- 4. isolated
- 5. prevents
- 6. agonizing
- 7. expert
- 8. simultaneously
- 9. varying
- 10. exactly

- a. differing
- b. pinpointed
- c. severe
- d. fatal
- e. concurrently
- f. beasts
- g. precisely
- h. stops
- i. immobility
- j. specialist

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

- 1. the kind of creatures that are not
- 2. Their venom packs
- 3. cause rapid paralysis
- 4. This beast can grow to roughly
- 5. prevents the brain from sending
- 6. The venom is rarely fatal
- 7. respiratory, muscular and
- 8. found in other venomous
- 9. ranging
- 10. Centipedes always have an odd

- a. and death in insects
- b. number of pairs of legs
- c. signals to the heart
- d. for humans
- e. animals
- f. to be messed with
- g. from 30 to 354
- h. eight inches in length
- i. a serious punch
- j. nervous systems

## **GAP FILL**

From <a href="https://breakingnewsenglish.com/1801/180126-centipede.html">https://breakingnewsenglish.com/1801/180126-centipede.html</a>

Centipedes are the kind of (1) that are not to be	isolated
messed with. Their venom packs a serious (2) and	punch
can cause rapid paralysis and death in insects and small animals.	roughly
They have even been known to kill people with their	
(3) venomous sting. Scientists have now	highly
discovered a deadly toxin in centipede venom that can	rapid
(4) down the hearts of animals that are 15 times	creatures
bigger than them. The scientists (5) a toxin in the	shut
Chinese red-headed centipede. This beast can grow to	blocks
(6) eight inches in length. The toxin in its venom	
(7) potassium from moving in and out of cells. This	
blocking of potassium prevents the brain from sending signals to	
the heart to beat, thus causing a (8) death.	
The venom is rarely (9) for humans, but it can	expert
cause agonizing pain and (10) for up to two weeks.	muscular
The scientists have called it SSM Spooky Toxin. Researcher	ranging
Shilong Yang, an (11) in toxins at China's Kunming	fatal
Institute of Zoology, explained: "The "centipede's venom has	
(12) to simultaneously disrupt cardiovascular,	odd
respiratory, (13) and nervous systems. This	swelling
molecular strategy has not been found in other	venomous
(14) animals." Despite their name ( <i>centi</i> is	evolved
"hundred" in Latin and <i>pedis</i> is "foot"), centipedes do not have 100	2707704
legs. They have a varying number of legs, (15)	
from 30 to 354. Centipedes always have an (16)	
number of pairs of legs. This means no centipede has exactly 100	
legs.	

# **LISTENING** – Guess the answers. Listen to check.

From <a href="https://breakingnewsenglish.com/1801/180126-centipede.html">https://breakingnewsenglish.com/1801/180126-centipede.html</a>

<ul> <li>d. be messed with</li> <li>2) Their venom packs a serious punch and can cause</li></ul>	
<ul> <li>a. the hurts of</li> <li>b. the harts of</li> <li>c. the heats of</li> <li>d. the hearts of</li> </ul> 4) The toxin in its venom blocks potassium from moving in cells <ul> <li>a. and out of</li> <li>b. and out off</li> <li>c. and out if</li> <li>d. and outer</li> </ul> 5) blocking of potassium prevents the brain from sending signals to the	
<ul> <li>a. and out of</li> <li>b. and out off</li> <li>c. and out if</li> <li>d. and outer</li> </ul> 5) blocking of potassium prevents the brain from sending signals to the	als
• • • •	
<ul><li>b. heart to be it</li><li>c. heart to beet</li><li>d. heart to beat</li></ul>	
<ul> <li>6) The venom is rarely fatal for humans, but it can cause agonizing</li> <li>a. pain and swell ring</li> <li>b. pain and swelling</li> <li>c. pain and swell in</li> <li>d. pain and swollen</li> </ul>	
7) disrupt cardiovascular, respiratory, muscular and a. nervous systems b. nervously systems c. nerve us systems d. nerve as systems	
8) This molecular strategy has not been found in animals a. another venom us b. other venomous c. others venomous d. other venom as	
<ul> <li>9) They have a varying number of legs, 30 to 354</li> <li>a. range in from</li> <li>b. ranged in from</li> <li>c. rain gin from</li> <li>d. ranging from</li> </ul>	
10) an odd number of pairs of legs. This means no centipede 100 legs	
a. had exactly	
b. has exactly	
c. have exactly d. haste exactly	

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# **LISTENING** – Listen and fill in the gaps

From <a href="https://breakingnewsenglish.com/1801/180126-centipede.html">https://breakingnewsenglish.com/1801/180126-centipede.html</a>

Centipedes are the (1)	that are not to be messed
with. Their venom (2)	punch and can cause rapid
paralysis and death in insects and	small animals. They have even been
known to kill people with their (3)	Scientists have
now discovered a deadly toxin in co	entipede venom that can shut down the
(4) that a	re 15 times bigger than them. The
scientists isolated a toxin in the	Chinese red-headed centipede. This
(5) to rough	ly eight inches in length. The toxin in its
venom blocks potassium from mov	ng in and out of cells. This blocking of
potassium prevents the brain from s	ending signals to the heart to beat, thus
(6)	
The venom is rarely (7)	, but it can cause agonizing
(8) for up to	two weeks. The scientists have called it
SSM Spooky Toxin. Researcher Shild	ng Yang, an (9)
at China's Kunming Institute of Zool	ogy, explained: "The "centipede's venom
has evolved to simulta	neously disrupt cardiovascular,
(10) and ne	rvous systems. This molecular strategy
has not been found	n other venomous animals."
(11) (centi is	s "hundred" in Latin and <i>pedis</i> is "foot"),
centipedes do not have 100 legs.	They have a varying number of legs,
ranging from 30 to 3	554. Centipedes always have
(12) of pair	s of legs. This means no centipede has
exactly 100 legs.	

# **COMPREHENSION QUESTIONS**

From https://breakingnewsenglish.com/1801/180126-centipede.html

1.	What kind of punch does the article say the venom packed?
2.	What did scientists discover in the venom?
3.	What does the venom shut down in small animals?
4.	How long can the Chinese red-headed centipede grow to?
5.	What chemical does the venom block in animals' brains?
6.	How long might humans suffer swelling after a centipede bite?
7.	What did the scientists name the toxin?
8.	What does the venom disrupt besides muscular and nervous systems?
9.	What does "pedis" mean in Latin?
10.	What do centipedes always have an odd pair of?

## **MULTIPLE CHOICE - QUIZ**

From https://breakingnewsenglish.com/1801/180126-centipede.html

- 1) What kind of punch does the article say the venom packed?
- a) a hammer punch
- b) a serious punch
- c) a left hook
- d) a soft punch
- 2) What did scientists discover in the venom?
- a) a new chemical
- b) radiation
- c) potassium
- d) a toxin
- 3) What does the venom shut down in small animals?
- a) their heart
- b) their mouth
- c) their lungs
- d) their eyes
- 4) How long can the Chinese redheaded centipede grow to?
- a) 7 cm
- b) 8 cm
- c) 8 inches
- d) 7 inches
- 5) What chemical does the venom block in animals' brains?
- a) magnesium
- b) potassium
- c) iron
- d) calcium

- 6) How long might humans suffer swelling after a centipede bite?
- a) two weeks
- b) 10 days
- c) a week
- d) a few days
- 7) What did the scientists name the toxin?
- a) SMM Moosky
- b) SMS Poosky
- c) SSM Spooky
- d) MSM Moo Ski
- 8) What does the venom disrupt besides muscular and nervous systems?
- a) cardiovascular and respiratory systems
- b) immune and digestive systems
- c) skeletal and reproductive systems
- d) renal and endocrine systems
- 9) What does "pedis" mean in Latin?
- a) foot
- b) toe
- c) ankle
- d) heel
- 10) What do centipedes always have an odd pair of?
- a) stingers
- b) eyes
- c) antenna
- d) legs

#### **ROLE PLAY**

From https://breakingnewsenglish.com/1801/180126-centipede.html

## Role A - Centipedes

You think centipedes are the best creepy-crawlies. Tell the others three reasons why. Tell them what is wrong with their bugs. Also, tell the others which is the worst of these (and why): ants, worms or beetles.

#### Role B - Ants

You think ants are the best creepy-crawlies. Tell the others three reasons why. Tell them what is wrong with their bugs. Also, tell the others which is the worst of these (and why): centipedes, worms or beetles.

#### Role C - Worms

You think worms are the best creepy-crawlies. Tell the others three reasons why. Tell them what is wrong with their bugs. Also, tell the others which is the worst of these (and why): ants, centipedes or beetles.

#### Role D – Beetles

You think beetles are the best creepy-crawlies. Tell the others three reasons why. Tell them what is wrong with their bugs. Also, tell the others which is the worst of these (and why): ants, worms or centipedes.

## AFTER READING / LISTENING

From https://breakingnewsenglish.com/1801/180126-centipede.html

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

creature	poison

- 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:

· massad	a mamalu
<ul> <li>messed</li> </ul>	<ul> <li>rarely</li> </ul>
• death	• called
<ul> <li>deadly</li> </ul>	• expert
• shut	<ul> <li>evolved</li> </ul>
<ul> <li>moving</li> </ul>	<ul> <li>strategy</li> </ul>
• beat	<ul> <li>exactly</li> </ul>

#### **CENTIPEDES SURVEY**

From <a href="https://breakingnewsenglish.com/1801/180126-centipede.html">https://breakingnewsenglish.com/1801/180126-centipede.html</a>

Write five GOOD questions about centipedes 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.

#### **CENTIPEDES 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 'serious'?
- 3. What do you think of centipedes?
- 4. What is your favourite insect, and why?
- 5. What other creatures should never be messed with?
- 6. Why do the centipedes have such a poisonous toxin?
- 7. What other ways do animals have of protecting themselves?
- 8. What function do centipedes play in the natural world?
- 9. What do you know about centipedes?
- 10. What would you do if a centipede was on you?

Centipedes eat animals 15 times their size – 26th January, 2018 Thousands more free lessons at breakingnewsenglish.com

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#### CENTIPEDES 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 'punch'?
- 13. What do you think about what you read?
- 14. How painful do you think a centipede might be?
- 15. What would it be like to be an expert in zoology?
- 16. How could scientists use the centipede venom to help humans?
- 17. What do you think of the name "centipede"?
- 18. What would life be like with more legs?
- 19. Why do centipedes need so many legs?
- 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.	
·	
5	
5	
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	CUSSION (Write your own questions)
DIS(	
DISC STUDE!	CUSSION (Write your own questions)
DISC STUDE!	CUSSION (Write your own questions)
DISC STUDEN	CUSSION (Write your own questions)
DISC STUDE! 1 2 3 4	CUSSION (Write your own questions)
DISC	CUSSION (Write your own questions)

## **LANGUAGE - CLOZE**

From <a href="https://breakingnewsenglish.com/1801/180126-centipede.html">https://breakingnewsenglish.com/1801/180126-centipede.html</a>

Centipedes are the (1) of creatures that are not to be messed with. Their venom packs a serious punch and can cause rapid (2) and death in insects and small animals. They have even been known to kill people with their highly venomous sting. Scientists have now discovered a deadly toxin (3) centipede venom that can shut (4) the hearts of animals that are 15 times bigger than them. The scientists isolated a toxin in the Chinese red-headed centipede. This beast can grow to (5) eight inches in length. The toxin in its venom blocks potassium from moving in and out of cells. This blocking of potassium prevents the brain from sending signals to the heart to beat, (6) causing a rapid death.								
The	venor	m is rarely fatal	for h	numans, but it	can	cause agonizir	ng pai	in and swelling
		to two we		·		_	•	_
Rese	arche	er Shilong Yang,	an e	expert (8)	toxi	ns at China's k	Kunm	ing Institute of
		explained: "The		•				•
		cular, (9),				-		
		een found in o ' in Latin and <i>pe</i>						-
		number of l		• • • • • • • • • • • • • • • • • • • •				•
(12)		number of pairs	s of le	egs. This mean	s no	centipede has	exact	tly 100 legs.
Put	the c	orrect words f	rom	the table belo	ow i	n the above a	rticle	<u>.</u>
1.	(a)	kindness	(b)	kindly	(c)	kind	(d)	kinds
2.	(a)	paralysis	(b)	paralyze	(c)	paralytic	(d)	parallel
3.	(a)	in	(b)	on	(c)	at	(d)	to
4.	(a)	down	(b)	on	(c)	up	(d)	in
5.	(a)	rough-up	(b)	rough	(c)	rougher	(d)	roughly
6.	(a)	those	(b)	this	(c)	these	(d)	thus
7.	(a)	up	(b)	as	(c)	for	(d)	by
8.	(a)	by	(b)	to	(c)	at	(d)	in
9.	(a)	respiratory	(b)	perspiration	(c)	constipation	(d)	contamination
10.	(a)	Spite	(b)	Despite	(c)	Spiteful	(d)	In spite
11.	(a)	varies	(b)	varying	(c)	variety	(d)	various
12.	(a)	odd	(b)	add	(c)	udder	(d)	eddy

#### **SPELLING**

From <a href="https://breakingnewsenglish.com/1801/180126-centipede.html">https://breakingnewsenglish.com/1801/180126-centipede.html</a>

#### Paragraph 1

- 1. eesucrtra that are not to be messed with
- 2. cause rapid <u>rsaiysalp</u>
- 3. highly <u>uonsoevm</u> sting
- 4. The scientists ioeatdls a toxin
- 5. grow to rulgyoh eight inches in length
- 6. prevents the brain from sending ilsgasn

## Paragraph 2

- 7. it can cause <u>nagiionzg</u> pain
- 8. <u>wsilgenl</u> for up to two weeks
- 9. an <u>rtpeex</u> in toxins
- 10. The centipede's venom has <u>eovldve</u>
- 11. respiratory, <u>arsumulc</u> and nervous systems
- 12. They have a <u>nvgayri</u> number of legs

## **PUT THE TEXT BACK TOGETHER**

From https://breakingnewsenglish.com/1801/180126-centipede.html

#### Number these lines in the correct order.

(	)	known to kill people with their highly venomous sting. Scientists have now discovered a deadly
(	)	(centi is "hundred" in Latin and pedis is "foot"), centipedes do not have 100 legs. They have a varying
(	)	in length. The toxin in its venom blocks potassium from moving in and out of cells. This blocking of potassium prevents
(	)	in the Chinese red-headed centipede. This beast can grow to roughly eight inches
(	)	and nervous systems. This molecular strategy has not been found in other venomous animals." Despite their name
(	<b>1</b> )	Centipedes are the kind of creatures that are not to be messed with. Their venom packs a serious
(	)	punch and can cause rapid paralysis and death in insects and small animals. They have even been
(	)	weeks. The scientists have called it SSM Spooky Toxin. Researcher Shilong Yang, an expert in toxins at China's Kunming Institute
(	)	number of pairs of legs. This means no centipede has exactly 100 legs.
(	)	of Zoology, explained: "The "centipede's venom has evolved to simultaneously disrupt cardiovascular, respiratory, muscular
(	)	toxin in centipede venom that can shut down the hearts of animals that are 15 times bigger than them. The scientists isolated a toxin
(	)	the brain from sending signals to the heart to beat, thus causing a rapid death.
(	)	number of legs, ranging from 30 to 354. Centipedes always have an odd
(	)	The venom is rarely fatal for humans, but it can cause agonizing pain and swelling for up to two

#### PUT THE WORDS IN THE RIGHT ORDER

From https://breakingnewsenglish.com/1801/180126-centipede.html

- 1. to Creatures be with . are that messed not
- 2. known to even been people . kill They have
- 3. 15 that times than them . bigger Animals are
- 4. The potassium . in its venom blocks toxin
- 5. prevents Potassium brain the from signals . sending
- 6. is humans . fatal for The venom rarely
- 7. two pain weeks . to up Cause for agonizing
- 8. number They have legs . of a varying
- 9. of always number odd have an pairs . Centipedes
- 10. exactly no 100 centipede has This legs . means

## **CIRCLE THE CORRECT WORD (20 PAIRS)**

From https://breakingnewsenglish.com/1801/180126-centipede.html

Centipedes are the kind of *creatures / creatives* that are not to be messed with. Their venom packs a *serious / seriously* punch and can cause *rapid / rapidly* paralysis and death in insects and small animals. They have even been *knowing / known* to kill people with their *highly / high* venomous sting. Scientists have now discovered a deadly toxin in centipede venom that can shut *up / down* the hearts of animals that are 15 times bigger than *these / them*. The scientists isolated a toxin in the Chinese red-headed centipede. This *baste / beast* can grow to roughly eight inches *on / in* length. The toxin in its venom blocks potassium from moving in *and / to* out of cells. This blocking of potassium prevents the brain from sending signals to the heart to beat, thus *causing / cause* a rapid death.

The venom is *rare* / *rarely* fatal for humans, but it can cause *agonizing* / *agony* pain and swelling for up to two weeks. The scientists have called it SSM Spooky Toxin. Researcher Shilong Yang, an *expertly* / *expert* in toxins at China's Kunming Institute of Zoology, explained: "The "centipede's venom has *evolved* / *evolution* to simultaneously *depart* / *disrupt* cardiovascular, respiratory, muscular and nervous systems. This molecular strategy has not been found in *another* / *other* venomous animals." *Despite* / *Spite* their name (*centi* is "hundred" in Latin and *pedis* is "foot"), centipedes do not have 100 legs. They have a *vary* / *varying* number of legs, *ranging* / *range* from 30 to 354. Centipedes always have an odd number *of* / *from* pairs of legs. This means no centipede has exactly 100 legs.

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/1801/180126-centipede.html

 $\hbox{\tt C\_nt\_p\_d\_s\_r\_th\_k\_nd\_f.cr\_\_t\_r}$ \_sth\_t\_r\_ n\_tt\_\_b\_ m\_ss\_d w\_th. lp\_pl\_w\_thth\_\_rh\_ghlyv\_n\_m\_ \_s st\_ng. Sc\_\_nt\_sts h\_v\_ n\_w d\_sc \_v\_r\_d \_ d\_\_dly t\_x\_n \_n c\_nt\_p\_d \_ v\_n\_m th\_t c\_n sh\_t d\_wn th\_ h\_  $_{l}$   $_{l}$  -h\_\_d\_d c\_nt\_p\_d\_. Th\_s b\_\_st c\_n gr\_w t\_ r\_\_ghly \_\_ght \_nch\_s \_n l\_ ngth. Th\_ t\_x\_n \_ n \_ ts v\_n\_m bl\_cks p\_t\_ss\_\_m fr\_m m\_v\_ng \_n \_ nd \_\_  $t \ \_f \ c\_lls. \ Th\_s \ bl\_ck\_ng \ \_f \ p\_t\_ss \\$ \_\_m pr\_v\_nts th\_ br\_\_n fr\_m s\_nd\_ ng s\_gn\_ls t\_ th\_ h\_\_rt t\_ b\_\_t, th \_sc\_\_s\_ng\_\_r\_p\_dd\_\_th.

 $\label{eq:total_state} \mathsf{T}\,\mathsf{h}\, \underline{\quad}\, \mathsf{v}\, \underline{\quad}\, \mathsf{n}\, \underline{\quad}\, \mathsf{m}\, \underline{\quad}\, \mathsf{s}\, \mathsf{r}\, \underline{\quad}\, \mathsf{r}\, \underline{\quad}\, \mathsf{l}\, \mathsf{y}\, \mathsf{f}\, \underline{\quad}\, \mathsf{t}\, \underline{\quad}\, \mathsf{l}\, \mathsf{f}\, \underline{\quad}\, \mathsf{r}\, \mathsf{h}\, \underline{\quad}\, \mathsf{m}\, \underline{\quad}\, \mathsf{m}\,$ n\_ndsw\_ll\_ngf\_r\_pt\_tw\_w\_\_ks Th\_sc\_\_nt\_sts h\_v\_c\_ll\_d M Sp\_ky T\_x\_n. R\_s\_\_rch\_r Sh\_l\_n \_ x p l \_ \_ n \_ d : "T h \_ " c \_ n t \_ p \_ d \_ ' s v \_ n \_ m h \_ s \_ v \_ l v \_ d t \_ s \_ m \_ l t \_ n \_ \_ \_ s l y d \_sr\_pt c\_rd\_\_v\_sc\_l\_r, r\_sp\_r\_t\_ry, m\_sc\_l\_r \_nd n\_rv\_\_s syst\_ms. Th \_sm\_l\_c\_l\_rstr\_t\_gyh\_sn\_tb\_\_n t\_ th\_\_r n\_m\_ (c\_nt\_ \_s "h\_n dr\_d" \_n L\_t\_n \_nd p\_d\_s \_s "f\_\_t" ), c\_nt\_p\_d\_s d\_ n\_t h\_v\_ 100 l. . Th\_y h\_v\_ \_ v\_ry\_ng n\_mb\_r \_f l\_gs, r\_ng\_ng fr\_m 30 t\_ 354. C\_nt\_p \_ d \_ s \_ l w \_ y s h \_ v \_ \_ n \_ d d n \_ m b \_ r \_ f p \_ \_ r s \_ f l \_ g s . Th \_ s m \_ \_ n s n \_ c \_ n t \_ 

#### PUNCTUATE THE TEXT AND ADD CAPITALS

From https://breakingnewsenglish.com/1801/180126-centipede.html

centipedes are the kind of creatures that are not to be messed with their venom packs a serious punch and can cause rapid paralysis and death in insects and small animals they have even been known to kill people with their highly venomous sting scientists have now discovered a deadly toxin in centipede venom that can shut down the hearts of animals that are 15 times bigger than them the scientists isolated a toxin in the chinese redheaded centipede this beast can grow to roughly eight inches in length the toxin in its venom blocks potassium from moving in and out of cells this blocking of potassium prevents the brain from sending signals to the heart to beat thus causing a rapid death

the venom is rarely fatal for humans but it can cause agonizing pain and swelling for up to two weeks the scientists have called it ssm spooky toxin researcher shilong yang an expert in toxins at chinas kunming institute of zoology explained the centipedes venom has evolved to simultaneously disrupt cardiovascular respiratory muscular and nervous systems this molecular strategy has not been found in other venomous animals despite their name *centi* is hundred in latin and *pedis* is foot centipedes do not have 100 legs they have a varying number of legs ranging from 30 to 354 centipedes always have an odd number of pairs of legs this means no centipede has exactly 100 legs.

## PUT A SLASH ( / ) WHERE THE SPACES ARE

From https://breakingnewsenglish.com/1801/180126-centipede.html

Centipedesarethekindofcreaturesthatarenottobemessedwith. Their venompacksaseriouspunchandcancauserapidparalysisanddeathini nsectsandsmallanimals. They have even been known to kill people with t heirhighlyvenomoussting. Scientists have now discovered a deadly toxi nincentipedevenomthatcanshutdowntheheartsofanimalsthatare15t imesbiggerthanthem. The scientists is olated atoxinin the Chinese redheadedcentipede. This beast can grow to roughly eight inches in length. T hetoxininitsvenomblockspotassiumfrommovinginandoutofcells. Thi sblockingofpotassiumpreventsthebrainfromsendingsignalstothehe arttobeat, thus causing a rapid death. The venomis rarely fatal for human s, but it can cause a gonizing pain and swelling for up to two weeks. The scie ntistshavecalleditSSMSpookyToxin.ResearcherShilongYang,anexp ertintoxinsatChina'sKunmingInstituteofZoology,explained:"The"ce ntipede'svenomhasevolvedtosimultaneouslydisruptcardiovascular, respiratory, muscular and nervous systems. This molecular strategy ha snotbeenfoundinothervenomousanimals."Despitetheirname(centii s"hundred"inLatinandpedisis"foot"),centipedesdonothave100legs. Theyhaveavaryingnumberoflegs,rangingfrom30to354.Centipedesa lwayshaveanoddnumberofpairsoflegs. This means no centipede has ex actly100legs.

## **FREE WRITING**

From <a href="https://breakingnewsenglish.com/1801/180126-centipede.html">https://breakingnewsenglish.com/1801/180126-centipede.html</a>

Write about <b>centipedes</b> for 10 minutes. Comment on your partner's paper.						

## **ACADEMIC WRITING**

From <a href="https://breakingnewsenglish.com/1801/180126-centipede.html">https://breakingnewsenglish.com/1801/180126-centipede.html</a>

We should never kill centipedes and insects. 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. CENTIPEDES:** Make a poster about centipedes. Show your work to your classmates in the next lesson. Did you all have similar things?
- **4. INSECT KILLER:** Write a magazine article about insect killers (sprays, etc.) and whether we should ban them. 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 centipedes. Ask him/her three questions about them. Give him/her three of your ideas on what we can learn from insects. Read your letter to your partner(s) in your next lesson. Your partner(s) will answer your questions.

### **ANSWERS**

#### **VOCABULARY (p.4)**

1. h 2. f 3. С 4. а 5. g 6. d 7. e 8. 9. 10. 12. m i k 11. h 1 13. i 14. n

#### TRUE / FALSE (p.5)

a F b F c T d F e T f T g T h F

#### **SYNONYM MATCH (p.5)**

creatures
 paralysis
 immobility

3. deadly c. fatal

4. isolated d. pinpointed

5. prevents6. agonizinge. stopsf. severe

7. expert g. specialist

8. simultaneously9. varyingi. differing

**10. exactly** j. precisely

### **COMPREHENSION QUESTIONS (p.9)**

- 1. A serious punch
- 2. A toxin
- 3. Their heart
- 4. Eight inches
- 5. Potassium
- 6. Two weeks
- 7. SSM Spooky
- 8. Cardiovascular and respiratory systems
- 9. Foot
- 10. Legs

## **MULTIPLE CHOICE - QUIZ (p.10)**

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

#### **ALL OTHER EXERCISES**

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