

Ants use the Sun to get from A to B

22nd January, 2017



Ants are some of the most impressive creatures on this planet. There are so many things we do not know about them. Scientists have just discovered an amazing new fact about these tiny insects. It is about the way ants navigate – the way they get from A

to B without getting lost. An international group of scientists say ants can go in a straight line along a compass route, whatever direction they are facing. The BBC said it is the same as, "trying to find your way home while walking backwards or even spinning round and round". Scientists say ants do this by using the position of the Sun, their past memories, and what they can see around them. Professor Barbara Webb said ants get around like a self-driving car.

The scientists studied desert ants near Seville, Spain. They published their report in the journal 'Current Biology'. They said: "Ants can navigate over long distances between their nest and food sites using visual [clues]." They did this even when the scientists put obstacles in their way and when they had to drag food while walking backwards. Professor Webb said: "Ants have a...tiny brain, less than the size of a pinhead. Yet they can navigate successfully under many difficult conditions, including going backwards." She said we can learn many things from ants: "Understanding their behaviour gives us new insights into brain function and has inspired us to build robot systems that mimic their functions."

Sources: bbc.com / popsci.com / cell.com

Writing

Ants are the most amazing creatures on Earth. Discuss.

Chat

Talk about these words from the article.

impressive / creatures / scientists / insects / navigate / compass / direction / biology / nest / obstacles / backwards / successfully / difficult / behaviour / robot

True / False

- The article says ants are the most impressive creatures on Earth. T / F
- The article says we know almost everything about ants. T / F
- Ants are good at using compasses. T / F
- A professor likened ants to self-driving cars. T / F
- The study was conducted in a desert in Spain. T / F
- The professor said ants have fairly large brains. T / F
- The professor said we can learn many things from ants. T / F
- Understanding ants will help us to build robot systems. T / F

Synonym Match

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

- | | |
|----------------------|------------------|
| 1. creatures | a. hurdles |
| 2. discovered | b. way |
| 3. navigate | c. understanding |
| 4. direction | d. found out |
| 5. spinning | e. copy |
| 6. journal | f. living things |
| 7. obstacles | g. minute |
| 8. tiny | h. steer |
| 9. insights | i. turning |
| 10. mimic | j. publication |

Discussion – Student A

- What do you think about what you read?
- What experiences do you have of using a compass?
- What do you do when obstacles are put in front of you?
- Would you like to read the research on this?
- How important are ants?
- What can we learn from ants?
- What could ant robots do for us?
- What questions would you like to ask the researchers?

Phrase Match

- | | |
|---|--------------------------|
| 1. some of the most impressive creatures | a. a straight line |
| 2. There are so many things we | b. conditions |
| 3. tiny | c. on this planet |
| 4. go in | d. 'Current Biology' |
| 5. using the position | e. in their way |
| 6. They published their report in the journal | f. do not know |
| 7. navigate over long | g. gives us new insights |
| 8. put obstacles | h. of the Sun |
| 9. under many difficult | i. distances |
| 10. Understanding their behaviour | j. insects |

Discussion – Student B

- What do you know about ants?
- What are the most impressive things about ants?
- What would happen to the world if all the ants disappeared?
- What are your navigation skills like?
- What experiences do you have of using a compass?
- What do you do when you get lost?
- What are your favourite insects, and why?
- What would you like to know about ants?

Spelling

- impressive reuetcsar
- the way ants vitgneaa
- a straight line along a asoscmp route
- whatever iitondecr they are facing
- walking bdwcakars
- their past reoismme
- the uonjlra 'Current Biology'
- scientists put sltoaebsc in their way
- difficult onniotidsc
- Understanding their rhvibeoua (UK) / obaehvri (USA)
- rinesipd us to build robot systems
- mimic their sctoifnu

Answers – Synonym Match

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

Role Play

Role A – Ants

You think ants are the most useful creatures. Tell the others three reasons why. Tell them what is wrong with their creatures. Also, tell the others which is the worst of these (and why): worms, bees or spiders.

Role B – Worms

You think worms the most useful creatures. Tell the others three reasons why. Tell them what is wrong with their creatures. Also, tell the others which is the worst of these (and why): ants, bees or spiders.

Role C – Bees

You think bees the most useful creatures. Tell the others three reasons why. Tell them what is wrong with their creatures. Also, tell the others which is the worst of these (and why): worms, ants or spiders.

Role D – Spiders

You think spiders the most useful creatures. Tell the others three reasons why. Tell them what is wrong with their creatures. Also, tell the others which is the worst of these (and why): worms, bees or ants.

Speaking – Creatures

Rank these with your partner. Put the best creatures at the top. Change partners often and share your rankings.

- | | |
|-------------|---------------|
| • ants | • butterflies |
| • worms | • bees |
| • spiders | • snails |
| • mosquitos | • cockroaches |

Answers – True False

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