

## Is Stephen Hawking right about aliens?

### Level 1 • Elementary

#### 1 Key words

Fill the gaps in the sentences using these key words from the text. The paragraph numbers are given to help you.

planet	solar system	galaxy	motive	astronomer
alien	light year	radar	species	billion

1. A \_\_\_\_\_ is a plant or animal group whose members all have similar features. (para 1)
2. A \_\_\_\_\_ is a very large round object that moves around the sun or another star. (para 1)
3. A \_\_\_\_\_ is a star and the planets that go round it. (para 1)
4. An \_\_\_\_\_ is someone who studies the stars and planets using scientific equipment, including telescopes. (para 1)
5. An \_\_\_\_\_ is a person or creature from a planet other than Earth. (para 1)
6. A \_\_\_\_\_ is a very large number or amount of things. (para 3)
7. A \_\_\_\_\_ is an extremely large group of stars and planets. (para 3)
8. A \_\_\_\_\_ is a system that uses radio signals to find the exact position of something. (para 5)
9. A \_\_\_\_\_ is the distance that light travels in a year. (para 5)
10. A \_\_\_\_\_ is the reason you do something. (para 9)

#### 2 Find the information

Find this information in the text as quickly as possible.

1. How many stars are there in our galaxy?
2. Where is the SETI Institute?
3. What three radio and TV stations are mentioned in the text?
4. How far has the oldest broadcast already travelled from Earth?
5. Where do 'extremophiles' live?

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*Stephen Hawking thinks that making contact with aliens would be a very bad idea indeed. But with new, massive telescopes, we humans are stepping up the search. Have we really thought this through?*

**Alok Jha**  
30 April, 2010

- In books and films we often see people hunting for intelligent species outside Earth but it is happening in real life, too. Satellites are searching for planets outside our solar system, and astronomers are carefully listening for any messages coming to us through space. Wouldn't it be incredible to find that we are not alone in the universe and to finally speak to an alien race?
- Well, no, according to the well-known physicist Stephen Hawking. "If aliens visited us, the result would be the same as when Columbus landed in America, which was not good for the Native Americans," Hawking says. He thinks that, instead of trying to find and communicate with aliens, humans should be doing everything they can to *avoid* contact.
- Hawking believes that because of the huge number of planets that scientists know must exist, we are not the only life form in the universe. There are billions and billions of stars just in our galaxy, and we should expect that these stars have an even larger number of planets. And we can also expect that some of that alien life will be intelligent, and able to communicate. So, when someone with Hawking's knowledge of the universe says it's a bad idea to make contact, we should listen to him, shouldn't we?
- Seth Shostak, a senior astronomer at the SETI Institute in California, the world's leading organization searching for aliens, is not so sure. "There is no reason to be afraid," Shostak says. "If their interest in our planet is for something valuable that our planet has to offer, there's no particular reason to worry about them now. If they're interested in natural resources, they have ways of finding rocky planets that don't depend on whether we broadcast or not. They could have found us a billion years ago."
- If we were really worried about aliens knowing we were here, Shostak says, the first thing to do would be to shut down the BBC, NBC, CBS and the radars at all airports. Those broadcasts have been sending messages into space for years – the oldest is already more than 80 light years from Earth – so it is already too late to stop aliens watching our TV programmes.
- Looking for aliens has lots of practical problems, of course, mainly the distance. Let's imagine that our nearest neighbours are on a moon called Endor, 1,000 light years away. It would take a thousand years for us to receive a message from them. If the Endorians were watching us, the light reaching them from Earth at this very moment would show them our planet as it was 1,000 years ago; in Europe that means lots of fighting between knights around castles and, in North America, small groups of natives living on the great plains. A quick conversation would not be possible – and, anyway, they might not be communicating in our direction.
- The fact that we have not received any messages from aliens has not, however, stopped astronomers and biologists (and, of course, film-makers) from producing a number of ideas about what aliens might be like. In the early days of SETI, astronomers were trying to find planets like ours – believing that aliens would be something like us. But there's no reason why that should be true. You can even find very different forms of life here on our own planet.
- 'Extremophiles' are species that can survive in places that would quickly kill humans and other 'normal' life forms. You can find these these single-celled creatures in boiling hot jets of water that come through the ocean floor, or at temperatures many degrees below the freezing point of water. The front ends of some creatures that live near deep-sea jets are 200°C warmer than their back ends.

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9 On Earth, life exists in water and on land but, on a huge gas planet, for example, it could exist high in the atmosphere, eating food from the air around it. And as aliens would be so different from us, understanding their motives and intentions if they ever got in touch with us is something that even Hawking cannot explain.

10 Paul Davies, an astrophysicist at Arizona State University says that alien brains, with their different structure, would interpret information

very differently from ours. "Lots of people think that because they would be so clever, they would be peaceful," adds Stewart. "I don't think you can say that. I don't think you can put human views onto them; that's a dangerous way of thinking. Aliens are alien. If they exist at all, we cannot just believe they're the same as us."

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### 3 Comprehension check

Match the beginnings and endings to make sentences about the text.

- |   |  |
|---|--|
| 1. Stephen Hawking believes ...                 | a. ... that aliens are the same as us.               |
| 2. There are billions and billions of stars ... | b. ... we should not try to contact aliens.          |
| 3. There are so many planets that there ...     | c. ... would take thousands of years to reach Earth. |
| 4. A message from another planet ...            | d. ... would not know their motives and intentions.  |
| 5. It is dangerous to think ...                 | e. ... must be life forms somewhere.                 |
| 6. If aliens got in touch with us, we ...       | f. ... in our galaxy.                                |

### 4 Chunks

Rearrange the words to make phrases from the text.

- reason be to there is afraid no
- years billion ago a
- true no that why reason be should
- the of point below water freezing
- way thinking a of dangerous

### 5 Prepositions

Complete the phrases using prepositions. Check your answers in the text.

- hunting \_\_\_\_\_ intelligent species
- searching \_\_\_\_\_ planets
- communicate \_\_\_\_\_ aliens
- interest \_\_\_\_\_ our planet
- worried \_\_\_\_\_ aliens
- looking \_\_\_\_\_ aliens

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### 6 Word stress

Put these words into the correct group according to their stress.

species	planet	alone	result	expect	reason
worried	radar	survive	exist	explain	human

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#### KEY

#### 1 Key words

1. species
2. planet
3. solar system
4. astronomer
5. alien
6. billion
7. galaxy
8. radar
9. light year
10. motive

#### 2 Find the information.

1. billions and billions
2. California
3. BBC, NBC and CBS
4. 80 light years
5. in places that would quickly kill humans

#### 3 Comprehension check

1. b
2. f
3. e
4. c
5. a
6. d

#### 4 Chunks

1. there is no reason to be afraid
2. a billion years ago
3. no reason why that should be true
4. below the freezing point of water
5. a dangerous way of thinking

#### 5 Prepositions

1. for
2. for
3. with
4. in
5. about
6. for

#### 6 Word stress

0 o	o 0
species	alone
planet	result
reason	expect
worried	survive
radar	exist
human	explain