

Earth's Magnetic Poles Are About To Flip

7th February, 2018



When doom-and-gloom merchants warn us about threats to our existence, we usually hear about climate change, asteroid strikes or nuclear war. Now scientists have warned of the

potential threat from Earth's magnetic poles flipping upside down. The North Pole and South Pole are responsible for creating a special barrier around Earth that protects us from killer radiation from space. All life on Earth depends on this shield. Without it, scientists say solar rays could cause considerable damage. The poles could flip in the next thousand years. This is because a rolling layer of liquid iron under the earth's crust is changing direction. The revolving currents of this molten iron at Earth's center act as a gigantic electromagnet.

Historically, Earth's North and South magnetic poles have flipped every 200,000 to 300,000 years. The last time was 780,000 years ago, so the next flip is well overdue. Some scientists say the flip could destroy satellite communications and power grids; that dangerous solar rays would greatly multiply rates of cancer; and that climate change could kill billions of creatures. Some scientists forewarn that a polar flip could even blow Earth's atmosphere away. However, one scientist dismissed the doom-mongers. He believes that the effects of any increase in radiation would be as harmful as lying on a hot beach for a day. He suggested a "floppy hat" would be enough to protect us from any increased radiation.

Sources: dailymail.co.uk / sciexaminer.com / inquisitr.com

Writing

What are the three biggest threats to Earth? How can we combat them?

Chat

Talk about these words from the article.

doom / gloom / existence / asteroid / barrier / radiation / poles / molten iron / flip / magnetic / the last time / overdue / satellite / multiply / creatures / atmosphere / hat

True / False

- a) The article reported news about an imminent asteroid strike. T / F
- b) The article said the East and West Poles create a radiation shield. T / F
- c) The magnetic poles could flip within the next millennium. T / F
- d) Liquid gold inside the earth's center serves as a huge electromagnet. T / F
- e) Earth's magnetic poles usually flip roughly every 250,000 years. T / F
- f) The last time the poles flipped was over 700,000 years ago. T / F
- g) Scientists said a polar flip could strengthen the Earth's atmosphere. T / F
- h) A scientist suggested a polar flip would not cause perilous radiation. T / F

Synonym Match

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

- | | |
|------------------------|------------------|
| 1. doom | a. late |
| 2. gloom | b. sizable |
| 3. threat | c. defend |
| 4. considerable | d. hopelessness |
| 5. revolving | e. living things |
| 6. overdue | f. hazardous |
| 7. creatures | g. destruction |
| 8. dismissed | h. spinning |
| 9. harmful | i. disregarded |
| 10. protect | j. danger |

Discussion – Student A

- a) What do you think of doom-and-gloom merchants?
- b) What threats are there to our existence?
- c) What do you know about Earth's magnetic poles?
- d) How worried are you about climate change?
- e) What do you know about the harm solar rays can do?
- f) What do you know about magnets?
- g) What would you do the day the magnetic poles flipped?
- h) Are you ever a doom-and-gloom merchant?

BreakingNewsEnglish - The Mini Lesson

Phrase Match

- warn us about threats
- asteroid
- All life on Earth
- under the earth's
- molten
- the next flip is well
- satellite communications and power
- one scientist dismissed
- any increase in radiation would be
- a floppy
- depends on this shield
- the doom-mongers
- crust
- hat
- grids
- to our existence
- as harmful
- iron
- strikes
- overdue

Discussion – Student B

- What do you think about what you read?
- What is the biggest threat to our existence?
- How worried are you about Armageddon?
- What would happen if all our electricity failed?
- What would happen if our atmosphere blew away?
- How dangerous is lying on a beach?
- How useful is a floppy hat?
- What questions would you like to ask the scientists?

Spelling

- doom-and-gloom srteanhcm
- threats to our enixetcse
- rsoteaid strikes
- warned of the lonieptta threat
- The lroevngiv currents
- a itinaggc electromagnet
- the next flip is well deorvue
- destroy tslleiate communications
- kill billions of racuteres
- blow Earth's tmsahpoere away
- one scientist isidssmed the doom-mongers
- any increased adirtiaon

Answers – Synonym Match

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

Role Play

Role A – No Electricity

You think no electricity is the most damaging thing to our existence. Tell the others three reasons why. Tell them why their things aren't as bad. Also, tell the others which is the least damaging of these (and why): global warming, no satellites or an asteroid strike.

Role B – Global Warming

You think global warming is the most damaging thing to our existence. Tell the others three reasons why. Tell them why their things aren't as bad. Also, tell the others which is the least damaging of these (and why): no electricity, no satellites or an asteroid strike.

Role C – No Satellites

You think no satellites is the most damaging thing to our existence. Tell the others three reasons why. Tell them why their things aren't as bad. Also, tell the others which is the least damaging of these (and why): global warming, no electricity or an asteroid strike.

Role D – Asteroid Strike

You think an asteroid strike is the most damaging thing to our existence. Tell the others three reasons why. Tell them why their things aren't as bad. Also, tell the others which is the least damaging of these (and why): global warming, no satellites or no electricity.

Speaking – Damage

Rank these with your partner. Put the most damaging things to our existence at the top. Change partners often and share your rankings.

- species extinction
- global droughts
- nuclear war
- asteroid strike
- no electricity
- no satellites
- global warming
- increased radiation

Answers – True False

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