

NASA can send your name to Jupiter's moon Europa

20th November 2023



The U.S. space agency NASA is inviting people to have their names engraved on a microchip bound for a moon of Jupiter. The spacecraft Europa Clipper will set off for Jupiter's moon Europa. The craft is set to embark on its 2.6-billion-kilometre voyage in October 2024. The journey through the heavens will take six years. Sending the names is part of a time-capsule project called "Message in a Bottle". The names will be etched next to a piece of poetry by U.S. poet Ada Limon called, "In Praise of Mystery: A Poem for Europa". NASA said: "The poem connects the two water worlds - Earth, yearning to reach out and understand what makes a world habitable, and Europa, waiting with secrets yet to be explored."

More than 700,000 names have already been submitted to NASA. Engineers will use an electron beam to stencil them onto a tiny silicon microchip. NASA said: "Each line of text is smaller than 1/1000th the width of a human hair (75 nanometres)." It added: "Riding on the exterior of the spacecraft, the poem and names will be like a message in a bottle as they make about 50 close flybys of [Europa's] ocean world." Europa is one of Jupiter's 95 officially recognized moons. The Europa Clipper will gather data on the moon's atmosphere, icy crust and ocean. NASA said: "Europa is such a promising place to better understand the astro-biological potential for habitable worlds beyond Earth."

Sources: nasa.gov / ndtv.com

Writing

It is highly important to explore space. Discuss.

Chat

Talk about these words from the article.

space / space agency / names / microchip / moon / Jupiter / voyage / the heavens / NASA / beam / microchip / human hair / spacecraft / poem / data / atmosphere

True / False

- 1) NASA wants people to engrave their names on the side of a rocket. T / F
- 2) The NASA spacecraft is called the Jupiter Clipper. T / F
- 3) The journey to Europa is 2.6 billion kilometres long. T / F
- 4) A poem connecting Earth and Europa will also be on the space ship. T / F
- 5) NASA has already been sent more than a million names. T / F
- 6) Each line of text for the names is as thin as a human hair. T / F
- 7) The spaceship will fly past the moon Europa 50 times. T / F
- 8) NASA hopes to know more about habitable places in space. T / F

Synonym Match

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

- | | |
|----------------------|----------------------|
| 1. inviting | a. likely-looking |
| 2. engraving | b. links |
| 3. voyage | c. longing |
| 4. connects | d. miniscule |
| 5. yearning | e. etching |
| 6. submitted | f. fit to live in/on |
| 7. tiny | g. amass |
| 8. gather | h. journey |
| 9. promising | i. sent |
| 10. habitable | j. requesting |

Discussion – Student A

- a) What do you think about what you read?
- b) How would you feel if your name was near Jupiter?
- c) What message would you put in a bottle?
- d) What things would you put in a time capsule?
- e) What will life on Earth be like in 50 years from now?
- f) What would working for NASA be like?
- g) What would you write a poem in praise of?
- h) What questions would you like to ask NASA?

Phrase Match

- | | |
|------------------------------------|--------------------------|
| 1. have their names engraved | a. biological potential |
| 2. The journey through the heavens | b. beam |
| 3. etched next to a piece | c. to be explored |
| 4. yearning to | d. crust |
| 5. secrets yet | e. on a microchip |
| 6. Engineers will use an electron | f. of poetry |
| 7. 1/1000th the | g. recognized moons |
| 8. one of Jupiter's 95 officially | h. reach out |
| 9. icy | i. width of a human hair |
| 10. understand the astro- | j. will take six years |

Discussion – Student B

- Would you like your name to visit Jupiter?
- What do you know about NASA?
- What do you know about the planet Jupiter?
- What do you think the project will find?
- What would it be like to live on another planet?
- What things do you find to be mysterious?
- How important is it to find habitable planets?
- Why do humans like exploring so much?

Spelling

- have their names ndvrgae on a microchip
- The craft is set to aebkrm
- on its 2.6-billion-kilometre gaoeyv
- part of a time-aplsuce project
- names will be ehcudt next to a piece of poetry
- understand what makes a world hbieatabl
- use an trleneoc beam
- inestlc them onto a tiny silicon microchip
- the eitorexr of the spacecraft
- Jupiter's 95 afyiofilcl recognized moons
- the moon's prsmoeaht
- understand the astro-biological noattlpie

Answers – Synonym Match

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

Role Play

Role A – A Hollywood Movie Poster

You think a Hollywood movie poster is the best place for your name to be. Tell the others three reasons why. Tell them what is wrong with their places. Also, tell the others which is the least appealing of these places (and why): PhD degree, Jupiter or marriage certificate.

Role B – A PhD Degree

You think a PhD degree is the best place for your name to be. Tell the others three reasons why. Tell them what is wrong with their places. Also, tell the others which is the least appealing of these places (and why): Hollywood movie poster, Jupiter or marriage certificate.

Role C – Jupiter

You think Jupiter is the best place for your name to be. Tell the others three reasons why. Tell them what is wrong with their places. Also, tell the others which is the least appealing of these places (and why): PhD degree, Hollywood movie poster or marriage certificate.

Role D – A Marriage Certificate

You think a marriage certificate is the best place for your name to be. Tell the others three reasons why. Tell them what is wrong with their places. Also, tell the others which is the least appealing of these places (and why): PhD degree, Jupiter or Hollywood movie poster.

Speaking – My Name

Rank the best places for your name to be. Change partners often and share your rankings.

- | | |
|--------------------------|----------------|
| • Hollywood movie poster | • A PhD degree |
| • Winning lottery ticket | • VIP list |
| • Marriage certificate | • Airplane |
| • Nobel prize list | • Jupiter |

Answers – True False

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

Answers to Phrase Match and Spelling are in the text.