

## A New World!

### Scientists discover an earthlike planet.

Would you like to have a birthday party every 13 days? Then Gliese 581c is the place for you!

Astronomers recently found the planet Gliese 581c. It orbits the star Gliese 581 once every 13 days. Earth orbits its star, the sun, every 365 days.

Gliese 581c is an exoplanet—a planet that exists beyond our solar system. It is the most earthlike exoplanet discovered so far.

Astronomers say there could be liquid water on Gliese 581c. And where there's water, there could be life. "Liquid water is critical to life as we know it," says Xavier Delfosse, one of the scientists who discovered the planet. "This planet will most probably be a very important target of the future of space missions... On the treasure map of the universe, one would be tempted to mark this planet with an X," says Delfosse.



Credit ESO

*An artist's drawing of the earth-like planet Gliese 581c.*

## Planet Files

### Earth

- is 8,000 miles across.
- is made of rock, ice, and liquid water.
- is one of eight planets in its solar system.

### Gliese 581c

- is estimated to be 12,000 miles across.
- is probably made of rock and might have ice and liquid water.
- is one of three planets in its solar system.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. What is Gliese 581c?

- A. the star that Gliese 581c orbits
- B. a moon that orbits Gliese 581c
- C. another planet in Gliese 581c's solar system
- D. an asteroid that will hit Gliese 581c

2. What is the purpose of the lists at the end of the passage?

- A. to compare and contrast features of Earth with Gliese 581c
- B. to explain why scientists are so excited about the discovery of Gliese 581c
- C. to introduce the reader to Gliese 581c
- D. to suggest that Gliese 581c is more important than Jupiter and Saturn

3. Which conclusion about Gliese 581c could be supported by the passage?

- A. Scientists will want to confirm whether water exists on Gliese 581c.
- B. Aliens will want to make contact with Earth from Gliese 581c.
- C. Astronauts will never go to Gliese 581c on future space missions.
- D. People will want to search for treasure on Gliese 581c.

4. Read the following sentences and answer the question:

"It orbits the star Gliese 581 once every 13 days. Earth orbits its star, the sun, every 365 days."

In these sentences, what does the word **orbit** mean?

- A. runs
- B. exits
- C. circles
- D. walks

5. The primary purpose of this passage is to describe

- A. a new planet with similarities to Earth
- B. a new alien species that will visit Earth
- C. a new comet that may collide with Earth
- D. a new star that Earth will orbit

6. Why would you have a birthday every 13 days on Gliese 581c?

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7. Why is the planet Gliese 581c such an exciting discovery?

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8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

Astronomers are excited about Gliese 581c \_\_\_\_\_ there could be liquid water there, which means there could be life.

- A. so
- B. because
- C. although
- D. but

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. What is a meaning of the word **estimate**?

- A. someone who controls resources and expenditures
- B. ceramic ware made from clay and baked in a kiln
- C. to calculate roughly, often from imperfect data

2. What is another meaning of the word **estimate**?

- A. the study of Earth
- B. to guess carefully
- C. a military officer

**Please use each answer choice only once. Choose the one word that best completes the sentence.**

3. There were an \_\_\_\_\_ 100,000 tigers in the early 20th century.

- A. underestimate
- B. estimates
- C. estimated
- D. estimating
- E. estimation
- F. estimate

4. Scientists \_\_\_\_\_ that this mushroom might be 2,400 years old.

- A. underestimate
- B. estimates
- C. estimated
- D. estimating
- E. estimation
- F. estimate

5. Some modern \_\_\_\_\_ indicate that 200,000 people may have lived in the city at its peak.

- A. underestimate
- B. estimates
- C. estimated
- D. estimating
- E. estimation
- F. estimate

6. The architects and engineers who are designing the building, planning the time schedule, and \_\_\_\_\_ the costs have a good idea what to expect but must know precisely.

- A. underestimate
- B. estimates
- C. estimated
- D. estimating
- E. estimation
- F. estimate

7. There was nothing better in the farmer's \_\_\_\_\_ than two farm fresh eggs cooked over-easy and laid atop some bacon strips.

- A. underestimate
- B. estimates
- C. estimated
- D. estimating
- E. estimation
- F. estimate

8. Boys with muscles always \_\_\_\_\_ me.

- A. underestimate
- B. estimates
- C. estimated
- D. estimating
- E. estimation
- F. estimate

9. Please write your own sentence using the word **estimate**.

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10. What would you like to remember about the meaning of the word **estimate** so that you can use it when you write or speak?

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