

Science Time

Program Content for March 1, 2017

Read the article '7 Earth-size planets that could harbor life found in orbit around star' on page A1 of the Thursday, February 23, 2017 edition of The Seattle Times.

Objective

- I can explain the importance of the recent discovery of 7 Earth-size planets.

Next Generation Science Standards (NGSS) connection

Disciplinary Core Idea - The Universe and its Stars

- The study of stars' light spectra and brightness is used to identify compositional elements of stars, their movements, and their distances from Earth.

Pre-reading and Vocabulary: Define each term and then use it in a sentence to demonstrate your understanding.

1. Light year
2. Cosmic
3. Infrared
4. Dwarf star
5. Astronomer

Comprehension Questions

1. How many Earth-size planets were recently discovered?
2. Why is this discovery of importance?
3. How far away are the planets?
4. What is the most common type of star?
5. How will scientists determine whether or not life exists in the Trappist-1 exoplanets?
6. How many planets have been discovered around other stars?
7. What is an exoplanet?
8. How is Trappist-1 different from our sun?
9. How was the discovery of an Earth-size planet around Proxima Centauri different than the discovery involving Trappist-1?
10. How do astronomers calculate the size of the planets near Trappist-1?
11. How are the atmospheres of each Trappist-1 planet measured?
12. What gases would indicate the presence of life on a planet?

Prompts and Extensions

1. Watch this [TedTalk](#) to learn more about how exoplanets are found
2. Watch this [news story](#) about the discovery of the 7 exoplanets and learn about what some next steps in studying them will likely be.
3. Visit NASA's [website](#) to learn more in-depth information about the discovery. On this site you can also hear from the scientists themselves who made this discovery.
4. Discuss: Do you think life exists elsewhere in our Universe? Why or why not?

Science Time is posted to the Web on Wednesdays. Please share this NIE Science Time program with other teachers. To sign-up for the electronic edition for your class, please register

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