Name:	Date:	Block/Period:

## Worlds Beyond the Solar System

https://student.societyforscience.org/article/worlds-beyond-solar-system

## **Before reading:**

1. How many planets do you think there are beyond the solar system we live in?

2. How do you think scientists are able to detect these planets beyond our solar system?

**During reading:** 

- 1. What is an exoplanet?
- 2. When was the first exoplanet discovered, and how far away is it?
- 3. How many exoplanets have scientists confirmed?
- 4. How many possible exoplanets need to be studied further before they can be confirmed? What instrument has discovered these faraway blips?
- 5. How many exoplanets reside in the galaxy we call home, the Milky Way?
- 6. Describe the extreme conditions found on two exoplanets.
- 7. Have planet hunters found an Earth-like planet? What three characteristics would make a planet Earth-like?
- 8. How do astronomers estimate the temperature of faraway planets?
- 9. Explain the Goldilocks zone.
- 10. Are most confirmed exoplanets like the planets in the solar system we live in?
- 11. Are most of the exoplanet solar systems similar to the solar system we live in? Describe two faraway solar systems and how they differ from ours.

- 12. Explain how watching a star's wobbles can help astronomers detect exoplanets.
- 13. Does the Kepler telescope watch a large or small patch of sky? Roughly how many stars are in that patch of sky?

## After reading:

1. Were you surprised to learn that astronomers haven't found another Earth-like planet or another solar system like ours?

2. Do you think other forms of life exist in the universe? Explain your answer.

3. How will scientists be able to identify other life forms if they don't resemble life as we know it on Earth?

## SOCIAL STUDIES

1. How important do you think it is for scientists to continue to look for exoplanets?