


## Activity: Strange New Worlds Exploration

**Description:** For this learning activity you will explore exoplanets detailed in NASA's Exoplanet Catalog. In this catalog NASA organizes all of the data they know about the exoplanets they've discovered and have created visualizations to help us understand what these 'worlds' might look like.

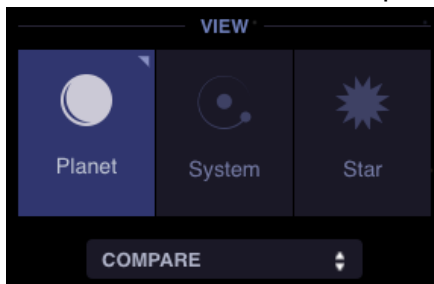
**Learning Objective:** I can 'discover' a new exoplanet, summarize its characteristics and evaluate its potential habitability based on my understanding of the Earth-Sun system.

### Directions:

1. **Go to** the [NASA Exoplanet Catalog section featuring 'Strange New Worlds.'](#)
2. **Hover** (hold your mouse) over each of the different planets to view the short summaries and read the descriptions.

3. Choose **one** of the 'Strange New Worlds' to explore more in depth by **clicking on the 'View' button** below the summary that looks like this: 

4. Wait a few moments for the visualization of the exoplanet to load (this is their best guess as to what the exoplanet might look like). *(You may need to go into full screen)*
5. Click on the name of the exoplanet in the **bottom left hand corner** to read the information about the exoplanet.
6. Click on the **'COMPARE'** options and choose **'COMPARE TO EARTH.'**



1. **Answer the following questions in 2-3 complete sentences:**
  - a. **What is the name of the exoplanet are you exploring?**
  - b. **What does NASA know about the exoplanet (just the PLANET itself, not its star)?**
  - c. **How is the exoplanet similar to and/or different from planet Earth?**

**Your response:**

7. Click on the **'Star'** option in the **VIEW menu** to view the exoplanet's host star up close.
8. Read the information about the host star in the **bottom left hand corner**.
9. Click on the **'System'** option in the VIEW menu to view the entire 'solar system.'

10. Read the information about the 'System' in the **bottom left hand corner**.
11. Now you should be able to see the exoplanet's host star and any other exoplanets in the system. **Count** how many exoplanets there are.
12. **Uncheck** and then **Check** the box next to the words '**Habitable Zone**' to view the habitable

zone of the star - it will show up as a light green region.



2. Answer the following questions in 2-3 complete sentences:
  - a. What kind of star is at the center of the system?
  - b. How is the star similar to or different from the Sun?
  - c. How many exoplanets are orbiting the star?
  - d. Are the exoplanets in the system in the habitable zone? What does this tell us about the exoplanets?

Your response: