

# A Tour of NASA's Exoplanet Exploration Resources

List of websites and resources about Exoplanet Exploration from the Harvard-Smithsonian Center for Astrophysics' Exoplanet Webinar Series, as well as a few others.



## NASA's Eyes: Eyes on Exoplanets

*Notes:* This webpage displays a fully rendered 3D universe which is scientifically accurate, allowing you to zoom in for a close look at more than 1,000 exotic planets known to orbit distant stars.

<https://eyes.jpl.nasa.gov/eyes-on-exoplanets.html>



## Visions of the Future

*Notes:* Fourteen space travel posters of colorful, exotic space settings are now available free for downloading and printing.

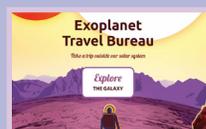
<https://www.jpl.nasa.gov/visions-of-the-future>



## Exoplanet Exploration: - Beyond our Solar System

*Notes:* NASA's Exoplanet Exploration Program, the search for planets and life beyond our solar system. Find the latest confirmed planet counts and news about unique discoveries.

<http://Exoplanets.nasa.gov>



## Exoplanet Travel Bureau - Beyond our Solar System

*Notes:* This set of 360 surfaces and travel posters envision a day when the creativity of scientists and engineers will allow us to do things we can only dream of now.

<https://exoplanets.nasa.gov/alien-worlds/exoplanet-travel-bureau>



## New Worlds Atlas | The Search for Life

*Notes:* A searchable Exoplanet Catalog, a great place to find specific data about planets around other stars.

<https://exoplanets.nasa.gov/newworldsatlas>



## Graphic Novels | Astrobiology

<https://astrobiology.nasa.gov/resources/graphic-histories/>



## NASA Exoplanet Archive

*Notes:* The NASA Exoplanet Archive is an online astronomical exoplanet catalog and data service that collates and cross-correlates astronomical data on exoplanets and their host stars, and provides tools to work with these data.

<https://exoplanetarchive.ipac.caltech.edu>



## Interactives – Planets Beyond our Solar System

*Notes:* Interactive games for the topic of exoplanets including planning travel times to distant worlds, and designing your own planet.

<https://exoplanets.nasa.gov/interactives>



## Spitzer Space Telescope: TRAPPIST-1

*Notes:* In the year since NASA announced the seven Earth-sized planets of the TRAPPIST-1 system, scientists have been working hard to better understand these enticing worlds just 40 light-years away. Thanks to data from a combination of space and ground-based telescopes, we know more about TRAPPIST-1 than any other planetary system besides our solar system.

<http://www.spitzer.caltech.edu/trappist-1>



## Universe Discovery Guides

*Notes:* Discover the universe with your family and friends! Each Guide contains: A story about the month's theme, A sky feature to observe, Try This!, One or more activities to explore the theme, and a Connection to NASA Science.

AAAS Benchmarks: [4A/M1bc](#), [4A/M2de](#), [4A/H2ab](#), [4A/H2ef](#), [4A/H6](#)  
[https://nightsky.jpl.nasa.gov/news-display.cfm?News\\_ID=611](https://nightsky.jpl.nasa.gov/news-display.cfm?News_ID=611)



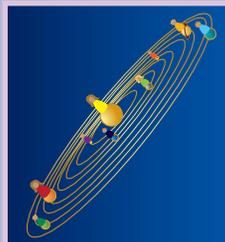
### LEGO Model of Kepler Planet-finding Method

AAAS Benchmarks: [11B/E4](#), [11B/M6](#), [11B/H3](#)  
<https://www.nasa.gov/sites/default/files/atoms/files/legoorrery2011.pdf>



### Exploring the Universe

Notes: Exoplanet Transits Content Training Video from the Explore Science: Earth & Space 2018 Toolkit  
<https://vimeo.com/album/4249834/video/245835228>



### A Human Powered Orrery | NASA

Notes: The Human-Powered Orrery is a kinesthetic model of planetary motion in the inner solar system. Most solar system models made in classrooms are simple line-ups of the planets in a straight line with no indication of how the planets move. The Human-Powered Orrery is a 3-dimensional model where the planets are laid out first in two dimensions spatially along orbit lines, then set in motion to show how the planets closer to the Sun orbit faster than the outer planets. So the 3rd dimension in this model is time. Students take turns acting out the planet movements taking 2-week long steps.

<http://www.nasa.gov/kepler/education/formal/gems/humanorrery>



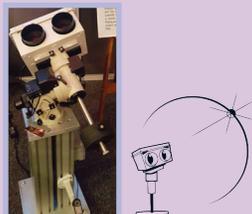
### Learning About Planet’s Atmosphere

Notes: This animation describes how Webb will use transmission spectroscopy to study the atmospheres of distant exoplanets.  
<https://webbtelescope.org/contents/media/videos/1158-Video>



### AstroPix ExoPlanet

Notes: Use the Featured Topics “ExoPlanets” button on the top left to search this multimedia database for artwork, observations, collages and charts in an easily searchable database.  
<https://astropix.ipac.caltech.edu/browse>



### Project PANOPTES

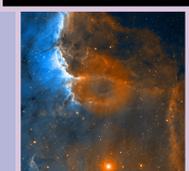
Notes: PANOPTES (Panoptic Astronomical Networked Observatories for a Public Transiting Exoplanets Survey) is a citizen science project which aims to build low cost, robotic telescopes which can be used to detect transiting exoplanets.

<https://projectpanoptes.org/>



### ViewSpace

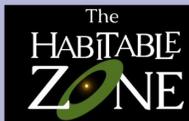
Notes: Originally intended for viewing by the public at museums, this sample video on transits is a good introduction to the topic of exoplanets. (Check out the “Short Features” on bottom left)  
<https://viewspace.org/resources/videos>



### Science Briefings — Universe of Learning

Notes: NASA’s Universe of Learning science briefings are monthly professional learning telecons for the informal science educators highlighting new astrophysics discoveries.

<https://www.universe-of-learning.org/science-briefings>



### Universe Unplugged

Notes: This is a series of short videos on Exoplanets designed to pique general public interest in NASA’s scientific exploration of humanity’s cosmic origins, and provide pathways to further learning opportunities. Most of the videos feature Hollywood celebrities in order to reach a broad audience, including populations whose participation in STEM are underrepresented.  
<https://universeunplugged.ipac.caltech.edu/video/the-habitable-zone-goldilocks-paradox>