Universe of Learning Science Briefing: December 2016

The resources in this list pertain to the presentation given on December 1, 2016, titled, "New Worlds: NASA's Search for Exoplanets".

NASA's Universe of Learning is a program which will integrate NASA's Astrophysics Science Mission Directorate programs, and will advance STEM learning and literacy by creating and delivering a unified suite of education products, programs, and professional development that spans the full spectrum of NASA Astrophysics.

NASA's Universe of Learning is partnering with the Museum Alliance to provide professional development briefings for the informal science education community. These briefings provide current NASA Astrophysics themes, content, and resources to the informal community. These curated lists present the resources described during the briefings. To find the briefings, you can go here: http://universe-of-learning.org/science_briefing

**TESS - Beauty and Coverage - YouTube Video**

**Notes:** This composite video, put together by Stephen Rinehart, George Ricker, and others, explores the Transiting Exoplanet Survey Satellite (TESS). TESS will discover thousands of exoplanets in orbit around the brightest stars in the sky. In a two-year survey of the solar neighborhood, TESS will monitor more than 500,000 stars for temporary drops in brightness caused by planetary transits. This first-ever spaceborne all-sky transit survey will identify planets ranging from Earth-sized to gas giants, around a wide range of stellar types and orbital distances. No ground-based survey can achieve this feat.

**External Resorce URL:** [https://youtu.be/FlJyuDQOeoo](https://youtu.be/FlJyuDQOeoo)

**DIY Planet Search**

**Notes:** NASA's portal for planet hunters to search for new Planets and Earths, and more. You are about to take part in one of the most exciting frontiers of science—the search for other worlds and other earths. Using a telescope that you control online, you’ll take your own images of distant solar systems, interpret and share the data you gather, and become part of a community of planet searchers!


**DIY Planet Search - Measuring Your Images - YouTube**

**Notes:** Youtube tutorial about measuring images in the DIY Planet Search online activity.

These external resources were not reviewed for the NASA Wavelength collection.
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External Resource URL: https://youtu.be/2kJSK4Qg5Mc

NASA's Eyes: Eyes on Exoplanets

Notes: Get set for launch. “Eyes on Exoplanets” will fly you to any planet you wish—as long as it's far beyond our solar system. This fully rendered 3D universe is scientifically accurate, allowing you to zoom in for a close look at more than 1,000 exotic planets known to orbit distant stars.

External Resource URL: https://eyes.nasa.gov/eyes-on-exoplanets.html

Universe Discovery Guides

Notes: Universe Discovery Guides - April - The Universe Discovery Guides showcase education and public outreach resources from across more than 20 NASA astrophysics missions and programs. The April guide is titled, "Discovering Planet Families." The April Universe Discovery Guides feature content and hands-on activities directly related to NASA's exploration of the furthest reaches of our Universe.

AAAS Benchmarks: 4A/M1bc, 4A/M2de, 4A/H2ab, 4A/H2ef, 4A/H6

More info: http://nasawavelength.org/resource/nw-000-000-003-839


Kids News: 20 Years of Exoplanets

Notes: Star Witness News are science content reading articles that deliver the latest science discoveries from the Hubble Space Telescope with audience-appropriate language, graphics, and illustrations. This is targeted to the 6-7th grade level. These are timed to be released with press-releases. Museums often use for docents as well.

External Resource URL: http://amazingspace.org/news/archive/2015/03/

Website: Exoplanet Exploration

Notes: Exoplanet Exploration: Planets Beyond our Solar System. Current news, discoveries, data, and interactive 3-D visualizations of exoplanets from NASA.

External Resource URL: https://exoplanets.nasa.gov/

Podcasts: Discovery of Exoplanet using X-rays

Notes: HD 189733b: An exoplanet in orbit around a star about 63 light years from Earth. It has been nearly two decades since the first exoplanets - that is, planets around stars other than our Sun - were discovered. Now for the first time, X-ray observations have detected an exoplanet passing in front of its parent star.

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