



## What's New at NASA eClips? Loads of new videos and resources!

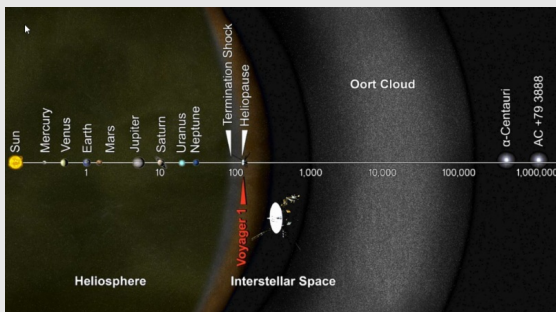
Want **NEW VIDEOS AND RESOURCES** to add some spice to your autumn lesson plans? Well consider us that pumpkin spice everyone loves! We have a bounty of new releases for grades 3-12 to share with your students and colleagues.

[Visit our Website](#)

# NEW VIDEOS

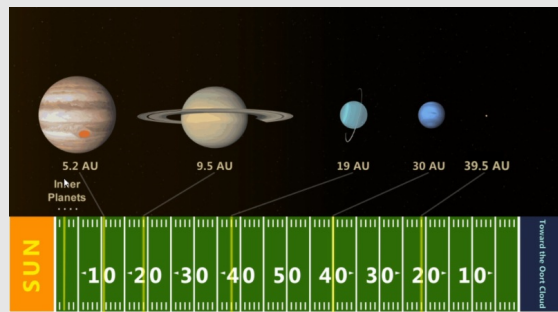
### *The Oort Cloud is the Limit*

How big is our solar system, and how does NASA know where it ends? And just what *IS* an astronomical unit (AU)? Share these two videos with your students, and you can discover together the answers to these questions - and MORE!



#### Real World: Limits of the Solar System

What defines the limits of the solar system? Where does the Oort Cloud fit within this defined space? Paula Chodas, from NASA's Near Earth Object Program, answers these questions and fills us in on some of NASA's missions and explorations that have helped shape our understanding of the solar system.

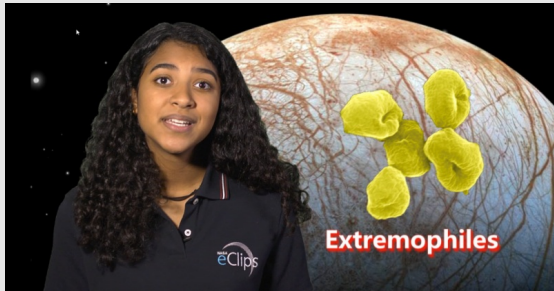


#### Real World: Scaling the Solar System

Paul Chodas, from NASA's Near Earth Object Program, explains an Astronomical Unit (AU) and how this unit of measure helps simplify an understanding of distances within the solar system. To further simplify thinking about these vast distances, they are explained and scaled to the size of a football field.

## We go to *EXTREMES* for you!

Kids of all ages love learning about weird organisms and the hostile environments in which they live. With our two new videos about **EXTREMOPHILES**, students learn the characteristics of what makes an organism an extremophile and where on Earth, and in our solar system, these amazing creatures could survive.



### Our World: What is an Extremophile?

Almost every possible environment on Earth is home to a living organism, no matter how hostile the environment may seem. But what can these **extremophiles** tell us about life on our planet or the possibility of life in the universe?

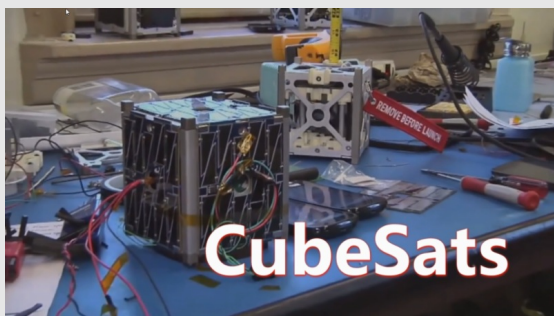


### Our World: Where Do We Find Extremophiles?

We look for environments that push the limits for ordinary living organisms. NASA conducts analog testing in these extreme environments to better understand life on Earth and identify the potential for life in the universe.

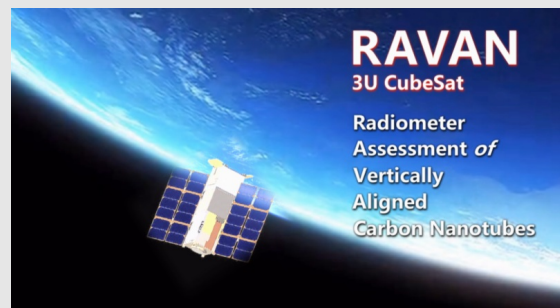
## Small Satellites - Big Discoveries

Small, modular, and inexpensive to build and launch, **CubeSats** are opening up space exploration like never before. They offer a new world of possibilities in research and technology development to everyone. -[www.jpl.nasa.gov/cubesat](http://www.jpl.nasa.gov/cubesat)



### Real World: CubeSats - Changing the Way We Do Science

**CubeSats** are changing the way we collect information. They may be small, but these little satellites are helping us answer big questions. And using a swarm of **CubeSats** can give us simultaneous measurements without repeatedly sending commands to the satellite to tell it what to do.



### Real World: CubeSats - A Satellite Small Enough to Fit in Your Hand

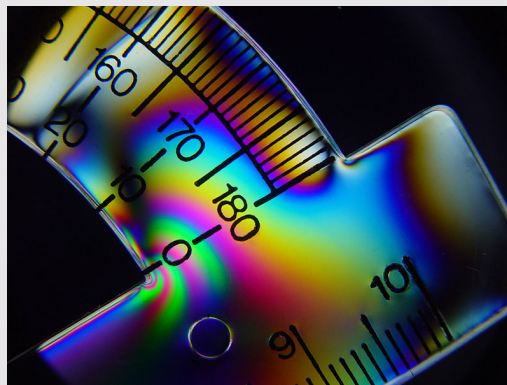
Satellites are expensive to build and expensive to get into space. With all the changes in technology, is there a way to make satellites smaller? Find out just what NASA can pack into a 1U **CubeSat**, a satellite small enough to fit in your hand.



**[NASA eClips Educator Guide - Our World: Designing a Cloud Cover Estimator](#)**

Students will think and act like engineers and scientists as they follow the five steps of the Design Process to successfully complete a team challenge.

Students view the **[NASA Spotlight: Clouds video](#)** that corrects the misconception that a cloud's only purpose is to produce precipitation. Students design, measure, build, test and redesign a cloud cover estimator to measure the amount of cloud cover in the sky. From this, students discuss the role clouds play in Earth's energy balance.



**[NASA eClips Guide Lites Interactive Lesson Testing...1, 2, 3...Testing: Nondestructive Evaluation](#)**

Students learn how cross-polarizers are used to view the light refraction and birefringence produced in transparent plastics, a means of nondestructive visual evaluation that can be used to analyze the extent and degree of stress in a clear or transparent plastic material.

Did you know nondestructive testing was used to examine an early artifact from the 1607 fort at Jamestown, Virginia? Find out how by viewing: **[NASA eClips Our World: NASA at Jamestown](#)**.

## Become a NASA Spotlight Educator!

**Your students can create videos that we *Spotlight* on the NASA eClips website!**

NASA Spotlights are student-produced videos addressing common science misconceptions paired with interactive lessons and subject matter expert interviews to offer real-world connections.

To learn how you can get your students involved, use the subject line, "I'm interested in Spotlights" and contact: [nasa-eclips@lists.nasa.gov](mailto:nasa-eclips@lists.nasa.gov)



Science for students by students



## Exciting Partnerships - Another Way to Bring NASA eClips Into Your Classroom

Check out [Infiniscope](#) developed by one of our NASA Science Mission Directorate, SciAct Collective partners - Arizona State University.

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## Join us at NASA eClips Events!

To help celebrate *International Observe the Moon Night (InOMN)* on **October 20th, 2018**, NASA eClips is teaming with the Children's Museum of Virginia for a day of lunar celebrations. We will be demonstrating the *NASA eClips Guide Lite: Crater Mapping* activity at our outreach table AND co-teaching the *Moon Mysteries Teacher Professional Development* in the Beazley Planetarium. There is limited space in both the PD session and the **GalileoScope Build Workshop**.

To register for both or either: <https://tinyurl.com/InOMNTeachPD2018>

Enjoy the Old Town Portsmouth waterfront shops and restaurant, stay for the **InOMN festivities** at the Portsmouth Seawall that evening, and test out your newly built **GalileoScope** as you view the rising moon!

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STAY CONNECTED

