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### VIDEO STREAMING IMPORTANT UPDATE

If your school currently receives SCIENCE SCREEN REPORT® and SCIENCE SCREEN REPORT FOR KIDS® videos on DVD, you currently have our permission to transcode the DVDs into AVI, MOV or MP4 to deliver this content through your school district's streaming capabilities. For the 2012-13 school year, ALL schools that would prefer to receive this resource only in formats ready for streaming – i.e. AVI, MOV, and MP4 -- please email [2scott@ssrvideo.com](mailto:2scott@ssrvideo.com) to specify your preferred format. If you require a different format, please email your requested format and a sample clip if possible to [stuart@ssrvideo.com](mailto:stuart@ssrvideo.com) or call 800-232-2133 ext. 209.

### NEXT GENERATION SCIENCE AND ENGINEERING STANDARDS

[www.nyas.org](http://www.nyas.org). This eBriefing from the New York Academy of Sciences features Achieve's Stephen Pruitt as he gives an overview of the Next Generation Science Education Standards and details how they will be adopted across the profession and how their implementation will shift teaching and learning in science classrooms. More information about the Standards can be found at [www.nextgenscience.org](http://www.nextgenscience.org).

### BI-LINGUAL STEM EDUCATORS OPPORTUNITY

The Science Screen Report team is looking for a bi-lingual science teacher of middle or high school grade level students to join its advisory panel. The panel of eight STEM classroom educators provides suggestions for future SSR programs and ensures that the content meets state standards. If you are interested in learning more, please email: **Jon Glassman at [jon@ssrvideo.com](mailto:jon@ssrvideo.com)**.

### RELATED NEWS LINKS

Following are news items that relate to programs in this year's volume of SCIENCE SCREEN REPORT releases. Bridges AND alternative energy <http://edition.cnn.com/2011/10/05/world/europe/solar-bridge-london-blackfriars/index.html>

Japanese tsunami debris expected to reach US in the next 3 years:

<http://news.yahoo.com/blogs/envoy/20-million-tons-debris-japan-tsunami-moving-toward-143640503.html>

"Blind" as a bat blog that dispels the "bats are blind" myth:

<http://sciencescreenreport.blogspot.com/2011/10/blind-as-bat.html>

### HUMANE SOCIETY OF THE UNITED STATES ANNOUNCE EDUCATION MINI-GRANT PROGRAM

One or two grants of up to \$1,000 will be awarded to K-12 teachers in the United States working to provide innovative humane education programs that encourage kindness and respect for animals and their natural habitats. [http://foundationcenter.org/pnd/rfp/rfp\\_item.ihtml?id=360400014](http://foundationcenter.org/pnd/rfp/rfp_item.ihtml?id=360400014). **Deadline: November 30, 2011**

**THE AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS (AIAA)** Classroom Grant can be used for classroom demonstration kits and science supplies, math and science software, supplies for making flying objects, supplies for robotic programs and other materials to help make science, mathematics and technology come alive in your classroom. Eligibility is K-12. **Deadlines are** quarterly. Next dates are: **January 2012, March 2012 and June 2012.** Awards are \$200 per teacher and \$1000 per school.  
<http://www.aiaa.org/content.cfm?pageid=216>

## 2011/12 PROGRAM DESCRIPTIONS

**Rate this year's programs. Click on the following links and give us your feedback on individual programs and suggest ideas for future releases!**

### **SCIENCE SCREEN REPORT® -- VOLUME 41.**

**Rate programs using this link:** <http://www.zoomerang.com/Survey/WEB22CUN5SDBGB/>

### **ENGINEERING – BRIDGES BY DESIGN**

Some of the most elegantly expressed engineering technology is found in bridges, both ancient and modern. Four case studies of cutting-edge bridge design are showcased in this program including the U.K.'s remarkable 'tilting' bridge. *17 mins.*

### **ECOLOGY – BATS: CREATURES OF THE NIGHT**

Texas is the site of a wild night time spectacle. Annually from May through October, some 40 million Mexican free-tailed bats migrate to their breeding home in Bracken Cave, San Antonio. This program examines the importance of bats to the overall health of the environment. *17 mins.*

### **SPACE SCIENCE – EVERYDAY ASTRONAUTS**

As America bid a fond farewell to the Space Shuttle this summer, speculation about the future trajectory of the country's space exploration initiative revealed a myriad of entrepreneurs lining up to enter the new space-race, and with it new opportunities for private space travel. From conception to reality, sub-orbital vehicles are taking flight for research, education and general transport. New generations of space vehicles will transport researchers, educators and average citizens, not only around the planet, but also to the International Space Station, fast closing the gap between science fiction and science fact. *16 mins.*

### **ELECTRONICS – THE SCIENCE OF CIRCUIT BOARDS \***

Increasingly complex computerized systems are speeding up all elements of society. This program illustrates how circuit boards are made, starting with the customers' needs translated to computer design, the various steps of manufacturing and implementation in a variety of settings. *16 mins.*

### **ENERGY - UNDERSTANDING HYDROELECTRIC POWER**

Harnessing the energy produced by the Earth's water systems accounts for a significant source of electricity generated by turbines. The search is on to find ways to capture ocean wave and ocean current energy. The field requires the expertise of a variety of scientists and engineers: from mechanical engineers specializing in fluid mechanics to hydro-mechanical and hydraulic-mechanical engineers. *15 mins.*

### **ENVIRONMENT – SCIENCE FOR A HEALTHY PLANET**

Testing and monitoring the health of the land, ocean and atmosphere requires multi-disciplinary and international scientific cooperation. This program explores the various technologies and some of the experiments that tell us about the human impact on the planet and in the atmosphere. *12 mins.*

### **ENERGY – TRANSFORMING RENEWABLE RESOURCES: PART 1**

Learning to incorporate a variety of eco-friendly energy sources into our businesses and homes will make Earth a better place to live. Part one of Transforming Energy explores photovoltaics, the design behind wind turbine technology, and the creative processes behind vehicles in the American Solar Car Race. Zero energy houses of

the future will use many of these technologies to produce more energy than they consume. *18 mins.*

## **ENERGY – TRANSFORMING RENEWABLE RESOURCES: PART 2**

This program stresses the importance of caring for our environment and provides an overview of the multiple renewable energy sources such as biomass and solar energy. This second part of Transforming Energy documents how some states are trying to enact laws that require local power plants to increase their power provided by renewable energy. To preserve our planet's health, scientists explore green projects involving ecologically friendly architecture and sustainable communities with solar homes and green housing developments. *18 mins.*

## **SCIENCE SCREEN REPORT FOR KIDS® -- VOLUME 21.**

*Rate programs using this link:* <http://www.zoomerang.com/Survey/WEB22CUP27DUTB/>

## **AGRICULTURE – FARMING TODAY AND TOMORROW**

Research scientists throughout the world are helping farmers implement sustainable food production systems. Key concepts that underline this research are ecosystem, preservation and natural resource conservation. Food production systems touch nearly every aspect of life; from farms and industrial processing plants to markets, grocery stores and the dinner table. Students will learn about various sustainable 'food cycle' systems. *15 mins.*

## **SOLAR POWER – CLEAN ENERGY FROM THE SUN**

The Sun is our primary source of renewable energy and the driver behind all of Earth's terrestrial and oceanic organic processes. Scientists worldwide are exploring how businesses and individuals can reduce the human carbon footprint by incorporating solar power. From solar-powered radios, telephones, heating systems to automobiles and cargo ships, new inventions that work without the direct use of fossil fuel are implemented daily. *13 mins.*

## **SPACE SCIENCE – STUDYING DISTANT PLUTO**

Since its identification in 1930 by Clyde Tombaugh, astronomers have been debating the status of this tiny world at the farthest reaches of our solar system. In this program, students are given a firsthand look at the scientific process that initially classified Pluto as a planet and then reclassified it in 2006 as a dwarf planet. *10 mins.*

## **ENGINEERING – FUELING A GREENER PLANET**

An alphabet of new terminology has evolved over the past decade to describe the gasoline inventions fueling the next generation of land and ocean travel. DNGVs (dedicated natural gas vehicles) are already on the road, along with vehicles with Flexible-Fuel tank design for blended fuels. HEVs (hybrid electric vehicle) utilize two different energy sources for efficiency. The invention of the fuel cell, an electrochemical engine, has revolutionized our concept of how we can ecologically and economically travel in the near future. *14 mins.*

## **ECOLOGY – THE SCIENCE OF RECYCLING**

Waste-management systems are incorporating new recycling processes. Transforming waste into energy and new products is fuelling major research and inventions today. For example, inside the eponymous 'rotting boxes', organic waste is recycled into re-usable products by material-eating micro-organisms. Understanding the environmental necessity of recycling, and how it is changing the world in which we live, is the core of this program. *14 mins.*

## **ACID CAVES – A LIVING LABORATORY**

Deep in Southern Mexico's jungle, the Villa Luz limestone caves support an ecosystem that thrives in a highly acidic environment. This rare type of karst cave is found in few spots on Earth. Geologists and biologists wear gas masks, oxygen tanks and protective outerwear to explore sections of the caves. All life forms, from extremophilic microbial colonies to fish and bats, are interdependent upon the toxic soup of water, sulphur-oxide and hydrogen monoxide for survival. *17 mins.*

## ZOOLOGY – RED CRAB MIGRATION

Christmas Island, discovered December 25, 1643, is just a speck of land in the Indian Ocean. But the annual red crab migration, a wonder of the natural world, at the beginning of the rainy season is so massive it can be seen from the air. In this program students will follow the terrestrial arthropods from the rainforest, across dangerous terrain to the ocean to mate and then back into their forest underground burrows. *12 mins.*

## COMET - VISITORS FROM SPACE

Comets orbiting the Sun in the Kuiper Belt and the Oort Cloud, sometimes come a little too close to Earth's gravitational pull. In this program students learn about comets, objects of varying size that formed from the earliest galactic activity. *10 mins.*

### WHO TO CALL IF YOU HAVE QUESTIONS:

DVD shipments: Kathy Daniel at 1-800-232-2133 ext 211; email: [Kathy@ssrvideo.com](mailto:Kathy@ssrvideo.com)  
Advisory panel: Jon Glassman at 1-800-232-2133 ext 233; email: [jon@ssrvideo.com](mailto:jon@ssrvideo.com)  
Sponsorship: Glenn Forman at 1-800-232-2133 ext 202; email: [Glenn@ssrvideo.com](mailto:Glenn@ssrvideo.com)  
General inquiries: Scott Forman at 1-800-232-2133 ext 201; email: [2scott@ssrvideo.com](mailto:2scott@ssrvideo.com)

## ABOUT US

SCIENCE SCREEN REPORT® and SCIENCE SCREEN REPORT FOR KIDS® are produced by Florida-based Allegro Productions, Inc. in association with the Accreditation Board for Engineering & Technology (ABET), the Junior Engineering Technical Society (JETS), and the National Museum of Education™(NMOE), and has served as a trusted resource of objective science news reporting for more than 40 years. The programs are designed to help students understand the vital role that science plays as an economic driver and to address some of the most critical issues facing our society today, as well as the myriad of opportunities in a science-based career. The programs are **provided to schools free of charge** through the support of local corporations who sponsor the DVD series on behalf of school districts in their plant communities as part of their education outreach initiatives. SCIENCE SCREEN REPORT® is endorsed as an exemplary resource by the Smithsonian Institute's Teacher Resource Center, the Eisenhower National Clearinghouse and MIT's prestigious Haystack Observatory. SCIENCE SCREEN REPORT® programs are appropriate for grades 8 through 12; SCIENCE SCREEN REPORT FOR KIDS® are for grades 4 through 7. They are actively used in about 7,000 schools districts nationwide and seen by more than seven million students in grades 3-12 annually. For program previews and to learn more visit: [www.ssrvideo.com](http://www.ssrvideo.com) or call toll free: 1-800-233-2133 ext 201.