

THE STAR ★ WITNESS



A PUBLICATION OF NASA'S "AMAZING SPACE" EDUCATION PROGRAM

Special Feature

Hubble Images Inspire Student Creativity

By NASA's Amazing Space reporters
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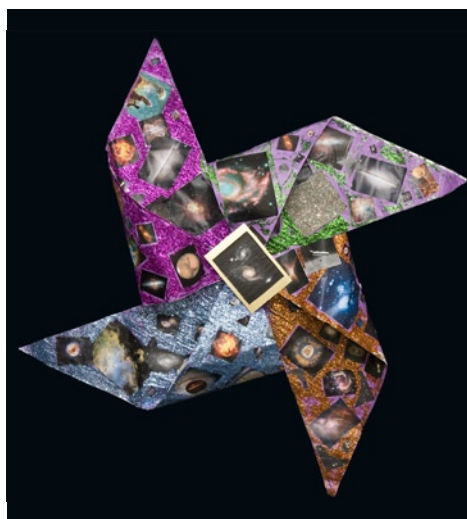


AN EDGE-ON galaxy that looks like a sombrero. Saturn and its magnificent rings. Dying stars that appear to be blowing bubbles of gas. The

Hubble Space Telescope has snapped images of all of them. Hubble's jaw-dropping images have inspired children from schools nationwide to create unique collages of their favorite photos taken by the Earth-orbiting observatory.

Collage Activity celebrates the International Year of Astronomy

Entries from Thurgood Marshall Elementary School in Newark, Del., and the Odyssey School in Baltimore, Md., were selected as the best collages in an interdisciplinary Classroom Collage Activity sponsored by the Office of Public Outreach at the



PHOTOS: Zoltan Levay (STScI)

Award-winning collages: Two schools created imaginative three-dimensional support structures for their collages — a giant, glittery pinwheel, representing a spiral galaxy, and a model of the Hubble Space Telescope fashioned from plastic bottles and bubble-wrap.

Space Telescope Science Institute in Baltimore, Md.

The collage activity is one of many worldwide events celebrating the International Year of Astronomy (IYA), which commemorates the 400th anniversary of Galileo Galilei's momentous achievement of pointing a telescope at the sky for the first time.

The goal of IYA is to spark worldwide interest, especially among young people, in astronomy and science.

Fourth- and fifth-graders at Thurgood Marshall built their own Hubble telescope out of recycled materials, including bubble wrap, soda bottles,

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and egg cartons. They then covered the telescope with many Hubble images, including those of galaxies, dying stars, and planets.

Fourth-graders at the Odyssey School approached the collage project a little differently. They constructed a large pinwheel, which resembles the shape of a spiral galaxy, and decorated it with Hubble images that included colliding galaxies, immense star-forming regions, and vast fields of stars.

Activity showcases students' creativity

The collage activity fused visual art, science, and language arts to create artwork decorated with students' favorite Hubble images. Besides making the collages, the students also participated in the Institute's "Hubble's Next Discovery: You Decide" event by selecting an object from a list of targets for the Hubble Space Telescope to observe and image.

The winning object was a group of galaxies called Arp 274. The collage-activity participants had to include the winning image on their collages. The students also had to explain, in writing, in a video, or through a PowerPoint presentation, why they voted for their Hubble object.

Award-winning student work

Students at Thurgood Marshall submitted a PowerPoint presentation of their vote along with their three-dimensional Hubble model plastered with Hubble images. The students were participants in Launching a Dream, an annual statewide

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Students pose with their winning collages



Thurgood Marshall Elementary School students posed with their model of HST. They also made a PowerPoint presentation, available on the **Amazing Space** Web site, that traces the step-by-step construction of the model.



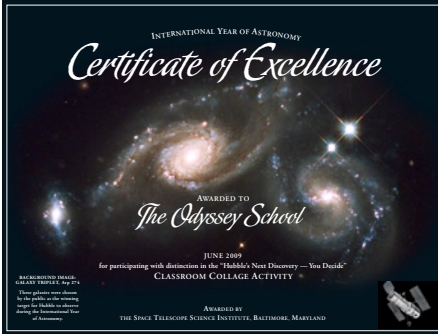
The Odyssey School students posed with their giant model of a spiral galaxy, festooned with Hubble images. They also wrote, directed, and starred in a video about Hubble's images. (See the video on **Amazing Space**.)



Arp 274:

This image was the centerpiece of each collage. In April, students and the public voted on what Hubble should observe next. This group of galaxies won the most votes.

NASA, ESA, M. Livio and the Hubble Heritage Team (STScI/AURA)



Certificates of Excellence were awarded to the two schools.

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aerospace education program in Delaware that gives children the chance to conduct the kind of scientific research that astronauts have been performing in space.

Students at the Odyssey School created a video and the pinwheel-shaped billboard full of Hubble snapshots. The school is a unique, co-educational independent school that meets the specialized needs of bright dyslexic children ages 5 years through 8th grade who have language-based learning differences.

The Thurgood Marshall and Odyssey schools received an award of excellence certificate and a visit from

an Institute scientist, who discussed Hubble's greatest discoveries. The students were each given a certificate congratulating them on their work. The schools also will be awarded a print of one of the first images taken by the newly refurbished Hubble and will host a traveling exhibit called "Visions of the Universe: Four Centuries of Discovery," which includes twelve panels that feature key astronomical discoveries from the past 400 years. ★



J. Coyle

The astronauts of Servicing Mission 4, who had successfully refurbished the Hubble Space Telescope in May 2009, posed in front of the students' creations, which were on display at the Space Telescope Science Institute.

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NASA's award-winning educational Web site for
K-12 students and teachers.

