# ASTRO SCIENCE PROGRAM 



Barnard Stares at NGC 2170<br>http://apod.nasa.gov/apod/ap130119.html<br>Image Credit \& Copyright: John Davis

A gaze across a cosmic skyscape, this telescopic mosaic reveals the continuous beauty of things that are. The evocative scene spans some 6 degrees or 12 Full Moons in planet Earth's sky. At the left, folds of red, glowing gas are a small part of an immense, 300 light-year wide arc. Known as Barnard's loop, the structure is too faint to be seen with the eye, shaped by long gone supernova explosions and the winds from massive stars, and still traced by the light of hydrogen atoms. Barnard's loop lies about 1,500 lightyears away roughly centered on the Great Orion Nebula, a stellar nursery along the edge of Orion's molecular clouds. But beyond lie other fertile star fields in the plane of our Milky Way Galaxy. At the right, the long-exposure composite finds NGC 2170, a dusty complex of nebulae near a neighboring molecular cloud some 2,400 light-years distant.


## NASA and Meet \& Greet Videoconferences

The 2012-2013 school year's first videoconference took place between Children's World Academy (Quebec- Canada) and Sarıyer Doga College (Istanbul - Turkey) on November 30, 2012. Their second Meet\& Greet videoconference was on December 11, 2012.


The partners were able to make first NASA videoconference on January 10, 2013, with Mr. Scott Anderson from Marshall Space Flight Center(MSFC). He presented Toys in Space to students and asked and answered questions.

Besides NASA videoconferences there were other Meet\&Greet videoconferences between schools. Such as between Turk

College (Izmir, Turkey) and RawsonSaunders School (Texas, U.S.A.). Another videoconference was held between Noble Academy (North Carolina, USA) and SEV Primary School (Izmir, Turkey) on January 22, 2013. During the videoconferences students introduced themselves and shared their hobbies and songs. Turkish students tought some Turkish words to their partners such as "Merhaba-Hello" and "Nasilsin-How are you?"


Turk College (Izmir, Turkey)


Noble Academy (NC, U.S.A.)


SEV Primary School
(Izmir, Turkey)


## Announcing 461 New Kepler Planet Candidates on Jan 07, 2013

http://kepler.nasa.gov/Mission/discoveries/candidates/ Image Credit \& Copyright: John Davis

This is a graphic of 2,740 stars which have candidate planets in transit. The planets are small black disks against the bright disk of each star. Using the prolific planet hunting Kepler spacecraft, astronomers have discovered 2.740 planet candidates orbiting other suns since the Kepler mission's search for Earth-like worlds began in 2009. To find them, Kepler monitors a rich star field to identify planetary transits by the slight dimming of starlight caused by a planet crossing the face of its parent star. In this remarkable illustration created by Jason Rowe of NASA's Kepler Science Team, all of Kepler's planet candidates are shown in transit with their parent stars ordered by size from top left to bottom right. Simulated stellar disks and the silhouettes of transiting planets are all shown at the same relative scale, with saturated star colors. Of course, some stars show more than one planet in transit, but you may have to examine the picture at high resolution to spot them all. For reference, the Sun is shown at the same scale, by itself below the top row on the right. In silhouette against the Sun's disk, both Jupiter and Earth are in transit.

