



0. Exploring Space: Images from NASA - Story Preface

1. AN ORBITING TELESCOPE?
2. COLORED PICTURES from SPACE
3. MISSING PIECES
4. HUBBLE GETS GLASSES
5. THE CRAB NEBULA
6. NOTABLE NEBULAE
7. COMETS and OMENS
8. FROM OMENS TO IMPACT
9. EXPLORING MARS
10. A VISIT TO SATURN
11. SPACE ROCKS VISIT EARTH
12. RUSSIAN METEOR - 15 FEB 2013

In April of 2013, NASA released this amazingly detailed image of the Horsehead Nebula—which Hubble took in infrared light—to celebrate the 23rd anniversary of Hubble's launch. Image credit: NASA, ESA, and The Hubble Heritage Team (STScI / AURA). Online, courtesy NASA.

*Facts which at first seem improbable will,
even on scant explanation,
drop the cloak which has hidden them
and stand forth in naked and simple beauty.*

Galileo, Dialogues Concerning Two New Sciences (1638)

First Day (Scroll down 10%)

Galileo was a well-known math professor at the University of Padua when he learned about an interesting discovery.

In 1608, someone in the Netherlands (most likely Hans Lipperhey, an optician) had invented a device which Lipperhey described (in his patent application) as “an instrument for looking into the distance.” We know that “instrument” as a telescope - from the Greek words tele [“far”] and scopeo [“I see”].

Fascinated with the device, Galileo improved the original design - ultimately magnifying by twenty-one times what could be seen through the glass - and showed it to a group of lawmakers in Venice. Then he did something unusual: He turned his new telescope up - toward the sky.

What he saw forever changed how mankind views the heavens.

See Alignments to State and Common Core standards for this story online at:

<http://www.awesomestories.com/asset/AcademicAlignment/Exploring-Space-Images-from-NASA>

See Learning Tasks for this story online at:

<http://www.awesomestories.com/asset/AcademicActivities/Exploring-Space-Images-from-NASA>

Horsehead Nebula, in Infrared Light, from Hubble

Hubble, the orbiting space telescope, turned 23 years old in April of 2013. To celebrate the anniversary of its launch, NASA released this amazingly detailed image of the Horsehead Nebula which Hubble took in infrared light.



NASA provides a more [detailed description](#) of this stunning image:

While drifting through the cosmos, a magnificent interstellar dust cloud became sculpted by stellar winds and radiation to assume a recognizable shape. Fittingly named the Horsehead Nebula, it is embedded in the vast and complex Orion Nebula (M42).

A potentially rewarding but difficult object to view personally with a small telescope, the [above gorgeously detailed image](#) was recently taken in infrared light by the orbiting [Hubble Space Telescope](#) in honor of the 23rd anniversary of [Hubble's](#) launch.

The dark molecular cloud, roughly 1,500 light years distant, is cataloged as Barnard 33 and is seen above primarily because it is backlit by the nearby massive star Sigma Orionis.

The [Horsehead Nebula](#) will slowly shift its apparent shape over the next few million years and will eventually be destroyed by the high energy starlight.

Click on the image to enjoy a much-larger-and-clearer view.

Image of the Horsehead Nebula, taken by Hubble in infrared light, by [NASA](#), [ESA](#), and [The Hubble Heritage Team \(STScI / AURA\)](#).

Online, courtesy NASA.

View this asset at:

<http://www.awesomestories.com/asset/view/Horsehead-Nebula-in-Infrared-Light-from-Hubble>



Galileo Portrait

Image online, courtesy Wikimedia Commons.

View this asset at: <http://www.awesomestories.com/asset/view/Galileo-Portrait>



Hans Lippershey Drawing

Information and quoted passage online, courtesy The Galileo Project at Rice University.

View this asset at: <http://www.awesomestories.com/asset/view/Hans-Lippershey-Drawing>

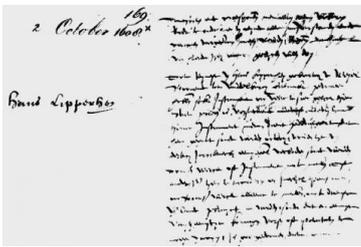


Engraving of an Optician's Shop

Image online, courtesy Wikimedia Commons.

View this asset at:

<http://www.awesomestories.com/asset/view/Engraving-of-an-Optician-s-Shop>



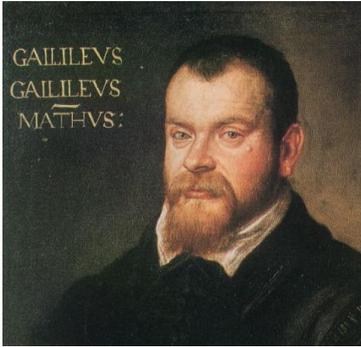
Patent Application for Telescope - Hans Lipperhey

Document located at Algemeen Rijksarchief (National Archives) of The Netherlands. [The Hague, MSS "Staten-Generaal," Vol. 33, f. 178v.]

Image online, courtesy Albert Van Helden at Connexions.org.

View this asset at:

<http://www.awesomestories.com/asset/view/Patent-Application-for-Telescope-Hans-Lipperhey>



Galileo Portrait, circa 1600

Image online, courtesy Wikimedia Commons.

Quoted passage online, courtesy [The History Guide](#) by Professor Steven Kreis.

View this asset at: <http://www.awesomestories.com/asset/view/Galileo-Portrait-circa-1600>



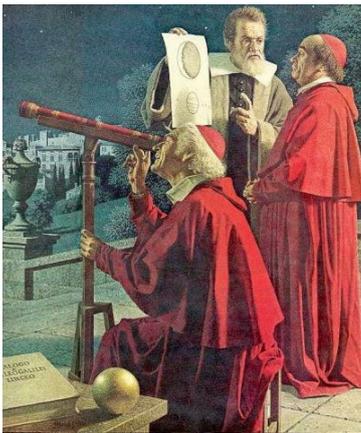
Galileo Reveals His Telescope - 25 August 1609

Image online, courtesy [University of Padua, Department of Astronomy](#).

PD

View this asset at:

<http://www.awesomestories.com/asset/view/Galileo-Reveals-His-Telescope-25-August-1609>



Galileo with two Cardinals

Image, described above, online courtesy Phys.org.

PD

View this asset at: <http://www.awesomestories.com/asset/view/Galileo-with-two-Cardinals>



Galileo Demonstrates His Telescope

Image, described above, by Annibale Gatti (1827-1909); online, courtesy Museo Galileo (an Italian-language website).

PD

View this asset at:

<http://www.awesomestories.com/asset/view/Galileo-Demonstrates-His-Telescope>



Exploring Space: Images from NASA

View this asset at:

<http://www.awesomestories.com/asset/view/Exploring-Space-Images-from-NASA0>