

# GALAXY

## 21st Century Education

### Understanding Our Place in the Universe

Number of Stars in Galaxy:  
200-400 billion ( $2-4 \times 10^{11}$ )

Known as the "Milky Way"  
Galaxy, a barred spiral galaxy

Thickness: 10-30000 LY  
Diameter: 100,000 LY  
Mars: 1.3 Trillion Solar Masses

Period for Solar System  
(Sun, Earth, etc) to circle  
Milky Way: 250,000,000  
years

10 Brightest Stars:

Seen from Earth (Apparent Magnitude):

1. Sirius (1.4)
2. Alpha Centauri (1.3)
3. Arcturus (1.7)
4. Rigel Kentaurus (2.2)
5. Arcturus (2.04)
5. Vega (0.3)
6. Alpha Centauri (0.6)
7. Rigel (0.12)
8. Procyon (0.38)
9. Altair (0.49)
10. Betelgeuse (0.50)

10 Closest Stars: (Light Years)

1. Procyon Centauri (4.2)
2. Alpha Centauri A & B (4.3)
3. Alpha Centauri C (11.0)
4. Procyon Leonis (7.7)
5. Procyon Ursae Majoris (8.2)
6. Sirius A & B (8.6)
7. Alpha Centauri A (10.7)
8. Procyon Sagittarii (9.6)
9. Procyon Andromedae (10.3)
10. Epsilon Eridani (10.5)

GALAXY INITIATIVES WITH ALOHA



ILO First Light Galaxy Imaging  
Galaxy Garden Hawaii!

Hawai'i As Galaxy Central

Andromeda Galaxy

International Space Station  
(2.5 Miles Up)  
Can be seen with the naked eye  
Also known as M31 & NGC 224

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Milky Way Galaxy Names in Various Countries

Austria: Region, Dene Al Tahora

Bulgaria: The Milky Way

Chechen Republic: Shik Ullidzhevskoye

"The Way the Dog Has Away"

China: The Nine Heavens

"Silver River"

Indonesia: River of Milk

The Cow's Milk

Algeria: "The Way of the Bull"

Russia: Women's River

Vietnam: Ngan Ha

Silver River?

Space Telescopes:

Hubble Space Telescope  
Chandra X-ray Observatory

Spitzer Space Telescope  
Kepler Space Telescope  
Herschel Space Observatory  
Galaxy Evolution Explorer

Earth Telescopes:

Sentinel-1, -2, -3, -4, -5, -6, -7, -8  
Sentinel-5P  
Sentinel-6

U.S. Telescopes:

W. M. Keck Observatory  
Very Large Telescope (VLT)

Hubble Space Telescope

Large Synoptic Survey Telescope

Graphic Credit: NASA

\*All figures are estimates

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### International Lunar Observatory Association

## ILOA 2012 Galaxy Poster for 21<sup>st</sup> Century Education

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Available FREE to Hawai'i Teachers, Schools  
and Students at Galaxy Forum Kona on  
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