

TIPS FOR USING THE ORION STARBLAST TELESCOPE

- ★ It might be best to hold your observation session in a dark area such as a park or atop a hill where a large portion of the night sky is visible. If observing from your back yard, turn off or dim lights to maximize darkness.
- ★ Use skymaps.com to print an easy-to-use map to help identify planets, stars, and major constellations. You can also find deep space objects by 'star hopping' from more visible constellations. It's also a good idea to practice using the map before using the telescope.
- ★ What would you like to see? Take some time to decide how you'll use your observation session.
- ★ Included in the equipment pack is a headlamp. While observing, use the 'red light' to read the instructions or sky map. Use brighter settings during set up or when leaving the site.
- ★ When observing, start with the eyepiece set to the lowest power: 21mm. If conditions permit, zoom in for a closer look.
- ★ You can practice during the day before observing at night with the eyepiece set at low power.

BORROWING THE TELESCOPE

- ★ *Never* under any circumstances look directly at the sun with the telescope, as blindness or eye damage may result.
- ★ Patrons who are 18 years or older and are cardholders in good standing may borrow the telescope.
- ★ The telescope is loaned out on Thursday and is due back the following Tuesday. Patrons can reserve the telescope for a session, up to one year in advance.
- ★ Patrons checking out the telescope must sign a borrowing agreement.
- ★ The borrower of the telescope is responsible for reading the instructions and for the telescope's proper care and use.
- ★ Store the telescope in a safe place in your home and keep it out of the reach of young children.
- ★ The telescope must be returned directly to the Young Adult Librarian or Director for check-in.

Hamilton-Wenham Public Library
14 Union Street
South Hamilton, MA 01982
978-468-5577 * hwlibrary.org



TELESCOPE LENDING PROGRAM

**HAMILTON-WENHAM
PUBLIC LIBRARY**

978-468-5577

HWLIBRARY.ORG

ONLINE RESOURCES, GROUPS, AND SUGGESTED APPS

www.skymaps.com

Skymaps offers a free 2-page map of the night sky to help you get oriented & see what's on view.

www.cleardarksky.com

A clear sky chart is a forecasting tool. Reading from left to right: look for dark blue blocks. This is when skies are likely to be ideal for viewing opportunities.

www.nhastro.com

The New Hampshire Astronomical Society's 'library telescope program' page has great instructional videos on the use of the Orion Starblast.

www.nsaac.org

The North Shore Amateur Astronomy Club meets to observe from a local sites on the North Shore.

www.amsmeteors.org

The American Meteor Society always has the 'Meteor Activity Outlook' for the week posted.

Stellarium Mobile Sky Map, Starchart, Skymap and Skysafari

are all popular free apps that will help you navigate the evening sky. **Starwalk** is also very popular, but it is not free.

Browse the 520-523s for astronomy, upstairs in nonfiction or in the Children's nonfiction section.

Adult Nonfiction:

- ★ *Celestial Sampler: 60 Small-Scope Tours for Starlit Nights* YA 522 FRE
- ★ *New England Starwatch* 522 LYN
- ★ *Nightwatch: A Practical Guide to Viewing the Universe* 520 DIC
- ★ *Touring the Universe Through Binoculars* 523.1 HAR
- ★ *Turn Left at Orion: Hundreds of Night Sky Objects to See in a Home Telescope - and How to Find Them* 523 CON

Children's Nonfiction:

- ★ *Astronomy J* 520 GRE
- ★ *Beyond the Solar System: Exploring Galaxies, Black Holes, Alien Planets, and More* J 520.9 CAR
- ★ *The Big Dipper and You* J 523.8 K
- ★ *Constellations J* 523.8 KIM
- ★ *Glow in the Dark Constellations: A Field Guide for Young Stargazers* J 523.8 THO
- ★ *Stargazing J* 523.8 KUS

Periodicals:

- ★ *Astronomy Magazine*
www.astronomy.com

CELESTIAL OBJECTS



Galaxies are aggregates of dust, gas, and billions of stars held together by multi-gravitational forces. Galaxies come in three general forms: spiral, elliptical and irregular. Our Milky Way is an example of a spiral galaxy.



Nebulae are clouds of gas and dust in space. There are two common types of nebulae: *diffuse nebulae* are large clouds of gas (mainly hydrogen and helium) that glow by the energy of the young stars within them; *planetary nebulae* are thin shells of gas thrown off by a dying star.



Star clusters are gravitationally bound stars that form from the same cloud of gas. There are two types of star clusters: *globular clusters* are spheroidal groups of stars that formed early in the development of our galaxy and evidence suggests they may be as old as the universe itself! *Open clusters* are relatively young stars which are slowly moving away from their interstellar nursery. The Pleiades are an example of an open cluster.