

## Family Fun Activities and Investigations

Visit the following places to experience  
the stars, planets, and space travel:

Maryland Science Center and  
Planetarium

601 Light Street

Baltimore, MD 21230

410-685-5225

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Smithsonian National Air & Space Museum

National Mall Building

Independence Ave. at 4th St. SW

Washington, DC 20560

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## Have your own "Star Party!"

Use a star map, a telescope, a pair of  
binoculars, or just your own eyes to  
observe the night sky.



## Career Connections

Take a few minutes  
to discuss, with your  
child, these different  
career opportunities for  
people interested in  
studying space and space  
travel.

### Astronomer

A scientist who studies the universe  
and all the things in it beyond Earth.

### Astronaut

A person who travels into space.

### Aerospace Engineer

A person who designs, builds, and re-  
pairs aircraft and spacecraft.

### Physicist

A scientist who studies matter,  
energy, force, and motion, and the way  
they relate to each other.

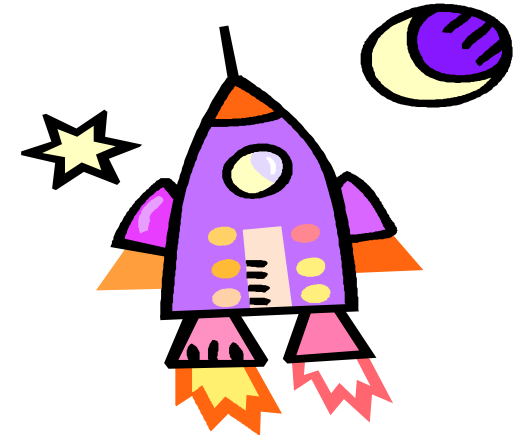
Prepared by

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## A Parent's Informational Guide to the Science Unit:

# STAR SEARCH

## StarLab S.T.E.M. Unit



## Grade 3



# STAR SEARCH

## StarLab S.T.E.M. Unit

This is a third grade unit designed to correlate with the astronomy investigations that the students will explore in the StarLab portable planetarium. The unit will help students identify stars in space that have similar properties to our star, the sun. Identification of stars similar to our sun will enable the students to solve the problem of where in space they might be able to find a solar system like ours. Students will focus on such star characteristics as temperature, color, size, distance, and magnitude. They will learn how some stars in the universe are much like our sun, while others are vastly different. The Maryland Voluntary State Curriculum Indicators addressed in the unit are listed below:

### Constructing Knowledge

Gather and question information from many different forms of scientific investigations including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.

### Apply Evidence and Reasoning

Seek better reasons for believing something other than "Everybody knows that..." or "I just know...".

### Communicate Scientific Information

Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.

### Technology

Examine and modify models and discuss their limitations.

### Earth/Space Science (Astronomy)

- Observe and describe changes over time in the properties, location, and motion of celestial objects.
- Identify and describe the variety of things in the universe through first-hand observation using the unaided eye, binoculars or telescopes or videos and/or pictures from reliable sources.

### Math Connection

Students will apply a variety of tools or technology for determining measurement.



## Unit Vocabulary

Encourage your children to use the vocabulary listed below when telling you about what they are learning during this science unit.

**astronomer**-someone who studies objects in space.

**constellation**-a group of stars that ancient people thought formed a picture in the sky.

**galaxy**-billions of stars that travel together in a group through space.

**light year**-the distance light travels in one year-about six trillion miles.

**magnitude**-the brightness of a star.

**nebula**-a cloud of gas and dust in space where new stars often form.

**solar system**-the sun and everything that orbits it. The solar system includes planets, dwarf planets, moons, asteroids, meteoroids, and comets.

**star**-a huge ball of exploding burning gases that give off heat and light.

**sun**-a medium sized star at the center of our solar system which is 93,000,000 miles away.



## Books to Read

Take some time to read books about astronomy with your child. Books on this topic can be found in the non-fiction section of the library. You can also find books on this topic in the children's section of your school and public library.

*The Young Astronomer* by Harry Ford

*Exploring the Sky, 100 Projects for Beginning Astronomers* by Richard Moeschl

*The Stars, A New Way to See Them* by H.A. Rey

*The Usborne Internet-Linked Book of Astronomy & Space* by Lisa Miles and Alastair Smith

## Internet Sites



<http://www.frontier.net/~kidpower/astronomy.html>

[www.nasa.gov/kids.html](http://www.nasa.gov/kids.html)

<http://starchild.gsfc.nasa.gov/docs/StarChild/>

<http://www.fcps.k12.va.us/DIS/OHSICS/planet/constell>

[/constell.htm](#)

[www.zula.com](http://www.zula.com)