

## WHAT'S UP IN SPACE SERIES (7-PART)

- EARTH
- EXPLORING SPACE
  - MARS
  - MOON
- PLANETS
- STARS
- SUN

AVAILABLE  
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## THE SOLAR SYSTEM FOR KIDS

# WHAT'S UP IN SPACE?



# STARS

MEETS NATIONAL  
SCIENCE STANDARDS

## STUDY GUIDE

## **COMPREHENSION QUESTIONS:**

How big are the stars?

Why is it sometimes difficult to tell the size of a star by looking at it from Earth?

What colors do stars come in? What does a star's color say about its temperature?

Which is the closest star to planet Earth?

Why do scientists say that stars have a life cycle?

How old is our sun?

What is the name of our galaxy? How many stars are in it?

How do scientists see stars from Earth?

What is the name of the telescope that was launched into space?

How does this telescope get its power?

How did people use the stars in the past?

What is a falling star?

## VOCABULARY:

**Star** - An enormous ball of hot gas that produces light and energy.

**Super Giants** – The largest stars, as large as 1000 suns.

**Super Nova** – A huge, spectacular explosion that may mark the end of a star’s “life”.

**White Dwarf** – An old star that has become very small and dense.

**Galaxy** - Stars that are gathered into groups are called galaxies – our galaxy is called the Milky Way.

**Constellation** – A group of stars, seen from Earth, that seem to make a picture in the sky.

**Meteor** – A piece of rock or metal from space that is pulled to Earth by gravity.

## INTRODUCTION TO SERIES

**What’s UP In Space?** Is a refreshingly new series that introduces young learners to the solar system. These fascinating topics are presented at a developmentally appropriate level, using a combination of live action footage, illustrations and computer animation. Each program answers important questions in space science using the latest research and in line with the American National Science Education Standards.

As a complementary device with each program, an instructional guide suggests exercises to enhance the learning for teachers, parents and students. These interactive exercises will reinforce and further develop a student’s level of comprehension.

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# STARS

How are stars formed, and what are they made of?  
How far away are the stars we see in the night sky?  
These are some of the questions answered in the program, “STARS.” Information about comets and shooting stars is also included in this program.

## **ADDITIONAL RESOURCES:**

<http://www.frontiernet.net/~kidpower/stars.html>

<http://www.space.kids.us/stars.html>

<http://www.cybrary.org/space.htm>

<http://www.sciencefriday.com/kids/sfkc20030117-2.html>

### Number the Stars

by Lois Lowry

### The Backyard Astronomer's Guide

by Terence Dickinson, Alan Dyer

### Find the Constellations

by H. A. Rey

## **ASSESSMENT OF PRIOR KNOWLEDGE:**

What is a star? How big is a star?

How many stars are there in the sky?

Where are the stars located?

## **DISCUSSION QUESTIONS:**

Does learning about stars change your idea of outer space? Does it seem less dark and empty after learning how many stars there are?

Why do you think that people made stories to explain the stars in the sky?

## **FOLLOW UP ACTIVITIES:**

Students can draw maps of different constellations and then study the different mythologies behind the constellations. Stars played different roles in different ancient cultures – they meant different things to different people. Students can study ancient cultures and their use of stars and then look for similarities and differences.

The science of stars is very complex. If some students are interested they may wish to study the elementary physics of stars, including black holes.