

## Space Odyssey Online Teacher's Guide

# Stars of Many Colors

Postvisit Activity for Deep in Space



Courtesy 2MASS/Umass/IPAC-Caltech/NASA/NSF

**Grades K-3**  
**CDE Standards**  
Science: 4.4

## **Preparation and Materials**

**Estimated Preparation Time:** 10 minutes

**Estimated Activity Time:** 30 minutes

### **Materials**

Crayons or colored pencils

Scissors

Glue

Copies of Stars of Many Colors student pages

Chart paper

Computers with Internet access

Construction paper (optional)

Hangers or dowel rods (optional)

Thread or string (optional)

### **Learning Goals/Objectives**

Students will

- Identify the temperature of stars based on star color
- Determine the color of stars given temperatures

### **Connection to *Space Odyssey***

During your visit to *Space Odyssey* students can learn about stars in the Life of a Star interactive. Though this activity focuses on the life cycle of stars based on their masses, it provides valuable information to students about stars. Students can also view the Sun in many wavelengths at the Seeing the Sun interactive.

### **Advanced Preparation**

1. Obtain copies of books about stars from the list below.
2. Make copies of the Stars of Many Colors student worksheet.

### **Classroom Activity**

1. Choose one of the books about stars to read with your class. Have students help keep track on chart paper of the information learned.
2. Teach students how to use the HR diagram from the website or the activity sheet. Show students that the temperature on the bottom of the chart helps them to find out what color the stars will be. Point out that hotter things are bluer and cooler things redder.

3. Give students the Stars of Many Colors activity page. Have them use the HR diagram to help them color the stars at the bottom.

### **Variations/Extensions**

1. Allow students to make a matching game using the information on the HR diagram. Have students match colored stars to temperatures.
2. Help students create star mobiles to display in your classroom. Have them cut out circles of various colors and label the circles with the appropriate temperatures. Hang the star circles from a hanger or dowel rods to make a mobile.

### **Resources**

Branley, Franklin. *The Sky is Full of Stars*. New York; Harper Collins Children's Books, 1983.

Clay, Rebecca. *Stars and Galaxies*. New York; Twenty-First Century Books, 1997.

Mitton, Jacqueline and Simon. *Scholastic Encyclopedia of Space*. New York; Scholastic, Inc., 1998.

Cole, Joanna. *Magic School Bus Sees Stars*. New York; Scholastic, Inc., 1999.

Simon, Seymour. *Stars*. New York; Morrow, William, & CO., 1991.

### **Web sites**

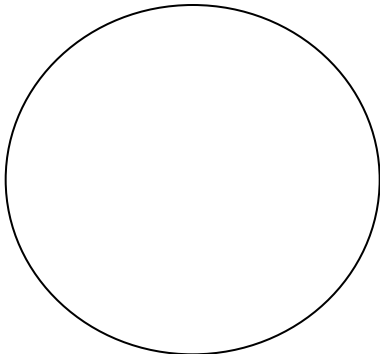
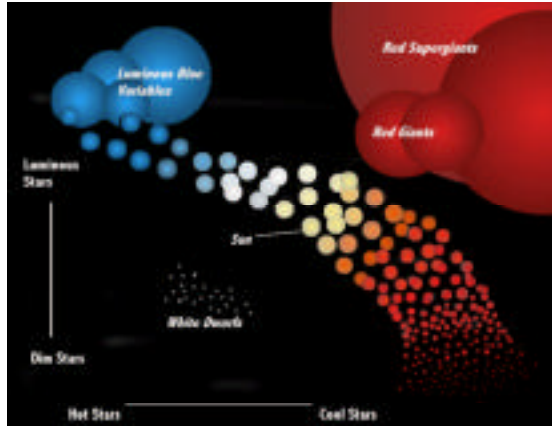
<http://www.enchantedlearning.com/subjects/astronomy/>

<http://www.aw-bc.com/info/bennett/images/hrdiagram.jpg>

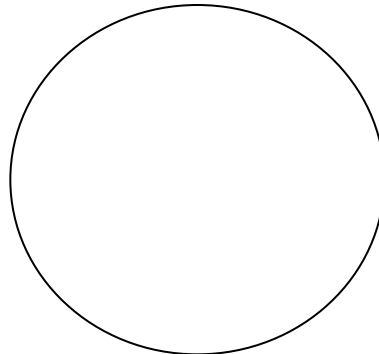
Name: \_\_\_\_\_

## Stars of Many Colors

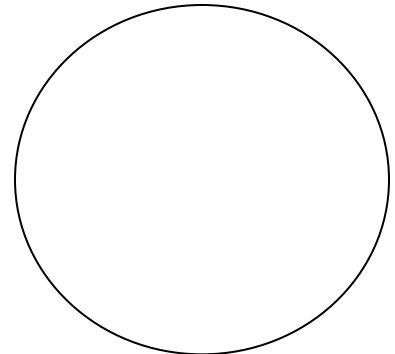
Use the HR Diagram to color the stars below.



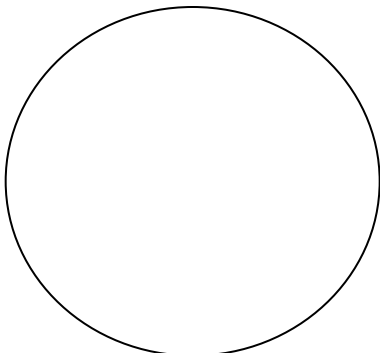
38,000 °K



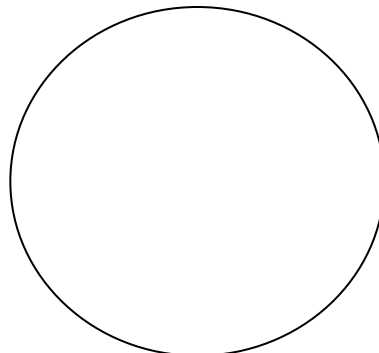
2500 °K



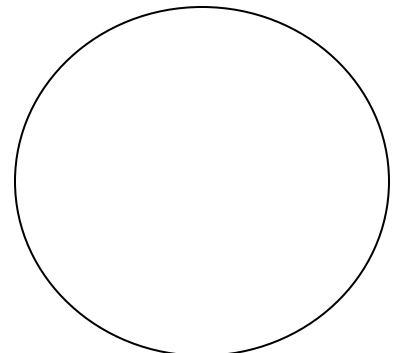
25,000 °K



15,000 °K



3500 °K



6000 °K