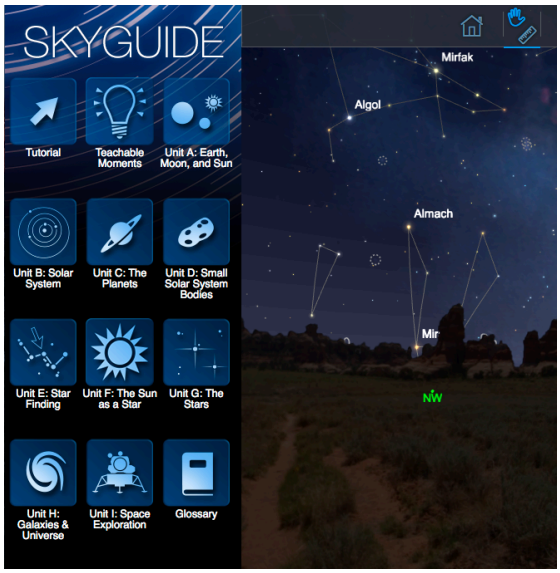
Investigating Stars Name:_____Block:_____

Starry Night—G2, The Stars **E3:A5**

Starting the Software

1. Open either the Firefox or Safari web browser. (Chrome was having difficulty working with Starry Night the last Mr. Bryant checked.)
2. Navigate to www.mrbryant.net
3. Navigate to our Astronomy class page and find the link: *Starry Night* Logon Screen. Click that and once you're able to enter the Login Code, enter **DCLZuQ1**
4. Click the Launch App button under *Starry Night High School.*
5. It may take a few moments for the application to load in your browser. If it takes more than a couple of minutes, let your teacher know.



Click on the Unit G: The Stars button. It's near the lower right part of the SKYGUIDE. (If you ever get frustrated, you can always click the icon shaped like a house—the home button—to take you back to the basic first view.)

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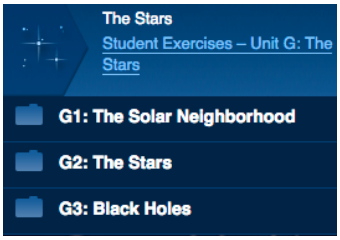
Next choose the G2: The Stars folder. →



- As you work your way through the lesson (starting with the Introduction), read the directions on the screen and try the actions suggested.
- At the bottom of each section there will be one or more yellow highlighted questions which you should answer on this handout.
- Lastly at the bottom of the screen will be a blue phrase that will take you to the next part.

Ask for help when you need it and have fun!

Investigating Stars Name:_____Block:_____

Starry Night—G2, The Stars

Introduction

Read and continue to 1. Colorful Stars

Colorful Stars

Star Database

Star	Color	Distance (lightyears)	Radius (Sun radii)	Apparent Magnitude	Temperature (Kelvin)	Luminosity	
Sirius							
Aldebaran							
Pollux							
Capella							
Procyon							
	Orange						

Question 1:

a) Do all stars have approximately the same temperature? Explain.

b) What seems to be the color of stars that have a temperature in the 3000s Kelvin?

c) Pick any other orange star in the main window and enter its name and temperature in the table. Was your prediction in b) correct?

d) Are all stars about the same size?

e) Do stars always appear brighter when they're closer to us? Explain.

f) Do bigger stars always appear brighter to us?

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In the Beginning

Question 2: How do stars form in a nebula? (Note: This question is different from the one on the screen!)

Going out Gently

Question 3: Why is the central star of the nebula difficult to see?

Going out with a Bang

Question 4: The Crab Nebula requires a telescope to see. Telescopes were not invented until the 1600s. How could the supernova have been seen in 1054?

The H-R Diagram

Question 5: All the stars shown in the main window are plotted on the H-R Diagram in your recent reading assignment. Also if you point to any star in the main window and a red dot will show its position on the H-R Diagram. Go ahead, try it!

a) Now let's fill in the last column on your Star Database. Record to what group each star in your database belongs. (i.e. red giant, main-sequence, etc.)

b) To what group do you think the star Rigel belongs? (Hint: read the introduction carefully)

Extra Credit

a) What appear to be the colors of Albireo and its companion?

b) What do the colors of these two stars tell us about their surface temperatures?

c) How would you find Albireo in the summer sky?