

The Universe Symposium

Thematic unit

Integrated Science II & Honors

Your Constellation _____

- Project must be assembled on a science board or presented via PowerPoint
 - If PPT, save to flash drive or CD
- Each group will be graded using a rubric.
- All team members must take part in the presentation as well as research. 5-7 minute (timed) presentation.
- Students will research assigned constellation using any outside, reputable resource
 - Do not use Wikipedia
- Complete any data sheets and insert in journal.
- Project must be factual, **not** fiction.
- Include all information from guidelines below and all factual data about your constellation. Should include drawings and graphs to support content.
- Team names must be clearly posted on the BACK of the science board. If PPT, there should be an “author” page after the Title page of your presentation.

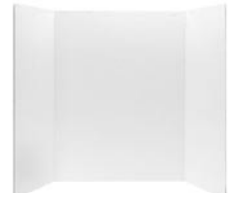


Figure 1 Science Board

Terms:

Presentation Due: _____

Teams will be chosen to present randomly, therefore everyone must be prepared to present on day 1. Points will be deducted from overall score for being late and unprepared.

***Students absent on presentation day must take a written test to satisfy the presentation portion of your grade.** You have several weeks to prepare, make sure you are in class and ready to present.

Team Project Guidelines:

Research everything about the constellation your team was assigned.

You must address the following

- Name of stars in your constellation
- Describe *stellar evolution* of the stars that make up the constellation (ch 26)
- Light years from Earth (or our Solar System).
- Name any neighboring constellations (include drawings and star maps)
- Describe all features of assigned constellation; nebula, super giants, binary stars, quasars, etc.
- Include light spectrum data for the composition of each star in constellation
 - State gasses (ex. The Sun = hydrogen & helium)
 - Explain red and blue shift (Doppler shifting)
- Give examples of how the following chapters align with your content area
 - Forces & Motion (ch 12.2-12.4)
 - Thermal Energy & Heat (ch 16.1-16.3)
 - Electromagnetic Spectrum & Light (ch 18)
 - Electricity (ch 20.2-20.4)
 - States of Matter (ch 3.2-3.3)
 - Atomic Structure (ch 4.3)
 - Periodic Table (ch 5.2-5.3)
 - Chemical Bonds (6.3-6.4)
- Must contain a works cited/reference section in alphabetical order.

Helpful resources:

- <http://mrskingsbioweb.com/Solarsystem.html>
- <http://www.windows.ucar.edu/cgi-bin/tour.cgi/tools/tools.html>
- <http://www.worldwidetelescope.org/Home.aspx>

Symposium Grading Rubric:

Universe Team Presentation

Integrated Sci. II & Honors

Mrs. King 37-100

Team Members:	Constellation:
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KNOWLEDGE	100	POINTS POSSIBLE	POINTS EARNED
• Constellation Info (Name, size, LY from Earth, # stars in group, position in sky, etc.)		25	
• Celestial make-up (gasses, nebula, binary stars, etc.)		10	
• History of discovery		10	
<i>Incorporate the following topics in some fashion:</i>			
• Forces & Motion (ch 12.2-12.4)		5	
• Thermal Energy & Heat (ch 16.1 - 16.3)		5	
• Electromagnetic Spectrum & Light (ch 18)		5	
• Electricity (ch 20.2 - 20.4)		5	
• States of Matter (ch 3.2 - 3.3)		5	
• Atomic Structure (ch 4.3)		5	
• Periodic Table (ch 5.2 - 5.3)		5	
• Chemical Bonds (6.3 - 6.4)		5	
• Addressed all areas in logical fashion as related to constellation		15	
FORMAT & DESIGN	50		
• Science board or PowerPoint		20	
• Detailed drawing or photo of telescope used to capture images (Hubble, Spitzer, Chandra, etc.) & state: x-ray, UV, or visible light		10	
• At least two illustrations detailing unique cosmic characteristic (drawing, photograph, Celestial map) of constellation or nebula		10	
• Title for each topic/subject area on science board/PPT		5	
• Include at least one graph properly labeled (title, x & y)		5	
ORGANIZATION & TEAMWORK	25		
• Well organized (Team prepared on presentation day)		5	
• Presentation is visually attractive/ neatness. Use of color and creativity		5	
• All team members participate		5	
• Eye contact & voice projection		5	
• Keep within time limit (5-7 minutes) Actual time: _____		5	
RESEARCH & DOCUMENTATION	25		
• Typed Report (2 pages content) <ul style="list-style-type: none"> ○ Constellation research neatly assembled ○ Summary of project's content 		10	
• Research facts about your constellation. Include all data sheets.		10	
• References cited in alphabetical order		5	
TOTAL POINTS POSSIBLE	200		
TOTAL			

Absence or Failure to complete project will result in a **written test requirement**.

All teams have several weeks to compile information. Make it count!

Teacher Comments: