



# Astronomy Side Quests

Name: \_\_\_\_\_ Hour \_\_\_\_\_ Date: \_\_\_\_\_

Date Packet is due: \_\_\_\_\_ Why late? \_\_\_\_\_ Score: \_\_\_\_\_  
Day of Week Date If your project was late, describe why

**Driving Question:** What can you explain to me about a topic in astronomy that is personally interesting to you?

**Anchoring Phenomenon:** General Astronomy

### Deeper Questions

1. What should we know about this topic?
2. What are some real-world examples/implications?
3. How might we have experienced this ourselves (e.g., news stories, movies, pop culture references, etc.)?

### Weekly Schedule

#### **Part 1: Introduction**

- Develop an outline

#### **Part 2: Work Time**

- Prepare a presentation

#### **Part 3: Peer Review**

- Get feedback

#### **Part 4: Final Preparation**

#### **Part 5: Deliver Presentations**

- See rubric for details about grading

### Semester Schedule

#### **How the Sun Works**

Week 1: What is matter? What is energy?

Week 2: What's inside the sun?

Week 3: How can we measure the sun?

Week 4: Where does the sun's energy come from?

Week 5: Unit Assessment

#### **The Life of Stars**

Week 1: How long do stars last?

Week 2: Why do stars die?

Week 3: What happens after stars die?

Week 4: Unit Assessment

#### **How It All Began**

Week 1: How can we determine the universe's size?

Week 2: How can expansion determine the universe's age?

Week 3: What can we learn from background radiation?

Week 4: Unit Assessment

#### **Navigating Space**

Week 1: How and why do things orbit in space?

Week 2: How can we predict orbits?

Week 3: Unit Assessments

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# Part 1: Creating an Outline

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**Overview:** In this activity, you will create an outline for your presentation to guide your work.

## 1. Introduction

- a. Definition(s) relevant to topic
- b. Explanation of terms in everyday language
- c. Clarification (What is this? What isn't this?)

## 2. Summary of Issue - Use Credible Sources - What are the 3 most important things to know for this topic?

- a. Key point 1
- b. Key point 2
- c. Key point 3

## 3. Specific Application - Contextualize this topic using real-world examples.

- a. References a news story, relevance to everyday life, a historical anecdote, pop culture, etc.

## 4. Example OR Going Deeper

- a. This is how this happened one time

## 5. Summary and Conclusion

- a. Re-explain key definitions
- b. Re-summarize key points
- c. Relevance - why does this matter? Why should people care?

## 6. Works Cited

- a. In text - parenthetical citations (Author Last Name, Year)
- b. Works Cited - APA (Last, First. (Year). Title. *Publication*.)

## 7. Questions? - Allow time for Q&A

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**Assessing a Website:** when determining whether or not a website is credible enough to be used as part of a presentation, use the following acronyms and questions: *Is it Biased? Is it Accurate? Is it Relevant? (BAR)*

### 1. Bias: who is the author or creator of this website?

- a. Why did they go through the trouble of creating this source of this information? Why did they write this? Was it purely to inform, or are they trying to persuade the reader?
- b. Do they gain anything personally if the reader agrees with their ideas or claims?
- c. Did this person or this group of people have any motivation to view the issue in a particular way that might slant their perception of the issue?

### 2. Accuracy: what factual evidence is provided to support their claims?

- a. Do they include the original source of this information, or is the original primary source of this information unclear? Are their claims supported by valid data and/or logical arguments?
- b. What are the credentials of the author(s)? Do they have the necessary background and capabilities to speak accurately and thoroughly on this topic and understand all of its nuances and details? Are their qualifications clearly described, or is this left intentionally vague?
- c. Is this a recent source of information? Is it possible that we now know more important details than we did when this was written?
- d. What do other sources say? Does this agree with sites that are credible? If this does contradict with another source of information, do they explain why the contradiction exists? Or do they merely dismiss the other claims as being wrong?

### 3. Relevance: is this information valuable for my needs?

- a. Does the topic of this site clearly relate to the work that I am doing for this project?
- b. Does the level of detail in this site help or hurt my ability to get this work done in a timely fashion? Is this too detailed to spend time reading? Does it need more detail to be useful?

**Remember, when it comes to using media sources, we want to raise the BAR**

## Part 2: Work Time

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**Overview:** Use this time to complete your presentation. If you finish early, check for errors or add additional components to your presentation to improve its professionalism and appeal.

## Part 3: Peer Review

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**Overview:** You will be critiquing another person's presentation. For each of the times below, provide a score based on their current work. Use the rubric below to determine if they should receive a plus, check, or minus for each item.

Item	Plus (100%)	Check (70-90%)	Redo (0%)
<b>Accuracy</b> - <i>Are all components factually accurate?</i>	This presentation is 100% factually accurate without any errors or omissions.	Overall, the presentation was mostly accurate.	Student is still making progress towards a final draft.
<b>Thoroughness</b> - <i>Did you address all relevant aspects?</i>	This addresses all the information needed for each objective (in outline).	Almost all required information was included for each objective.	Student is still making progress towards a final draft.
<b>Professionalism</b> - <i>Does it look like it was produced by professionals?</i>	This presentation resembles the work of adult professionals.	This is acceptable work for a high school student.	Student is still making progress towards a final draft.
<b>Effort</b> - <i>How much work went into this presentation?</i>	Effort exceeds what would be expected for a high school student.	This is acceptable effort for a high school student.	Student is still making progress towards a final draft.
<b>Credibility</b> - <i>Were credible sources used to create this presentation? Were they properly cited?</i>	This presentation only cites credible sources (unbiased, accurate, and representative). They are all properly cited.	Sources are mostly credible AND/OR sources are cited in a manner that generally conveys the needed information.	Student is still making progress towards a final draft.

	Plus	Check	Minus
<b>1. Introduction</b>			
a. Definition(s) relevant to topic			
b. Explanation of terms in everyday language			
c. Clarification (What is this? What isn't this?)			
<b>2. Summary of Issue - Use Credible Sources - What are the 3 most important things to know for this topic?</b>			
a. Key point 1			
b. Key point 2			
c. Key point 3			
<b>3. Specific Application - Contextualize this topic using real-world examples.</b>			
a. References a news story, relevance to everyday life, a historical anecdote, pop culture, etc.			
<b>4. Example OR Going Deeper</b>			
a. This is how this happened one time			
<b>5. Summary and Conclusion</b>			
a. Re-explain key definitions			
b. Re-summarize key points			
c. Relevance - why does this matter? Why should people care?			
<b>6. Works Cited</b>			
a. In text - parenthetical citations (Author Last Name, Year)			
b. Works Cited - APA (Last, First. (Year). Title. <i>Publication.</i> )			

## Part 4: Final Preparation

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**Overview:** Use this time to make corrections based on your peer review. You should also prepare your speaking notes and rehearse your performance if time allows.

# Part 5: Presentation

Name: \_\_\_\_\_ Hour: \_\_\_\_\_ Date: \_\_\_\_\_

**Grading:** your grade will be determined using the following considerations:

Item	Plus (100%)	Check (70-90%)	Redo (0%)
<b>Accuracy</b> - <i>Are all components factually accurate?</i>	This presentation is 100% factually accurate without any errors or omissions.	Overall, the presentation was mostly accurate.	Student is still making progress towards a final draft.
<b>Thoroughness</b> - <i>Did you address all relevant aspects?</i>	This addresses all the information needed for each objective (in outline).	Almost all required information was included for each objective.	Student is still making progress towards a final draft.
<b>Professionalism</b> - <i>Does it look like it was produced by professionals?</i>	This presentation resembles the work of adult professionals.	This is acceptable work for a high school student.	Student is still making progress towards a final draft.
<b>Effort</b> - <i>How much work went into this presentation?</i>	Effort exceeds what would be expected for a high school student.	This is acceptable effort for a high school student.	Student is still making progress towards a final draft.
<b>Credibility</b> - <i>Were credible sources used to create this presentation? Were they properly cited?</i>	This presentation only cites credible sources (unbiased, accurate, and representative). They are all properly cited.	Sources are mostly credible AND/OR sources are cited in a manner that generally conveys the needed information.	Student is still making progress towards a final draft.

**Comments:**