



**DISCOVER**  
**VIRGINIA LIVING MUSEUM**  
**ABBITT PLANETARIUM**  
**ASTRONOMY FUN PATCH**



524 J. Clyde Morris Blvd.  
 Newport News, VA 23601  
 757-595-1900  
[www.thevlm.org](http://www.thevlm.org)

**FEE:** Museum and/or Planetarium Admission where applicable. Group rate: One adult admitted free for every 10 scouts. Member discount applies to members only, not to entire troop. Patches may be purchased in Wild Things Museum Store. If visiting at night, be aware that the museum store generally closes at 5pm.

**GUIDELINES:** Explore the Museum’s astronomy areas as a self-guided investigator. Talk with available docent interpreters and seek out the following information. The answers to questions are found in exhibit signs and labels, from astronomy interpreters, and in planetarium programs. Please note that some activities in astronomy are weather and staff dependent. We cannot guarantee that all programs will be available on any given date. Call for more information on available programs.

**CHALLENGES:**

**LEADERS CAN ASSIGN AS MANY CHALLENGES TO THEIR TROOP AS THEY FEEL NECESSARY. HAVE THE GIRLS CIRCLE THE ONES YOU HAVE CHOSEN.**

**CHALLENGE – DAYTIME OBSERVING**

Visit the Abbitt Observatory or a telescope by the Beaver Exhibit on the Outdoor Trail. This challenge is very staff & weather dependent. Call for staff availability. Museum admission required.

1. On average, how far away is the Sun from the Earth? \_\_\_\_\_



2. What is the average surface temperature of the Sun?  
 \_\_\_\_\_

3. How can a telescope be made safe for viewing the Sun (**NEVER** look at the Sun with unprotected eyes!)? \_\_\_\_\_

4. Circle the features visible on the Sun today:

- a. Sunspots (cooler areas on the solar surface)
- b. Prominences (plasma rising slowly over the solar surface)
- c. Filaments (dark lines winding across the solar surface)

**CHALLENGE – NIGHTTIME OBSERVING**

Visit the Abbitt Observatory at night. The Abbitt Observatory is open at night on the second Saturday of every month. Admission is free. This challenge is very weather dependent.

1. This is the brightest object in the sky after the Sun. It goes through a series of changing shapes, called phases, every month. Its name is \_\_\_\_\_

2. Which planets were you able to see through the telescope tonight, if any?:  
 \_\_\_\_\_



3. This group of seven bright stars is in the northern sky. It can guide you to the North Star, or Polaris. \_\_\_\_\_

### CHALLENGE – ABBITT PLANETARIUM

Visit the Abbitt Planetarium for the show of your choice. Show dates and times vary, call for more information. Daytime programs require museum & planetarium admission. Nighttime programs require planetarium admission.

1. Circle the topics that you learned about in your planetarium show.



Space

Stars

Planets

Animals

The Earth

2. Write down one new fact you learned from seeing your planetarium show.

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3. Name the four gas giant planets of our solar system.

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### CHALLENGE – PLANETARIUM LOBBY EXHIBITS

Visit the Abbitt Planetarium Lobby in the Wason Education Center. Museum admission required during daytime operation hours. No admission fee during second Saturday night star parties.

1. This planet has 63 known moons. It is the largest planet in the solar system. It is named \_\_\_\_\_.

2. What is the Cone Nebula? \_\_\_\_\_.

3. The Phoenix Lander was sent to Mars with \_\_\_\_\_ primary mission objectives.



### CHALLENGE – WORLD OF DARKNESS

Visit the World of Darkness Discovery Center on the lower level of the main museum building. Museum admission required.



1. Name one country which is having nighttime while the United States is having daytime.

\_\_\_\_\_.

2. This device is used by astronomers to break up light from a star into a rainbow of colors. It is called a \_\_\_\_\_.

3. The Sun is composed of \_\_\_\_\_ distinct layers. The core is the hottest layer, reaching a temperature of over 27 million degrees Fahrenheit.