

# A Space Science Program For Grades 3 – 5

**Presented by** 



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# Follow the Drinking Gourd Suggested for Grades 3-5

#### Objectives

After visiting the planetarium for Follow the Drinking Gourd, the student should be able to:

1. Identify the Big Dipper and use it to locate the North Star

2. Explain how slaves in the southern United States used the song "Follow the Drinking Gourd" and various clues from the sky to help them find their way north to freedom in Canada.

#### State Standards of Learning Objectives

This planetarium presentation addresses the following Virginia State SOLs:

Science:	3.8, 4.8
History:	VS.1, VS.4, USI.2, USI.5

#### Vocabulary

constellation:	One of 88 official patterns of stars in the sky as determined by the International Astronomical Union.
asterism:	A picture made of stars in the sky; an unofficial constellation.
zodiac:	The term used to describe the band of constellations through which the Sun seems to move during the year.
slaves:	People who live as unwilling servants to a master.
North Star:	The star located most nearly above the Earth's North Pole. This star remains fixed in the sky to observers in the Northern Hemisphere.
Drinking Gourd:	A hollowed out squash used to drink water from a barrel by people in the 18 <sup>th</sup> and 19 <sup>th</sup> century; also another name for the Big Dipper.
seasons:	The four periods of the year each characterized by differing temperatures.
Big Dipper:	A pattern of seven stars easily seen in the northern sky from the Northern Hemisphere. The Big Dipper can be used to help one find the North Star.
year: quail:	The time for the Earth to complete one revolution around the Sun. A type of bird that migrates into in the southern United States during the winter. Bobwhite quail can be seen in the museum's indoor aviary.

#### Background Material for Follow the Drinking Gourd

Today, we think of America as a land of freedom and opportunity, where all people have the chance to live life as they wish and realize their dreams. However, this was not always the case. In the early days of our country, slavery was commonplace. While members of nearly every ethnic group once lived as slaves, most people are familiar with the enslavement suffered by African peoples at the hands of white plantation owners.

While students may be familiar with the idea of slavery and the slaves' search for freedom, they may not realize how difficult and often deadly such a journey could be. Slaves had to escape on foot, walking for the majority of their trip into Canada. Dangers encountered on

the road included slave hunters, wild animals, starvation, disease, and exposure. In most cases, slaves had little or no education, and no way of telling whether they were indeed on the road to freedom. Students may be surprised to learn how difficult it was for slaves to make their way into Canada.

In this program, the student will learn about how one branch of the Underground Railroad used a song to help slaves escape to the north. Students are encouraged to learn the song, and will be instructed as to the meaning of each section. The program also includes a section on African star lore. This wonderful program is appropriate for second through fifth graders, and includes a retelling of one slave family's journey to freedom adapted from the book "Follow the Drinking Gourd" by Jeanette Winter. A question and answer period is included, time permitting, to address specific questions from the students.

### **Concepts Covered During the Planetarium Visit**

1. Many people have lived as slaves throughout the world. In the United States, Africans were often sold into slavery and worked on plantations in the south. Many slaves tried to escape to the north into Canada and freedom. The Underground Railroad was a group of anti-slavery whites and free blacks that tried to help slaves escape. One route to freedom was taught to slaves by means of a song called "Follow the Drinking Gourd".

2. The Drinking Gourd, or the Big Dipper, is a group of seven stars easily located in the northern sky. The Big Dipper points the way to Polaris, or the North Star. Since Polaris never changes its position in the sky, it can be used to identify the direction North. Slaves used the Drinking Gourd and the North Star to help guide them on their journey to Canada.

## **Pre-Visit Activities**

We recommend that you conduct at least one of these activities with the class before your visit to the planetarium theater. Be sure to raise questions that can be left unanswered until the discussion period in the show.

1. Discuss the idea of slavery, and the conditions under which slaves were brought to this country and in which they lived.

2. Study the night sky. Can you identify any constellations? Watch the sky through one evening. Do you see any changes taking place during the night?

3. Listen to the music of some famous black musicians. Also listen to traditional African music and some Negro spirituals. How has this music influenced the music we listen to today?

#### **Post-Visit Activities**

We recommend that you conduct at least one of these activities with your class following their visit to the planetarium theater.

1. Investigate how African culture has influenced our culture today. One way southern culture has been affected is in many of the traditional foods. Learn more

about southern cooking and the African influence of former slaves. Then have a southern cooking party!

2. Draw a picture of the Earth in space, showing how its axis is tilted towards the North Star. You might also want to draw the Drinking Gourd!

3. Go outside at night and locate the Big Dipper and the North Star for yourself! You can call the Virginia Living Museum Astronomy Department at (757) 595-1900 x256 to find what time the Big Dipper will be easiest to see in the sky.

#### **Recommended Books and Web Sites**

*Planisphere*: A planisphere is a device used to find objects in the sky. It shows the user a picture of the night sky at the precise day and time in question. Planispheres can be purchased online or in the VLM Gift Store.

The Sky Observer's Guide: A Golden Guide by R. Newton Mayall, Margaret Mayall and Jerome Wyckoff, Golden Press, New York.

Stars by Herbert S. Zim, Robert H. Baker, and Mark Chartrand.

SpaceWeather:SpaceWeather.com

Jet Propulsion Laboratory Homepage: http://www.jpl.nasa.gov

Astronomical Museum: http://boas3.bo.astro.it/dip/Museum/MuseumHome.html NASA: http://nasa.gov

The National Radio Astronomy Observatory: <u>http://www.nrao.edu/</u> Virginia Living Museum Astronomy: <u>http://www.thevlm.org</u>

