



“Above & Beyond” Educator’s Guide

About the Author & Storyteller

Author and award-winning storyteller Dianne de Las Casas adapts sizzles on stage with “traditional folklore gone fun!” She retells folktales and adds zest with fun audience participation through chants, sounds, songs, and movement. Through the use of character voices, animated facial expressions and gestures, she creates a world of enchantment that mesmerizes her young audiences. Living and traveling all over the world as a child (lived in Philippines, Hawaii, Spain & California) has greatly influenced her storytelling and fuels her passion for exposing children to cultures world wide. She believes that “Stories connect the world” and enjoys sharing stories from her own varied cultural background. Her books include *Story Fest: Crafting Story Theater Scripts* (Teacher Ideas Press), *Kamishibai Story Theater: The Art of Picture Telling* (Teacher Ideas Press) and *Handmade Tales: Stories to Make and Take* (Libraries Unlimited). Her multi-award winning audio recordings include *Jambalaya ~ Stories with Louisiana Flavor*, *World Fiesta ~ Celebrations in Story and Song*, and *Jump, Jiggle & Jam ~ A Rhythmic Romp through Story Land*.

Stories in the Program

Note: Dianne will select which stories will appear in the program.

Big Bear and Little Bear – Italy (Roman Myth) A story of how the Ursa Major and Ursa Minor constellations were formed

The Cowherd and the Weaving Maiden – China A tale of how the weaving maiden came to earth and an explanation of the celebration of the Double Seventh

Great Big Cheese in the Pond – England A tale about the people of Gotham and how they try to capture the moon’s reflection in a pond

How Maui Caught the Sun – Hawaii A Hawaiian myth of how Maui and his brothers stopped the sun from racing across the sky

The Man in the Moon – Vietnam A story of how the man in the moon came to be

Outer Space Fast Facts

Men on the Moon – On July 20, 1968, Neil Armstrong, an American, was the first man to set foot on the Moon. Since then, twelve humans have set foot on the Moon between 1969 and 1972.

The Star of the Sky – Although there are billions of stars in the sky, the sun is the “star” of our Solar System because it is the closest star to the earth. A star is a ball of gas held together by its own gravity.

Young Man Sun – The sun is only five billion years old. That might sound old to us but according to astronomers, that makes the sun a young star.

The Milky Way – Our galaxy is called the Milky Way. A galaxy is a very big system of stars. There are four billion stars in the Milky Way Galaxy! The Milky Way is famous. Even a popular chocolate bar is named after The Milky Way!

Asteroids – An asteroid is a mini-planet. The largest asteroid on record, Ceres, would stretch from Washington, D.C. to Louisville, Kentucky!

Comets – Comets are balls of dust, gas, rocks and ice. When they pass close to the Sun, some of the ice evaporates and turns to gas. The stream of gas and ice often form a bright tail.

Planets – Officially, there are eight known planets in the Solar System – Mercury, Venus, Earth, Mars, Jupiter, Neptune, Uranus and Saturn. Pluto is no longer considered a planet by the International Astronomical Union. They voted to disqualify it in August of 2006.

Exploring the Stars through Mythology

Every culture has stories about the sun, moon and stars. Stories were used to explain concepts that people didn’t understand. The most well-known stories are the Greek and Roman Myths. The Greeks and later, the Romans, explained the formation of constellations in the sky through stories. The Big Dipper, Little Dipper and Orion’s Belt are all constellations that have their own stories.

Extension Activity - Mapping the Stars

Curriculum Area: Science

After showing the students a constellation map, have them create their own constellation. Take black construction paper and map out constellations with a white crayon. Draw lines to show the constellation. For older students, map the constellations and poke holes through the black construction paper and shine a flashlight through to see the constellation.

Greek and Roman Mythology

Greek and Roman mythology has heavily influenced astronomy. Every planet is named after a Roman God or Goddess. Greek and Roman mythology has even influenced NASA (National Aeronautics and Space Administration) when naming their space crafts: Apollo Spacecraft (the Greek God of the Sun), the Shuttle Atlantis (in Greek stories, the city that was lost underwater after being destroyed by the Sea God, Poseidon) and even NASA’s newest rocket, Ares (the Greek God of War).

Extension Activity – Pick a Planet (any planet)

Curriculum Area: Science and Language Arts

Have the students select one of the seven planets named after Roman deity: Mercury (Messenger to the Gods), Venus (Goddess of Love), Mars (God of War), Jupiter (Chief Olympian God), Neptune (God of the Sea), Uranus (God of Harvest) and Saturn (God of the Heavens) and have them research and write about the planetary Gods. What was that God or Goddess famous for? Select a story about that God and rewrite the tale.

3...2...1... Blast Off!

In the United States, the first rocket successfully launched blasted off in 1937. It was imagined and built by a physicist named Robert H. Goddard. Robert Goddard is credited as the father of modern rocket propulsion. He came up with a mathematical theory for rocket propulsion. His groundbreaking work allowed the first rocket to be launched. Since then, NASA has built its rockets using the rocket propulsion technology first imagined and invented by Robert H. Goddard.

Extension Activity – Reading Rockets

Curriculum Area: Language Arts & Visual Arts

Soar into space with reading rockets. Have the students create rockets. Top a decorated toilet paper tube with a paper cone. On the rockets, have the students write down the title of a book they read about outer space, a space explorer, or a space pioneer. Suspend the reading rockets from the ceiling. Far out!

Math in Space?

Scientists, astronomers, physicists, and astronauts rely on math to explore space. All the spacecrafts and rockets are built according to mathematical specifications. How far a spacecraft will travel is measured using math. The orbit of the planets, the life span of a star, and even the exploration of a black hole or a worm hole uses math! Without math, space technology and space exploration could not happen.

Extension Activity: Interplanetary Travel

Curriculum Area: Science & Math

Using a large poster board, create the solar system. Have the students map the distance from Earth to the other planets. Mercury – 57 million miles from Earth, Venus – 26 million miles from Earth, Mars – 35 million miles from Earth, Jupiter – 370 million miles from Earth, Saturn – 744 million miles from the Earth, Uranus – 1,607,000,000 miles from Earth, Neptune – 2,680,000,000. If you had to drive a car to each planet at 60 miles per hour, how many years would it take to get there? Map it on the chart.

Food in Outer Space

Ever wonder how astronauts eat? Because of anti-gravity, special care has to be taken with their food. Some foods can be eaten in their natural form, such as brownies and fruit. Other foods require adding water, such as macaroni and cheese or spaghetti. An oven is provided. There are no refrigerators in space, so space food must be stored and prepared properly to avoid spoilage, especially on longer missions. Salt and pepper can only be used in a liquid form because in its granular form, it could clog the space craft. Ice cream has to be eaten freeze dried.

Extension Activity: Drinking like an Astronaut

Curriculum Area: Science & Math

Try this experiment that demonstrates why it is harder to drink in outer space. You will need: glass of water, drinking straw, straight-back chair. Put the glass of water on the floor near the side of the chair. Have a student lie across the chair so that his stomach is higher than his mouth. (His stomach will be on the chair while his feet and head hang off either side.) Lift the glass and try to take a drink (without the straw). What happens? Can he swallow the water? Next, put the straw in the glass and try to take a sip. What happens? Is it any easier? It is almost too difficult to get a drink from the glass (without a straw while) lying on the chair. Why? Gravity! Gravity makes it easy to feed ourselves on Earth because it allows the food to “fall” down the throat. There is no gravity in space. Lying on the chair changes the center of gravity, mimicking conditions in space. However, when a straw is used, it is a little easier because you are able to use pressure of sucking.

Vocabulary

What do the following words mean? Look them up in the Dictionary.

Astronomy	Anti-Gravity
Physicist	Orbit
Propulsion	Black hole
Gravity	Worm hole

Website Resources

NASA for Kids <http://www.nasa.gov/audience/forkids/kidsclub/flash/index.html>

Kids Astronomy <http://www.kidsastronomy.com/>

Outer Space Lesson Plans <http://www.atozteacherstuff.com/Themes/Space/>

Facts on Outer Space <http://www.space.com/>

Facts on the Planets <http://www.factmonster.com/ipka/A0769141.html>

Exploring Space <http://www.space-explorers.com/>