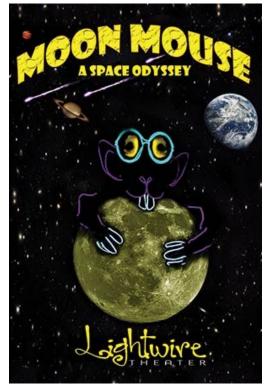
Presented by Lightwire Theater

Recommended Grades K-6



About the Performance

Marvin the mouse wants to be popular. Constantly bullied and picked on by the "cool" rats, he is labeled as a looser and a geek. As respite from the continuous badgering, Marvin retreats into his science books and a world of fantasy. He longs to have adventures and to be the hero.

Join Marvin on the space adventure of a lifetime: a trip to the surface of the moon on his homemade rocket, where he meets a strange cast of misfit creatures, learns of infinite peril and views awesome beauty. Will Marvin make his dreams come true and experience the glory and acceptance he craves?



Check out clips of Lightwire Theater!

www.youtube.com/watch?v=20JL_yOH_UM www.youtube.com/watch?v=ZqKdCgX7M8g

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Before Moon Mouse... Wh The first man to make proper maps of the moon was Galileo. Wh The first person to walk on the moon was American astronaut Neil Armstrong in 1969. Each union to dark

What is Lightwire Theater?

Creators Ian Carney and Corbin Popp met while dancing in Twyla Tharp's Broadway show Movin' Out. An immediate connection was made as they discovered their mutual love of art, theater and technology. After coming across a product called electroluminescent wire or "EL wire" for short, the possibilities seemed endless. Together, with their wives Eleanor and Whitney, they began to develop EL wire puppetry based on creatures that quickly gained personality. The performances are a truly unique, innovative and visually dazzling theatrical experience. Utilizing the talents of four cast members, they strap on EL wire puppetry to their entire bodies and bring the creatures to life through movement and dance.

Recommended Grades K-6

Why Is Lightwire Theater Unique?

Each Lightwire Performance is a unique interpretation of a story told by dancers and glow-in-the-dark puppets.

These stories are told solely through movement and puppetry, without words, so it is up to your creative imagination to determine what is happening on stage!



Information in this study guide is adapted from www.lightwiretheater.com ; www.puppetsnow.com; www.theaterseatstore.com; www.sciencekids.co.nz; www.planetsforkids.org

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What is electroluminescent wire?

Electroluminescent wire (EL wire) is a thin copper wire coated in a **phosphor**, which glows when an electric current is applied to it. Used in safety and emergency lighting, toys, clothing, and structure decoration, EL wire is unique from other stringed lights that it produces a continuous stream of unbroken visible light. The wire's extreme thinness allows for great flexibility – fantastic for use in designing puppets.





How are the characters created?

The EL wire is attached to a battery pack that the actors wear. The characters are made from **struts** and **joints** and then covered with black cloth lined in EL wire. The actors must remain invisible during the performance; therefore they will be seen due to the EL wire **backlighting** their bodies. Considering this is a show without words, the characters are brought to life by the actors through movement and dance set to music.

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History of Puppet Theater

While the precise birth date of puppets is unknown, puppetry dates back over 3,000 years. Probably originating in Egypt, puppets are mentioned in writing as early as 422 B.C.E. Following Egypt, puppetry became popular culture in India, Indonesia, Japan, and Europe. India in-



cluded the use of stick puppets depicting Indian **epics** such as **Mahabharata** and **Balakanda**. Indonesian puppets were and still are considered sacred and part of ritual ceremonies. In Japan, puppets took on more entertainment with **ornate** designs as well as on a larger scale in street theater. In Europe, puppets acted out **morality** in plays, behaving in ways that would have been unacceptable for humans to portray. By the 19th century, string puppets had upgraded from two strings to controls that included as many as eight strings. Shortly thereafter, puppetry would be divid-

ed from actor theaters and began to compete with **vaudeville** and music hall theater. In the 20th century, a resurgence of popular puppetry was seen with the introduction of The Muppets, created by Jim Hensen, and the musical *The Lion King*, based on the Disney classic tale. Puppets continue to appeal to children and families on television, movies, and stage and are seen as way to relate moral messages about childhood concepts.

Types of Puppets

<u>Marionette (String Puppetry)</u>—puppets are suspended by strings from a horizontal bar held in the puppeteer's hand. By manipulating the tilt of the bar, puppeteers make the puppet move.

Hand Puppetry—puppets are controlled by the puppeteer's hand fitting directly inside of the puppet

<u>Two-man Puppetry</u>—larger puppets are controlled by two puppeteers, typically one operating the head while the other operates the body.

<u>Carnival (Body Puppetry)</u>—these puppets are seen in Lightwire Theater's shows, street spectacles, sporting games or the *Lion King*. Puppets are worn as a full-body suit.

<u>Bunraku Puppetry</u>—based in Japan, a life-sized wooden puppet is illuminated by focused light; however, puppeteers can be seen by the audience.

<u>Shadow Puppetry</u>—a paper cutout on a stick is illuminated onto a piece of white fabric, producing shadows that are viewed by the audience and allow for puppeteers to be hidden.

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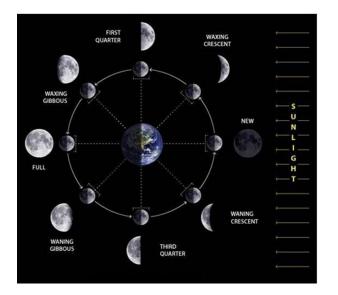


Did You Know?

- The Moon is much smaller than the Earth, with a diameter of 2,159 miles. It is airless, waterless and lifeless.
- The Moon is the Earth's only natural satellite. A natural satellite is a space body that orbits a <u>planet</u>, a planet-like object or an <u>asteroid</u>.
- The average distance from the Moon to the Earth is 238,857 miles.
- The Moon orbits the Earth every 27.3 days.
- You can see the surface of the Moon by using a pair of binoculars or a small telescope. The Moon's surface shows the damage caused by these large pieces of rock hitting it billions of years ago. The surface is covered in craters, pits and scars.
- From the Earth we can only see one side of the Moon; the other side is always turned away from us. Photographs from space show a similar scarred surface on the other side.
- The Moon has no atmosphere and so we can still see the damage caused billions of years ago.
- If you look at the Moon when it is nearly full you can see the dark areas which are known as the seas. These are not really seas but are huge expanses of smooth dark lava.



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Phases of the Moon

- All parts of the Moon are lit in turn by the Sun. As it rotates round the Earth we see different fractions of the sunlit half, or hemisphere, of the Moon. These are known as the phases of the Moon, or lunar phases. The Moon changes from a thin crescent to a full moon and back again to a crescent in one month (actually 29 days, which is a lunar month).
- The waxing Moon. "Waxing" means growing. After the new moon appears in the sky as a tiny sliver of light, the moon waxes. It grows into a crescent, curving to your left as you look at it and then into a half moon. This takes a week and so the period is described as the Moon's first quarter.
- The waxing gibbous Moon. Gibbous means humped and describes the shape of the Moon as it grows from a half moon to a full moon. Another week has passed and this is the Moon's second quarter.
- The waning Moon. "Waning" means shrinking. Now the Moon begins to get smaller again it "wanes". The third quarter takes us from a full moon to a half moon again, but this time it is the right hand side of the moon that shines.
- The waning crescent Moon. The last quarter takes us from a half moon back to a crescent moon, facing right, and to a point where the moon disappears.
- When the Moon is a crescent and only the crescent is being illuminated by the Sun, you can often see the shadow of the rest of the Moon. This is caused by reflection of sunlight from the Earth. It is sometimes called "the old moon in the new moon's arms".
- The gravity of the Moon, the pull which it exerts on the Earth, causes two high tides on the Earth every day one every 12 hours and 25 minutes.