



# EDUCATORS'

# 2010 GUIDE 2011



## DEAR EDUCATORS:



**T**his exciting time of year has arrived again – the start of a new school year! Yes, the start of a new school year and another opportunity to collaborate and partner with you in molding, shaping and positively influencing the young and impressionable minds of OUR children. We are very passionate about any and every opportunity to nurture children by exposing them to the wonders and possibilities of science, health, social studies and arts. And we have the place to do exactly this... an exciting and vibrant hands on environment designed to enhance your curriculum goals – Lied Discovery Children’s Museum!

The museum’s educational philosophy is guided by the belief that learning can and should be enjoyable, exciting, vibrant and hands-on. Las Vegas offers few opportunities for families to share informal learning experiences, so Lied Discovery Children’s Museum is excited to play a unique role in addressing cultural and educational topics that can be accessed on several age levels. The competent and dedicated Education staff researches, develops, and implements programs and presentations within the broad subject areas of arts, science, and humanities, stressing interdisciplinary relationships. Our programs, presentations and demonstrations extend the experience and content of permanent exhibits and temporary traveling exhibits by directly engaging school children, educators and families in the learning process.

This guide will highlight what the museum has to offer and define how we can work together to integrate the formal learning experiences in the classroom with the hands-on and interactive informal learning experience of the museum. Also, don’t forget to check out our Health Science Outreach Program, House Calls, which allows us to put extraordinary experiences at your fingertips in yet another way... right in your classrooms! So, again, we invite you to partner with us to challenge the abilities of your students by helping them to better understand the world in which we live through hands-on exploration.



Here’s to innovative, hands-on and fun learning opportunities and the start of another great school year!

Sincerely,

Tifferney M. White  
Deputy Director,  
Lied Discovery Children’s Museum

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## **SELF-GUIDED MUSEUM FIELD TRIPS**

A field trip at Lied Discovery Children’s Museum is all about DISCOVERY! You and your students will have the opportunity to explore the museum at your own pace. There are many ways in which you can enhance your visit. Shows and demonstrations are presented by staff and volunteers throughout the museum. These experiences are complimentary with your admission and vary each day. For more information about shows and program schedules, make sure to pick up the Daily Visitor’s Guide specific for the day of your visit.

## **INTERACTIVE CURRICULUM THAT MEETS YOUR GOALS**

The exhibits are aligned with the Nevada State Content Standards allowing you to explore curricular concepts in new and interactive ways, while still meeting the curriculum goals of your classroom. You are encouraged to preview the exhibit descriptions and curriculum correlations, within this guide, in advance to make the most of your experience. Additional information and Educator’s Guides for specific exhibit areas can be found on our website at [www.ldcm.org/education](http://www.ldcm.org/education). Students will make meaningful connections as informal and formal educational experiences are integrated, yielding lasting discoveries that extend beyond the school and museum walls.



## Making Group Reservations

**We're so happy you're interested in bringing your group to the museum!  
We hope the information here will help you to plan your visit.**

### GROUPS ARE SPECIAL!

Because visiting groups are a very important part of our audience, we offer reduced group admission fees. To ensure that everyone's visit to the museum begins smoothly, we must complete the check-in process for groups as efficiently as possible to avoid/minimize delays at the Admissions Desk. In order to offer the benefit of a group rate, groups must comply with conditions as listed below.

### WHAT IS A GROUP?

(These conditions must be met in order to qualify as a "group")

- Your group must contain a minimum of 12 or more paying visitors. This does not include children ages one and under.
- Reservations should be made in advance of the day of the visit.
- Upon arrival at the Museum on the day of your visit, all members of your group must enter the museum at the same time. **PLEASE NOTE:** Those who arrive after the group has entered the museum must pay the regular admission price for children and adults.
- The group must make one payment to the Admissions Desk Clerk.
- The group must stay together for a brief orientation by a staff member before dispersing into the museum.

### WHAT IS AT THE MUSEUM?

Lied Discovery Children's Museum contains 23,000 square feet of both temporary and permanent hands-on exhibits exploring the arts, sciences and humanities. You and your students will be part of an informal learning environment highlighting discovery, exploration, and creative expression. Our field trip program and teacher preparation materials are designed to help you meet your curriculum goals in fun and innovative ways! The Education Department Staff develop teacher preparation materials that include an exhibit overview, education goals, and connections to the Nevada State Content Standards with vocabulary, extension activities, and a resource list. Please visit our website at [www.ldcm.org/education](http://www.ldcm.org/education) for Educator's Resources.

### LOGISTICAL INFORMATION

We recommend you allow at least a 90-minute time period for most field trips. Please keep in mind that your group will be sharing the museum with a variety of differently aged children. During your visit, each exploration group must be guided by one or more chaperone(s) that are at least 18 years old. A 1:10 adult to child chaperone ratio is required, but a 1:5 adult to child chaperone ratio is recommended.

### TIME SLOTS

Tuesday through Saturday	Group visit time slots may be scheduled throughout the day from 9:00am to 3:00pm - as available
Sunday	Group visit time slots may be scheduled throughout the day from 12 noon to 3:30pm - as available
Mondays	When open, group visit time slots may be scheduled throughout the day from 9:00am to 3:00pm - as available.



### LUNCH FACILITIES

The museum can provide space, tables, and chairs for field trip lunches. Vending machines are available for the purchase of cold drinks and snacks. Requests for field trip lunch space must be made in advance with the Reservationist. Because of multiple requests, the specific lunch area will be designated upon arrival. Space is limited and on a first come, first served basis. ***Eating and drinking are restricted to the designated lunch and vending areas.***



## **CHAPERONES & SAFETY**

Chaperones are a very important part of any field trip! Their own life experiences support meaningful group learning and that makes for a memorable visit! When you book your field trip, your confirmation packet will contain a “So, You’re going to be a chaperone” sheet with useful information. Please make copies and distribute to your chaperones!

For the safety of your children and other museum visitors, adult chaperones are **required** at a ratio of one adult to every ten children. We recommend a ratio of one adult to every five children and chaperones up to this number are free of charge. Any chaperones exceeding the number of children will be charged. **Chaperones must be at least 18 years old.** **Please note:** Your group may be denied entrance if the minimum number of chaperones required for your group are not present. **For students with physical and mental disabilities,** you may bring up to one adult for each child and chaperones up to this number are admitted free of charge. Any chaperones exceeding the number of children will be charged. Chaperones are required to stay with and monitor the children.

## **PAYMENT**

Fees are paid at the time of the visit with cash, business checks or VISA, MasterCard, Discover, American Express, or an ATM debit card with VISA logo. **Personal checks are not accepted.** Las Vegas School District schools may request to pay by purchase order **in advance of the visit.** Purchase orders must agree to the rates, policies and procedures of the museum.

## **REFUND POLICY**

Refunds are only provided on agency-issued check and only by request. Refund request will incur a \$40.00 processing fee which will be deducted from the balance of the refund. Please allow two (2) weeks for processing.

## **LATE POLICY**

Field trips to the museum are quite popular and we want to do our best to accommodate your group but in the interest of providing a quality visit for all students, groups arriving more than 15 minutes late may not be able to participate in all of the special field trip options originally requested.

## **CANCELLATION POLICY**

If you find you need to cancel your reservation, please call us at least two weeks (14 days) prior to your scheduled visit. The museum is often fully-booked for field trips and your call in advance will enable us to schedule other groups in your place. As a courtesy, we will be happy to help you reserve another time for your visit.

## **TO MAKE A RESERVATION**

Contact our Reservations Department at 702-382-3445 to make your reservation. Reservations are taken Tuesday – Saturday from 8:30 a.m. – 4:30 p.m. You may also visit us at [www.ldcm.org](http://www.ldcm.org) for a reservation form that can be faxed to the museum. **PLEASE NOTE:** *Your reservation is not final until you have received an official confirmation form detailing the logistics of your visit.*

## Featured School Exhibition – Fall 2010



**(GLOBAL AWARENESS, GEOGRAPHY,  
HEALTH AND SCIENTIFIC INQUIRY)**

**Target Audience – 3rd – 8th Grade**

*Torn From Home: My Life as a Refugee* is a nationally traveling exhibition that raises awareness of human rights, and offers a perspective through the eyes of a refugee child.

### THE EXHIBIT AREAS INCLUDE:

- Home
- Losing Home
- Camp Registration
- Refugee Camp
- Medical Clinic
- School
- Going Home



*Torn From Home: My Life as a Refugee* is a special exhibition designed to increase understanding among students, educators and families about human rights and the lives of refugee children and their families. The perspectives and voices of refugee children guide students through interactive environments simulating a refugee camp, medical clinic and school. The exhibition supports the Nevada State Content Standards as well as local Social Studies (particularly Civics and Geography) and Health.

In addition to 5<sup>th</sup> grade, there is also a strong connection to the curriculum for 8<sup>th</sup> grade students (particularly World Geography) and visiting the exhibition would be a great way to reinforce concepts taught in class.

*We encourage Educators to visit [www.ldcm.org/education](http://www.ldcm.org/education) for Educator Resources that detail the exhibitions and experiences and highlight each grade level with correlation to the Nevada State Content Standards.*

*Torn From Home: My Life as a Refugee* is a nationally traveling exhibit and was created by Lied Discovery Children's Museum. This exhibition was made possible through the support of Pam & Pierre Omidyar.



### **Fifth Grade Free!**

*Connections to the curriculum standards for 5th grade students are especially strong. With that in mind, we are proud to offer all 5th grade student field trips in pre-reserved school groups **FREE** admission into the museum through December 17, 2010.*

**Make reservations as soon as possible as space is limited. See page 4 for reservation information.**

## Featured School Exhibit – Spring 2011



### Target Audience – 1st – 8th Grade

Spin is an exciting exhibit that explores the fun... AND the science of objects that rotate. Using interactive exhibits and real-life examples, students will design experiments to explore the science behind spinning toys, sports, transportation, space travel, entertainment — and even the universe itself.

### SPIN OFFERS 15 UNIQUE EXHIBIT AREAS, INCLUDING:

**The Human Centrifuge:** Heads will spin! Sit in this innovative tub and explore how inertia works.



**Let It Roll:** Switch out objects by size and weight to explore how these changes impact the way objects spin.

**Laser Show:** Students explore the science behind this visual entertainment creating their own mini laser show.

**You're Spinning:** Colorful entry – words and images on a large wheel reveal how the speed of a spinning object varies with distance from its axis.

**Air Thrusters:** Air travels through a tubing system. Change the orientation of the system, adjust the direction of escaping air and affect the rotation.

**Build a Top:** Using tops of different shapes and sizes, experiment and compare the amazing properties of these simple machines.

**Fast Lane:** Move a car on the wheel. Observe the speedometer to see if the car's speed changes.

**Let it Roll:** Race various objects along two tracks designing their own experiment, do they roll differently?

**Pit Stop:** Change the wheels, adjust weights and race two cars to observe the effects of wheel size and weight on speed.

**Speed Limit:** Crank a handle and turn a blower making air travel through a pipe. Blowing air activates an anemometer. Crank faster and see how your efforts affect the anemometer.

**Racing Rollers:** Roll a pair of cones down parallel ramps constructed of moveable and interchangeable, segmented tracks. Observe what happens!

**Spin Speed:** Sit in a rotating, tilted chair and adjust your weight distribution to affect the chair's rotation.

**Weighted Wheels:** Spin two heavy wheels. Compare how much force it takes to start each wheel spinning, how long each wheel continues to spin and how easy it is to make each wheel stop spinning.

*We encourage Educators to visit [www.ldcm.org/education](http://www.ldcm.org/education) for Teacher Resources that detail the exhibitions and experiences and highlight each grade level with correlation to the Nevada State Content Standards K-5.*

SPIN was developed by Catawba Science Center in Hickory, NC, and The Health Adventure in Asheville, NC, as part of the Traveling Exhibits at Museums of Science Collaborative. This collaborative effort was funded by a grant from the National Science Foundation.

### **First Grade Free!**

*Connections to the curriculum standards for 1st grade students are the strongest. With that in mind, we are proud to offer all 1st grade student field trips in pre-reserved school groups **FREE** admission into the museum during the run of the exhibit (January 14 - May 15, 2011.)*

**Make reservations as soon as possible as space is limited. See page 4 for reservation information.**

**Permanent Exhibits - At a Glance**

**Grade Level/Nevada State Content  
Standards Correlations**

EXHIBIT NAME	Pre-K	K	1	2	3	4	5
<b>EARLY CHILDHOOD (0-5 yrs)</b>							
<b>Math/Science/Social Studies</b>							
Boulder Mountain							
Cactus Construction							
<b>Life Science</b>							
Desert In The Dark							
<b>HEALTH</b>							
Be a Label Detective							
Billboards							
Cleaning out the 'Fridge							
Dirt to Dinner:Path of a Potato							
Electrocardiogram							
Find Your Balance							
Fingerprint Yourself							
Hoop Vision							
Let's Make a Meal Deal							
Seeing Spots							
Skeleton Door							
Superfoods							
Video Light Microscope							
Virtual Reality Sports							
What If you Couldn't							
<b>SOCIAL STUDIES</b>							
Airport Terminal							
Bank of America							
Car Care Center							
Fire Safety							
Interstate Plumbing & AC							
Nevada Energy							
Smith's Grocery Store							
Nevada State Capitol							



## Permanent Exhibits - At a Glance

### Grade Level/Nevada State Content Standards Correlations

EXHIBIT NAME	Pre-K	K	1	2	3	4	5
<b>SCIENCE</b>							
<b>Earth and Space Science</b>							
Foucault Pendulum							
Hurricane Simulator							
Planet Walking							
Tomado							
Tumtable							
<b>Physical Science</b>							
<b>MATTER</b>							
Frozen Shadows							
Viscosity Tubes							
<b>FORCES AND MOTION</b>							
Balls and Tracks							
Design an Airplane							
Gravity Well							
Human Battery							
Jacob's Ladder							
Make Sparks Fly							
Pull Yourself Up							
Tennis Ball Launcher							
Water Tables(s)							
<b>ENERGY</b>							
Black and White & Color							
Blue Man Group							
Bubbles!							
Camera							
Echo tube							
Handy Reflections							
Kaleidoscope							
Laser Harp							
Magic Eye							
Mirrors and Reflections 1 and 2							
Periscope							
Speed of Sound							
Steel Drum							
Symphony of Lights							
Vibrating Strings							
Virtual Strings							
Whisper Dishes							
<b>Nature of Science</b>							
How Big is a Million							

## Engaging Exhibits = Interactive Learning

Let Lied Discovery Children's Museum enhance your curriculum by correlating with the **Nevada State Content Standards K-5** in fun, meaningful, and age-appropriate ways. The exhibits are organized into core subject areas, though you will also find they are integrated across the content areas. The hands-on, multi-faceted nature of the museum provides for individualized experiences for the varying levels of learners. This provides a differentiated learning experience for your students, all exposed to key learning standards.

### Early Childhood

Pre-K and Kindergarten (Ages 0-5)

#### DESERT DISCOVERY

It's a place to look, listen, touch and try things out! It's a place to talk, share ideas, and work together! It's a place to think, plan, and make things happen! It's a place to learn about the desert around us!

This area is specially designed just for young learners! Desert Discovery is an interactive learning environment featuring components where students can develop and reinforce a variety of skills and concepts; among them are large motor and fine motor skills, creative expression, teamwork, role playing, decision making, recognition of colors and shapes, math, science and social studies concepts. The area also includes a Parent/Educator Resource room, as described below.

**Parent/Educator Resource Room** – A colorful room with whimsical windows offering an opportunity for children and caregivers to relax and connect. Educational resources are available and hands-on activities, presentations and programming occurs daily.

#### LIFE SCIENCE

**Desert In The Dark** – Do all living things sleep when it gets dark? Enter a pretend bedroom filled with bedtime storybooks and animal puppets to reinforce developing concepts of day and night. Meet some Mojave desert animals who are definitely not asleep!

#### MATH/SCIENCE/SOCIAL STUDIES

**Boulder Mountain** – Mine soft-sculpture “boulders” in basic geometrical shapes. Operate a hand-cranked elevator and overhead bucket transport system to send boulders to co-workers in Cactus Construction.

**Cactus Construction** – Build it up... and take it apart! Children learn about how things are constructed by putting them together and taking them apart over and over again. Step inside our mini-cave... Recycle your boulders back into the mine with a second hand-cranked elevator system. Sort and categorize boulders using a vertical shape sorter.

## Health

Students will....

- **Enhance** their health by comprehending concepts related to health promotion and disease prevention. (NSCS 1.0)
- **Explore** the influences of culture, media, and technology on health behaviors. (NSCS 2.0)
- **Access** reliable health information to enhance their health. (NSCS 3.0)
- **Make** choices using decision making skills that will enhance their health. (NSCS 5.0)
- **Practice** health-enhancing behaviors and avoid or reduce health risks. (NSCS 7.0)



yellow light? A food will flash and you decide which foods are healthy choices to eat as frequently as desired, only occasionally or sparingly. Instant feedback is provided on your selections!

**Be a Label Detective** – An interactive computer kiosk will guide you through discovery of the true meaning behind food labels so you will be a better informed consumer. Use the knowledge from your discovery to become a Label Detective who investigates and “earns” a badge.

**Billboards** – Have you ever wondered what people eat on the other side of the globe? Learn interesting facts about how people eat around the globe, view appropriate serving sizes compared to everyday, tangible objects, and learn how many calories you can burn with various types of physical activity.

**It's Your Choice is sponsored by The Epicurean Charitable Foundation Las Vegas.**

### IT'S YOUR CHOICE

*A new, fun, interactive exhibition designed to highlight the importance of developing healthy eating habits for a healthy life.*

**Dirt to Dinner: The Path of a Potato** – Mmm! Mashed potatoes, french fries, potato chips, or potato soup? Guide your potato through a maze on its journey from field to food.

**Superfoods** – Beans, apples, fish, blueberries, broccoli, spinach, oatmeal, eggs, almonds, pomegranates, chilies and yogurt – all of these foods are rich in nutrients and confer health benefits. They all have a place at the museum so, remember to look up when you come into the “It’s Your Choice” Exhibit.

**Let’s Make a Meal Deal** – Fill your “smart” plates for breakfast, lunch, dinner, and snacks. How do your choices balance out? An electronic calculator gives suggestions for healthy choices based on your selections and determines your caloric intake for the day.

**Find Your Balance** – Beat the clock or find an opponent – **THE GAME IS ON!** See how fast you can run from space to space, following the lights to complete the energy balance equation –  $SERVING\ SIZE + NUTRITION = CALORIES\ IN = ENERGY\ OUT$ .

**Cleaning out the ‘Fridge** – Organize common foods according to the food pyramid groupings while learning how to balance what you eat. Immediate feedback is provided on your sorting with the opportunity to revise your choices for accuracy.

**Seeing Spots** – Red light, green light,



## And some other favorites...

**Skeleton Door** – Turn a door knob and take a look at how the skeleton bones are moving inside of your arm – a safe way to take a look inside of your body.

**Electrocardiogram** – Wonder exactly how fast your heart is beating after running up and down the stairs? This exhibition will help you discover that as it measures your heart rate before and after exercising.



**Fingerprint Yourself** – What is one characteristic that makes you different from everyone else, even if you are an identical twin? Find out the answer to this question and learn some unique features about yourself in the process.

**Hoop Vision** – Put on some special glasses and see if you can throw a basketball into a hoop that is only two feet away. Discover why it might not be as easy as it sounds. The human brain and vision, it's all so amazing!

**Video Light Microscope** – Be a scientist as you closely examine and investigate your skin or various objects for a magnified view.

**Virtual Reality Sports** – Get some exercise and learn about sports as you play a virtual game of soccer, volleyball, hockey, or basketball on a green screen. Friends, classmates and teachers can cheer you on as they watch you from the bleachers!

**What if You Couldn't?** – Experience what it would be like to play basketball while in a wheelchair, assimilate and connect with your compassion for those with disabilities.



## Science

At Lied Discovery Children's Museum all visitors become scientists examining themselves and their world through open exploration. At the heart of all science are questions. By asking questions, you walk in the company of every scientist who ever lived – Einstein, Curie, da Vinci, and countless others. In **all exhibits** at the museum, you become part of the grand adventure called science.



### NATURE OF SCIENCE

*Students will...*

- **Engage** in scientific inquiry as they investigate, observe, question, experiment, analyze, and openly communicate about the natural world. (Unifying Concept A)
- **Use** tools and models to safely gather and organize data, also extending the senses. (Unifying Concept A – N2.A.2, N.5.A.6, N.5.A.7)
- **Observe** science engaging men, women, and children of all ages and backgrounds. (Unifying Concept B – N.2.B.1)

**How Big is a Million** – Do you know how big a million really is? This is your chance to see and compare a million dimes, a million grains of sand, a million holes in a wall, and a million plant cells under a microscope.



### EARTH AND SPACE SCIENCE

*Students will...*

- **Experience** firsthand changes in weather, including wind as a substance that can surround us and move around us. (**Atmospheric Processes and Water Cycle** – Unifying Concept A – E2A.2, E5.A.5)
- **Observe** the predictable motion of Earth and planet properties. (**Solar System and Universe** – Unifying Concept B – E.5.B.2)

**Hurricane Simulator** – Are you ready for the storm? Experience 80 mile an hour winds while discovering why this is one of the most popular exhibits in the museum.



**Planet Walking** – Try on the gravity shoes and walk on a planet platform. Learn about the gravity on Earth as well as other planets.

**Tornado** – Some moist air (humidity) and an updraft – the result is a tornado. This exhibit allows you to not only see the tornado but also to put your hand through and interact with it.

**Foucault Pendulum** – This exhibition is proof that the earth is moving. Take a look at the position of the pendulum when you arrive at the museum and look at it again before you leave – is it the same?

**Turntable** – Another exhibit exploring the Earth's rotation. Investigate a variety of discs and see how long you can keep them on the spinning disc.

## PHYSICAL SCIENCE

*Students will...*

- **Observe** various distinct properties and states of matter and changes in matter's state. (**Matter** – Unifying Concept A – P.2.A, P.5.A)
- **Demonstrate** the motion and change of position of objects by forces, including gravity and electrical currents. (**Forces and Motion** – Unifying Concept B – P.2.B, P.5.B)
- **Produce** sound and electrical current while using light's properties to show energy exists in different forms. (**Energy** – Unifying Concept C – P.2.C, P.5.C)

## FORCES AND MOTION

**Tennis Ball Launcher** – Use a bowling ball to lift a tennis ball into the ceiling and all without touching either ball, can you do it? Discover the power of air pressure in this exciting exhibit.

**Water Table(s)** – Manipulate dividers, wheels, paddles and spouts in one of two water tables to affect the flow of water. Experiment with different placements to manipulate the speed and flow of the current of the water.

**Design an Airplane** – Design, build and fly your very own airplane. Compare your design to that of a friend or classmate – which one flies the farthest, what is different about the design that makes one fly farther than the other?

**Balls and Tracks** – Use some connectors and various tubing to create a track for a golf ball. This exhibit allows you to use your ingenuity to determine the path of the ball and how you can get it from the beginning of the track to the end. Once you have designed your own track, try, explore and experiment with the Automated Balls and Tracks exhibit with vacuum tubes!

**Gravity Well** – Put in a coin and watch it go! Compare the force and motion of the coin as it travels around the circumference of a well and spirals into its vortex.

## MATTER

**Viscosity Tubes** – Pump air into tubes filled with different density and viscosity of liquids. Compare the movement and action of the air bubbles as they move through the three tubes of liquids. Notice very different outcomes and discover the reason why.

**Frozen Shadows** – Capture your shadows in the dark with a flash of light and a white wall coated with a special phosphorescent chemical.



### Human Battery

– The only thing missing is YOU! Become a human battery as you use this exhibit to “make connections” to conduct electricity.

**Pull Yourself Up** – Three similar chairs, one challenge – just pull yourself up. Discover what makes this challenge a little harder than it sounds, while exploring simple machines.

**Make Sparks Fly** – Pedal a bicycle as fast as you can and make sparks fly! Turn the energy your body gets from the food you eat into electricity that sends sparks “flying.”

**Jacob's Ladder** – Electricity you can play with! Manipulate a bolt of electricity – allow it to travel up toward the ceiling, make it travel down towards the floor – the choice is yours.

**ENERGY**

**Symphony of Lights** – Can you see music? Well in our Science Tower you can. Play the keys of a keyboard and manipulate lighted neon shapes that extend stories (65 feet) above.

**Vibrating Strings** – Another opportunity to see sound – compare the sound waves as the guitar strings vibrate.

**Laser Harp** – Where are the strings of the harp? It does not have any! This is a true demonstration of science and technology. Play a musical harp moving your fingers through thin air.

**Virtual Strings (Music Box)** – Once again, making music with your fingers, hands and arms out of thin air except you can use over 100 different instrument sounds!

**Steel Drum** – Play different notes on the steel drums, do you hear the different frequency of the sounds? Now, try to put those notes together to play a song.

**Whisper Dishes** – Can you hear what your classmate is whispering from across the room? Usually, you would not be able to but the whisper dishes make it possible for you to have a conversation with your friend. Discover the secret behind this cool exhibit.

**Speed of Sound** – Have you ever wondered how fast sounds travel? Send a message to your friend through tons of tubing!

**Echo Tube** – Make a sharp sound inside of tube that extends up several stories (88 feet from the first floor) into our Science Tower and learn more about sound waves and how they travel.

**Bubbles!** – Make different sized bubbles using various sizes of metal bubble hoops. This exhibition is a fun way to learn about light reflection and refraction.



**Blue Man Group** – Play a song, climb through a structure – this exhibit really is the best of both worlds.

**Periscope** – Find out how periscopes work as you pan around the city of Las Vegas and see some of your favorite sights.



**Kaleidoscope** – Manipulate various geometric shapes and make a myriad of symmetrical patterns then look at your friend through the giant kaleidoscope lens and admire your beautiful design.

**Camera** – Walk inside of a giant camera and see what your classmate looks like from the

inside, make a very interesting discovery – what a difference the lens can make!

**Magic Eye** – Are you sure that all of those images are inside of that straight line of red lights? Yes, absolutely and you can discover your “magic eye” as you view several different images from a horse to equations like,  $E=mc^2$ .

**Mirrors and Reflections 1 and 2** – Was that real or is it an illusion? Use mirrors and the reflection of white light to perform some pretty neat tricks. I ask you again, Is it real or is it an illusion?

**Handy Reflections** – Have you ever shook hands with yourself? Use a concave mirror and learn the optimum position of your hand and the physics secret behind accomplishing this task.

**Black and White & Color** – Look at a spinning black and white wheel and see color – red, green and blue. Look at the center of another spinning wheel and watch it move toward you. This exhibit helps you to discover the power of these black and white patterns.

## Social Studies

*Students will...*

- **Work together** completing tasks and realize the importance of teamwork. (Civic Participation K-5)
- **Be exposed** to local individuals, businesses, and landmarks – learning of their community contributions. (People, Cultures, and Civilizations H1.0)
- **Identify and describe** occupations in the community that help people. (Social Responsibility & Change H3.0)
- **Recognize** locations and differences between home, school, and community. (Social Responsibility & Change H3.0)
- **Locate** the physical and human features of the community and **Nevada**. (Places & Regions G6.0)
- **Observe** the effects of interactions between human and natural resources and how resources can be accessed and managed. (Environment and Society G8.0)
- **Simulate** ways people earn, manage, and spend money in a community setting. (The Market Economy/The U.S. Economy as a Whole E9.0/E10.0)
- **Explore** community businesses and resources. (The Dynamic Economy E11.0)
- **Participate** in the democratic process of voting. (Citizenship and the Law C13.0)
- **Explain** the structure and function of Nevada state and local government. (The Political Process C15.0)



**GREEN VILLAGE**

*Simulate and experience everyday living lessons with an environmentally conscious theme in our mini-city! The Green Village includes Smith's grocery store, a car care center, the NV Energy exhibit, the State Capitol, the US Airways Airport Terminal, Interstate Plumbing & Air Conditioning, and Bank of America.*

**Smith's Grocery Store** – Become the shopper and cashier as you select and buy groceries. Use a real cash register and bag up your groceries in green reusable bags. Earn a paycheck for a job well done!

**Car Care Center** – Put on a uniform and try your hand as a car center employee and maybe even the boss! Pick up a work order and use tools to complete tasks including changing tires and fixing an engine. Learn about time management as you complete your tasks.



**NV Energy** – Learn about solar, wind, and water energy sources. See if you can use solar power to light up a city using mirrors and solar panels.

**Nevada State Capitol** – Enter a model of the Nevada State Capitol as you observe some of Nevada's natural resources. Can you identify all of the state symbols and counties? Learn about the local, state, and federal government structures firsthand from those in office. Let your voice be heard as you use a voting booth to cast your ballot on a question of local interest.



**Interstate Plumbing & Air Conditioning** – Become a plumber or air conditioning technician, as you learn how to use Energy Star® appliances and energy saving practices in the home.

**Airport Terminal** – Spend your hard earned money on a plane trip or earn more as an airport employee. Grab your luggage and enter through the security check point. Board the plane or serve as a ramp agent, listening to the control tower for a safe and efficient flight.

**Bank of America** – Use an Automated Teller Machine (ATM) to exchange your paycheck for Discovery Dollars. Don't forget to use a deposit slip and calculate 10% of your paycheck for savings. You earned it!

**Fire Safety** – Dress as a fireman as you learn about this very important community job. Explore a model of Sparky's Hazard House and identify fire safety hazards that you can watch for in your own home so you stay safe!



# HOUSE CALLS

health and science outreach



## Bring the Museum to Your Classroom!

**Lied Discovery Children's Museum will be offering hands on and interactive Health Sciences Programs brought directly to your classroom!**

**What:** Hands-on, interactive Health Science programs directly related to Nevada State Content Standards and local curriculum goals.

**Why:** To enhance your health science curriculum by providing quality experiences involving exploration in an intimate setting. Expose your students to high quality, anatomically accurate models and "real" medical equipment. Take advantage of high quality programming without the worries of transportation.

**Cost:** This year the programs are FREE\* due to a generous gift from Dr. Joe and Joan Lapan and Windsong Trust.

**\*CCSD - The program is fully subsidized.**

**All other groups - Private schools, libraries, and community organizations may be offered a 50% discount. Call for details.**

**Who:** **Kindergarten – 5th grade elementary school students** in Clark County, public and private. Each Program can accommodate approximately 30 participants, ideally one intermediate class or two primary classrooms. More than one program can be scheduled at a school site on the same date to accommodate entire grade levels wishing to participate.

**Where:** Right in your classroom! A professional Museum Educator will facilitate the program, along with everything needed for the learning experience.

**When:** NOW! We are currently taking reservations and space is limited so see the following information on how you can register your school and classes today!

## A Health Science Educational Outreach Program Brought to YOU by Lied Discovery Children's Museum

### **PROGRAM OFFERINGS AND GRADE LEVELS**

#### **KINDERGARTEN: Let's Eat! - Foods & Nutrition**

Explore why humans need food, the various food groups, and the nutrients foods contain. Learn about the importance of variety and moderation. Recognize healthy food choices.

#### **FIRST GRADE: Bright Smiles and Clean Bodies - Dental Health & Hygiene**

When proper hygiene is not obtained, it is very hard to maintain a healthy body. Thoroughly understanding what can happen as a result of not practicing proper hygiene will make it easier to understand the importance of good hygiene.



#### **SECOND GRADE: Making Sense of Our Senses - The Five Senses**

Things are not always what they seem. Why does food taste differently when you have a cold? Can you match different sounds? Every day we use our senses to explore the world around us. Explore the sense organs and how they are connected to the brain and spinal cord. Learn how it all works together to allow us to experience our world.

#### **THIRD GRADE: Wonderful ME! - Cells & Genetics**

The human body is an amazing machine that we must understand to properly take care of it. Take a close look at the smallest living unit of the body, the cell, and how we have developed into the person we are today. Examine the genes responsible for gender and physical characteristics.

#### **FOURTH GRADE: Young at Heart - Circulatory & Respiratory Systems**

Examine the heart, healthy versus unhealthy arteries and lungs, as well as the functions of the circulatory and respiratory systems. Use real stethoscopes to listen to your heart. Learn what blood is made of, and how to correctly take a pulse. Prevention of heart disease will be addressed using models.

#### **FIFTH GRADE: What's Up Doc? - Medical Professions & Equipment**

How does a doctor diagnose what is wrong? What are all those gadgets and machines for? Through hands-on investigations, explore medical equipment used to take your blood pressure, measure your lung capacity, read an x-ray, and more!

#### **OTHER LOGISTICS...**

**To Register:** You can register on-line at [www.lidcm.org/education](http://www.lidcm.org/education). Programs are not confirmed until you receive a written confirmation form. With your confirmation, you will also receive additional information on the program, including curriculum alignments, the amount of space and set-up needs for each program.

**Additional Questions?** Please email [outreach@lidcm.org](mailto:outreach@lidcm.org) or call the museum at (702) 382-3445 and ask for Outreach.

# LIED DISCOVERY CHILDREN'S MUSEUM

833 Las Vegas Blvd. North, Las Vegas, NV 89101

Phone: 702-382-3445 Website: [www.ldcm.org](http://www.ldcm.org)



## HOURS OF OPERATION:

Regular Museum Hours

The day after Labor Day through May 31

Tuesday – Friday 9:00am – 4:00pm

Saturday 10:00am – 5:00pm

Sunday 12:00pm – 5:00pm

Closed Mondays except most school holidays.

Open during winter and spring breaks. Groups may also be scheduled during these dates/times.

For holiday schedule, please call our Reservations Department at 702-382-3445.

## SUMMER MUSEUM HOURS

June 1 through Labor Day

Monday – Saturday 10:00am – 5:00pm

Sunday 12:00pm – 5:00pm

## CLOSED ON THE FOLLOWING HOLIDAYS:

Easter, Thanksgiving Day, Christmas Eve, Christmas Day and New Year's Day

## DIRECTIONS:

**From Interstate 515/93/95:**

Take the Las Vegas Blvd. Exit

Exit North traveling towards Washington

The museum is located on the left, in between cross streets Bonanza and Washington, directly across from Cashman Center

**Buses may drop off in front of the building and park in the back of the parking lot.**

## GROUP ADMISSION FEES

*Group Rates (12 or more):*

Adults	\$6.00
Children 1-17	\$5.00
Children under 1	Free

*CCSD School Groups (12 or more):*

Children 1-17	\$4.00
Chaperones (limit 1 to 5 ratio)	Free
Additional Chaperones	\$6.00

