

## Program Reference Chart

Program	Grades	Min/Max Child	Guided Time	Free Play	Total Time	Price (Member Adults Free)	Museum-to-Go?
Animals All Around (Life Science)	ALL AGES	20 / 80	60	30	1h 30min	\$5 child / \$4 adult	Y
Energy In Everything (Energy)	3, 4, 5, 6	20 / 60	90	30	2h	\$5 child / \$4 adult	Y
Festival of Holiday Trees (Social Studies) <i>Nov. 2008-Jan. 2009</i>	ALL AGES	20 / 100	60	60	2h	\$5 child / \$4 adult	N
Habitat Cents - Museums to Go Only (Environmental Ed)	3, 4, 5, 6	1 class	N/A	N/A	N/A	\$3 child	Y
KidsBuild KEVA - Museums to Go Only	ALL AGES	20/40	N/A	N/A	N/A	\$3 child	Y
Let's Play	Pre-K, K	10/100	90	0	1h 30min	\$5 child / \$4 adult	N
Night in the Museum (Science)	3, 4, 5	30 / 60	N/A	N/A	N/A	\$25 / child Adults free	N
Pebble Puppies (Earth Science)	K, 1, 2	20 / 80	60	30	1h 30min	\$5 child / \$4 adult	Y
Rock Hounds (Rocks)	3, 4, 5, 6	20 / 80	90	30	2h	\$5 child / \$4 adult	Y
Science Explorer (Science)	2, 3, 4, 5, 6	20 / 100	90	30	2h	\$5 child / \$4 adult	N
Splash, Flash, Crank, Slide, Alive (Science)	Pre-K, K, 1, 2	10 / 100	60	30	1h 30min	\$5 child / \$4 adult	N
S.T.A.R. (Science)	3, 4, 5, 6	20 / 60	60-90	30	2h	\$5 child / \$4 adult	Y
TN. Ties/Cherokee Nation (Social Sciences)	1, 2, 3, 4	20 / 100	90	30	2h	\$5 child / \$4 adult	Y
Wetland Challenge (Environmental Ed) <i>April, May, Aug-Oct</i>	3, 4, 5, 6, 7, 8	20 / 100	2 hours	NONE	2h	\$5 child / \$4 adult	N
Wetland Wonders (Environmental Ed) <i>April, May, Aug-Oct</i>	Pre-K, K, 1, 2	10 / 100	60	30	1h 30min	\$5 child / \$4 adult	N
Year End Review	All Ages	20/80	N/A	N/A	3h	\$5 child / \$4 adult	Y
Zip and Zoom (Physical Science)	K, 1,2	20 / 80	60	30	1h 30min	\$5 child / \$4 adult	Y
Self Guided Tour	ALL AGES	20 / 100	S E L F G U I D E D		2h	\$4 child / \$4 adult All members FREE	N

### Large Group Accommodations

Trying to schedule a large group? We suggest:

- Schedule a Festival Tour: Activity stations will be scattered throughout the museum or wetland (usually 2 more stations than the number of classes you are bringing.) The teacher serves as the rotation guide – directing the whole class to the stations in whatever order deemed practical. Activity Guides remain at their station and you visit them at your leisure.

- Schedule your group for the entire day: We can split your group in half – while one group is enjoying a guided tour, the rest can go on a self-guided tour of the wetland area (or a different guided tour). Groups will switch and then enjoy a supervised exploration time in the afternoon. Remember to consider alternative plans for inclement weather conditions.

- Collaboration Tour – Schedule half of your group to also visit other historic or cultural sites in Murfreesboro such as Bradley Academy, Cannonsburgh Village, Oaklands Historic House, or Stones River National Battlefield concurrent with tours in Discovery Center. The front desk can offer suggestions and phone numbers of nearby tour opportunities.

- Schedule your school's trip several times in one week. Each smaller group will receive the same tour!

### Lunch Facilities

Outdoor picnic tables are available for your use on a first-come, first-served basis. We ask that you clean up before you leave. Recycle bins are provided for aluminum cans and plastic bottles. You may leave cardboard boxes for us to recycle. Thanks in advance for helping keep our patio sparkling!

### Shop Our Museum Store

When scheduling, please tell us if you would like an additional 30 minutes for shopping in the museum store following your tour. Teachers may also order prepared gift bags to distribute to students. Call the museum store 615.890.2300 in advance to request this service.

### Educator's Night

August 25, 2009 • 4:00-7:00pm

#### Embedded Inquiry - The Standards are Upon Us!

A free evening event for educators and their families! It's also a great chance to check out the Discovery Center before your field trip!

 **Call Today! 615.890.2300**

# Educator's Guide



A PUBLICATION OF DISCOVERY CENTER AT MURFREESBORO

FALL 2009 / SPRING 2010

Chartered in 1986, Discovery Center is dedicated to promoting excellence in education through hands-on exhibits and programs.



## Welcome Educators!

Our programs focus on Tennessee Curriculum Standards and are available for school groups of all ages. Schedule a group visit to Discovery Center and join us for hands-on activities in a wide-variety of content areas.

### How to Use This Guide:

Descriptions of our programs are inside the guide. Prices, age appropriateness and other information are noted in a chart on the back of the brochure. Call (615) 890-2300 to schedule a tour and you'll receive a letter confirming your visit. Please have your e-mail address handy when you call to schedule a program. You'll receive a call or e-mail from our staff to fine-tune your visit to Discovery Center.

### Thank you, Thank you!

The Discovery Center proudly offers a special membership rate to our community's educators. A \$50 Teacher Membership is available for any certified teacher or homeschool educator in Tennessee. Call us today to take advantage of this discount.

### Program Times

Program times vary and will be discussed at the time the tour is scheduled. Depending upon the program, free time in the museum may be included. Arriving on time or a few minutes early will ensure a prompt start and a full visit for your students. Teachers with classes whose bus trip is over 45 minutes one way may request that their chaperoned students have an extra 30 minutes to explore the museum at the end of their visit. Please schedule your bus arrival and departure appropriately. If your group is late in arriving, your program may be cut short as we must honor the next groups' scheduled time in the museum.

### Scholarship visits for students in the Free and Reduced Lunch Program

Thanks to generous funding from the Nissan Foundation and the Bank of America foundation, a limited number of children may attend tours free of charge. Free visits are limited and are on a first-come, first-served basis, so book early!

### New S.T.A.R. program!

A new astronomy program has landed at Discovery Center! S.T.A.R. is designed to help your students gain an intuitive understanding of the Earth and its place in the universe using inquiry-based & hands-on explorations.



Students can explore the solar system using a state-of-the-art STARLAB inflatable planetarium, create a sun & earth scale model, chart major solar system components and conduct Mars landform tests. The phases and movement of the moon can also be incorporated into this special program.

The program can easily be tailored to your grade and serves as an excellent introduction and review for Earth and Space Science Standards. Younger students can enjoy Cherokee legends "under the stars."

The STARLAB planetarium can also travel! Ask about bringing it to your school today!



Linking Learning to Life!

# Programs & Tours 2009-2010



The listing of Tennessee curriculum standards covers K-6. Selected and appropriate Grade Level Expectations and Check for Understandings are covered for each grade. Please check the explicit listing for each tour by grade, listed on the website: [www.discoverycenteronline.org/groups.html](http://www.discoverycenteronline.org/groups.html)

## Animals All Around

All Ages

Beaks, bills, scales, gills! Compare and contrast characteristics and behaviors of mammals, birds, reptiles, and amphibians. Observe, classify and interact with Discovery Center animals. Make some animal art to take home.

**Embedded Inquiry Standards**

**Embedded Technology and Engineering**

**Life Science Standards:** Cells,

Interdependence, Flow of Matter and Energy, Heredity, Biodiversity and Change.

**Earth & Space Science Standards:** The Earth

**Physical Science Standards:** Energy, Matter, Motion

**Math Standards:** Algebra; Data, Probability & Statistics; Geometry & Measurement

Flow of Matter and Energy, Heredity, Biodiversity and Change.

## KidsBuild KEVA

All Ages

(Museums to Go Only)

A huge box of planks to foster imagination sets all of your students building! These identical planks are based on the engineering design proportions of one, three and five. Students are able to build bridges, towers, houses, cantilevered porches, animals - the student's imagination is fostered to create! After an hour-long instruction, teachers may keep the planks for two weeks for further study & fun!

**Physical Science Standards:** Matter, Energy, Motion

## Energy in Everything

3rd-6th Grade

Upper grade students wiggle wires, create switches, use bulbs & batteries to build circuits and an electromagnet. Explore magnets. Zoom down our Super Slide to study friction and gravity.

**Physical Science Standards:** Matter, Energy, Motion, Forces in Nature

## Let's Play!

Pre-K, K

Animals, Art, Trains, Slide and Shadow, Water Table, Wheel Exhibit. Ninety minutes of guided time in the museum with time to explore each station.

**Life Science Standards:** Interdependence, Flow of Matter & Energy, Heredity

**Physical Science Standards:** Motion

**Math Standards:** Data, Probability & Statistics

**Art Standards:** 1.0, 2.0, 3.0

## Festival of Holiday Trees

All Ages, November - January 2, 2010

Come enjoy holiday trees depicting different cultures. Learn new traditions, sample holiday food, and craft a holiday ornament to take home. Scavenger hunt is available for free-time exploration.

**Social Studies Standards:** 1.0, 3.0

## Night in the Museum

Attention 3rd, 4th and 5th grades!

Have an overnight at the museum! Choose an evening science tour, explore the museum, shop at Discovery Store, and have a snack. Retire to your sleeping bag and wake to enjoy a continental breakfast. There is a minimum of 25 students and a maximum of 80 students. Minimum Adult to student ratio for the overnight is 1:8. \$25 for each student; adults are free.

**TN standards covered are dependent upon the science tour chosen.**

## Habitat Cents

3rd-6th Grade (Museums to Go Only)

The dollars and cents of human development take a high price on animal populations everywhere! Natural habitat for animals is at a premium in today's world of ever expanding human population. Activities have students contemplate the world from a local critter's perspective. Food webs, energy cycles, habitat needs, natural resources, water conservation and current environmental issues are covered at age appropriate levels. One class at a time.

**Life Science Standards:** Interdependence,

**Embedded Inquiry**

**Embedded Technology and Engineering**

**Life Science Standards:** Interdependence, Biodiversity & Change

**Earth & Space Science Standards:** The Universe, The Earth

**Physical Science Standards:** Matter, Forces in Nature

**Math Standards:** Algebra; Data, Probability & Statistics; Mathematical Processes

## Rock Hounds

3rd-6th Grade

Be a paleontologist while examining and identifying fossils. Then become a mineralogist and petrologist; learn to identify rocks and minerals. Be a geomorphologist as you examine sedimentary cupcakes, draw and learn about core samples.

**Embedded Inquiry**

**Life Science Standards:** Interdependence

**Earth and Space Science Standards:** The Earth, The Atmosphere

**Physical Science Standards:** Matter, Forces in Nature

## Science Explorer

2nd-6th Grade

Older students use a dichotomous key to identify fossils; observe and perform experiments with fluid dynamics at Water Works. Interact with magnets, experience gravity and friction while zipping down the Super Slide. Large groups also have a station with our animals.

**Embedded Inquiry**

**Embedded Technology & Engineering**

**Life Science Standards:** Cells, Interdependence, Flow of Matter and Energy, Heredity, Biodiversity and Change

**Earth and Space Science Standards:** The Earth, The Atmosphere

**Physical Science Standards:** Matter, Motion, Forces in Nature

**Math Standards:** Algebra; Data, Probability & Statistics; Number & Operations



## Splash, Flash, Crank, Slide, Alive

Pre-K - 2nd Grade

Younger students examine fossils; observe live fish and turtles; meet Discovery Center's animals; explore the properties of water at Water Works. Adults and children experience gravity and friction sliding down the Super Slide!

**Embedded Inquiry**

**Embedded Technology & Engineering**

**Life Science Standards:** Cells, Interdependence, Flow of Matter and Energy, Heredity, Biodiversity and Change

**Earth and Space Science Standards:** The Universe, The Earth, The Atmosphere

**Physical Science Standards:** Matter, Energy, Motion, Forces in Nature

**Math Standards:** Mathematical Processes, Numbers and Operations, Algebra, Data, Probability, and Statistics

## S.T.A.R

3rd-6th Grade

During the S.T.A.R. program, students will explore the solar system using a state-of-the-art STARLAB inflatable planetarium; create a sun & earth scale model; track sun spots; chart major solar system components; conduct Mars landform tests and gain an intuitive understanding of the phases of the moon. Maximum of 3 classes per tour.

**Earth and Space Science Standards:** The Universe, The Earth

**Physical Science:** Motion

## Tennessee Ties and Cherokee Nation

1st-4th Grade

Go back in time to the days of the first people of Tennessee. Study reproduction artifacts for clues about the lives of the Cherokee before the colonists' arrival. Try your hand at bartering and creating Cherokee art. Learn about the events leading up to the Trail of Tears. Keep step to Cherokee ceremonial music and enjoy Cherokee legends in the planetarium.

**Social Studies Standards:** K1.02-.03, K.3.02, K.5.01-.02, 1.5.02, 2.5.02, 4.1.02-.02, 4.1.04, 4.2.01-.02, 4.4.01, 4.5.01-.03, 4.5.05-.06

**Visual Art Standards:** 1.0, 3.0, 4.0

**Dance Standards:** 1.0, 3.0

## Wetland Challenge

April, May, August, September, October  
3rd-8th Grade

Identify, classify, and map plant and animal life of the wetlands; analyze Murfree Spring's water quality; use microscopes to examine collected specimens. Be prepared to get wet, muddy and buggy- and learn a lot!

**Life Science Standards:** Interdependence, Flow of Matter and Energy, Heredity, Biodiversity and Change

**Earth & Space Science Standards:** The Universe

## Wetland Wonders

April, May, August, September, October  
Pre-K - 2nd Grade

Younger students observe plants and animals that call Murfree Spring Wetlands home. When conditions are favorable, put on boots and wade in the creek. Catch and release plants and animals from the Lily Pad Pond. Experience a hands-on encounter with our wetland creatures.

**Embedded Inquiry,**

**Embedded Technology & Engineering**

**Life Science Standards:** Cells, Interdependence, Flow of Matter and Energy, Heredity, Biodiversity and Change

**Earth and Space Science Standards:** The Earth, The Universe

**Physical Science Standards:** Matter, Energy

**Math Standards:** Mathematical Processes, Algebra, Data, Probability & Statistics, Number & Operations, Geometry & Measurements

## Year End Review

Call and together we create a festival setting for all classes in your grade level. 3 hours of guided activities and exploration. We set up stations around the museum (usually 2 more stations than the number of classes you are bringing.) The teacher serves as the rotation guide - directing the whole class to the stations in whatever order deemed practical. Guides remain at their station and you visit them at your leisure.

**TN Standards dependent upon the stations selected.**

## Zip and Zoom

K-1st Grade

Energy, Motion, Gravity, Friction, Speed, Force, Sound and Magnetism are explained, explored and experienced by younger

students. Need a modified tour that focuses on Simple Machines in addition to Magnetism, Motion and Forces? Contact Bonnie Ervin, Elementary Education Coordinator, and the program can be tailored just for you! (615-890-2300)

**Physical Science Standards:** Matter, Energy, Motion, Forces in Nature

**Math:** Geometry and Measurement, Mathematical Processes

## LET DISCOVERY CENTER COME TO YOU!

### Museum-to-Go

Let your class take a field trip without leaving the classroom! **Check the chart on the back for programs that can be brought to you!**

MTG programs last approximately 60 minutes and highlight the most important concepts incorporated in each topic. Prices range from \$3.00-\$5.00 per child: minimum of 20, maximum varies per program. You may schedule more than one MTG program while we are at your school. There is an additional \$40 charge for programs outside of Rutherford County with a maximum one-way traveling distance of 60 miles.

### Cultural Discovery Boxes

Rent the World! Explore world cultures in your classroom with our Multicultural Discovery Boxes. Africa (general), Arabic cultures, Chile, China, France, Guatemala, India, Island Cultures, Israel, Italy, Japan, Laos, Mexico, Nigeria, Russia, South Africa, Sweden, Turkey, and Vietnam are all available.

Each Discovery Box contains a variety of items, which may include: art objects, games, toys, tools, costumes, photographs, books and CD's.

Discovery Boxes may be checked out for two weeks for a fee of \$35. Please call to make a reservation. Two countries may be rented at one time.

*pricing info on next page...*