# LAB-BASED PROGRAMS

Program descriptions correlate with the program offerings chart on Page 6. Programs are listed by subject and grade level. Lab-based programs contain TEKS-aligned activities. support curriculum goals, and pair well with traveling exhibitions, films, and our 11 permanent exhibit halls.

# **NOTES**

Lab-based programs, available on Museum field trips. 📜



- Lab-based programs, available on your campus.
- All PK3-PK4 lab-based programs are designed for up to 25 students.
- All K-12 lab-based programs are designed for up to 30 students.
- All programs are 45 minutes in length unless noted otherwise.
- Lab times at the Museum: 10:30am, 11:30am, and 12:30pm.



# Earth and Space

Earth and space science include numerous fields of study that examine this planet and beyond. Programs in this area focus on weather, fossils, plate tectonics, rocks, and minerals.

EARTH AND SPACE LABS

Field Trips: \$8 per student

On Your Campus: \$225 per program

## **SPACE ADVENTURE**

(GRADES PK3-PK4) 📜 💼

Have you ever looked into the sky and wondered what is up there? Higher than the birds, past the clouds, and farther than the Moon, a whole universe of objects spins in outer space. Let's imagine that we can leave Earth behind and explore the solar system that surrounds us.

Guidelines: IV.A.1, V.C.2, V.E.3, VIII.A.1

## **AIR AND WEATHER**

(GRADES 3-5) iii

As aspiring meteorologists, students will explore the driving factors of weather – air, the Sun, and the water cycle – as well as observe, measure, and predict weather.

TEKS: Earth and Space 3.10A, 4.10A, 4.10C, 5.10A

#### **DIG THOSE DINOS**

(GRADES K-2) 🚞 💼



Students will discover fossils, follow dinosaur tracks, and piece together prehistoric clues in this station-based program. They will also explore the minerals that make up fossils and sort them.

TEKS: Earth and Space K.10A, 1.6A | Organisms and Environments K.13B, 1.13A, 2.13B, 3.12D

## **PUZZLING OUT THE PAST**

(GRADES 6-8) 💼

Join us for an experiment millions of years in the making! Students will examine geological evidence supporting plate tectonics, model the motion of tectonic plates, and explore how their movement shapes Earth's surface.

**TEKS:** Earth and Space 6.10B, 7.10A, 7.10B

# VIRTUAL PROGRAMMING

Bring the wonders of the Perot Museum to your classroom through *The Whynauts*, an interactive digital educational series.

Now on YouTube Kids:

- Eleven episodes exploring a variety of science topics, including ecosystems, dinosaurs, and meteorology
- Standards-aligned curriculum and in-depth educator guides with activities
- Community and career connections

For more information on how to get started, visit us at PEROTMUSEUM.ORG/EVENTS/CHILDREN-AND-FAMILIES/WHYNAUTS/.









# **Physical Sciences**

Explore the physical world through chemistry, engineering, and physics. These programs feature exciting topics such as force and motion, matter and energy, and engineering and robotics.

**PHYSICAL SCIENCES LABS** 

Field Trips: \$8 per student

On Your Campus: \$225 per program

# FORCE, MOTION, AND ENERGY

# MUSEUM ADVENTURE

(GRADES PK3-PK4) 🚞 💼

A science museum is a place of wonder and excitement where visitors can learn more about the world around them. Dive deeper into the Perot Museum in this station-based program and discover how exploration and imagination comingle in a series of hands-on activities featuring physics, engineering, and scientific tools!

Guidelines: V.C.2, V.D.3, VI.A.1, VI.A.2, VI.A.3

## **SOLAR SUPERSTARS**





Students will explore light energy and learn about the importance of Sun safety. They will also investigate the effectiveness of sunscreen in blocking UV light.

TEKS: Force, Motion, and Energy K.8A, 1.8A, 3.8A

# **ELECTRICAL EXPLORATION**





Students will explore electrical circuits and learn about their application in our daily lives – including simple robots! From investigating open and closed circuits to comparing insulators and conductors, students will work in groups to light up and program unique creations.

**TEKS:** Force, Motion, and Energy 3.8A, 4.8B, 4.8C, 5.8B

# **ENGINEERS, ASSEMBLE!**





In this team-based engineering challenge, students will engage in the engineering design process to create a structure capable of withstanding a simulated force. They will work together to design and construct their prototype, then test and improve their design as all engineers do!

TEKS: Force, Motion, and Energy 3.7A, 4.7, 5.7B

# **CRASH TEST CARS**

(GRADES 9-12) 🗯 💼



Vehicle safety features, physics, and engineering collide in this lab! Students will test their knowledge and apply their skills to keep an egg passenger safe in a "high-speed" crash.

TEKS: IPC.5C, PHY.5E, PHY.5G

# MATTER AND ENERGY

## WHAT'S THE MATTER?

(GRADES 3-5) 🚞 💼

Students will explore chemistry fundamentals, including physical properties of matter, mixtures and solutions, and exciting chemical reactions. This lab uses basic equipment while emphasizing laboratory safety.

**TEKS:** Matter and Energy 3.6A, 3.6B, 3.6C, 4.6A, 4.6B, 5.6A, 5.6B, 5.6C

## **CHEMISTRY DETECTIVES**

(GRADES 6-8) 🚞 💼

Students will investigate physical and chemical changes in matter to identify an unknown substance. They will use their findings to help solve a mystery at the Museum.

TEKS: Matter and Energy 6.6E, 7.6C









# **Organisms and Environments**

Explore the diversity of life on Earth through our exciting, hands-on life science programs. Students will discover topics such as adaptations, life cycles, and dissections.

# LIFE SCIENCES LABS

Field Trips: \$8 per student

On Your Campus: \$225 per program

# **DISSECTIONS**

Field Trips: \$10 per student

On Your Campus: \$300 per program

# ANIMAL ADVENTURE

(GRADES PK3-PK4) 🚎 💼

Animals are amazing! Students will learn about animals that live in all sorts of environments all around the world. Animals are just like us: They move, they eat, and they use their senses! Let's learn more about some unique animals using our bodies and senses!

Guidelines: VI.B.1, VI.B.3, V.E.1, IX.A.2

# CREATURE FEATURES



(GRADES K-2) 📜 💼

Teeth, fur, feathers, paws, and claws – what purpose do they serve? Come investigate! Students will compare and contrast, sort, and creatively imagine the physical features of different animals in this hands-on, station-based program.

TEKS: Organisms and Environments K.13B, 1.13A, 2.13A

# **DO BUGS BUG YOU?**

(GRADES K-2) 🚞 💼

There are lots of bugs in the world, but not all of them are insects. Students will explore insect characteristics, their basic needs, and how they fit into the animal kingdom.

**TEKS:** Organisms and Environments K.12B, K.13B, 1.13A, 1.13B, 2.13B, 2.13D

#### **ADAPT TO SURVIVE**

(GRADES 3-5) 🚞 💼

Students will investigate taxidermy specimens and ecological clues to uncover the ways in which animals have physically and behaviorally adapted to survive – and thrive – in their habitats!

**TEKS:** Organisms and Environments 3.13A, 5.13A

# INTERESTED IN A TOPIC YOU DON'T SEE?

We value your voice. Email us and share your feedback at education@perotmuseum.org.

# PEROT-OLOGY



(GRADES 6-12) 🚞

The Perot Museum's education collection provides unique insights into the natural world. Through explorations of taxidermy, skulls, and other specimens, students will try their hand at creating a themed museum collection.

Note: Available most Wednesdays 11:30, 12:30 beginning in October.

**TEKS:** Scientific and Engineering Practices 6.4C, 7.4C, 8.4C, 9.4C, 10.4C, 11.4C, 12.4C

#### **DISSECTION: BRAIN POWER**

(GRADES 6-12) 🚍 💼

Gain insight into basic brain anatomy and function through a guided dissection of a sheep's brain. Working in pairs, students will uncover how the brain controls all our bodily functions and how a sheep's brain compares to the human brain.

**TEKS:** Organisms and Environments 7.13A | Anatomy and Physiology AP.11C, AP.11D

# **DISSECTION: HEART OF THE MATTER**

(GRADES 6-12) 🚞 💼

Students will work in pairs in this guided dissection of a sheep's heart to learn about the structure and function of a mammal's heart, as well as how oxygen, nutrients, and hormones are transported throughout the body.

**TEKS:** Organisms and Environments 7.13A | Anatomy and Physiology AP.14A, AP.14C

Photo: Perot Museum of Nature and Science



