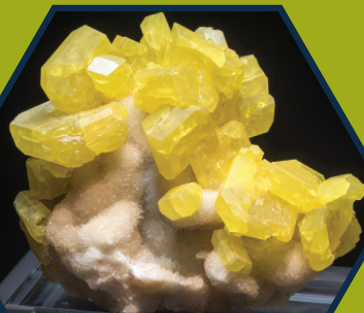


SCIENCE



HISTORY



EDUCATION

Educator Guide

We Teachers



All teachers enjoy
free admission to
the Museum at
any time.

QUESTIONS?



432.683.4403



education@petroleummuseum.org



1500 Interstate 20 West
Midland, Texas 79701



www.pbpetro.org

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Ways to Engage with the Museum



Field Trips at the Museum

- TEKS-aligned tours.
- Customizable to fit your curriculum.
- Class & Tour Packages.
- School group pricing available.



Campus Wide Outreach Programs

- TEKS-aligned programs.
- Topics include: Robotics, Geology, Dinosaurs, Animals, and Astronomy.
- Grades PreK-8th
- Booking available by class or entire campus.
- In-person & virtual options available.



In Your Classroom Traveling STEAM Trunks

- TEKS-aligned lessons.
- Grades PreK-12.
- Topics include Earth Science, Life Science, Physical Science, Simple Machines, Robotics and more!
- Equipped with all materials and instructions needed for each lesson.



Professional Development

- Learn about various resources available to utilize in your classroom.
- Gain a better understanding of the world of STEAM and how you can easily implement STEAM practices in your classroom.
- 6 CTE Hours
- Free workshops sponsored by

ExxonMobil

PLANNING YOUR VISIT

A museum can be an overwhelming place! Students who are informed about the subject matter and prepared for tour procedures will understand the exhibits better and learn more from their experience at the Museum.

BOOKING OPTIONS

Booking options include guided tours, class & tour packages, and outreach programs. Tours are booked in two-hour time blocks. Most outreach programs can be scheduled by the hour, with the exception of the Discovery Dome. Booking can be done for a single class, entire grade level, or campus depending on program and availability. For larger groups, programs may span two to three days. More information about each option can be found in this guide.

AVAILABILITY

Book a minimum of 6 weeks in advance of your requested date. The earlier you schedule, the better. Scheduling is done on a first-come, first-serve basis. Have several date options in mind. Scavenger hunts are available upon request for younger students.

GROUP SIZE & CHAPERONES

For groups larger than 75 students, splitting your group into at least two visits might be necessary. For tours, we divide students into groups of 20-25. This provides the best opportunity to view the exhibits and interact with the docent. A 10:1 student-to-chaperone ratio is required for each group.

ARRIVAL

Be on time. If you are delayed more than twenty minutes, call us. Late arrival may result in a scheduling conflict and/or dismissal of docents. We will make every effort to adjust and tour your group as planned.

MUSEUM ETIQUETTE

FOR STUDENTS

- Leave coats, backpacks, and large bags at school or on the bus if possible.
- No cell phone use during tours.
- Photography is allowed in our galleries, but no flash.
- For your safety, walk, don't run.
- Students must stay with their chaperone before, during, and after the tour. Never walk away with strangers.
- Be respectful and kind to the docent (guide) leading your group.
- Questions and comments are great! Raise your hand when you want to speak and listen quietly when others are talking. Use your polite "inside voice."
- To keep our museum objects clean and safe, food and drink are not allowed in the galleries. Do not touch the artifacts on display or climb on any displays.

FOR TEACHERS AND CHAPERONES

- Count your students before you arrive and before you leave the Museum.
- You are welcome to join in discussions, encourage students' participation and help students relate museum activities to what they have been studying.
- Teachers and chaperones are responsible for maintaining discipline as you would in the classroom. Please set a good example for students to model.
- For their own security, children should know the names of the adults in charge of their group.
- No texting or phone calls allowed in the galleries. Photography is allowed in the galleries, but no flash.

PLANNING YOUR VISIT (CONTINUED)

INFORMATION WE NEED:

Please have the following information available when booking:

- Date(s) Requested
- Contact Info - phone number & email address
- School & Grade Level(s)
- Number of Students
- Number of teachers/chaperones (10:1 student-to-chaperone ratio required for in-house programs)
- Program Choice (if known)

NEXT STEPS

- Review the information provided in this guide to determine what options work best for you and your students.
- Discuss with relevant parties a list of date options that work for your group (please have several options as our schedule fills up quickly).
- Gather the information we need to book your experience with the Museum.
- Scan the QR Code below to book.
- Questions? Reach out to our Education Department at 432-683-4403 or education@petroleummuseum.org.
- After booking, review the Museum Etiquette section with your students and chaperones. Preparing students ahead of time for their experience will help to ensure students gain more from their time spent at the Museum.



READY TO BOOK?

PRICING INFO

GUIDED TOURS

STUDENTS: \$5

TEACHERS: FREE

IDEAL TIME FRAME: 2 HOURS

CLASS & TOUR PACKAGES

STUDENTS: \$10

TEACHERS: FREE

IDEAL TIME FRAME: 2 HOURS

4TH GRADE TOURS

4TH GRADE STUDENTS ACROSS THE PERMIAN BASIN CAN NOW HEAD OUT ON AN EXCITING TEXAS HISTORY FIELD TRIP. THIS EXPERIENCE WILL TAKE LEARNING BEYOND THE CLASSROOM, OFFERING HANDS-ON OPPORTUNITIES TO EXPLORE, DISCOVER, AND GROW.

FREE FOR EVERY 4TH GRADE STUDENT THANKS TO OUR GENEROUS SPONSOR:

ExxonMobil

*WHILE THIS PROGRAM IS DEDICATED TO SUPPORTING 4TH GRADE FIELD TRIPS, LIMITED SPONSORSHIPS MAY BE AVAILABLE FOR OTHER GRADE LEVELS. REACH OUT TO SEE WHAT OPPORTUNITIES ARE AVAILABLE FOR YOUR CLASS.

OUTREACH

ANIMALS
DINOSAURS
ENERGY
GEOLOGY
ROBOTICS

1ST HOUR: \$75
\$25 FOR EACH
ADDITIONAL HOUR

*CAN BE BOOKED BY THE HOUR

DISCOVERY
DOME

HALF DAY: \$150
FULL DAY: \$250

*MUST BE BOOKED IN HALF OR FULL DAY SESSIONS

PERMANENT EXHIBITS

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PETROLEUM MUSEUM FIELD TRIP EXPERIENCE
EXHIBITS



MYTHCRACKERS THEATER

"It's what you think you know that just ain't so!" Step into Mythcrackers Theater and crack some basic myths about the petroleum industry. Mythcracking begins every 15 minutes.

PERMIAN SEA

Step back in time over 250 million years ago, when this area was the Permian Sea. Watch the geologic history of how the Permian Basin was formed. Microscopic viewers tell the story of the formation of oil from microscopic creatures.



BOOM TOWN

Stroll through a 1920's era boom town. Meet people instrumental in the birth of the petroleum industry in the Permian Basin. Visit a land office and the General Store, featuring collections from the early days of settling the vast Permian Basin.



GROWTH OF AN INDUSTRY

Celebrate the growth of America's petroleum industry with icons like Midland's own Pegasus, drill bits, and beautifully restored gas pumps from this era. Watch the marketing strategies of petroleum companies creating their legacies.



PEAKS AND PROPHECIES

Discover the radical and often amusing forecasts for the petroleum industry over the years. What came true and what didn't? Travel through our interactive timeline of prophecies, history, and oil production.



PETROTREKKER

Join the Captain and his crew on a futuristic ride exploring for oil and natural gas resources in the far corners of the earth using out-of-this-world technology. Blast-off every 15 minutes.



PERMANENT EXHIBITS

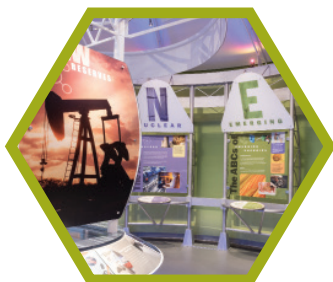


GEOLOGY

Explore the fascinating field of geology and its importance to the petroleum industry. Learn how oil is formed, the concepts of porosity and permeability, and the rocks that hold this precious resource.

DRILLING AND SEISMIC

Choose a drilling location and drill your own well, vertical or horizontal, anywhere on the globe. Will you be successful or will you run into trouble? The clock will run for three minutes as you size up your options to drill. Explore the fields of seismic technology, reservoir management, and perforating.



SUPPLEMENTAL ENERGIES

Discover how we might power our cities in the future. Explore the world of supplemental energies – what might work, what are the obstacles, what are the opportunities for growth?

ENERGY CITY

Power a city, build a car, take a photo with our Energy Superheroes. Kids will love exploring this fun-filled space complete with park benches, cars to play in, and their own recycle bin!



"E"NSPIRATIONS AND CAREERS

Meet inspirational individuals who have made energy their life's work, then explore career opportunities in the industry in our interactive career gallery. The petroleum industry needs creative, dedicated people. Explore the variety of jobs available.

PETROLEUM HALL OF FAME

The Petroleum Museum recognizes select individuals who have made remarkable contributions to the Permian Basin in the petroleum industry. Meet the rugged individuals honored here who came to the Permian Basin, changed the course of history, pursued their dreams, and helped build communities.



PERMANENT EXHIBITS



MINERAL GALLERY

Enjoy the breath-taking beauty of nature in the Mineral Gallery. Specimens from across the globe will enchant visitors of all ages. The collection consists of minerals both gifted and loaned.

ABELL FAMILY GALLERY

The cultural history of the Permian Basin is beautifully depicted by award-winning artist, Tom Lovell. From early Native American cultures to cowboys, geologists, and landmen, these captivating works of art showcase the people and landscape of the Permian Basin.



CHAPARRAL GALLERY

Feeling a need for speed? Race back to the 1960's and the world-famous Chaparral race cars. Jim Hall designed, built, and tested these innovative racers right here in Midland, Texas. Explore the science of aerodynamics, which Jim Hall proved to be an important aspect of race cars, both then and now.

OIL PATCH

Capture the history and evolution of mechanics and engineering through the collection of antique equipment outside in the Oil Patch. Take a stroll from the back patio or drive from the east parking lot to view the "patch."



QUICK TOUR FACTS:

- A general tour of the Museum lasts two hours, but the timeframe can be customized to fit the needs of your group.
- We can tailor the focus of each tour and/or class to fit the needs of your classroom.
- Scavenger hunts are available for Kindergarten - 2nd grade students.
- If you want to preview the Museum before your tour, educators always have free admission!

PROGRAMS

CLASS & TOUR / OUTREACH

Whether you are planning a visit to the Museum or need us to come to your classroom, we offer a variety of STEAM based interactive programs that are great opportunities to supplement school curriculum.

ANIMALS (PREK - 6)

This engaging program is designed for students in PreK through sixth grade. Students will learn about the Museum's live animal collection up close while also learning about important science concepts such as adaptations, ecosystems, food chains, animal classifications, and much more. Animals featured can include a prairie dog, rabbit, snake, bearded dragon, and tortoise.

DINOSAURS (PREK - 2)

Designed for students in PreK through second grade, this hands-on program teaches students about the various species of dinosaurs that lived during the Triassic, Jurassic, and Cretaceous time periods including those that lived in the area now known as Texas. This interactive program introduces fossils, trace evidence, geology, carnivores, herbivores, and omnivores.

DISCOVERY DOME (PREK - 12)

The Discovery Dome offers full-dome presentations on various subjects, providing students with educational adventures. Our portable inflatable dome theater brings various science topics to life and takes students on a journey not possible anywhere else. Educators can customize which lesson is taught to fit the needs of their classroom. For a complete list of shows, please contact the Museum's Education Department.

ENERGY (K - 8)

Geared for students in grades kindergarten through eighth grade, this interactive program fuels students' insights into the world of energy. Students will explore key concepts such as forms of energy, conservation of energy, and real-world examples of energy. This program can be tailored to fit the needs of your classroom.

FOSSIL FUELS (K - 8)

Offered to students in grades kindergarten through eighth grade, this interactive program explores the energy around us that is powered by fossil fuels. Students explore how fossil fuels are formed and how important they are to maintain our current civilization and culture. Students will be covering all the different ways we use fossil fuels in our everyday life. This program can be tailored to fit the needs of your classroom.

GEOLOGY (3 - 6)

Geared for students in third through sixth grade, this interactive program sets a geological foundation for students by covering key concepts such as layers of the earth, the rock cycle, and fossil fuel formation. Students learn about the geological history of the Permian Basin. This program can be tailored to fit the needs of your classroom.

ROBOTICS (K - 6)

Explore the world of robotics and coding with this hands-on program geared for students in kindergarten through sixth grade. Students will engage in hands-on learning featuring our age-appropriate robotics equipment. Equipment used includes Osmo Coding, Ozobots, LEGO Spikes and Spheros. Equipment varies by grade level; contact our Education Department for more information.

OUTREACH

VIRTUAL PROGRAMS

9

PETROLEUM MUSEUM OUTREACH PROGRAMS
VIRTUAL

The Petroleum Museum offers distance learning through virtual outreach programs to schools across the nation. In conjunction with Connect2Texas, we can bring interactive programs into your classroom!

Each 45-minute program is packed with interactive engagement and learning and are all TEKS-aligned (with the exception of Fueled by Science: Fossil Fuels).

Materials are mailed for three post-program extension activities.

National standard alignment is available upon request. Sponsored programs are free of charge.

Please contact virtual@petroleummuseum.org for more information.

DINOS 101 SPONSORED BY DIAMONDBACK ENERGY

Students in PreK through second grade will journey back in time to learn about the various species of dinosaurs that lived during the Triassic, Jurassic, and Cretaceous time periods including those that lived in the area now known as Texas. Dig into topics including fossils, trace evidence, geology, carnivores, herbivores, omnivores, and more!



ROCKS ROCK! SPONSORED BY DIAMONDBACK ENERGY

Geared for students in third through sixth grade, this interactive program sets a geological foundation for students by covering key concepts such as layers of the earth, the rock cycle, fossil fuel formation, and more. This program can be tailored to fit the needs of your classroom.

BYTE-SIZED CODERS SPONSORED BY DIAMONDBACK ENERGY

Students in kindergarten through fourth grade will dive into coding with this interactive, unplugged coding class. Students will strengthen their algorithmic thinking, creativity, teamwork, and problem-solving skills while learning basic coding vocabulary.



OUTREACH

VIRTUAL PROGRAMS

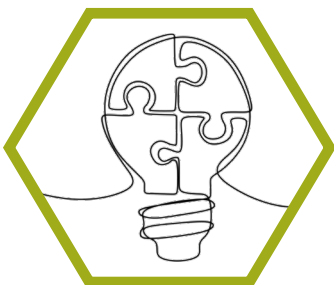
CREATURE FEATURE SPONSORED BY



This engaging program is designed for students in PreK through sixth grade. Students will learn about the Museum's live animal collection up close while also learning about important science concepts such as adaptations, ecosystems, food chains, animal classifications, and much more. Animals featured can include prairie dogs, rabbits, snakes, a bearded dragon, and more.



FUELED BY SCIENCE SPONSORED BY (TWO SEPARATE PROGRAM OPTIONS)



Energy: Geared for students in grades kindergarten through fifth, this interactive program fuels students' insights into the world of energy. Students will explore key concepts such as forms of energy, conservation of energy, real-world examples of energy, and more. This program can be tailored to fit the needs of your classroom.

Fossil Fuels: Geared for students in grades kindergarten through fifth grade, this interactive program explores the energy around us that is powered by fossil fuels. Students explore how important fossil fuels are to maintain our current civilization and culture. Students will be covering all the different ways we use fossil fuels in our everyday life. This program can be tailored to fit the needs of your classroom.

VIRTUAL TOUR OF THE PETROLEUM MUSEUM

A visit to the Petroleum Museum is an amazing journey through over 230 million years of history. Located in the heart of the Permian Basin, the Petroleum Museum offers over 40,000 square feet of interactive education and entertainment for adventurers of all ages. The mission of the Permian Basin Petroleum Museum is to share the petroleum and energy story and its impact on our lives. We are proud to offer both guided and self-guided virtual tour options. Special thanks to **XTO Energy** for making our virtual tour possible!



TRAVELING TRUNKS

Bring the Petroleum Museum into your classroom with these unique hands-on, cross-curricular STEM teaching tools! These trunks are designed to educate students while building on fundamental disciplines like science, technology, engineering, math, art, social studies, and language arts. Each trunk contains lesson plans and activities that are aligned with the TEKS for K – 12 education as well as all supplies needed for each lesson.

SUBJECT	TRUNKS AT A GLANCE	GRADES											PROGRAM DESCRIPTION PAGE
		EC		ELEMENTARY						MS		HS	
		PK	K	1	2	3	4	5	6	7	8	9-12	
EARTH SCIENCE	Earth Science					3	4	5	6				12
	Farmer Grady's Challenge*					3	4	5	6				12
	Geology		K	1	2								12
	Little Footprint Exploration*	PK	K										12
	Pam & Ava's Mapping Adventure*	PK	K										12
	Project Park Design*			1	2								12
	Rainwater Runoff Design Challenge*					3	4	5	6				12
	Shrinking Shore Exploration*			1	2								12
LIFE SCIENCE	Coding Mouse Exploration*			1	2								12
	Food Deserts Challenge*					3	4	5	6				12
	Helping Hand Design*					3	4	5	6				12
	Ron's Habitat Adventure*	PK	K										12
	Seed Rescue Exploration*			1	2								12
	Wild Feet Exploration*			1	2								12
	Wildlife Corridors Challenge*					3	4	5	6				12
MATH	LEGO MoreToMath			1	2								13
PHYSICAL SCIENCE	Energy		K	1	2	3	4	5	6	7	8		13
	Digital Relay Race*					3	4	5	6				13
	LEGO BricQ Motion Essential		K	1	2	3	4	5					13
	LEGO BricQ Motion Prime								6	7	8		13
	LEGO Maker Simple Machines					3	4	5					13
	Muddy Mats Exploration*			1	2								13
	Pam's Camping Adventure*	PK	K										13
	Ron's Ramp Adventure*	PK	K										13
	Shadow Box Theatre Exploration*			1	2								13
	Sidewalk Safety Exploration*	PK	K										14
	Solar House Design Challenge*					3	4	5	6				14
	Sound Bite Exploration*			1	2								14
	Squeaky Clean Magnets Challenge*					3	4	5	6				14
	Straw Rockets							5	6	7	8	9-12	14
	Sunny Sandbox Exploration*	PK	K										14
	The Great Toy Design Challenge*					3	4	5	6				14
STEM	3D Pens							5	6	7	8	9-12	14
	Ozobot Robotics			1	2	3	4	5	6	7	8	9-12	14
	Sphero indi	PK	K	1	2	3							14
	Treehouse STEM Challenge	PK	K	1									14

*Indicates that trunk is part of the STEM in Action collection from Hand2Mind.

STEM in Action® modules are an easy-to implement PreK-6 solution for integrating science, math, literacy, and engineering skills into real-world problems. These modules focus on the Engineering Design Practice which is a critical component of NGSS, state standards, and national initiatives. STEM in Action helps students prepare for essential skills of the 21st century. Students work through the Engineering Design Process to learn the value of rethinking and supporting multiple solutions.

STEAM

TRAVELING TRUNKS

SUBJECT: EARTH SCIENCE

EARTH SCIENCE (3-6)

Students learn about the rock cycle, make a model of the earth using clay, find out what makes a volcano erupt, and create landforms through weathering and erosion.

FARMER GRADY'S CHALLENGE (3-6)

Students explore weather-related hazards and materials that can withstand severe weather.

GEOLOGY (K-2)

Students dig into the rock cycle, make a volcano, and find out which rocks sink and float. You will also discuss how rocks are used in the world today.

LITTLE FOOTPRINT EXPLORATION (PREK-K)

Students learn about habitats and what animals need to survive.

PAM & AVA'S MAPPING ADVENTURE (PREK-K)

Students explore shapes and position as they are challenged to help Pam and Ava plan a new bike path.

PROJECT PARK DESIGN (1-2)

Students discover patterns of the Earth and the Sun to determine when and where shadows cover the park and design a park plan with warm, sunny benches.

RAINWATER RUNOFF CHALLENGE DESIGN (3-6)

Students learn about types of water pollution and subsoil in a garden.

SHRINKING SHORE EXPLORATION (1-2)

Students experience the power of ocean waves and create models to protect the beach from erosion.

SUBJECT: LIFE SCIENCE

CODING MOUSE EXPLORATION (1-2)

Students explore the basic needs of animals as they design a code for a programmable mouse to demonstrate their knowledge of what a mouse needs to survive.

FOOD DESERTS CHALLENGE (3-6)

Students learn about their own dietary needs and how to grow fresh produce without soil.

HELPING HAND DESIGN (3-6)

Students learn about animal adaptations and then use their findings to plan, build, and test an assistive technology for people who cannot bend over to pick up objects.

RON'S HABITAT ADVENTURE (PREK-K)

Students discover habitats and what animals need to survive; they will use critical thinking, communication, and collaboration to design a patch to help an injured turtle.

SEED RESCUE EXPLORATION (1-2)

Students build an understanding of pollination through design models.

WILD FEET EXPLORATION (1-2)

Students explore the connection between nature and the human-made world by designing hiking shoes that use nature for inspiration.

WILDLIFE CORRIDORS CHALLENGE (3-6)

Students learn about animal needs, habitats, and wildlife corridors.

TRAVELING TRUNKS

SUBJECT: MATH

LEGO MORETOMATH (1-2)

LEGO Education MoreToMath is a hands-on educational solution that teaches mathematical problem solving by bridging to math facts. By using the familiar LEGO bricks and real-world challenges, students will feel encouraged and motivated to think, write and speak freely about math. MoreToMath is designed to develop students' problem-solving abilities as well as their vocabulary, reading, thinking, listening, and speaking skills related to mathematical topics.

SUBJECT: PHYSICAL SCIENCE

ENERGY (K-8)

The energy trunk provides activities for students from grades kindergarten through eighth grade. Following the types of energy to energy transformations, students will create graphite drawings that can power an led light. Explore potential and kinetic energy and see thermal energy first hand without the dangers of the heat.

DIGITAL RELAY RACE (3-6)

Students explore how coding can be used to protect information. Students use critical thinking, communication, and collaboration to design and build a code transmission system.

LEGO BRICQ MOTION ESSENTIAL (K-5)

LEGO® Education BricQ Motion Essential will give your students an understanding of forces and motion as they plan and conduct investigations. Lower elementary students will work towards determining whether design solutions work as they were intended to change the speed or direction of an object with a push or a pull. Upper elementary students will investigate the patterns in an object's motion.

LEGO BRICQ MOTION PRIME (6-8)

LEGO® Education BricQ Motion Prime will challenge your students to apply their scientific inquiry skills to provide evidence of the change in an object's motion based on its force and mass. In the curriculum unit, Science and Sports, they will apply Newton's three laws of motion as they design, develop, and optimize a solution involving the collision of two objects.

LEGO MAKER SIMPLE MACHINES (3-5)

LEGO® Education Simple Machines use LEGO® bricks and creative activities to make interactive, exploration-based learning easier than ever to achieve. Exploring real-world tasks with a hands-on approach, Simple Machines provides students with a deeper understanding of science and engineering concepts and processes such as energy, balance, and mechanics, all while encouraging investigation skills.

MUDDY MATS EXPLORATION (1-2)

Students explore the properties of materials while designing an absorbent, no-slip mat to protect a house from muddy paws.

PAM'S CAMPING ADVENTURE (PREK-K)

Students explore geometry, graphing, and the properties of materials as they are challenged to build a tent for Pam and her friends.

RON'S RAMP ADVENTURE (PREK-K)

Students explore slopes and surfaces as they are challenged to build a ramp that allows Ron, a skateboarding armadillo, to go far distances—but not too far.

SHADOW BOX THEATRE EXPLORATION (1-2)

Students explore light and shadows by planning, resting, and redesigning scenery for a shadow box theater.

STEAM

TRAVELING TRUNKS

SUBJECT: PHYSICAL SCIENCE

SIDEWALK SAFETY EXPLORATION (PREK-K)

Students explore slopes and speed as they design safe ways to slow a bike.

SOLAR HOUSE DESIGN CHALLENGE (3-6)

Students learn about energy conversion and design a passive solarhouse based on criteria and constraints.

SOUND BITE EXPLORATION (1-2)

Students discover sound waves and vibrations to develop a phone that helps friends talk over a distance.

SQUEAKY CLEAN MAGNETS CHALLENGE (3-6)

Students experiment with the power of magnets and use them to make, test, and design a way to clean fish tanks without putting their hands into water.

STRAW ROCKETS (5-12)

This unit contains lessons that will give students a chance to practice the engineering design process and have a better understanding of STEM by using straw rockets.

SUNNY SANDBOX EXPLORATION (PREK-K)

Students learn about the warming effects of the sun and engineer a covering to block the sun.

THE GREAT TOY DESIGN CHALLENGE (3-6)

Students explore and conduct tests to identify materials based on their physical properties.

SUBJECT: STEM

3D PENS(5-12)

With this trunk, students will have the ability to create classroom projects that virtually come to life with a 3d printer in the palm of their hand. The 3d Pens can be used for a variety of applications including cell models, moon phases, and genetics. Have them create their self portrait for an art class, or annotate a passage in reading.

OZOBOT ROBOTICS (1-6)

This trunk contains several different lessons for reading, social studies, math and science using small robot called an Ozobot. Your students will be able to create a story map and time lines, calculate measurements, explore life cycles and water cycles, and much more. An introduction to Ozobot and Ozoblockly are included in this unit as resources for teachers to read before teaching the lessons to provide a better understanding of the Ozobots.

SPHERO INDI (PREK-2)

Sphero Indi provides students with an opportunity to learn coding with colors. Sphero Indi is a specially designed robot that reads color and performs different functions. Students will explore the distance and speed of each code, build custom mazes, and solve puzzles.

TREEHOUSE STEM CHALLENGE (PREK-1)

This hands-on challenge trunk gets children excited about STEM by incorporating literacy into the STEM process. The storybook introduces the challenges in a fun, relatable way – focusing on different elements that make for a successful tree house and explaining why they are necessary.

STEAM

PROGRAM OFFERINGS

15

PETROLEUM MUSEUM STEM PROGRAMS

For a current list of program offerings and to register, go online to www.pbpetro.org

FAMILY SCIENCE NIGHTS

The Petroleum Museum is proud to host four Family Science Nights each school year. These free, educational events provide a hands-on way for families in surrounding communities to get excited about science. Each Family Science Night is centered around a different scientific theme and features experiments, demonstrations, and creative activities.

Family Science Nights are generously sponsored by



STEAM SPROUTS

The Petroleum Museum is excited to present STEAM Sprouts engaging pre-school children ages 4-5 in STEAM-based curriculum and challenges. Each 6-week session features hands-on activities that help to develop skills in communication, collaboration, critical thinking, fine motor, and more. Two session options are available: 9:30 - 10:30 am OR 11:30 am - 12:30 pm.

STEAM Sprouts is generously sponsored by **SM|ENERGY**

BUILDING BOTS

Building Bots enables students in kindergarten through 6th grade to engage in engineering challenges, team building, and creative robotic design. With different themes for each session, students will love coming! This STEAM (Science – Technology – Engineering – Art – Mathematics) educational programming is a great way to excite students about learning. Equipment used includes LEGO Robotics (WeDo 2.0, Mindstorm EV3, SPIKE Essential, and SPIKE Prime), Ozobots, Osmos, and Spheros. K-2nd classes meet on the first Tuesdays of September - November and February - May, while 3rd-6th classes meet on the third Tuesdays.

Building Bots is generously sponsored by



STEAM Break

Join us for STEAM Break at the Petroleum Museum! STEAM Break is designed to assist parents and engage students during the various school breaks and/or for homeschool students. Sessions will feature experiential learning through a variety of activities including experiments, engineering challenges, and inventive projects. STEAM Break is open to students in 1st through 6th grade.

STEAM Break is generously sponsored by  Ovintiv

SPONSORS

Special thanks to our generous sponsors for making what we do possible!

4TH GRADE TOURS

ExxonMobil

BUILDING BOTS ROBOTICS
& ENGINEERING FUNLABS



BYTE-SIZED CODERS
VIRTUAL OUTREACH



COMMUNITY
OUTREACH EVENTS



CREATURE FEATURE
VIRUTAL OUTREACH



DINOS 101
VIRUTAL OUTREACH



DISCOVERY DOME



DISCOVERY DOME
EQUIPMENT

MCGARY-REGAN
FOUNDATION

DISCOVERY DOME
SHOWS



FAMILY SCIENCE
NIGHTS



FUELED BY SCIENCE
VIRTUAL OUTREACH



ROCKS ROCK!
VIRTUAL OUTREACH



STEAM BREAK



STEAM SPROUTS



SUMMER SCIENCE CAMPS



TEACHER WORKSHOPS

ExxonMobil