

Help make science and technology
come alive for your students

with the Oilfield Energy Center's (OEC)

Mobile Oilfield Learning Unit (MOLU) III



The **Mobile Oilfield Learning Unit (MOLU)** is a 1 million dollar engaging traveling exhibit. It features six self contained stations with curriculum-based, hands-on activities about energy and the technologies and sciences involved with the oil and gas industry. The curriculum for each of the 24 activities is correlated to the Next Generation National Science Standards – Grades 5 – 8. Although the MOLU is geared to 5th grade students, it is also appropriate for other age groups.



The exhibit is transported via truck/trailer for exhibition and set up in school gymnasiums or common areas. The learning stations are opened to reveal the display areas which includes the various elements of each particular learning activity and accompanying materials. The MOLU can reach up to 192 students per exhibition day, with no more than 48 students rotating through the exhibit each 90 minutes (1½ hours). Students will receive a “MOLU PASS” with questions that correlate to all 24 activities on the six learning stations they complete during their rotation. Following the visit, the students keep the MOLU PASS, and the teachers will have the opportunity to review the answers.

Pre- and post-visit materials are provided to enhance the learning experience, which include, but are not limited, to:

- **Pre/Post Tests with answer key**
- **Post visit - “MOLU Game”**
- **Energy At Work! Career Interest Profile**
- **The OEC’s “The Offshore Story” 15 minute video**
- **Correlation of MOLU activities to The Next Generation National Science Standards – Grades 5 – 8**
- State correlations available upon request

The Mobile Oilfield Learning Unit (MOLU) is available for visits to your school. To obtain a specific quote, make your reservation, or for more details, please contact Oilfield Energy Center at 713-840-1753 or email at ocemolu@oceanstaroec.com.



Cabot Oil & Gas



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We make energy happen.™

...are proud sponsors of the MOLU.

Educators rave about the MOLU and their experience.

“It came at a perfect time for our 6th graders. We had just finished our energy unit so it was a great review as well as a great extension of our content.”

Jennifer Mooney, Lathrop Street Elementary, Montrose, PA

“Outstanding MOLU representative.”

Amy Ming, Valley Oaks Charter School, Bakersfield, CA

“As a STEM advocate and doctoral student; this experience not only enhanced my students’ STEM capacity but mine as well. It will/has influenced my doctoral dissertation focus.”

Angee Burd, Park Elementary, Baton Rouge, LA

“As a seasoned scientist who has attended the conference circuit, this ‘mobile’ student experience was as interesting as any national conference booth.”

Stephania Simoneaux, Our Lady Of Divine Providence, Metairie, LA.

MOLU Correlations to the Next Generation National Science Standards - Grades 5-8

Station 1

Safety First	English Language Arts/LIT W.2.8
You Can Be an Engineer	Engineering Design, 3-5-ETS1-1, 3-5-ETS1-3
Oil and Gas Industry Timeline	Earth's Systems: Processes that Shape the Earth, RI.2.3
A Career for You!	Engineering Design, ELA/LIT W.5.7, W.5.8

Station 2

The Sedimentation Process	Energy, MS-OS3-3
What is Porosity?	Structures and Properties of Matter, 5-PS1-3
A Closer Look at Microorganisms	Interdependent Relationships in Ecosystems, 3-LS4-3
Make Your Own Microfossil Rubbing	Interdependent Relationships in Ecosystems, 3-LS4-3

Station 3

The Seismology Game	Engineering Design, 3-5-ETS1-3
Watch the Rocks Glow!	Structures and Properties of Matter, 5-PS1-3
Digital Transformation in the Oil & Gas Industry	Engineering Design, 3-5-ETS1-3
Take A Look	Structures and Properties of Matter, ELA/LIT RST.6-8.7

Station 4

A Closer Look at Drill Bits	Structures and Properties of Matter, ELA/LIT RI.5.7
Do These Core Samples Contain Oil?	Interdependent Relationships in Ecosystems, 3-LS4-3
Explore For Oil	Energy, 4-ESS3-1
Shale We Fracture?	English Language Arts/ LIT RST.6-8.7

Station 5

The Process Of Fractional Distillation	Structures and Properties of Matter, MS-PS1-3
Cost Comparison: Gasoline vs. Nail Polish	Structures and Properties of Matter, MATH 5.MD.A.1, 6.RP.A.3
Energy Sources	Structures and Properties of Matter, ELA/LIT RI.5.7
Are these Products Made From Oil?	Structures and Properties of Matter, MS-PS1-3

Station 6

Oil & Gas Facilities	Structures and Properties of Matter, ELA/LIT RI.5.7
How Thick is the Oil?	Engineering Design, 3-5-ETS1-3
The Carbon Atom Survival Game	Engineering Design, 3-5-ETS1-3
How Hot is Your Hand?	Structures and Properties of Matter, 5-PS1-3

The **Oilfield Energy Center** is dedicated to expand the awareness of the vast energy resources beneath the world's oceans, and to chronicle the unique heritage and technological accomplishments of the industry that discovers, produces, and delivers these resources in a safe and environmentally responsible way.

The objectives of this mission statement are being met through a three-fold plan developed by the Center:

Ocean Star Offshore Drilling Rig & Museum. Visitors to the *Ocean Star* Offshore Drilling Rig & Museum enjoy experiencing the offshore industry first-hand on an actual retired jack-up drilling rig. The museum features three floors of models and interactive displays illustrating the exciting story of offshore oil and gas from seismic technology and exploration and production to pipelining and marine transportation.

Hall of Fame. The Hall of Fame recognizes those persons and technologies that took the industry to sea. Our Pioneers are individuals who distinguish themselves and become the character of the industry through their vision, drive, innovation, and leadership. The Hall of Fame also honors the individuals and companies that contributed to the development of the technologies. Additionally, in 2000, the Pinnacle Award was established to honor contemporary individuals for their contributions and inspirational leadership to the offshore industry.

Education Outreach Programs. Through the Education Outreach Programs, the Oilfield Energy Center is committed to promoting awareness and understanding of offshore energy among students and educators. Through teacher workshops, field trips, traveling exhibits, and curriculum materials, existing knowledge is enhanced with information about offshore oil and gas and an awareness of offshore energy's high technology is supported. Additionally, the program is designed to develop an understanding of offshore energy's contribution to the environment and our quality of life.



The **Oilfield Energy Center** is based in Houston, the world's energy capital. The *Ocean Star* Offshore Drilling Rig & Museum is docked at Pier 19 in Galveston, less than an hour from downtown Houston, which makes it a wonderful showcase in a perfect location for an "offshore" experience.

CONTACT ADDRESS:

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