



## STUDENT ACTIVATION



## Field Engineer



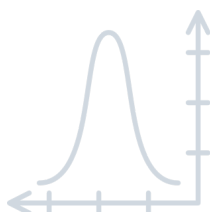
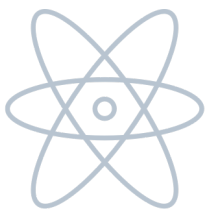
### OVERVIEW

Field engineers work onsite at oil and natural gas wells to implement and troubleshoot drilling and extraction plans. Field engineers are multi-tasking, problem-solving, leadership-oriented professionals, who have knowledge in multiple fields of science and math related to extracting oil and natural gas reserves from underground deposits. They provide onsite leadership at oil and natural gas drilling sites to maximize their production and efficiency. Successful field engineers make the most of the utility of oil and natural gas reserves and ensure resources are produced safely, on-time, and at-cost.



### EVALUATE YOUR INTEREST

- I love learning by doing. My favorite activities at school involve hands-on experiences, such as labs, field trips, and research.
- I am a natural leader who works well with others. During group activities, people turn to me for help overcoming challenges.
- I enjoy bringing people together from different areas of expertise with different strengths.
- I am a problem-solver. I have a knack for asking smart questions that help others identify problems and issues. I work with others to formulate solutions to problems.
- I am a highly organized multi-tasker who can keep track of several projects at once, each with many moving parts.
- I am a rule follower, but also flexible. I can implement an existing plan, but make adjustments if problems arise.
- I love seeing how the complicated science and math concepts I learn about in the classroom apply to the real world.




# Field Engineer

STUDENT ACTIVATION (CONTINUED)



## CAREER CONNECTION

<b>How does this career affect me?</b>	<b>What are some other similar careers?</b>	<b>How does this career affect the world?</b> 
<p>Most of the energy you and your family and friends use for transportation, heating your home, and electricity comes from petroleum and natural gas products. Petroleum and natural gas are extracted from onshore and offshore deposits underneath the Earth's surface. Field engineers work onsite at wells to implement drilling and extraction plans. Their job is to make sure oil and natural gas production are safe and efficient. In doing so, they help keep energy products affordable for you and other consumers.</p>	<p><b>Geological and Petroleum Technicians</b> support engineers in locating and extracting fuel sources and other natural resources.</p> <p><b>Mining and Geological Engineers</b> design mines and wells to safely and efficiently extract fuel sources and minerals from below the Earth's surface.</p> <p><b>Chemical Engineers</b> apply scientific and mathematical principles to solve problems that involve fuel, drugs, food, and other products.</p> <p><b>Civil Engineers</b> design, build, and oversee infrastructure systems such as roads, pipelines, power lines, and sewage systems.</p> <p><b>Industrial Engineers</b> design systems for integrating labor, machines, materials, information, and energy resources to ensure efficient production of a good or service.</p>	<p>Nearly 70% of Americans' transportation, industrial, and residential energy needs are met with petroleum or natural gas products. The energy needs of countries with large populations and rapidly expanding economies, such as India and China, are increasing quickly. Petroleum and natural gas are extracted from wells that provide oil and natural gas companies with access to deposits below the Earth's surface. Field engineers work onsite at petroleum and gas wells to make sure the extraction process is safe and efficient. In doing so, they help to ensure that needed energy products are available and affordable for consumers around the world.</p>

## TAKE ACTION

- Help to plan a household construction project, such as the building of a gazebo or patio, a room renovation, or the installation of a new appliance or entertainment system. Conduct necessary measurements. Think about the answers to these questions: In what order should tasks be completed? What tools will be needed? What materials and services need to be acquired? After the project is completed, reflect on how the planning process might be improved next time.
- Join a science-oriented club at school that is involved with using principles of math and science to construct products, conduct outside research, or address community problems. Possibilities include robotics, the recycling club, or the engineering society. Establish as a personal goal to work towards earning a leadership position on a specific project or within the group as a whole.