



STUDENT ACTIVATION



Petroleum Drilling Engineer



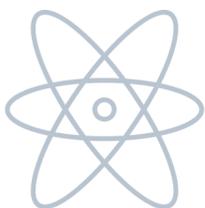
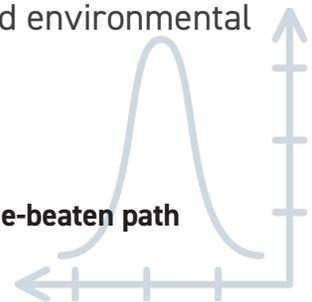
OVERVIEW

Petroleum Drilling Engineers are responsible for fueling a huge part of our daily lives. Not only is our transportation, heating, and electricity primarily powered by petroleum, but it's also a key ingredient in asphalt and plastics...not to mention everything from cell phones and candles to paint, cosmetics, and more! Petroleum Drilling Engineers apply a combination of environmental science, economics, engineering, chemistry, architecture, geology, and mathematics skills as they search for oil or gas below the earth's surface, develop methods for extracting it, and oversee drill sites. Because petroleum is a non-renewable resource and a producer of greenhouse gas when it is burned for energy, Petroleum Drilling Engineers strive to use best practices and innovative technologies that maximize efficiency and adhere to safety and environmental regulations.



EVALUATE YOUR INTEREST

- I like the idea of working on job sites and in off-the-beaten path locations.
- I enjoy solving problems that require me to piece information together.
- I like analyzing data in order to make conclusions.
- I like the idea of being involved in behind-the-scenes work such as creating techniques and methods for completing a process or designing a facility where work will be done.
- I enjoy working on a team and collaborating with others.



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STUDENT ACTIVATION (CONTINUED)



CAREER CONNECTION

How does this career affect me?	What are some other similar careers?	How does this career affect the world? 
<p>The work done by Petroleum Drilling Engineers is what keeps the world working and running as you know it. If you were to make a list over the course of a day documenting everything you used that relied on petroleum, you may surprise yourself. From the pillow you sleep on, the way your food is cooked, the dishes you eat off of, the container you use to bring your lunch to school, the transportation you take to get to school, the heat and electricity that powers all the buildings you spend time in... the list goes on. If it weren't for Petroleum Drilling Engineers, our daily lives would be very different from what they are today!</p> 	<p>Energy Consultants help companies and government agencies reduce their energy consumption and costs. They do this by analyzing energy data, creating plans for energy management, and making sure organizations follow environmental regulations.</p> <p>Environmental Chemists study how chemicals enter the air, water, and soil. They ultimately work to monitor and minimize the effects of pollution and contaminants on human and environmental health.</p> <p>Energy Engineers focus on energy from a range of sources—including wind, solar, nuclear, water, oil, biofuels, and gas. Regardless of their focus area, they develop and improve technologies that produce and/or transmit energy more efficiently.</p>	<p>Through the role this career plays in manufacturing, transportation, and power generation industries (to name just a few), Petroleum Drilling Engineers are a driving force behind our world's operations. At the same time, they also must work to minimize their field's environmental impact on Planet Earth. The process of turning extracted petroleum (called crude oil) into gasoline used in transportation and petrochemicals used in other products is called refining. Refining petroleum creates air pollution, and burning gasoline produces carbon dioxide. It is therefore also the responsibility of Petroleum Drilling Engineers to do their best to minimize this environmental impact and consider what steps the industry can take to shift to use these sources of energy as safely as possible.</p> 

TAKE ACTION

- Investigate your home or school's energy consumption. Then consider what changes could be made to reduce the amount of energy used in order to make your home or school more energy efficient. Once you have a plan, spread the word!
- Contact a local gas company by phone or email. Prepare a list of questions beforehand, and investigate what this company is doing to minimize their environmental impact and/or otherwise help the environment. If you know a worthy cause that this company could consider contributing to, be sure to recommend it!
- Put your own engineering skills to the test as you design a solution to a problem that impacts your community. Follow the engineering design process as you identify the need, research the problem, brainstorm ideas, develop a solution, test and evaluate your design, and then improve upon it!