



## ANSWER KEY

## It's a Gas

1. Petroleum geologists figure out where natural gas deposits are located by looking for an oil seep on the surface of the ground. They conduct tests to find gas molecules in surface soil and air. They look for a certain configuration of rocks—a gas “trap”—that usually holds natural gas. They get aerial and satellite photos, make maps of the surface and subsurface, and do many tests, such as gravity tests, magnetic tests, and seismic surveys, to get information about the properties of underground rocks.
2. To become a petroleum geologist you would need to study physics, chemistry, and math.
3. It would be helpful to know a second language in this career because you might travel to other oil-producing nations, where you would want to be able to communicate with people. You could do so more easily if you speak their language and understand their culture.
4. To understand the difference between a gas, a liquid, and a solid using a can of soda: The gas is the carbonation, the bubbles in the soda. The liquid is the soda. The solid is the can. The gas can expand beyond its original volume and change its shape when you open the can, as the gas molecules disperse into the surrounding air. The volume of the liquid always stays constant, although it can change its shape if you pour it into another container or drink it down. The shape and volume of the solid aluminum metal that makes up the can do not change when you open the can or pour out the liquid.
5. Natural gas is a mixture of hydrocarbons, consisting mostly methane, ethane, propane, and butane.
6. If you smell a gas leak in your home, the safe thing to do is to leave, take everyone with you, and call the gas company from a safe location.
7. It is important to not light a match or use a flashlight if you suspect a gas leak in your home, because the flame of the match or a spark from the battery in the flashlight could ignite the gas and cause an explosion.