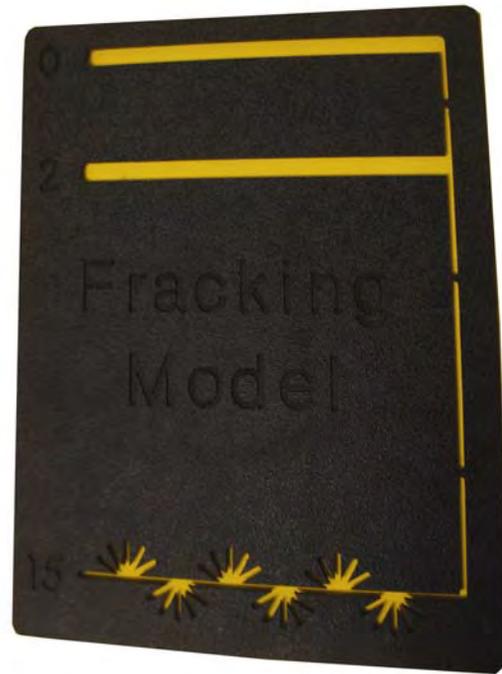


651-6330 (EM-40) Fracking Model

- Show the basic structure of a modern natural gas well.
- The model shows the relative position of the surface, gas layer, and aquifers.
- The first layer represents the ground, the second the deepest aquifers, and the third the gas layer.
- Depth, in thousands of feet, is cut into the model.
- Provides a good place to start for discussions on energy.
- Use as a stencil for students to draw their own pictures.



Introduction: Natural gas is an exceedingly useful fuel. It is cheap, easily transported, and relatively clean burning. It is especially useful for powering turbines, which makes it essential for our current electrical grid. A natural gas turbine can be sped up or slowed down to cope with rising and falling electrical demand, a feat difficult to perform with coal or nuclear power. This makes it very useful in the 21st century when electrical usage is hard to predict. In order to keep up with all this demand for gas, new techniques have been developed to extract it. The most effective, and most controversial, is called 'Fracking'. This method drills a horizontal hole at great depth, and injects sand and fluids in at high pressure. This shatters hard rocks and allows the gas to escape. This process takes place far below any aquifer, as the model shows. This means the Fracking process cannot directly contaminate a water supply. However, surface spills of drilling fluids or leaks from poorly built wells can indeed make their way into drinking water. These concerns can be mitigated, but they cannot be ignored.

To use your Fracking model, pass it around and have each student draw the outline onto a sheet of paper. Later, they can draw surface features, the well casing, the aquifer, and the gas layer.

Warranty and Parts:

We replace all defective or missing parts free of charge. Additional replacement parts may be ordered toll-free. We accept MasterCard, Visa, checks and School P.O.s. All products warranted to be free from defect for 90 days. Does not apply to accident, misuse or normal wear and tear. Intended for children 13 years of age and up. This item is not a toy. It may contain small parts that can be choking hazards. Adult supervision is required.