DO NOW

What is fracking?
DO NOW

ENERGY SOURCE: NATURAL GAS

BACKGROUND
THE FRACKING CONTROVERSY

WATCH AND RESPOND
60 MINUTES CLIP ON FRACKING

DO NOW

What is fracking?

Fracking - or hydraulic fracturing - is a means of extracting natural gas from sedimentary rocks such as shale. The process involves drilling horizontal wells deep into underground rock and pumping in a mixture of water, sand and chemicals at high pressure.
SOURCES OF ENERGY - NATURAL GAS

PRIMARY USES:
• Residential/Commercial Heating
  • Cheaper than oil
• Industrial
• In New England - Electricity Generation

TRANSPORTATION USE:
• Used in some busses and government cars
• Limited by lack of service stations
• More prevalent in Europe
SOURCES OF ENERGY - NATURAL GAS

CONSIDERED CLEAN BURNING
- Does not produce hydrocarbons or sulfur oxides when burned

FORMATION & RESERVES
- Emitted from oil-bearing geologic deposits
- Estimated reserved of 50+ years

THE FRACKING CONTROVERSY
- Natural Gas has historically been pumped from reserves above oil deposits. But not all gas is accessible this way
- Hydraulic Fracturing (Fracking) allows access to gas that was previously locked away in tight rock formations
SOURCES OF ENERGY - NATURAL GAS

THE FRACKING CONTROVERSY

- Fracking involves injecting millions of gallons of water, sand, and chemicals, many of them toxic, into the earth at high pressures to break up rock formations and release natural gas trapped inside.
SOURCES OF ENERGY - NATURAL GAS

WHAT’S THE HARM?
• Toxic chemicals contaminating wells and streams
  • Can cause respiratory, neurological and sensory damage from ingestion
• Increased reports of earthquakes near fracking sites; damages to house foundations

60 MINUTES - FRACKING
Note the arguments for and against this technique

WRITTEN RESPONSE
Given what you know of our demand for natural gas and its economic and environmental impacts, should hydraulic fracturing (fracking) be banned? Support your stance with evidence.