

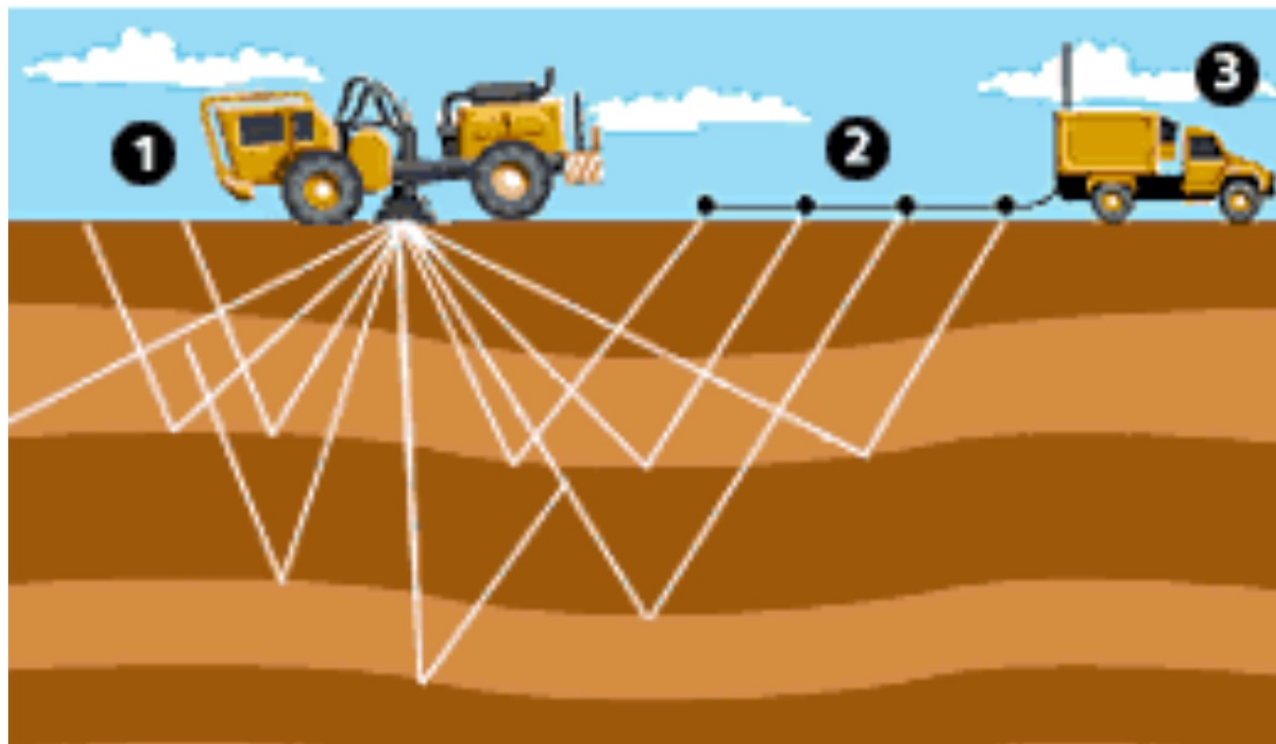
## What is a Thumper Truck?:

Have you ever wondered how oil and natural gas are located under the ground? Through Seismic Exploration using a Thumper Truck!

A Thumper Truck is a special truck that sends vibrations into the Earth to measure sound waves which help determine where oil and natural gas might be located.

## Materials:

- 3 large books from classroom or library
- Thumper Truck graphic below:



## Procedure:

1. Read the following script to your students and have students discuss the graphic on page 1.

*Scientists/Seismologists can send vibrations into the Earth using a vibrating truck called a thumper truck. They drop a weight that causes powerful vibrations that go 2-3 miles down through rock layers to help locate oil and natural gas. Sound waves travel at different speeds through different types of rocks. By listening to sound waves through geophones, scientists can determine where there might be rocks with oil and natural gas.*

2. Students will imitate thumper trucks with their desk representing the ground.
  - a. Have students put their ear on their desktop and knock on the desk three times.
  - b. Next, have students place one book at a time and repeat step 2a with their ear placed on top of the book. Continue with each layer (book) added.

## Conclusion:

1. Discuss what students heard and felt (vibrations) as they performed the activities.
2. Compare the similarities and differences they experienced each time they added a book to the layer.