

Where Are the Pipelines in Your Neighborhood?

Objective

Students will understand the purpose of underground pipelines in and around their homes.

Curriculum Focus

Science
Art
Technology

Materials

- Computer
- Paper
- Pencil

Key Vocabulary

Distribution pipeline
Transmission pipeline
Transportation

Next Generation Science Correlations

MS-ESS3 - 1
MS-ESS3.A

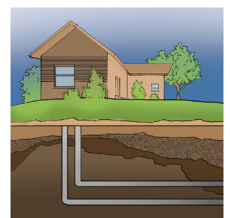
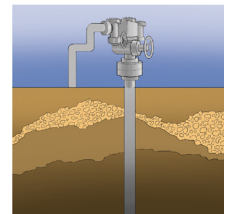


Introduction

In the United States about 3 million miles of underground pipelines move natural gas from wells to residential and commercial customers. If all the natural gas pipelines in the U.S. were connected to each other, they would stretch to the moon and back over six times.

Two basic types of pipelines transport natural gas. High-pressure pipelines (larger than 6 inches in diameter) transport natural gas long distances from production areas to local markets. Smaller pipes owned by local distribution companies deliver natural gas to end users such as homes, businesses and natural gas vehicles.

You can find the location of pipelines in your area. The U.S. Department of Transportation has a mapping site which shows the larger pipelines in local communities. Follow the steps below to see where pipelines are in your neighborhood.



Procedure

Go to npms.phmsa.dot.gov (you may have to search National Pipeline Mapping System depending on your browser).

1. Click on the tab "Use Public Map Viewer." Choose your state and county at the bottom of the page.
2. On the next page make sure the following categories have check marks on the pop up box.
 - Gas Transmission Pipelines (blue lines)
 - Hazardous Liquid Pipelines (red lines)
 - Satellite (shows landscape and boundaries)

3. Lastly, select the "+" icon to zoom closer to your neighborhood. If you zoom in too close, you will not be able to see the pipelines.
4. Now answer these questions:
 - What kinds of pipelines are found in your neighborhood? Are they natural gas, hazardous liquid or both?
 - Write the names of street locations where the pipelines are nearest to your home or school.
 - Why do you think natural gas is transported through underground pipelines rather than trucked on highways or transported by trains?
 - How can you find out where the smaller distribution pipes are in your own yard?
 - Draw a map of the area around your home and place the appropriate underground pipelines.

What could happen if you decide to dig in your yard where there might be underground pipes?



Discussion

Bring your map to class to share with others. Find out what pipelines are located near your school.



To Know and Do More

Explain that every state has a system of marking property with colored flags or paint to show above the ground where pipelines are below the ground. To have this service performed, call 811 or visit [call811.com](https://www.call811.com).