

Natural Gas Mix and Match

Objective

Students will learn about natural gas as a source of energy by matching subject phrases with predicate phrases.

Curriculum Focus

Science
Language Arts
Art

Materials

- Copies of "Subject Cards" printed on white paper for half the class
- Copies of "Predicate Cards" printed on colored paper for half the class

Key Vocabulary

Fossil fuel
Methane
Natural gas

Next Generation Science Correlations

4-ESS3 - 1
4-ESS3.A
MS-ESS3 - 1
MS-ESS3.A



Introduction

Natural gas is a nonrenewable fossil fuel that is used to power appliances or transportation in a reliable and efficient manor. Furnaces, water heaters, fireplaces and clothes dryers are just a few of the appliances that use natural gas. Natural gas can be compressed under high pressure and in that form is used as transportation fuel in cars and commercial trucks and buses.



Procedure

1. Ask the students the following questions to assess their knowledge of the subject and to stimulate interest in the activity:
 - Do you use natural gas in your homes?
 - Do you think cars can run using natural gas?
2. Discuss with the students natural gas and the many ways it is used. Explain why the color of a natural gas flame is blue. (complete combustion)
3. Pass the cards to the students and have them cut them apart.
4. Instruct the students to move about the room, comparing cards with each other, until they find a card of a different color that matches with theirs to complete a sentence. Students will then read their matches and identify the subject and predicate phrase.
 - Examples of correctly paired cards:
Subject - Predicate
A furnace - keeps our homes warm.
Blue - is the color of a natural gas flame.
Electricity - can be generated using natural gas.
Natural gas - is a fossil fuel, mostly methane.
5. Have students write a new predicate phrase for one of the subject phrases.
6. Have the students write a complete sentence using their subject or predicate phrase.



Discussion

Instruct students to make a list of ways natural gas is used in their homes. Compare lists in class and discuss the various uses. Have students draw and color a picture of an important natural gas appliance in their home.



To Know and Do More

Have students brainstorm safety tips regarding natural gas appliances. Some safety tips are:

- Never hit natural gas appliances or equipment (like outside meters) with anything like a stick, rock, bat or ball.
- Do not climb or jump on natural gas appliances or equipment.
- Keep the area around natural gas appliances or equipment clear and clutter free.

Do not store paint cans, aerosol cans or other flammable materials around natural gas appliances.

Subject Cards

A meter	A water heater
A natural gas range	A furnace
Some cars	Blue
A natural gas grill	Natural gas
Farmers	New uses of natural gas
Electricity	A natural gas dryer
A natural gas fireplace	

Predicate Cards

is an instrument that measures the amount of natural gas used.	is needed for a hot bath or shower.
is used to bake cookies.	keeps our home warm.
is the color of a natural gas flame.	is great for year-round outdoor cooking.
are developed every day.	use fertilizer made from natural gas on their crops.
can be generated using natural gas.	makes laundry chores fast and convenient.
provides warmth on a snowy night.	is a fossil fuel, mostly methane.
uses natural gas as a fuel.	