



Dear Educator,

This file offers views of some of the worksheets in our “**Alternative Fuel**” thematic unit. The cover for an eWorkbook is shown followed by the preview pages.

The “**Alternative Fuel**” unit offers **14 pages**.

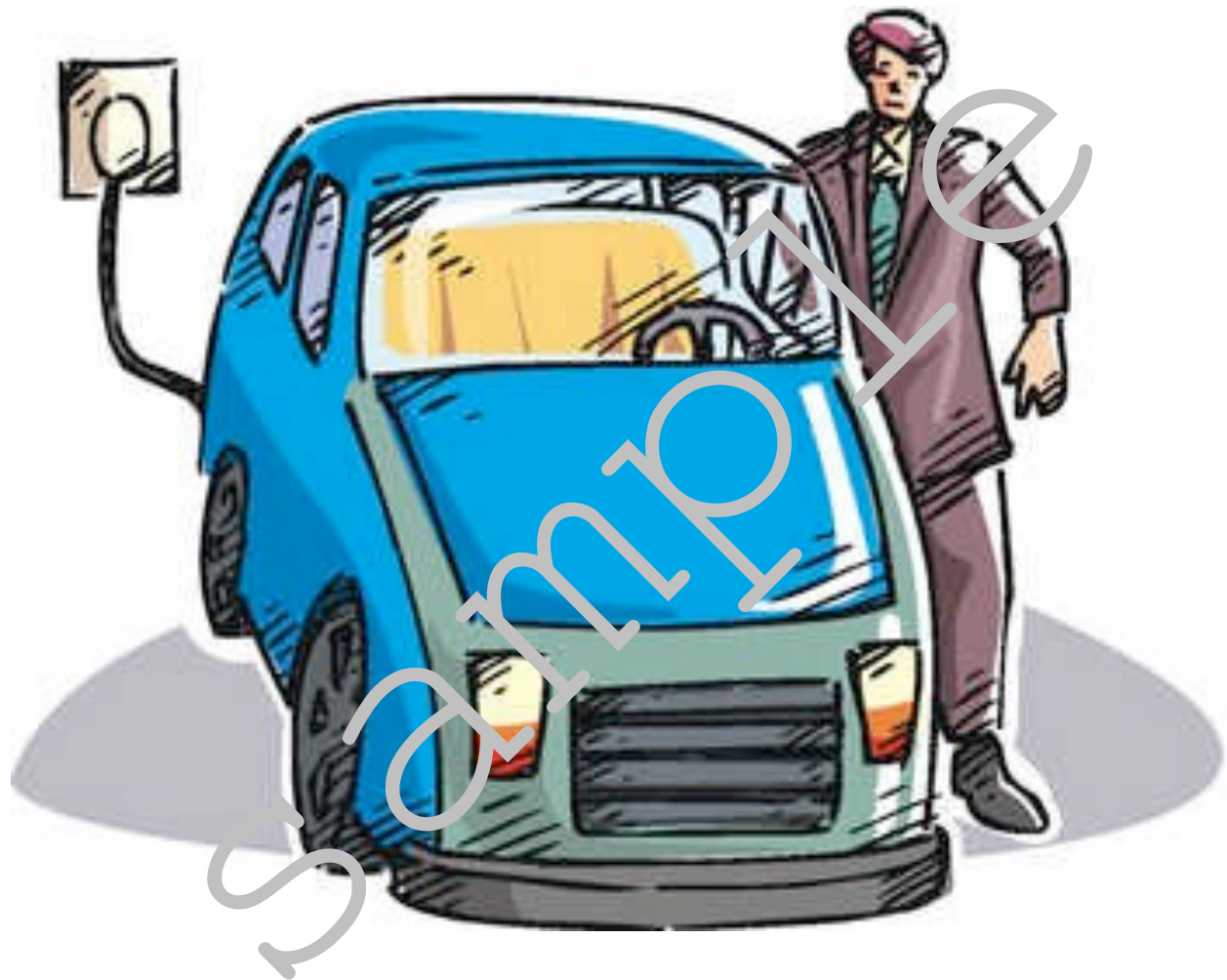
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# ALteRNAtive FUEl



# ALternative FUEL

## Nuclear Fuel

Nuclear energy is nonrenewable because the minerals needed are limited. Nuclear energy is produced by taking certain minerals and changing their internal, or atomic, structure to make them give off heat. A lot of heat.

Nuclear plants use uranium to make power. There is a lot of uranium in the world. But, the part of the uranium that is needed for a nuclear reaction is very small.



We need to be very careful with nuclear fuel. If an accident happened at a nuclear power plant, the danger could spread for hundreds of miles.

If something goes wrong at a power plant that uses fossil fuel, it only affects a small area and group of people. Sometimes there is no damage at all.

Color the word

nuclear

Read each sentence below fill in the missing word.

1. Nuclear plants use \_\_\_\_\_ to make power.
2. Nuclear energy is \_\_\_\_\_ because the minerals needed are limited.

# ALternative FUEL

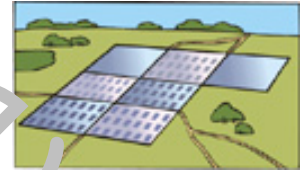
## Solar Power



The power of the sun can be used to heat almost anything. Usually the power is collected and aimed to a central point or area to make it hotter. This heat can be used to warm air or water in a home.

Solar power is also used to create energy to operate machines. It usually heats water or other fluids. The fluid is used to create steam that powers machines in factories, businesses, and homes.

Solar batteries are used to power things as big as space satellites and as small as watches. These are made from silicon chips coated to create positive and negative charges. As the charges react to each other, they create energy.



Most solar collection systems use mirrors or reflective surfaces to focus the light and heat onto a curved surface. These can cause the temperatures in the curve to reach over 750 degrees. The power can be more than 10,000 times as strong as regular sunlight. Some solar power plants produce enough electricity to power cities as large as 350,000 people.

Solar furnaces can produce heat to temperatures as high as 6300 degrees F. There are solar power plants and solar furnaces in many countries.



Another way of collecting solar energy is by absorbing the heat and then transferring it to water or air. Dark surfaces get hotter than light colored surfaces. Special types of tiles are also used. Solar ovens can be made by almost anyone to use in their own yard. Instructions can be found on the internet.

Color the words.

solar power

# Alternative Fuel

## Criss Cross

Can you fit these words into the criss cross?  
Use a pencil so you can erase if you need to.

solar      fuel      water      nuclear  
fossil      wind      turbine      energy

