

ENERGY EXPERT PATCH

Daisy Leader Guide

Consumers Energy

Count on Us

PROVIDING ENERGY EDUCATION TO STUDENTS IN THE COMMUNITIES
WE SERVE. THAT'S OUR PROMISE TO MICHIGAN.

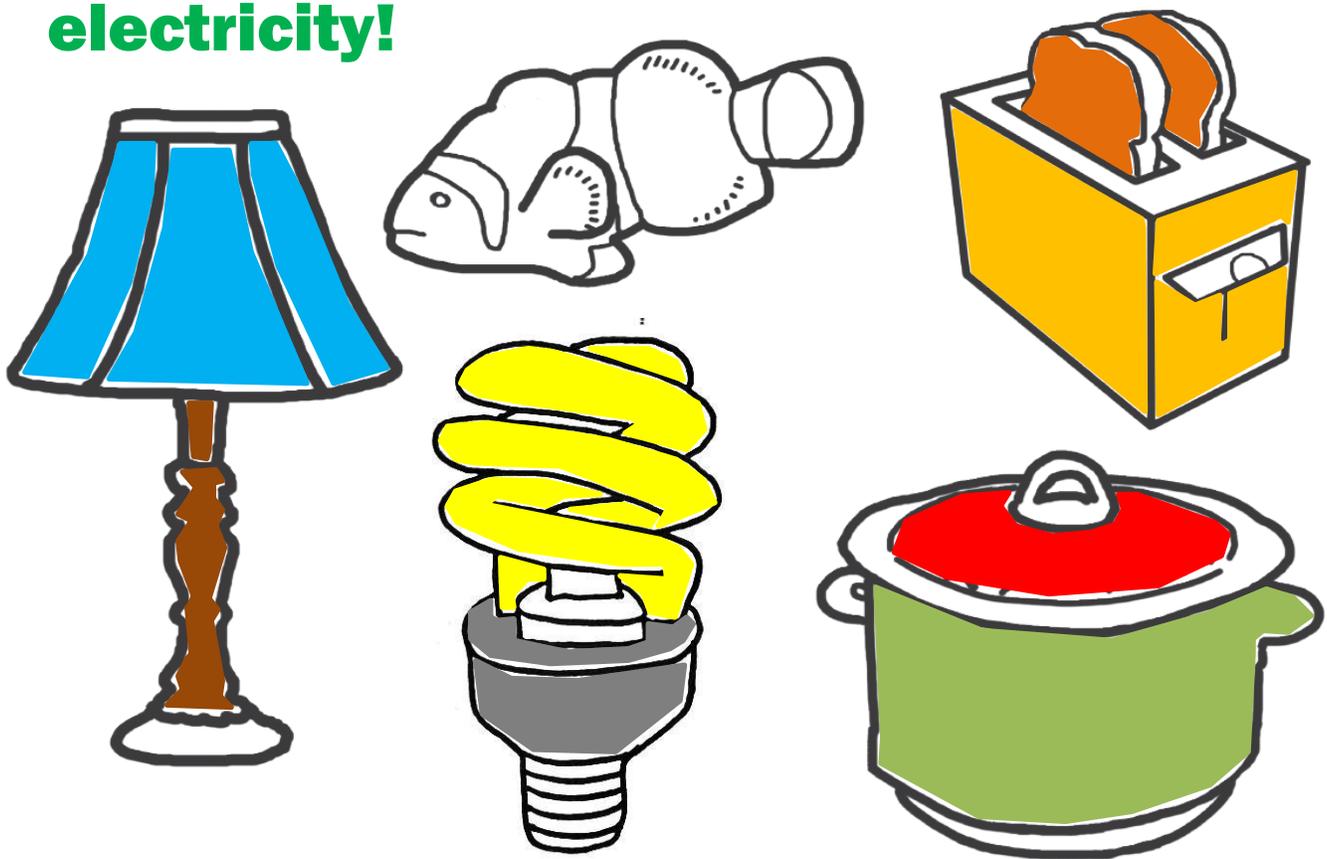
For more great energy resources visit:
www.ConsumersEnergy.com/kids

Page 1 - ELECTRIC & NATURAL GAS AT HOME

Things to Discuss as a Group

- Talk about what things in the house use electricity, ask Scouts to give some examples.
- Have Scouts circle the items in their workbooks that use electricity.
- Ask Scouts what life would be like without electricity. What would be different? What would be harder to do, or what couldn't you do at all?
- Explain that we burn something called natural gas to heat things in our homes. Show them pictures or take them to look at gas appliances (stove, furnace, gas fireplace, gas dryer, etc). Explain how natural gas helps these appliances work.
- Have Scouts draw one of these appliances that uses natural gas.

Color in the items that run on electricity!



Can you draw something from your house that uses natural gas?



Page 2 - ELECTRIC SAFETY

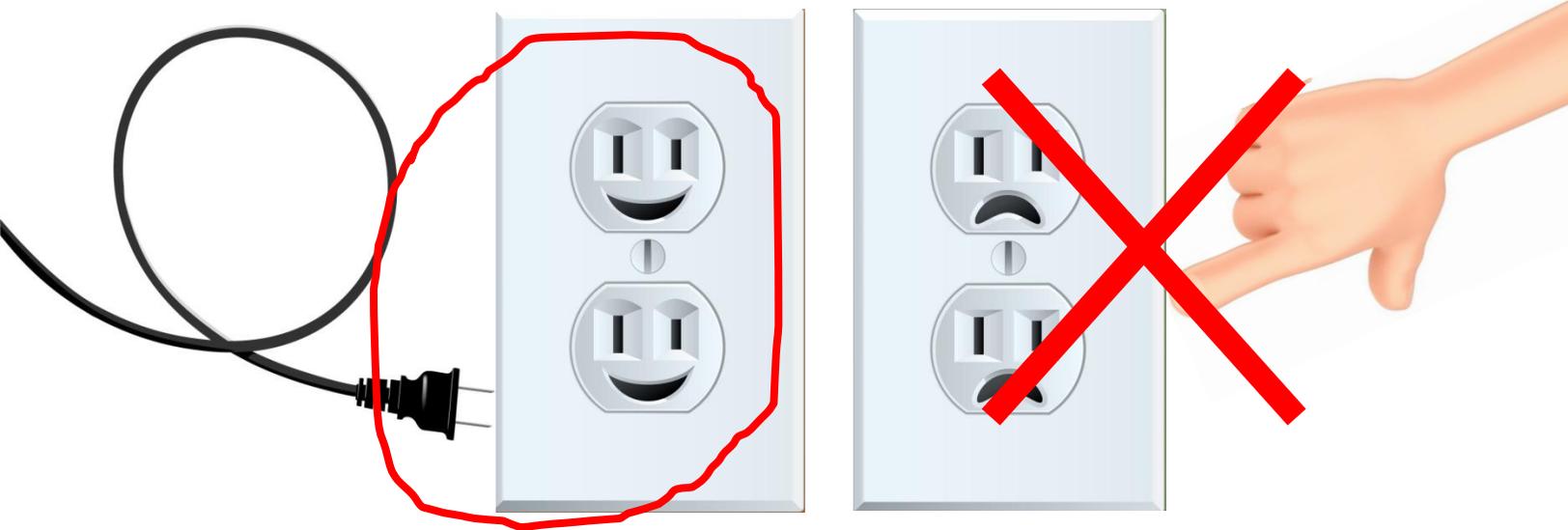
Things to Discuss as a Group

- Use a small appliance like a blow dryer or a lamp to show how to plug and unplug something. Remind Scouts that they should always ask for help if they want to plug something in.
- Explain that only electric cords should go into an outlet. Explain that if you touch an outlet with your finger or with a toy you could get shocked.
- Have Scouts circle the outlet with the plug and put an X over the outlet with the finger in their workbooks.
- Talk about how electricity travels to our homes through power lines and show them the picture in their workbooks. Explain that sometimes power lines fall down because of storms or trees.
- Lay a jump rope on the ground and have the Scouts act out how to react if they see a downed power line. Measuring out 25 feet is optional.
 - Stay at least 25 feet away.
 - Call 911 or Consumers Energy right away! 800- 477-5050

ELECTRIC SAFETY

Circle which one is right.

Draw an X over which one is wrong.

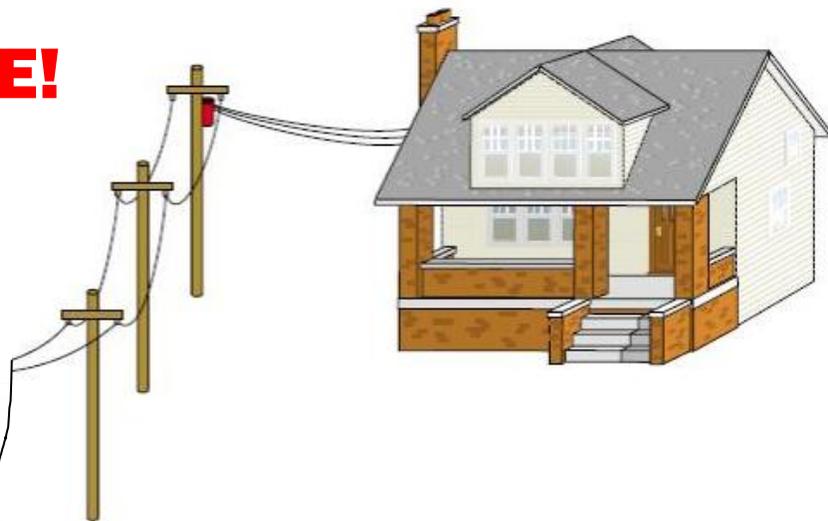


Never put anything in an outlet that's not a plug!

STAY AWAY, STAY ALIVE!

Stay at least 25 feet away
from downed power lines.

Call 911 or Consumers Energy
(800) 477-5050 right away.



Page 3 - NATURAL GAS SAFETY

Things to Discuss as a Group

- Have Scouts fill in the blanks about how we can't "touch," "taste," or "see" natural gas. Natural gas smells like rotten eggs.
- Teach Scouts the 3 steps to safety if they smell natural gas.
- Have Scouts stand up and act out each step together as a group.

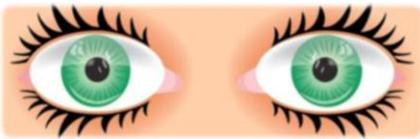
NATURAL GAS SAFETY



We CAN'T touch
natural gas.



We CAN'T taste
natural gas.



We CAN'T see
natural gas.



But we can **SMELL**
natural gas!

What does it smell like?

Rotten eggs

If you smell natural gas...

- 1 **Tell an adult!**
- 2 **Get out!**
- 3 **Call for help**

Page 4 – HOW WE MAKE ELECTRICITY

Things to Discuss as a Group

- Explain to Scouts that electricity has to be made or “generated” in power plants.

Explain that electricity can be made many ways but one of the most common ways is with coal.

- Divide Scouts up into 5 groups. Assign one of the steps to each group and have Scouts act out how we make electricity using coal.

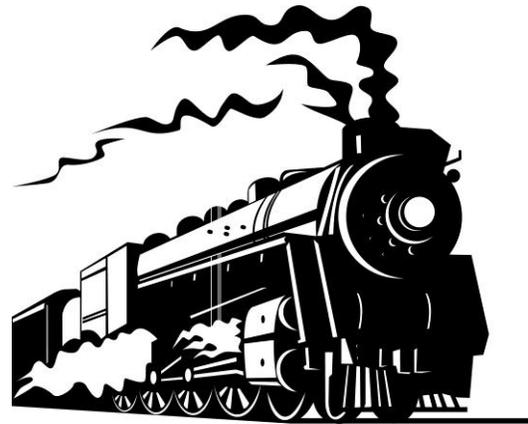
1. Mine the coal – have Scouts use pretend shovels to dig out the coal.
2. Coal train – have Scouts make a train by putting hands on each others shoulders, bounce their knees, and make chugga-choochoo sounds.
3. Boiler – have some Scouts be the fire by crouching and move their fingers like flames, then have other Scouts be the steam by having them stand up and push their hands up while making a whoosh sound.
4. Turbine – carefully have Scouts put their arms out and spin.
5. Generator – one at a time have Scouts spin around once, then bounce away as the electricity.

HOW WE MAKE ELECTRICITY



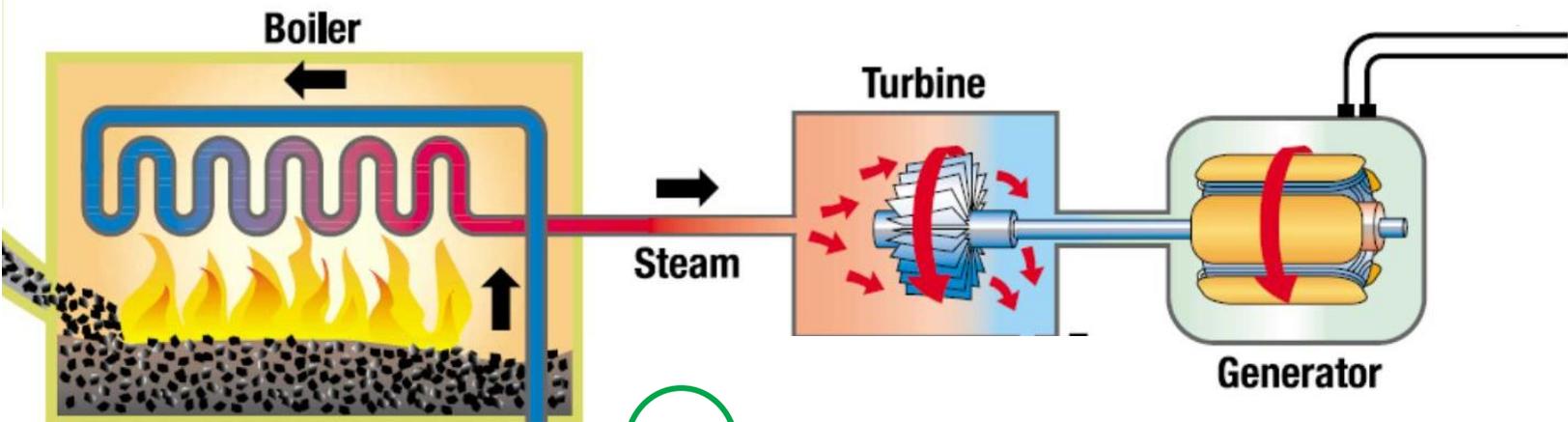
1

We mine coal from the ground



2

We send the coal on trains to the power plant



3

We burn the coal to heat water

4

Hot water turns into steam which spins a turbine

5

The generator turns creating electricity

Page 5 – SOURCES OF ENERGY

Things to Discuss as a Group

- Explain to Scouts that we get our energy from the earth. Natural gas is actually found deep underground in big rocks. We can use coal (a rock from deep underground), water, wind, oil, and even the sun's rays to make electricity.
- Help Scouts match the pictures to the words that describe the type of electric generation.

Page 6 – SAVING ENERGY

Things to Discuss as a Group

- Explain that the more electricity we use the more resources we have to take from the earth. Explain that conserving electricity can help save some of these resources, which is good for the earth, and it can help save parents money too!
- Have Scouts decorate their light switch covers. Leaders please help cut them out.

SOURCES OF ENERGY

Match the source of energy to its picture.



COAL POWER

HYDRO POWER

WIND POWER

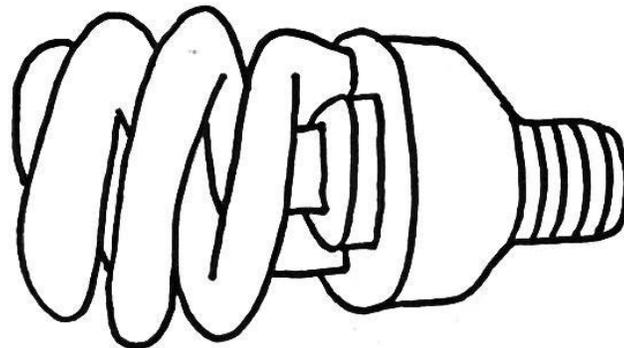
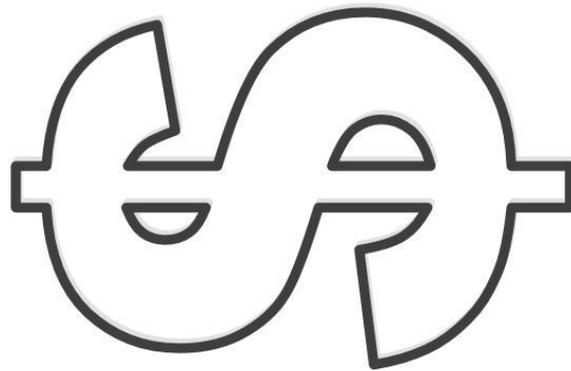
OIL POWER

SOLAR POWER

SAVING ENERGY

Decorate this light switch cover. Then take it home and cut it out to help your family remember to save energy!

Don't Forget To



Turn out the Lights!