



U.S. DEPARTMENT OF
ENERGY

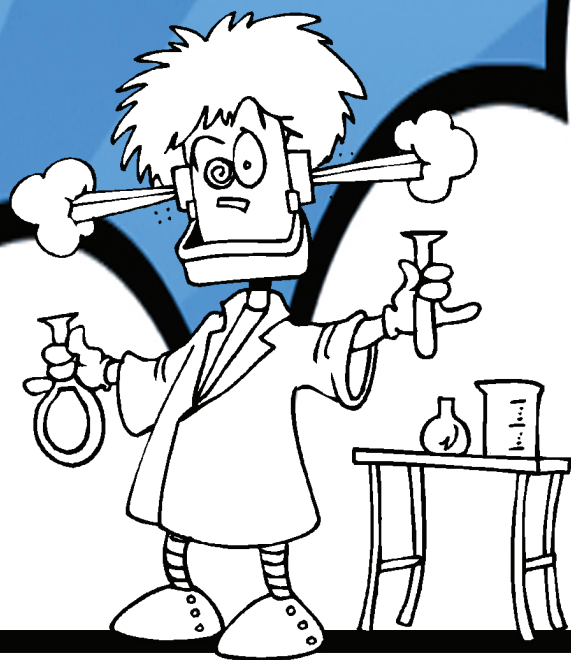


NATIONAL
ENERGY
TECHNOLOGY
LABORATORY



The National Energy Technology Laboratory's
Get Energized

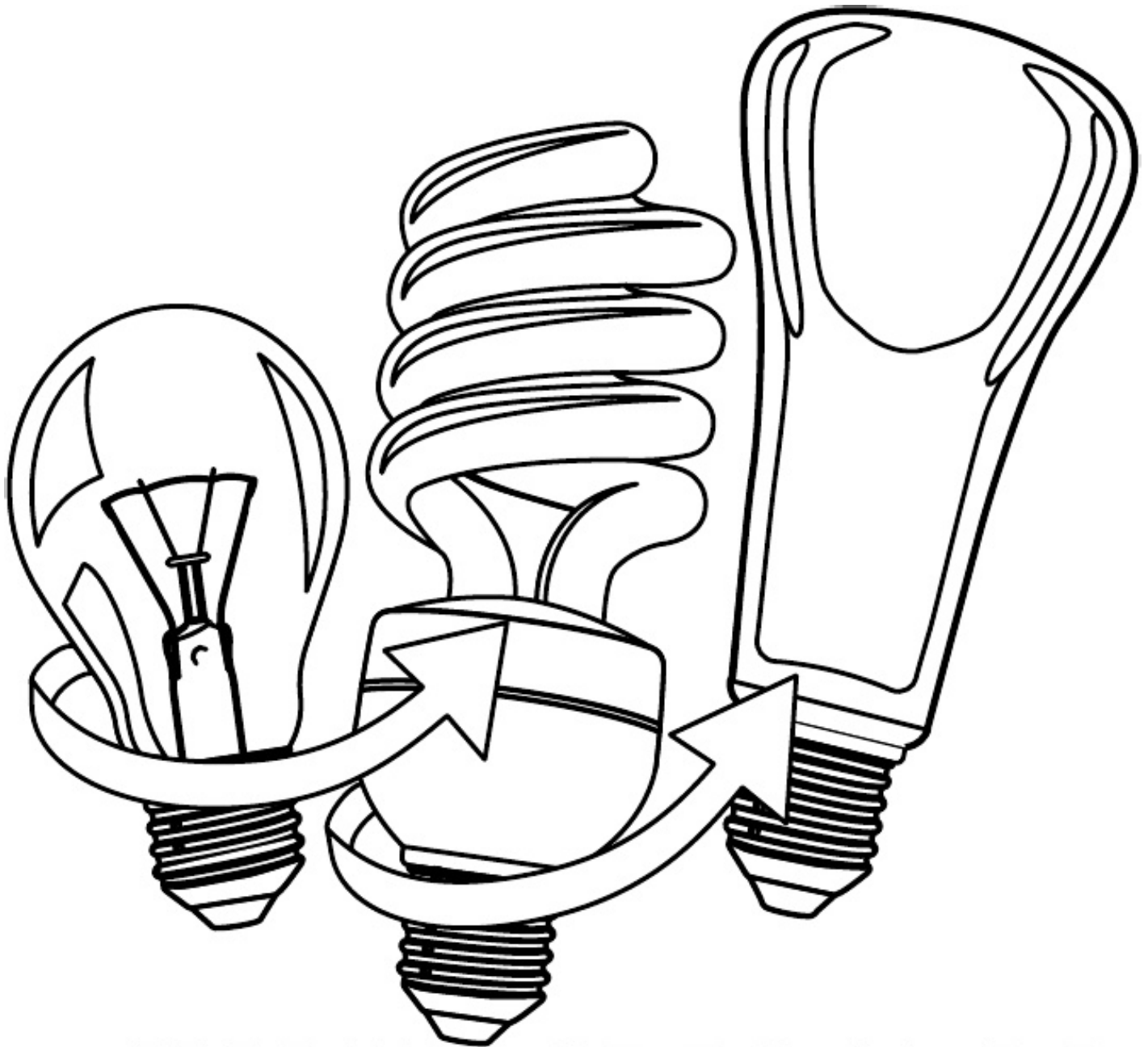
Science Activity Book



Name _____



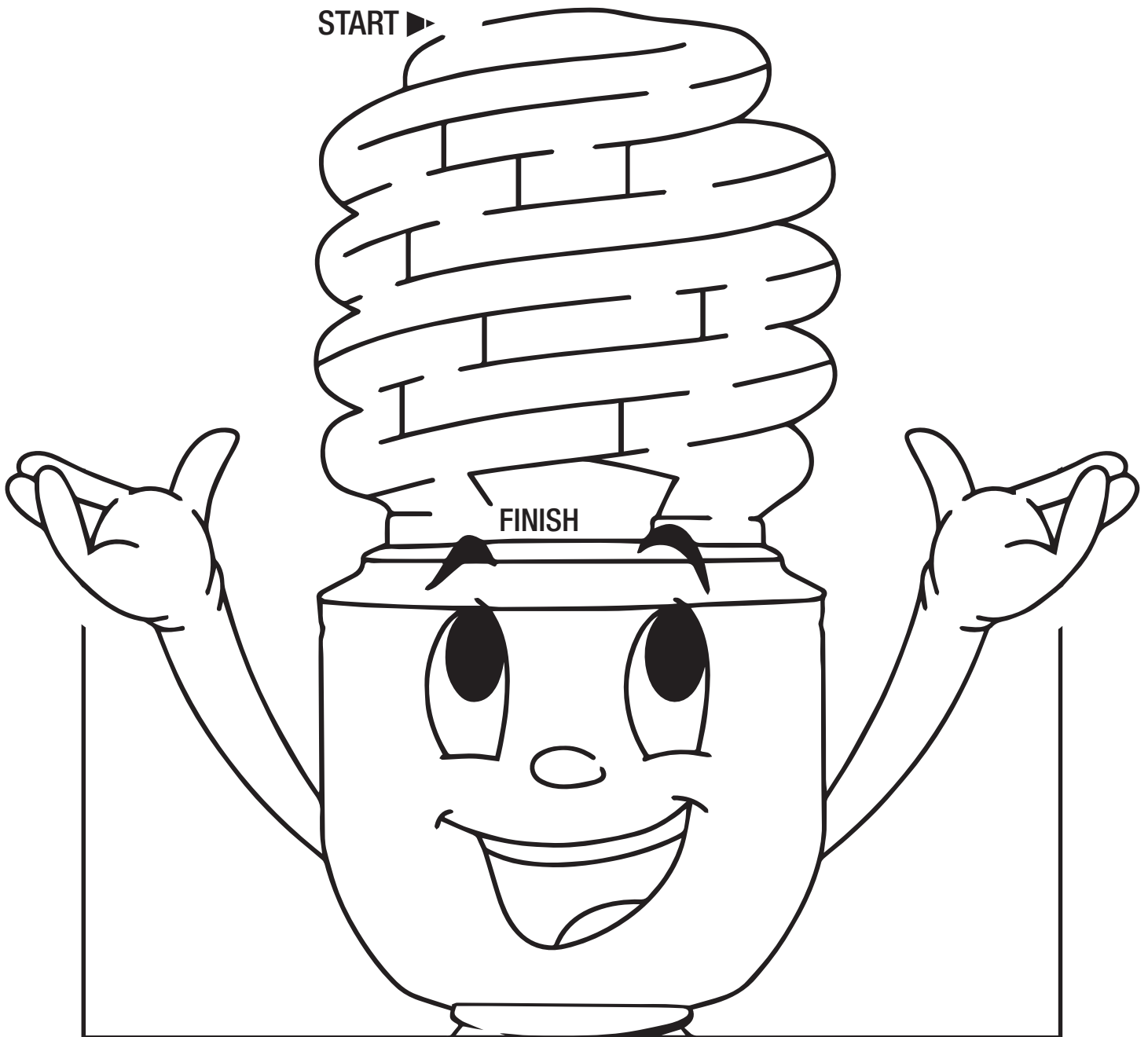
Make the Switch!



Switching from incandescent light bulbs to light emitting diode (LED) bulbs can save up to 80% on energy usage and costs.



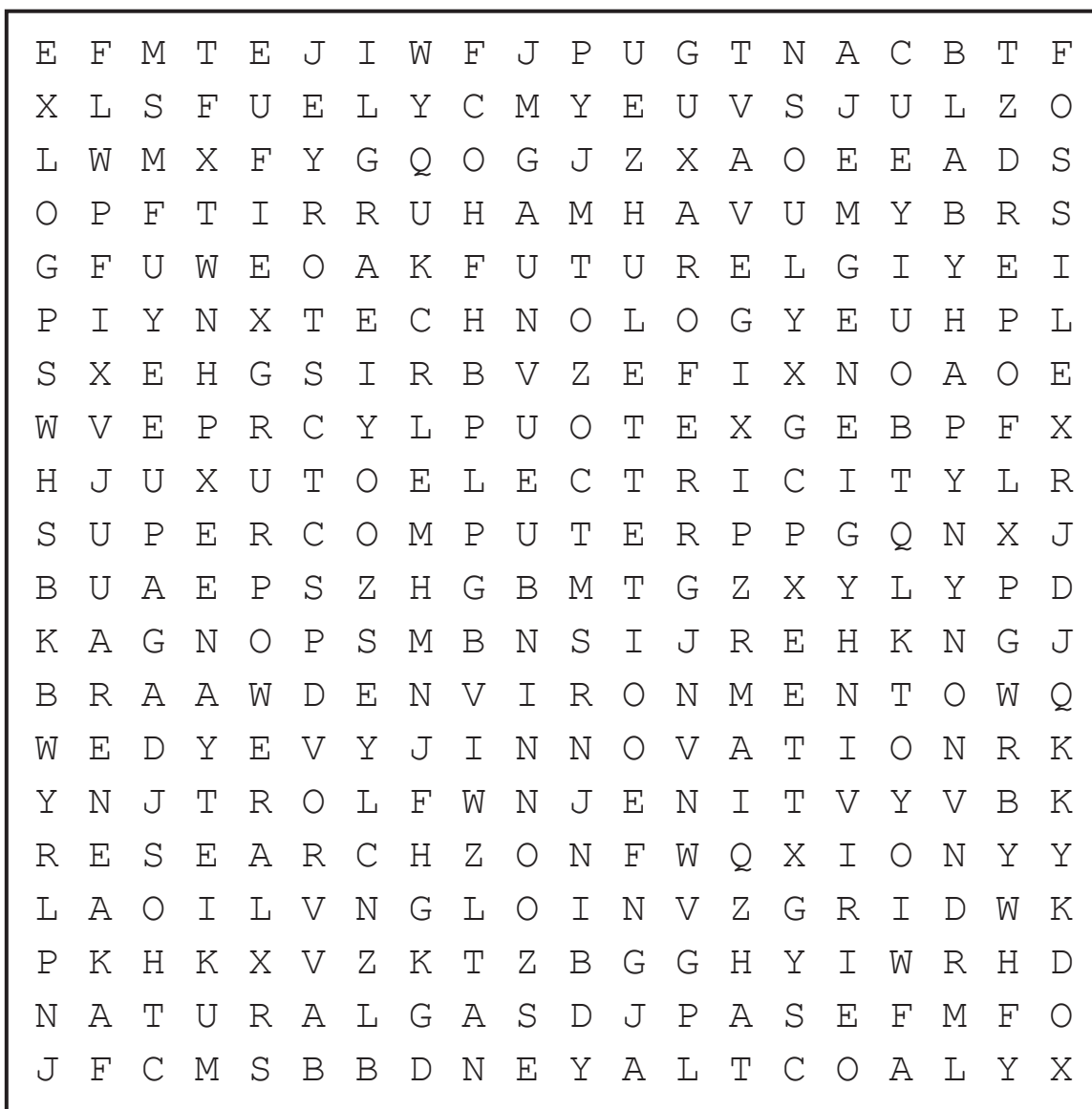
A-Maze-ing Energy Savings





Energy Word Search

Locate the words from the list in the jumble below.



ELECTRICITY
ENERGY
ENVIRONMENT
FOSSIL

POWER
RESEARCH
OIL
TECHNOLOGY

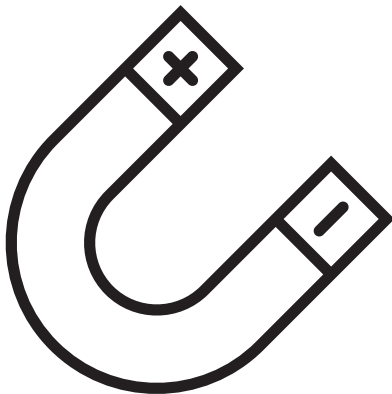
COAL
NATURAL GAS
SUPERCOMPUTER
FUEL

FUTURE
GRID
INNOVATION
LAB

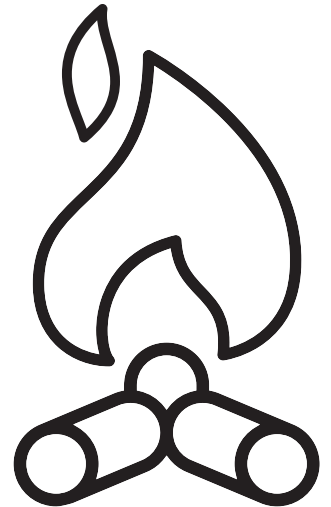


Energy Matching

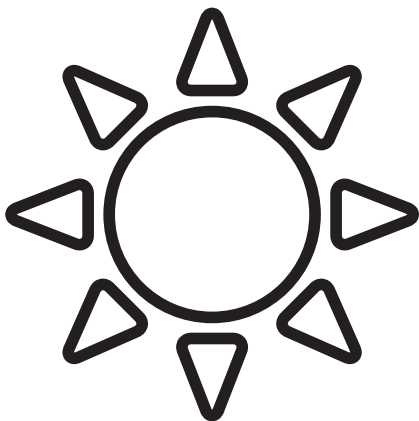
Draw a line from each form of energy listed in the boxes to the symbol that *best* shows it.



SOUND
ENERGY



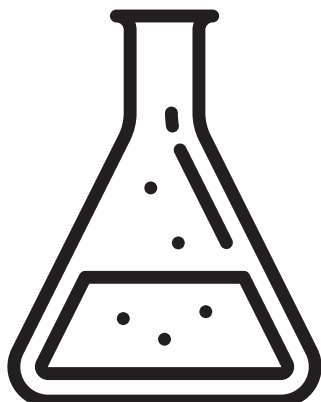
MAGNETIC
ENERGY



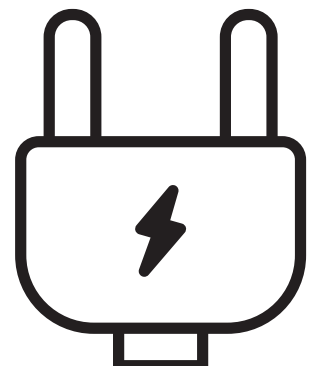
THERMAL (HEAT)
ENERGY



ELECTRIC
ENERGY



CHEMICAL
ENERGY



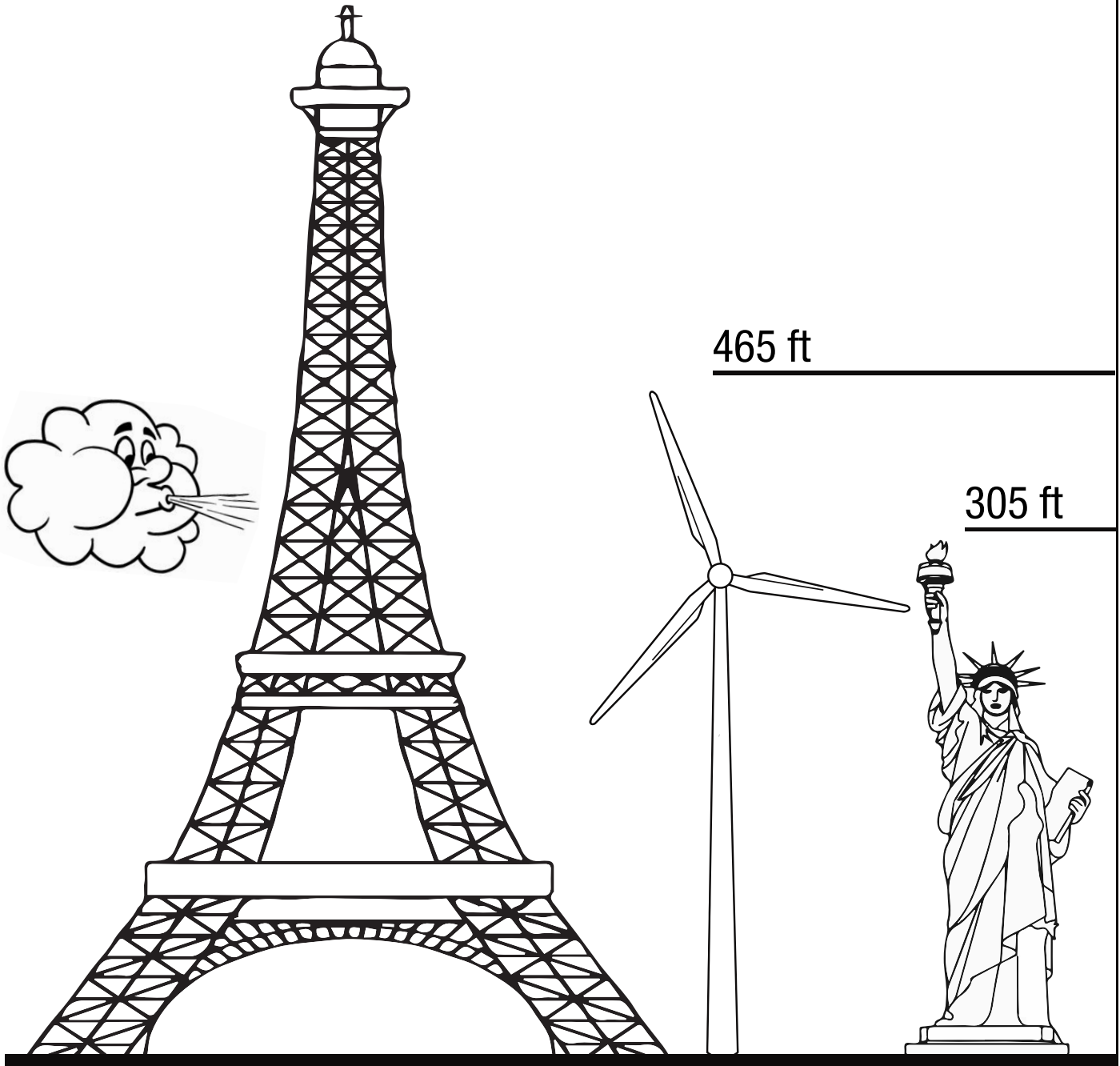
RADIANT
ENERGY



Wind Turbines

Are devices that convert the wind's kinetic energy into mechanical energy.

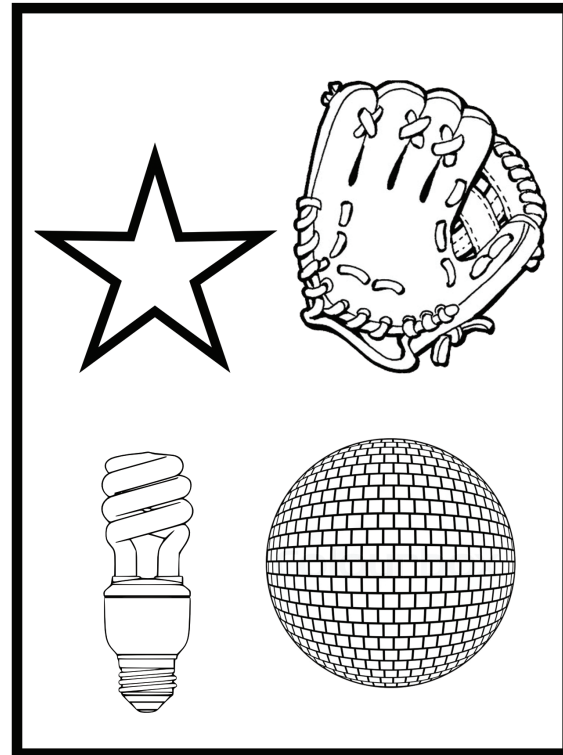
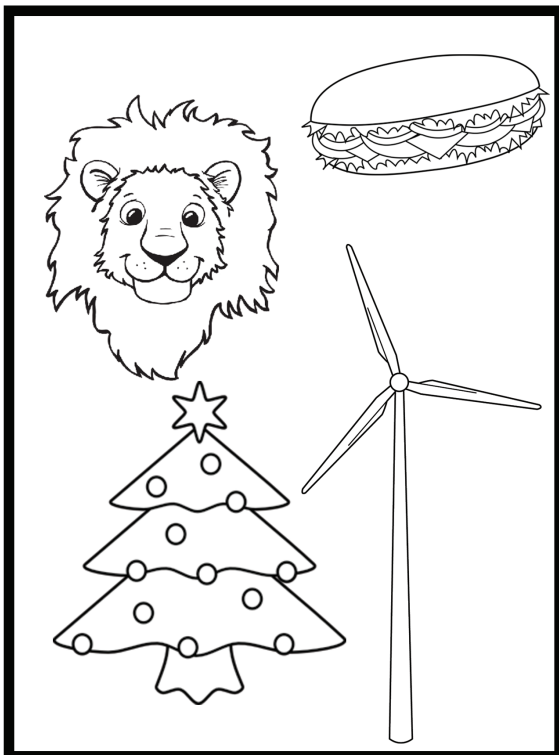
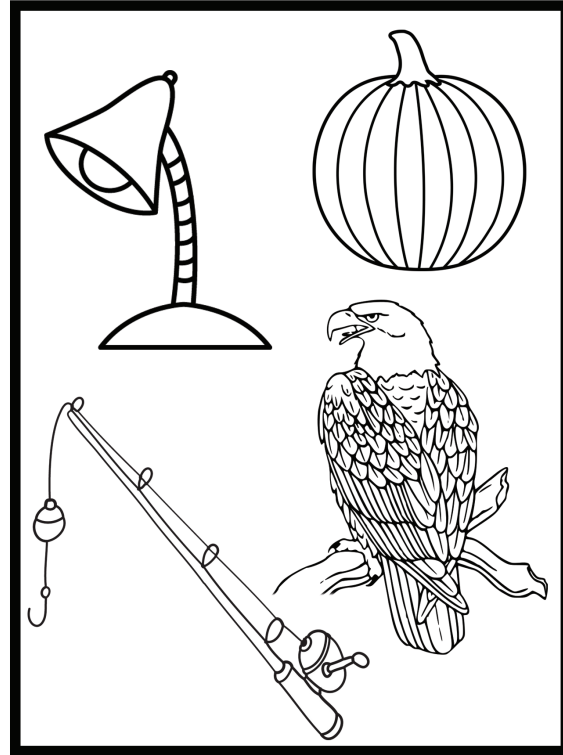
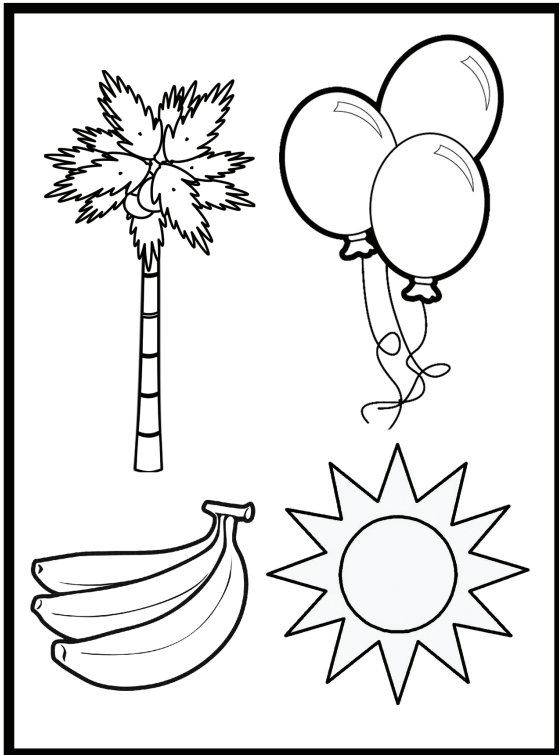
1063 ft



The height of wind turbines has grown steadily over the last decade as we seek stronger wind speeds higher up in the atmosphere. New technology developments predict turbine height to soar in the next decade.

Power Picker

Circle the object in each box that uses or generates energy. Color each picture.

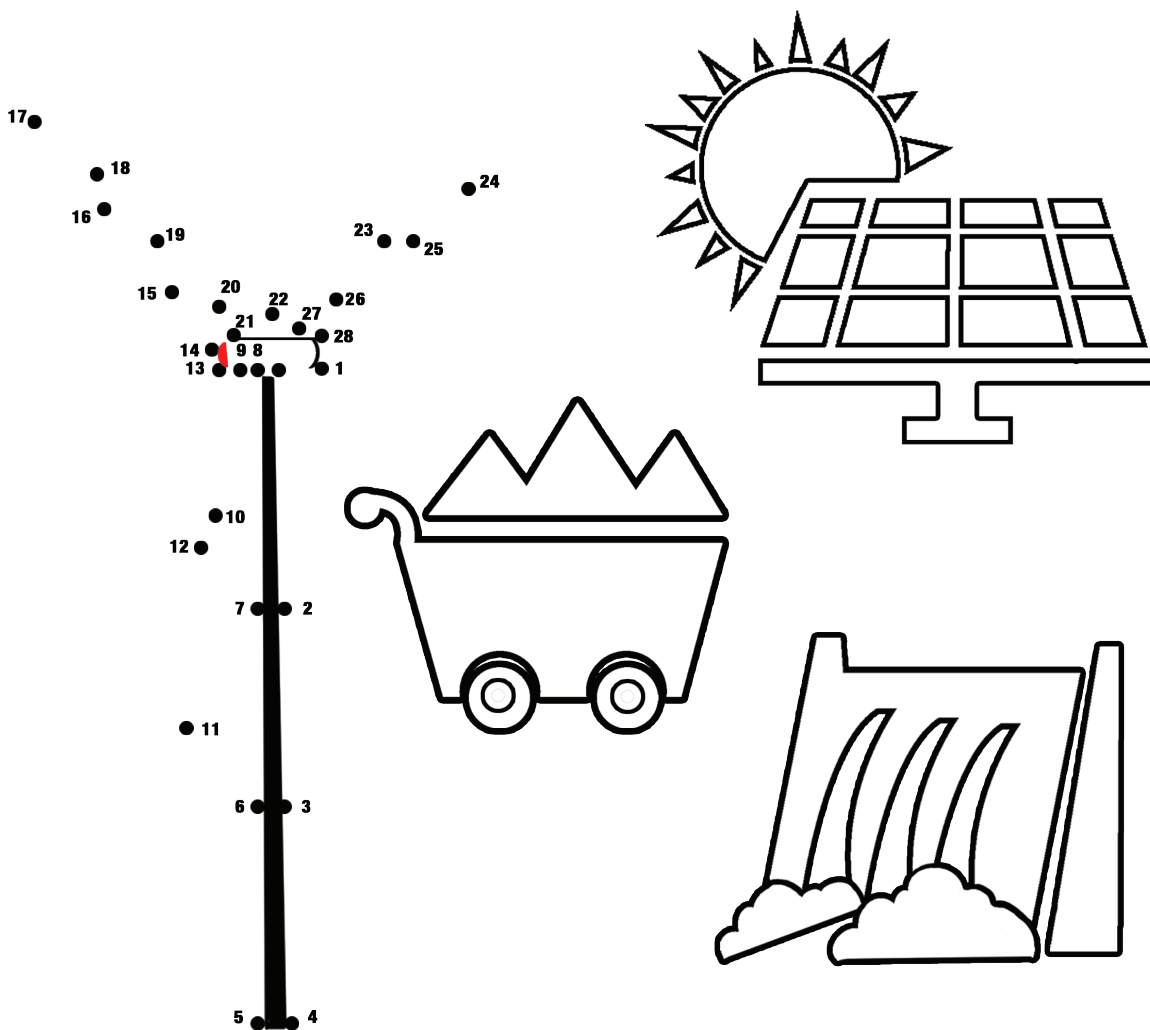




Renewable Energy

Renewable energy, also called alternative energy, usable energy derived from replenishable sources such as the Sun (solar energy), wind (wind power), rivers (hydroelectric power), hot springs (geothermal energy), tides (tidal power), and biomass (biofuels).

Which of these items are forms of renewable energy? Circle each.



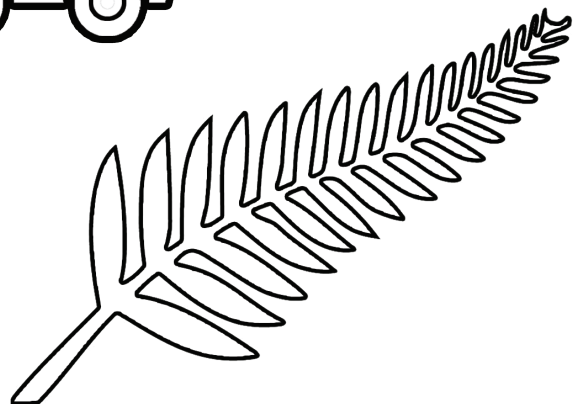
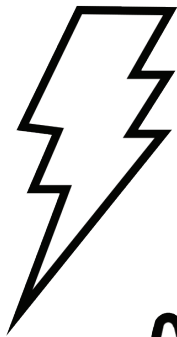
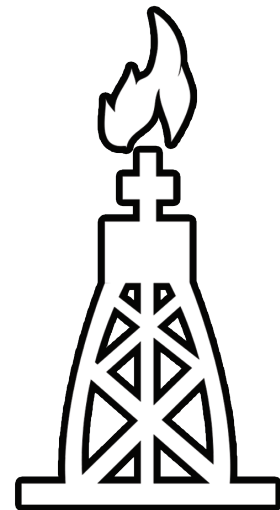
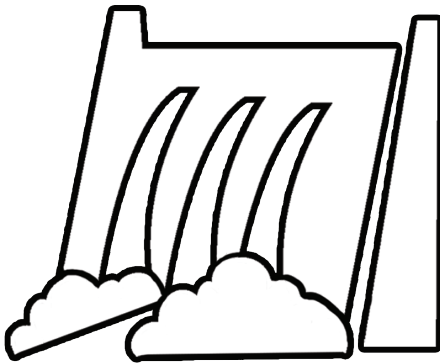
Connect the Dots



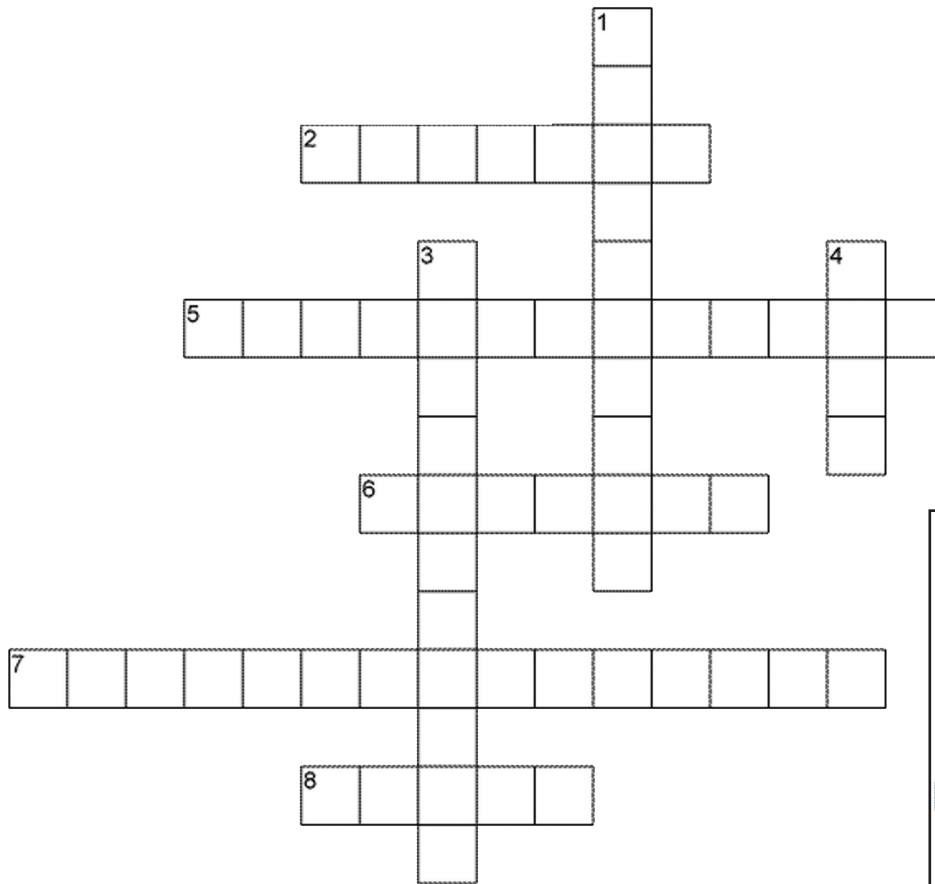
Fossil Fuels

A natural fuel such as coal or gas, formed in the geological past from the remains of living organisms.

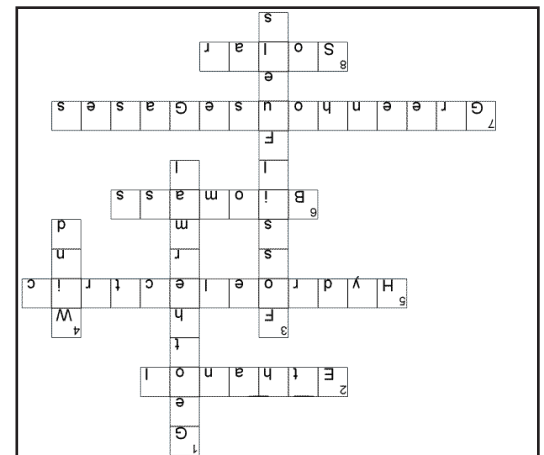
Which of these items has something to do with fossil fuels?



Crossword Craze



SOLUTION



ACROSS

2. A biofuel produced from corn or sugar cane that burns cleaner than regular gasoline.
5. A renewable energy source that uses the force of water to generate electricity.
6. A renewable energy source that comes from plant or animal materials, including waste and sewage.
7. Gases like carbon dioxide, methane, and nitrous oxide that remain in the Earth's atmosphere, causing a warming effect on the Earth's surface.
8. A renewable energy source that uses the light from the sun to generate electricity.

DOWN

1. A renewable energy source that uses the heat from within the Earth to produce steam and hot water.
3. Types of combustible material that were formed in the Earth long ago from plant and animal materials.
Examples are oil, coal, and natural gas. (2 words)
4. A renewable energy source that uses the movement of air, often using turbines with propellers, to generate electricity.