



My nature connection

ENERGY RESOURCE SHUFFLE

GRADES: 5+
TIME: 45-60 min.

Families will:

1. Learn about different types of renewable and non-renewable energy.
2. Consider the positive and negative outcomes of using different energy resources.

ACTIVITY

INTRODUCTION

We're going to learn about Renewable and Nonrenewable Energy through a game where you can run, walk, roll, hop, skip, and bear crawl!

Energy is the ability to change or do things. Energy is used to give us light when it is dark, move us from place to place, keep us warm in cold climates and cool in hot climates, cook our food, and entertain us with music, movies, and games.

Renewable Energy: Energy that can be used repeatedly and does not run out, such as wind or solar power.

Nonrenewable Energy: Energy that cannot be replaced overtime, and if used endlessly, we would run out of it! Burning coal and petroleum are great examples.

ASK YOURSELF!

What is one way that you have used energy today?

WHAT YOU'LL NEED

Energy Source print-outs (attached) or hand drawn posters

Yarn or anything that would help tie print-outs/posters to objects

Objects to attach print-outs/posters onto

SETTING

Outdoors:

Open space where you can run around

Indoors:

Adapt by using chairs and furniture to tie/tape resource signs if location or weather permitting

ENERGY RESOURCE SHUFFLE

The forms of energy in this game are a mixture of both renewable and non-renewable. They include:

Solar Power
Uranium
Coal
Hydropower
Geothermal
Biomass
Wind
Petroleum
Natural Gas

PREPARATION:

Find an open space. Tie the energy sources sheets/posters around trees or other available objects throughout the playing area. Choose spots that are spread out and visible.

These all come as printable handouts below. You and your family can also create your own small posters that represent each form of energy to build more understanding and include a craft.

CONNECTING WITH QUESTIONS:

Do you think it is important for us to use more renewable energy resources? Why or why not?

Consider the ways that you can conserve energy as a family.

As a household, if you could choose to live on one source of energy, which would you choose? How would that change your home?

HOW TO PLAY:

Once you have placed the names and pictures of different types of energy sources around the indoor/outdoor area:

1. Begin by making sure all family members are standing near you and can hear you clearly.
2. Choose a leader. The leader chooses a source of energy. The leader picks 3 clues from the energy handout to describe the chosen source of energy and one action (run, roll, skip, leap, etc).
3. The leader shares the 3 clues, 1 action, and yells "Energize!"
4. Everyone that is not the leader picks the type of energy source and runs/hops/walks/rolls/skips (whichever action was chosen) to that sign.
5. Once each person has at least one hand touching a printout/poster, the leader shares correct answer.
6. Repeat! Remember to take turns playing leader.

SOURCES REFERENCED

<https://www.need.org/>

<https://www.eia.gov/>

TELL US WHAT YOU THINK!

take a short survey at: campfiremn.org/mynatureconnection

or here: Kids Survey - [click here](#) | Teachers/Parents Survey - [click here](#)

ENERGY RESOURCE CLUES

Solar

I am not available 24 hours a day.
I am clean, but expensive.
Plants need me to survive.
You can turn my energy into electricity using photovoltaic cells.
I am renewable.

Uranium

I result in radioactive waste which can be very dangerous.
1st used to generate electricity in 1957.
There is a lot of me and I can be found underground in rocks.
Using me doesn't pollute the air, unless stored improperly.
I am non-renewable.

Coal

I am mined from underground.
I generate over a 1/3 of electricity in the US.
I am transported by train
I look like a black, shiny rock.
Burning me can pollute the air.
I am non-renewable.

Hydropower

I rely on the Earth's gravity to work.
The amount of energy I produce can depend on the amount of rainfall.
I can sometimes disrupt the habitats of fish and wildlife.
I am renewable.

Natural Gas

I have no color, taste, or smell.
I am used to heat half of homes in the US.
I am transported mostly by pipeline.
I am a cleaner burning fossil fuel.
I am non-renewable.

Biomass

Part of my name means "life."
Methane gas can be produced from me.
I get my energy from plants, wood, and garbage.
I can cause pollution when burned.
I can create ethanol which may be used for transportation.
I am renewable.

Geothermal

My name translates to "earth" and "heat."
I am used mostly in the western part of the United States.
I use heat and energy from the earth's core.
I produce less than 1% of energy used in the US.
I heat underground rocks and water.
I am renewable.

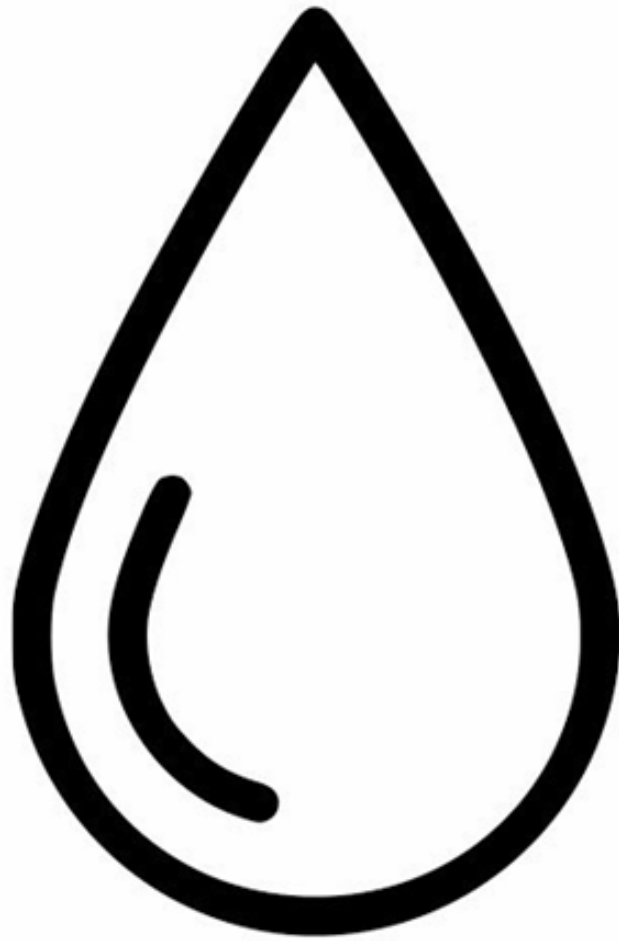
Wind

I am clean but unreliable- not available every 24 hours a day.
I do not pollute but I make a noise.
I am the energy from moving air.
I am mostly produced in Texas, Iowa, and California (wide open spaces.)
I am formed by uneven heating of the earth's surface.
I am renewable.

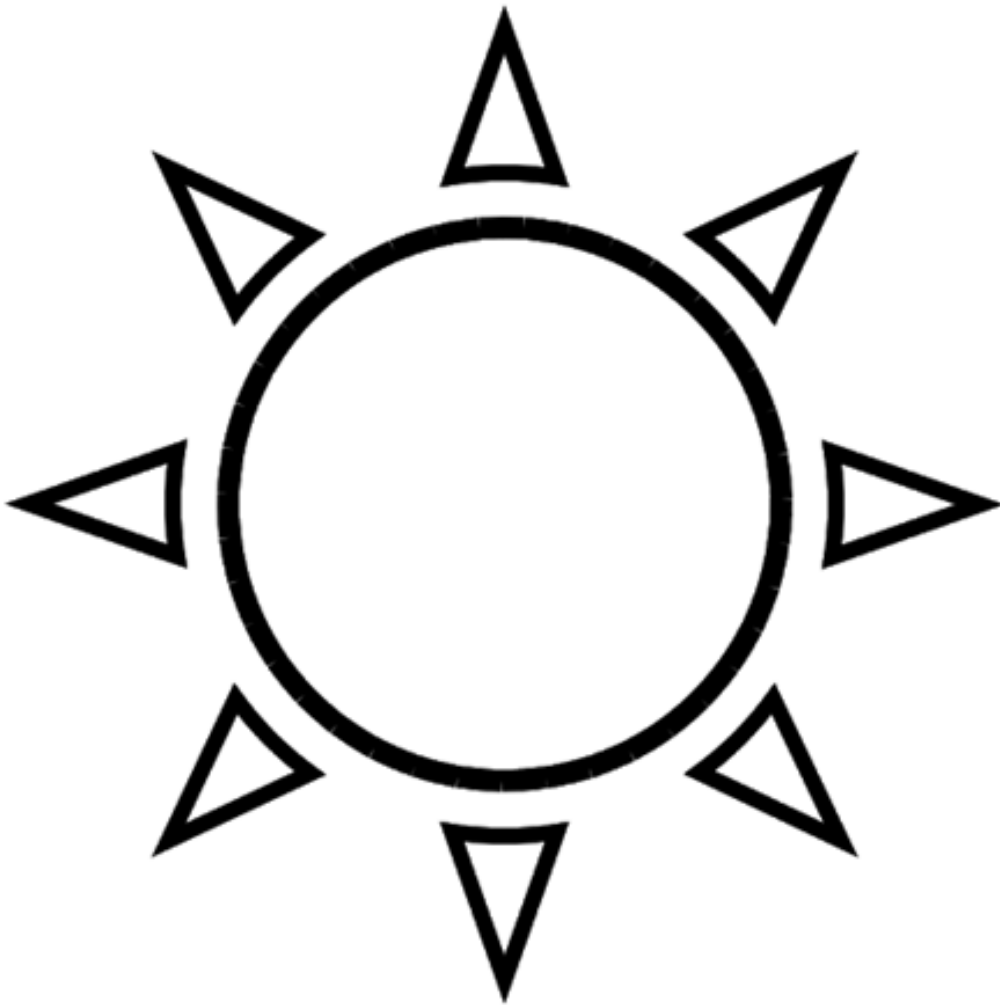
Petroleum

My major use is for fueling transportation.
Much of me is imported from Saudi Arabia.
I am found underground and the ocean.
Burning me can cause pollution.
I am non-renewable

Hydropower



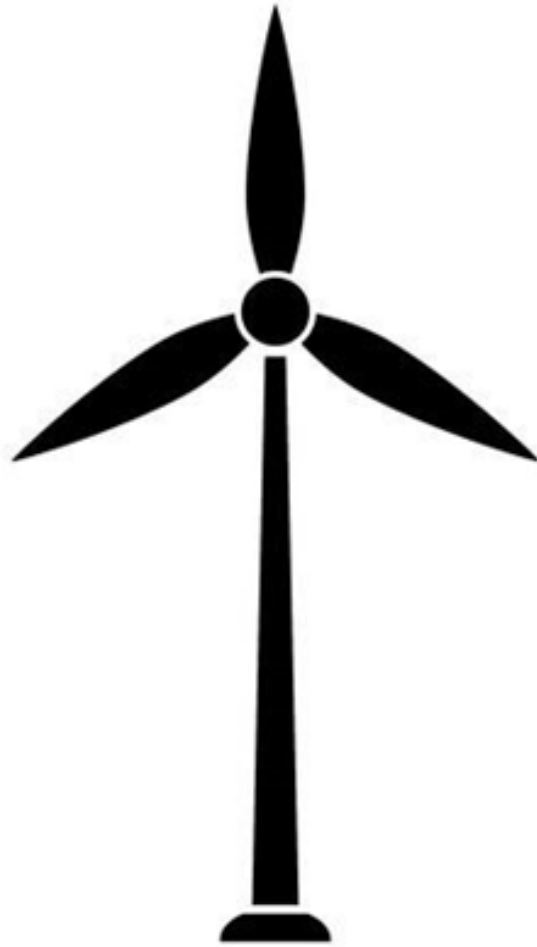
Solar Power



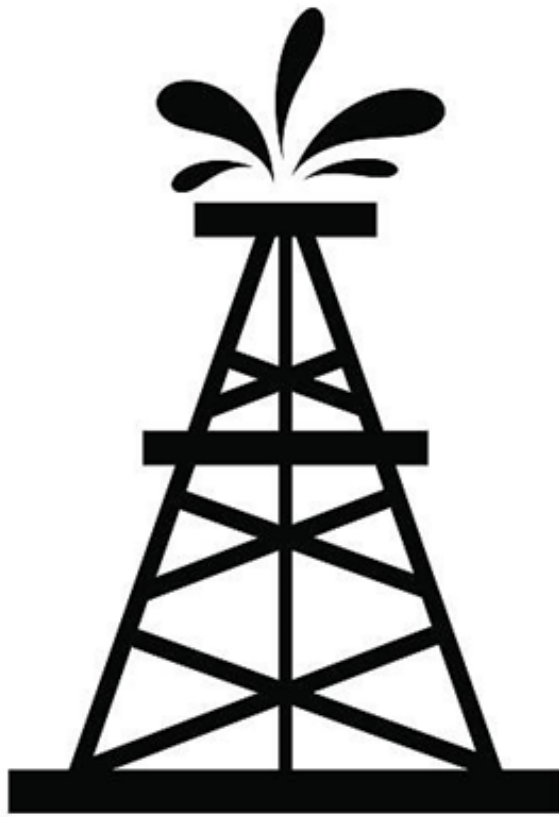
COAL



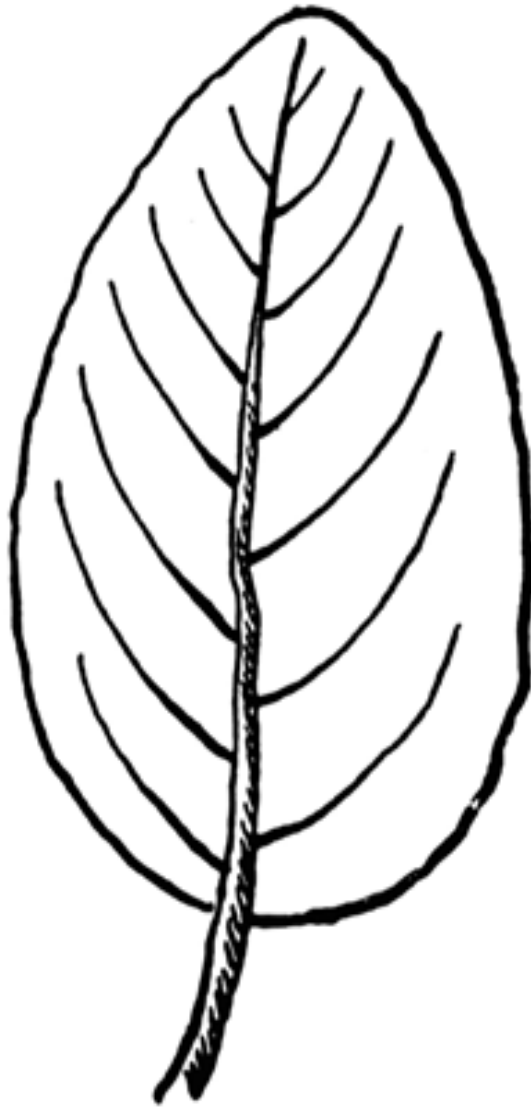
WIND



Petroleum



BIOMASS



Natural Gas



URANIUM



Geothermal

