

Water is another very important **energy resource**.

People, plants and animals all depend on water.

Since ancient times, people have found ways

to harness the energy produced by moving

water. This is called **Hydropower**. For

example the water wheel was first used

around 200 B.C. Water wheels were used for tasks

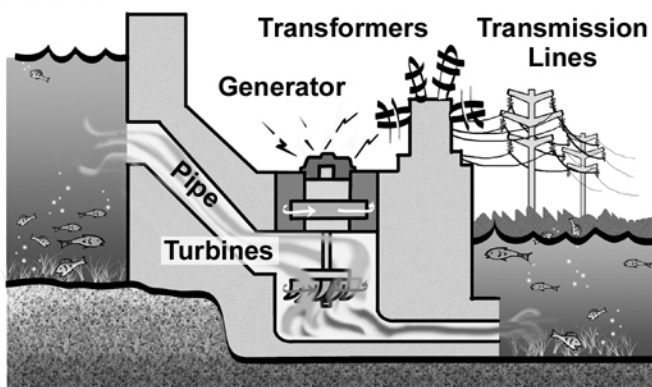
like grinding grain and irrigation, and later industrial use like

lumber mills. After the invention of the **turbine** in the early 1800's and the **generator** in the

late 1800's, the first hydroelectric plant in the U.S. was built at Niagra Falls in 1879.

# Wild about Water

**A Dam holds back water a reservoir**



**How a Hydroplant Works**

The energy from hydropower changes. The falling water is **gravitational energy**, then converts to **mechanical energy** as the force of the water turns the turbine.

The generator connected to the turbine rotates changing the mechanical energy to **ELECTRICAL ENERGY**. The transformers convert the electricity to usable voltage levels. The electricity is then sent through the transmission lines to distribution stations.

The use of hydropower is economical, helps conserve our fossil fuels, and is a clean, environmentally friendly source of energy.

## Can you solve the ENERGY RIDDLES

1. I am the energy star and the most abundant of all the energy sources.
2. I have been used for centuries to power ships and machinery.
3. I am the ability to do work.
4. I am harnessing the energy produced by moving water.
5. People, animals and plants all depend on me.
6. We are pumped from wells deep in the earth and oceans.
7. We get charged up when we are out of balance.

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 \_ \_ \_ \_ P \_ \_ \_  
 W \_ \_ \_ \_  
 \_ \_ \_ \_ D \_ \_ \_  
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**Answers**

**Page 1**

- Mechanical Energy - **WIND**
- Heat Energy - **STEAM**
- Gravitational Energy - **WATER**
- Chemical Energy - **GASOLINE**
- Electrical Energy - **CURRENT**

**Word Scramble**

- SOLAR WOOD & COAL**
- OIL GAS WIND**

**Page 3**



**Page 4**

**Crossword Challenge**



**Page 6**

1. SUN
2. WIND
3. ENERGY
4. HYDROPOWER
5. WATER
6. OIL AND GAS
7. ATOMS

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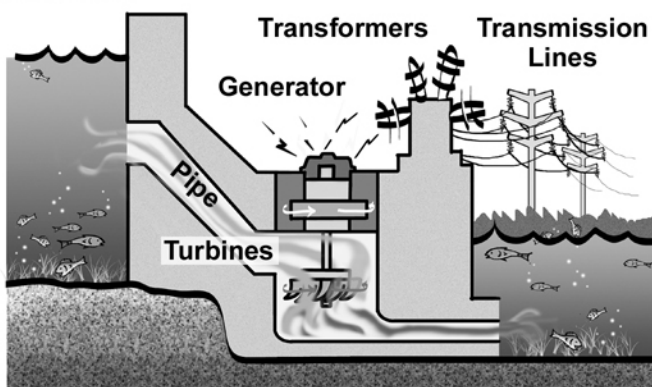
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