

# WIND POWER

## DAY TWO: HISTORY OF WIND USE



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# HISTORY OF WIND USE

## Welcome to Wind Power Day Two!

Wind has been used as an energy source for thousands of years. People used wind energy to propel boats along the Nile River as early as 5,000 B.C. By 200 BC, simple wind-powered water pumps were used in China, and windmills with woven-reed blades were grinding grain in Persia and the Middle East.

New ways to use wind energy took the world by storm. By the 11th century, people in the Middle East were using wind pumps and windmills extensively for food production. American colonists even used windmills to grind grain, pump water and cut wood at sawmills.

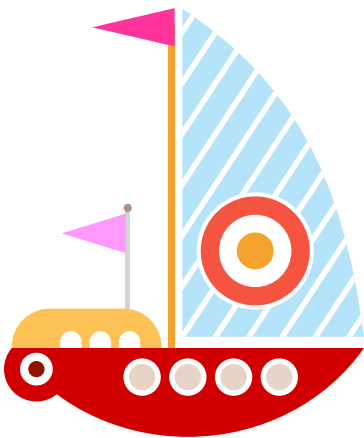
Eventually, the use of wind energy began to decline when power lines were built to transmit electricity to rural areas in the 1930s. However, some ranches today still use wind pumps to supply water for livestock.

Small and large wind turbines are becoming more common power sources again, mainly to replace non-renewable energy sources. Non-renewable energy is energy produced from sources that deplete or cannot be replenished within a human's lifetime. An example of this is fossil fuels or petroleum. As a renewable energy source, wind can be incredibly useful. Renewable energy is energy produced from sources that do not deplete or can be replenished within a human's lifetime.

As you can see, wind energy has been used for many purposes throughout the years. Today, your task is to design the car of the future. You're going to harness the power of wind and build your own sailboat car.

## Materials:

- Cardboard
- Skewers
- Masking Tape
- Construction Paper
- Coins (or something to add weight)
- Scissors
- Fan



## Instructions:

- Using a piece of cardboard, construct the body of your car. This should be about 2 by 6 inches.
- Cut a straw the width of the car and tape it to the front. Repeat this process and tape it to the back. This will be where we place the axles.
- Make four wheels out of cardboard or bottle caps and poke a hole in the center of each one.
- Insert a skewer through each of the two straws. Leave about an inch of the skewer on each side and cut off the excess.
- Place the wheels on either side of the skewer and wrap a strip of masking tape around each side of the wheel to keep the wheel on the skewer.
- Make a hole in the body of the car and place a skewer in it. Tape the base of the skewer to the body to hold it securely in place.
- Cut a piece of construction paper into a triangular shape and stick it onto the skewer, making your sail.
- Cut a skewer in half and tape it to the longer skewer, making a cross shape. Now tape your sail to the skewer to keep it from turning.
- Finally, tape a few coins on the bottom of your car to weigh it down.
- Turn on a fan to test your design!