Do You Harvest Wind on a Wind Farm?

PHYSICAL SCIENCES, ENGINEERING&TECHNOLOGY

Get curious

Video/ Slide show

You will watch a film about wind power and talk about renewable energy resources.

You can show students both films or choose one of them.

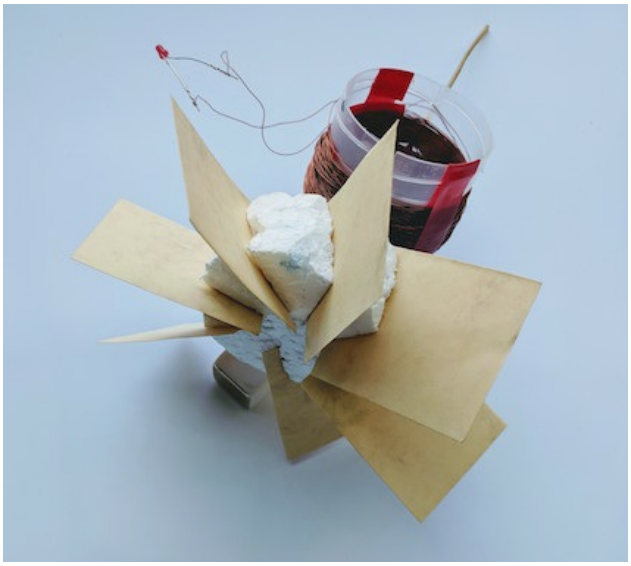
Talk about the advantages of wind energy as well as the challenges involved in its use.

Get going

Constructing

Students build wind turbines in teams.

All information about how to build the model of wind turbine you will find in the Instructions part - just press the button.



Experiment

Students perform the experiment and check whether their model wind turbines really works. They observe the whole cycle during which energy is obtained from wind and converted into electrical energy.

After students assembled the wind turbines, with help of a hairdryer or a fan they check how they work.

Experiment

Time for testing! Students experiment freely to check various parameters and their influence on the working of the turbine.

Sample questions and issues: Which blades work better, longer or shorter ones? Should a wind turbine be high up or located near the ground? Does it matter which way the wind blows?

Get practicing

Writing

The students write a one minute essay on the following subject: how can we use the wind?

Discussion

Discuss with students about other renewable energy sources.

During the lesson, the students experimentally tested how the power of wind can produce electricity. Wind energy is called renewable energy, that is, the resource that can be renewed in a short time.
Discuss with students about other renewable energy sources known to them.
Working in teams, students write down renewable energy sources and their possible use. How can you investigate them? Ideas written by students will provide driving questions for project based learning.