

Sky's The Limit

Grade

2

Topic: Energy
Grade: 2
Duration: 30 – 45 minutes

Students will create kites from recycled materials to harness the power of the wind.

Curriculum Expectations

- 2s49: Demonstrate an understanding of the movement of air and of water as sources of energy
- 2s50: Design and construct devices that are propelled by moving air or moving water
- 2s53: Recognize that it is the movement of air and water that produces energy and that air and water are not by themselves sources of energy
- 2s55: Design and construct a device propelled by air
- 2s57: Ask questions about and identify needs and problems related to the use of wind and moving water as energy sources, and explore possible answers and solutions
- 2s58: Plan investigations to answer some of these questions or solve some of these problems, and describe the steps involved
- 2s59: Use appropriate vocabulary in describing their investigations, explorations, and observations
- 2s60: Record relevant observations, findings, and measurements, using written language, pictures, and charts
- 2s62: Identify devices that use moving air and moving water as energy sources, and describe what happens to these devices when the air or water is still
- 2s63: List activities that are affected by moving water and wind
- 2a28: Produce two- and three-dimensional works of art that communicate ideas (thoughts, feelings, experiences) for specific purposes and to familiar audiences

Background Information

Weight and wind strength are the two factors you need to deal with when using recycled materials to make kites. Remember to make the wind work for you - not you work for the wind. Watch areas for hydro wires and potholes in the ground. Having a kite first aid kit out in the field will help keep the airtime high.

Accountability

Students will be able to use the wind to their advantage. Students will become more aware of what can be done to harness wind energy and create a flying renewable energy catcher.

Teacher Notes

1. Materials: plastic bags, Styrofoam meat trays, newspapers, old thread on spools, old balls of yarn, tape, scissors, markers, kite examples either bought, borrowed or made.
2. Talk to students about harnessing the power of the wind to show how it creates energy.
3. Present them with a challenge: create a kite shape that will fly in the schoolyard.

4. Provide paper and pencils for students to create a plan. Discuss weight and strength issues associated with kite creation.
5. Show examples of kites (store-bought or hand made).
6. Allow students time to create and decorate their flying energy catchers.
7. Before going outside for test trials and fine tuning, discuss safety issues (no running, no dragging kites on the ground, watch for trees and hydro wires, etc.).
8. Go fly a kite.

Home Extension

Take home flying creations and try to find the wind tunnel near home. Parents can witness the flight and document its success. Parents should also document the safety choices of where the student decided to fly their kite. (For example, not near a road, not near hydro wires, not running, etc.)

Lesson Comments

Where did your students find the wind?

Which kite looked like it should have flown but didn't?

What creative solutions did the students come up with to get it to fly?