**Lesson Plan**

**Wind Energy**

**IN THIS CLASSROOM, THE STUDENTS ARE INTENDED TO LEARN THE FOLLOWING:**

|  |  |  |
| --- | --- | --- |
| 1. | Produce electricity by friction between objects. |  |
| 2. | Produce electricity using a wind generator. |  |
| 3. | Conduct simple experiments with lamps, wires and other conductive and non-conductive materials using the wind generator. |  |
| 4. | Build simple electrical circuits. |  |

**The activity consists of using wind direction and speed data collected from the weather station as a starting point for the possibility of using wind energy in the production of electricity. This will be implemented by the students of the PIC in a class of the 4th grade (1ºC), using a methodology of laboratory work; simple circuits (lamp, switch, wiring and wind generator) will be built to test the influence of wind speed on the production of electricity.**

**Esta atividade enquadra-se nas Metas Curriculares do (4ºAno)**

**ACTIVITY / EXPERIENCE: PERFORMING EXPERIENCES WITH ELECTRICITY**

• Produce electricity by friction between objects.

• Perform simple experiments with batteries, lamps, wires and other conductive and non-conductive materials,

• Build simple electrical circuits.

**Materials Required:**

- Connection wires

- Switches

- Lamps

- Wind generator (built by PIC students)

- Anemometer (built by PIC students)

**Metodologia:**

**Part I:**

The activity will be developed in a 4th grade class by the students of the PIC, in the form of laboratory activity: the students of the 4th year will assemble a simple electric circuit (lamp, switch, wiring and wind generator) and test the influence of wind speed (measured in anemometer) in the production of electric energy. Afterwards, the data obtained by the meteorological station will be analyzed and the best days for the production of electric energy will be selected.

**Part II: Data collection**

During the activity

**Part III: Analysis of results**

During the activity