**ERASMUS + activity form**

**The title of the action: STATIC ELECTRICITY**

**A brief description of the action:** In the activity the children will learn about the static electricity and will make some experience. They will learn that by rubbing different materials they can make a positive charge of static electricity – some materials are better than the other materials.

**Through the activities of the release time: 05. 10.17**

**Group**: Naerulinnud **The age of the children**: 4-5a, work in two of the group.

**The teachers**: Meeli Lugus, Hege Mardiste

**Objectives**:

Child will examine the materials/differences.

The child examines and uses adjectives that describe the materials.

Quote: Patience leads to the goal.

**Tools**: For each child a plastic rulers, a piece of paper for rip in half, a balloon, a patch of woolly, small rolls of paper (with a diameter of about 2 cm), disposable plastic bags Recycle Bin, which is the cut in the 2-3 cm wide strips (for making plastic rings), shelf or a book.

**The action of the gear:** You will definitely have had an experienced in taking off a sweater, it squeaks, may get the spunk and hair are attached to it. () it is static electricity. This may occur for each of the object, but it depends on how easily one or another material that takes over. For example, the woolly material frictional electricity takes the weight more easily than if the cotton material. Today we make with you a variety of experiments with static electricity.

First of all, one as an example of the teacher shows the attempts. He touches the balloon one of the child's hair (nothing happens). Then he rubs the balloons with a woolly material and shows what happened to the hair of the child. ()

Next, kids will make the tests:

Tools: a balloon, wool flannel, a piece of paper

1. Tear the paper 6-7 small paper pieces, the smaller the pieces of paper is, the more easily they remain attached to the balloon. Rub the balloon on the cloth, the more and better you will rub the more sure it is that the balloon is charged with static electricity and the experiment will succeed.

Tools: a balloon, wool flannel, a book, or a shelf.

2. Lift up the book and try to stick a balloon to it, whether the balloon remains attached to hang or not? Rub the balloon with the woolly flannel. Try again to stick a balloon to the book, who managed to rub the balloon enough will make succeed the experiment.

Tools: a plastic ruler, pieces of paper, wool flannel.

3. Rub a ruler with the woolly flannel. If the ruler is loaded with static electricity, place it close to the pieces of paper and see what happens? Pieces of paper will start to fall, and attached to the ruler down and jump back on again, like begin as a dance.

Tools: a plastic ruler, paper, small rolls of paper (with a diameter of about 2 cm), woolly fannel.

4. Rub the ruler and try to move the ruler above the paper roll, so that paper roll would start to move on. For this test to succeed, it is particularly important that the paper roll would be small and light, and a ruler fully rubbed .

Tools: a balloon, woolly flannel, disposable plastic bags Recycle Bin, which is the cut in the 2-3 cm wide stripes (rings).

5. In this experience you need a help of a friend. Friend rubs the cloth to the balloon and the other rubs the strip of plastic bag with the woolly rug. Both object shall be granted the same charge of positive static electricity. Now you can take the strip of plastic bag and but it above balloon. The plastic strip should start hovering above the balloon.

**The sources of the**: <http://opik.fyysika.ee/index.php/book/section/3046>