# **Tissue Parachutes**

Summary

Students create their own parachutes to understand the concept of gravity and the effect it has on objects.

#### Group Size

Small Groups

#### Materials

Tissue paper String Clear tape Small fan Mini chocolate bars 3x5 cards Additional Resources Books *The Dragon Kite*, by Nancy Lueen; ISBN-10:0152241973 *Wilbur and Orville Wright: The Flight to Adventure*, by Louis Sabin; Publisher; Mahwah, New Jersey: Troll Associates, 1983

# Background for Teachers

We have demonstrated that gravity is an extremely strong force with the use of muscles to fight gravity and dropping the rock and other items into the sand box. There are ways that the effect of that force can temporarily be reduced. Jets and prop-planes do make it into the atmosphere. Bubbles, seeds, pollen, dust and people can float for short periods of time.

# Intended Learning Outcomes

1. Science process and thinking skills.

3. Understand science concepts and principles

# Instructional Procedures

#### Invitation to Learn

The parachutes are simple to make and demonstrate the effect of gravity (pull) against the push of air. This exercise is extended by the use of a small fan which will increase the push or force of the air. Instructional Procedures

Tape a piece of string to each corner of two parachutes.

Gather all four of the strings on each parachute and tape, along with a candy bar, all four ends together.

The piece of tissue paper can be folded into quarters, so that a peak at the center of the tissue paper can be held for release.

The parachutes can also be folded into quarters again and tossed into the air.

Notes:

If the tissue squares are precut it will save time and frustration as the tissue is quite frail and it may be frustrating to those individuals who have small motor coordination difficulties.

The pieces of string (100 percent cotton crochet thread is strong, light and inexpensive) were cut by a small group of children.

The properly measured pieces (4) were taped to different places on a table. The children measured, cut and sorted the groups, using the string templates.

The Science Pocket Folder has enough pockets that the items used in these experiments can be kept in the pocket folder as well.

#### Extensions

Curriculum Extensions/Adaptations/ Integration

Find out why and how birds fly and glide.

List adaptations for learners with special needs.

Include ideas for integration for other curricular areas (use appropriate subject area headings).

Family Connections

Fly a kite!

#### Assessment Plan

After the experiments, the 3x5 cards will be completed and placed in the Science Pocket Folder, the following questions can be used as a guideline.

Which parachute will come/came down first? Why?

What happens when the force of wind (fan) is added to the activity?

Does it change what happens to the parachutes? Why?

# Bibliography

**Research Basis** 

Bulloch, K. L. (2004). *The Mystery of Modifying: Creative Solutions*. Education Service Center We need to modify instruction to suit different children and their differing learning styles. This article is "how to..." It lists the learning difficulty and provides suggestions of what to do before the lesson and during the lesson. There are many, many suggestions offered. If one does not work there are others to try.

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