

BEAT THAT GRAVITY?

PURPOSE: Children will discover that it is impossible to beat the force of gravity.

MATERIALS:

Book Topics: force, gravity, motion

Balloons

Large sheet of paper

Watch with second hand or stopwatch

**PROCEDURE:**

1. Inflate the balloons. Tie them off.
2. Record the members of the family on the large sheet of paper.
3. Explain the following rules:
 - You must clasp your hands behind your back
 - You may not kick the balloon or use your feet.
 - You may use any other part of your body to keep the balloon off the ground.
4. Have each person predict how long they can keep the balloon off the ground. Record the predictions.
5. Select one person to be the timekeeper.
6. Have one member of the family hold the balloon six inches above the first contestant's head.
7. Releases the balloon. Start the timer.
8. Record the results. Compare with predictions.
9. Repeat this procedure for each family member.
10. Create new challenging rules and repeat the equipment.

HOW IT WORKS: Gravity is a relentless force that effects everything on Earth. It is a continuous force that pulls everything down. Airplanes, rockets, hot air balloons all defy the force of gravity for a period of time.

**WRITING PROMPT**

You just did an experiment with a balloon.

Imagine that you are that balloon. What does it feel like to be blown up?

What does it feel like to be tossed around? Write about your feelings.

Parent Signature: _____

**FAMILY SCIENCE PROJECT**

Date: _____

Name: _____

Teacher: _____

Hypothesis (What do you think will happen?)

Date/Observation:

Conclusion: (What you learned or discovered):

*(*You may continue your observation on another sheet. You may want to create a graph to record your data.)*

For the reading portion of Family Science, you may choose to read a book or an article, **OR** you may use the Internet in order to find some background information concerning this Family Science Project. If you read a book or an article, please include the complete title and author. If instead you looked up the information on the Internet, please include the complete website.

We read the following book, **OR** researched the information on the Internet:

Book Title: _____ Author: _____

Complete Website: _____

Writing Prompt (minimum 3 sentences)
