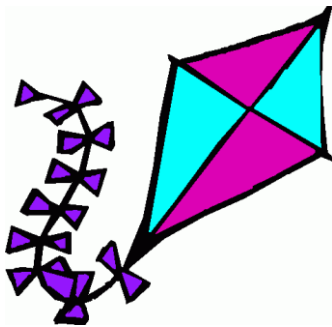




Kites

Kites fly way up high climbing in the sky,
breeze is dropping kites are flopping,
Down onto the ground, up down, up, down.

Ping Pong Experiment

You will need

- A ping pong ball
- A hair dryer

What to do

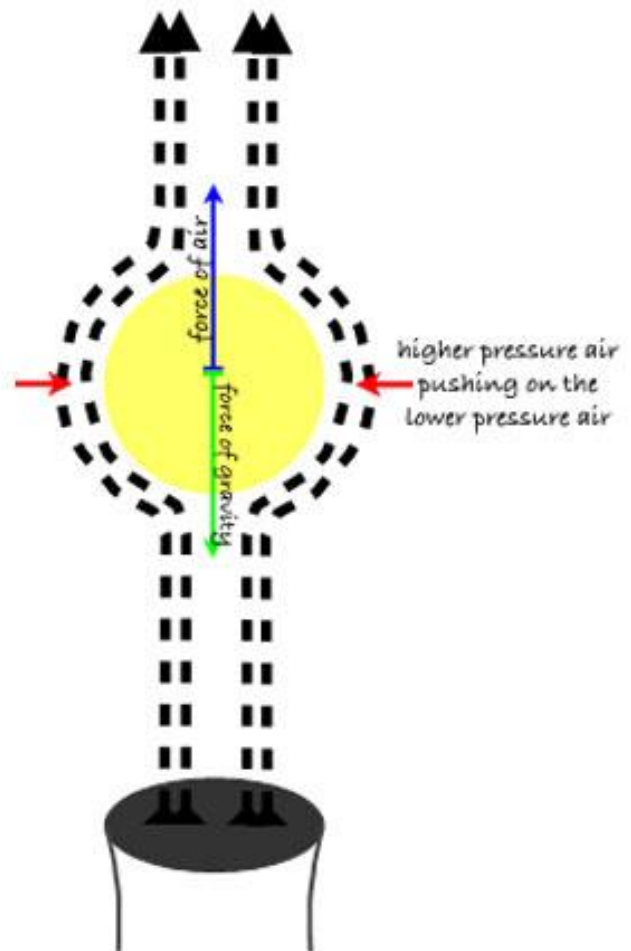
1. Set the hair dryer to cool, switch it on and point it at the ceiling.
2. Carefully put the ping pong ball in the stream of air, hold the hair dryer very steady and watch the ball float in the stream of air.
3. Carefully move the hair dryer from left to right and watch how the ball moves as well.
4. Try floating other light-weight objects in the air stream (e.g. paper).

How does it work?

The floating ping pong ball is an example of Bernoulli's principle: it will fly up with the air from the hair dryer until it reaches a point of balance – this is where the force of gravity (which pushes the ping pong ball down) is equal to the force of the air (which is pushing the ping pong ball up). The ping pong ball stays within the column of air coming from the hair dryer because of air pressure. The air coming from the hair dryer is moving faster than the air around it, and this means that it also has a lower air pressure than the air around it. Therefore, the ball is kept within the column of lower air pressure because of the higher-pressure air surrounding it (see the diagram below).

Explanation Simplified

When you put the ping pong ball into the air dryer's air flow, gravity wants to bring it down. So what keeps it up? The wind, as the wind creates lift. Lift is what happens when the wind pushes against something with more force than gravity, and carries it upwards.



Kites Around the World Website

<http://globalkites.wikispaces.com/>

The website shares chn's experiences of kite building. You have the option of joining this wiki, adding photographs and recounting the chn's work. As this is on the internet, ensure you get the necessary permissions from parents before uploading any photographs or films.

If you do wish to join this wiki during the kite-making process, take photographs. After chn have finished making the kites, film them flying their kites and add the film to the wiki.

Other ideas

1. Add kite poems to the page (See below for an example of a poem to adapt)
2. Show the wiki in a school assembly
3. Contact and correspond with a school on the other side of the world!

Example of a poem to adapt

*Up in the air
See the kites fly
Like...
Looking down...*

Ask chn to think of similes that would describe the flight of the kite, e.g. 'Like... an eagle soaring to great heights'. Chn could then imagine things they could see from up in the air, e.g. 'Looking down... watching chn playing in the playground'.

To Join the Wiki

If you are interested in joining in with this project, go to the website and create a Wikispaces account. Then click "Join This Wiki" in the top bar of the website and request your membership.

Kite Building

Preparation

- If possible, show chn some shop-bought kites. Look at their designs and what materials were used to make them.
- Choose a kite to build, based on the age and ability of your chn. The websites below provide step-by-step guides to making simple kites, once you have chosen which design you prefer.

My Best Kite website has photographs and simple instructions to make diamond-shaped kites:

<http://www.my-best-kite.com/kite-for-kids.html>

The American Kite Fliers Association website has a lot of practical information about how to organise making kites in a class setting. It has many kite designs to choose from – we recommend the simplest design, ‘The Bumble Bee’, which is made out of folded paper:

<http://aka.kite.org/docs/Manuals/kitc.pdf>

- Once you have chosen your kite design, gather all the materials you need. For more detailed information on materials, look at the ‘Materials’ chapter on **The American Kite Fliers Association** website.

Making the Kite

- Go through the kite-building process step by step, using the photographs and diagrams provided on the websites and ensuring all chn understand the process.
- When all chn understand, go back to Step 1. Move on to Step 2 (and further steps) only once all chn have completed it.
- Ensure chn write their names on their kites.

Safety

Talk to chn about how to fly a kite safely. For detailed information, see the ‘Safety’ chapter on **The American Kite Fliers Association** website.