

# INSPIRACE



plavaly o polední pauze před budovou, kde se jednalo

# pokusy

existují návody na pokusy  
(např. Hiša eksperimentov)

# fosill-expert

děti si očistí svého amonita  
z pískovce pomocí dřívka;  
změří si ho a zapíše do  
„brožurky malého vědce“

## FRONTLINE

Where teachers share ideas and teaching solutions with the wider physics teaching community; contact [ped@iop.org](mailto:ped@iop.org)

## TEACHING PHYSICS WITH FOOD AND DRINK



Making sweet, static electricity: (above) charging with sugar and discharging; the equipment (bottom).

## You can make sweet electricity in your kitchen



Static electricity is everywhere, so it must be in my kitchen. It took me some time, but finally I found it – and plenty of it, as you'll see.

For this demonstration you will need:

- a plastic plate;
- a metal can;
- aluminium foil;
- a 1 litre plastic bottle;
- some sugar;
- a Pyrex beaker;
- an enamel-coated metal pan with a plastic handle.

Take a clean, dry metal can and put it on a plastic plate, which has been placed upside-down on a table. Cut some strips of aluminium foil and hang them round the rim of the can. Cut a 1 litre plastic bottle in half – you will use the upper part as a funnel and the lower part as a container for sugar.

Put about 150g of sugar into the bottom part of

the bottle and pour it through the funnel into the can. The aluminium strips should rise outwards, indicating that the can has become charged (as with a school electroscopes). Touch the can and the strips will go back down again. You may hear a spark and feel a small shock, depending on the weather outside and the humidity in your kitchen.

Empty the can and this time pour the sugar from an enamel-coated pan with a plastic handle directly into the can. The foil strips will rise again, possibly even higher this time.

What happened? The can is insulated from the table by the plate, so charge enters the can with the sugar. When the sugar moves against the funnel walls, it takes charge from the walls or charge is removed from the sugar by the wall. Precisely what happens depends on the combination of materials involved (sugar and plastic or enamel, in this case).

This phenomenon is known as triboelectric charge-

## vědci x lidé

lidé neznají vědce a nemají rádi suché přednášky

? jak zorganizovat kontakt ?

- vědecký bar – v baru si můžete promluvit s vědcem bez bariér
- přístroj na geny (Praha, 2004) – fiktivní rozhovor „genetika“ a „novináře“; nejprve překvapivě rychlá, snadná analýza novinářovi kapky krve, pak příjemné ale i nepříjemné informace
- exkurze veřejnosti do vědeckých institucí, kde jsou „ukazováni“ vědci (Holandsko, SC)

## dobrovolníci v muzeích

- dobrovolníci podle tématu výstavy,  
např. ve výstavě o lidském těle zdravotník/-ce,  
ve výstavě o kriminalitě policista
- dobrovolníci – mladí lidé  
plní energie a elánu, možnost využít univerzitních  
studentů (kteří se tak na druhou stranu učí učit)

# formulář pro **hodnocení výstav** = reakcí návštěvníků ve výstavě,

- např. velikost návštěv. skupin
- ženy / muži
- čtení si popisek
- hovor s další osobou nad výstavou
- projevují se pozitivní, negativní emoce

Date:	Evaluator:				
Exhibit name:					
Gender: M/F					
Age: D/C/DIA/A*/M*					
Group: F/S					
Reading the introduction 					
Directing someone else's attention onto the exhibit 					
Talking to someone about the exhibit 					
Physically interacting with the exhibit (controlled manner) 					
Physically interacting with the exhibit (noisy manner) 					
Physically interacting with the exhibit (destructive manner) 					
Multiple interaction with the exhibit 					
Helping someone else operate the exhibit 					
Asking someone else how to use the exhibit 					
Using the exhibit to "play" with other 					
Displaying positive emotion in response to the exhibit 					
Displaying negative emotion in response to the exhibit 					
Displaying misunderstanding of the exhibit 					
Time					

Age: under-6 year D/ 7-11 children C / 12-18 teenager T / 19 plus A (A\* teacher AF family member all)  
 Group: family -group F/ scholar -group S

časopis  
komunikace,  
techniky,  
„věda“ / široká  
veřejnost



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ISSN 1824-2049

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## issue 03, september 2006

### editorial

#### The world, out there

Pietro Greco

The Royal Society published in late June a report entitled «Science Communication. Survey of factors affecting science communication by scientists and engineers». It is an in-depth survey on the communication addressed to non-specialist audiences that was carried out interviewing a wide and representative sample of UK scientists and engineers.

### article

#### Through which medium should science information professionals communicate with the public: television or the internet?

Cees M. Koolstra, Mark J.W. Bos, Ivar E. Vermeulen

Science information professionals need to make choices through which media they want to communicate with the public. In reaching large audiences outside the domain of formal diffusion of knowledge, the choice may be between the old medium television and the new medium Internet. It seems that general scientific research is focused more and more on the Internet as a favorite means for information exchange and that the old mass medium television plays only a minor role. But when we look at (1) how the public spends their leisure time on television and the Internet, (2) how effective these media are in transferring information, and (3) how much these media are trusted as reliable sources of information, the old medium television should still be regarded as the number one medium to be used for science communication, although there are some limitations for its use.

### article

#### The germs of terror - Bioterrorism and science communication after September 11

Maria Chiara Montani

**WWW**

**[www.dotik.eu](http://www.dotik.eu)**

[www.immaginarioscientifico.it/ita/index\\_e.htm](http://www.immaginarioscientifico.it/ita/index_e.htm)

[www.at-bristol.org.uk/](http://www.at-bristol.org.uk/)

[www.h-e.si/](http://www.h-e.si/)

[ec.europa.eu/research/science-society/action-plan/action-plan\\_en.html](http://ec.europa.eu/research/science-society/action-plan/action-plan_en.html)

[www.playdecide.org](http://www.playdecide.org)

[www.orna-co.com](http://www.orna-co.com)

[www.uwe.ac.uk/fas/graphicscience/](http://www.uwe.ac.uk/fas/graphicscience/)

[www.bubblesmith.com](http://www.bubblesmith.com)



Dotik Training School  
August 28 - September 2  
2006 Trieste, Italy

**Tipovali jste na začátku, co znamená DOTIK?**

**dotik (slovensky) = dotyk (česky)**

děkuji za pozornost

