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Chief Scientific Adviser for Scotland

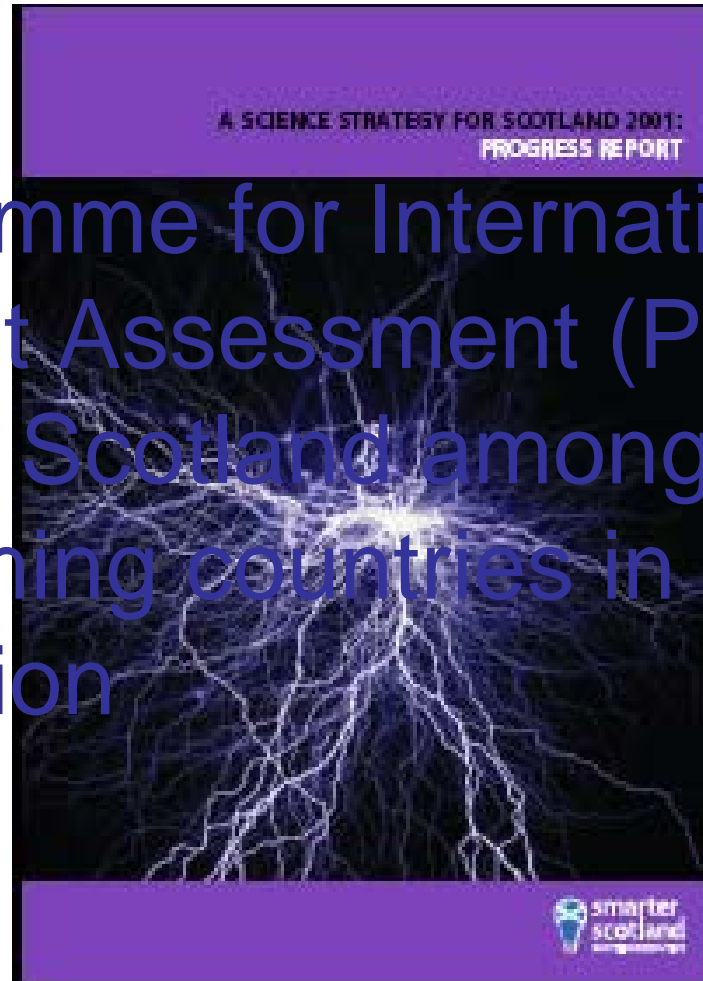
Science education – are we losing the plot?

# Chief Scientific Adviser

- Raise profile of science in government
- Advising Ministers on science issues
- Ensure best scientific evidence used in policy making
- Strengthen the science base
- Promote science careers
- Public engagement with science

# Science strategy

Programme for International Student Assessment (PISA) 2003 – Scotland amongst top performing countries in science education



# Scottish Science Centres Network



Pictures supplied by the Science Centres

# What is education?

- knowledge developed by a learning process
- an enlightening experience
- what do we want the outcome of education to be?

# Our starting point

- children - naturally inquisitive, always asking **why, how, where, what?**
- what is science? - **the observation, identification, description, experimental investigation, and theoretical explanation of phenomena**

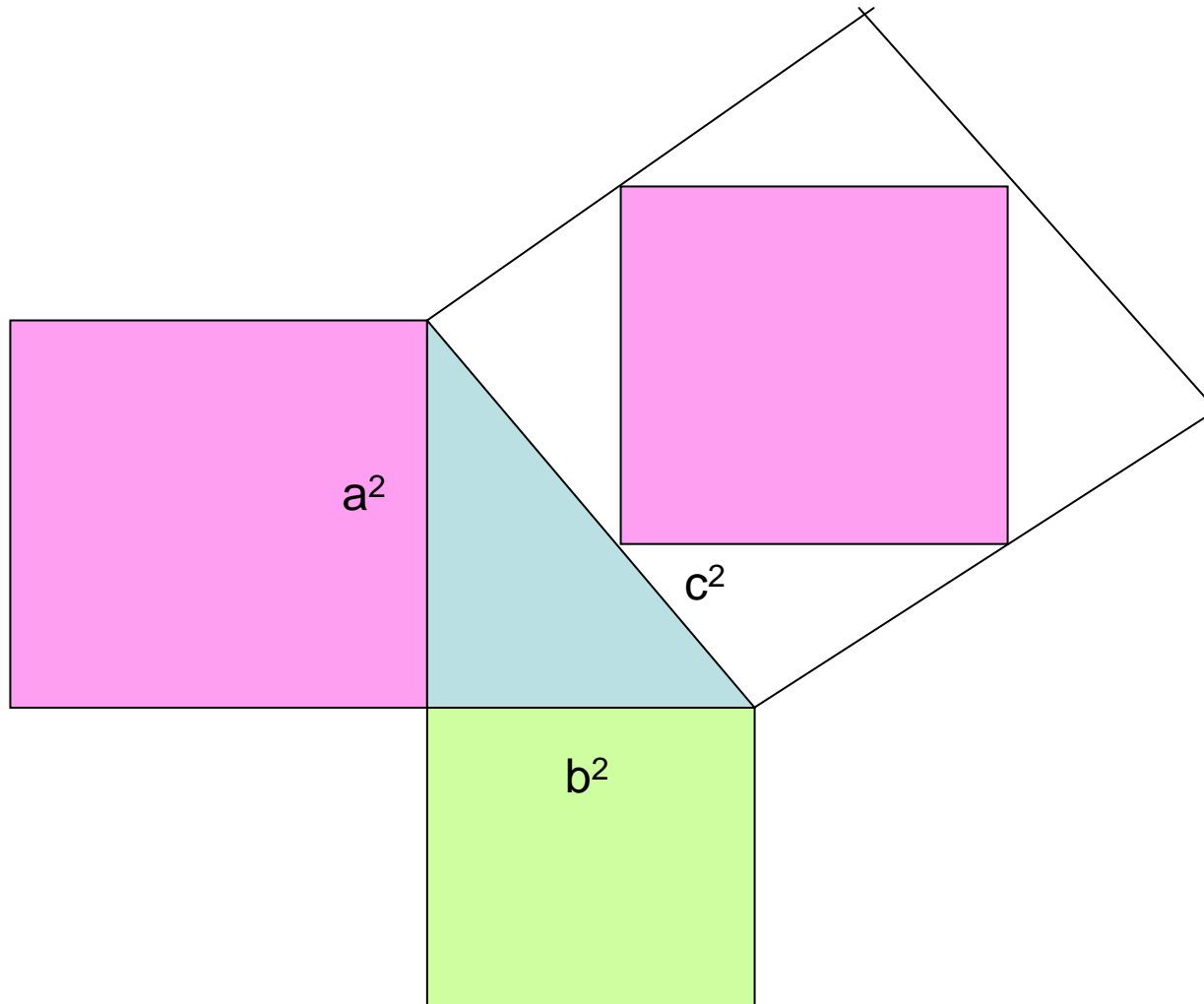




Learning by  
*doing*

Picture – The Guardian

# Practical application



Pythagoras's theorem:  $a^2 + b^2 = c^2$



# Science Highers 2001-06

<b><u>Subject</u></b>		<b>2001 **</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Chemistry</b>		9,903	9,560	9,292	9,271	9,411	9,128
<b>Biology</b>		9,309	9,274	8,920	8,852	8,943	8,995
<b>Human Biology</b>		2,837	3,111	3,296	3,452	3,609	3,720
<b>Physics</b>		10,015	9,580	9,489	9,286	8,952	8,565
<b>English</b>		*	28,910	29,624	28,873	28,707	27,004
<b>Mathematics</b>		20,730	19,790	19,966	19,394	19,181	18,533

\* Course revised and figures cannot be compared

\*\* 2001 was the last widespread SCYS examinations

# Why is science education important?

- Our future economy will depend upon well trained scientists
- The public should be active in the debate on the use of future technologies
- The challenges we have to face will require input from science, engineering and technology

# Science and Innovation – your input

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- Edinburgh EH1 3DG
- Telephone: 0131-244 2192
- [www.scotland.gov.uk/science](http://www.scotland.gov.uk/science)

