A slice of science...

‘Female role models encourage girls to do science’

SUSSEX is one of two counties chosen to pilot a project to encourage more girls to study subjects such as science and maths.

Schools in Sussex and Somerset are being encouraged to sign up to the Opening Doors project, which has been jointly launched by the Institute of Physics (IoP) and the Government Equalities Office to “stamp out gender bias in schools”.

According to the IoP’s president Frances Saunders, A-level physics is the second most popular subject for boys but 18th for girls.

Launching the scheme, Women and Equalities Minister Jenny Willott said: “This is a very exciting project that will shed a light on how teachers and schools can improve the rate of girls taking up science and maths.

Stereotypes

“Gender stereotypes have stopped girls and women pursuing careers in fields such as engineering, scientific research and manufacturing.

“We want to stamp that out and make sure that no student is ever put off pursuing a passion because of society’s prejudices about certain careers.”

Sussex was selected to pilot the scheme following an IoP report, Closing Doors, that showed the county is “well below average” in the uptake by girls of “boy” subjects such as physics, maths and economics at A-level compared to “girl” subjects such as biology, English and psychology.

Professor Peter Main, of the IoP, said: “Sussex is far from the best in terms of countering the effects of gender stereotyping.

“Research shows that boys and girls think maths and science are interesting and vital for society and that this interest more or less survives as they get older.

“What changes is their identification of these subjects as something they would like to do; for whatever reason, they do not see themselves doing those subjects.

“There is evidence that girls who see themselves as more conventionally feminine tend to drift away from science as they progress through school, even though they are often perfectly able to do the subject.

“It is physics where the main issue lies and physics is a real gateway subject to all sorts of occupations, so the small number of girls is a real issue for the country.

“In addition, with physics popularly perceived as a “difficult” subject, girls often lack confidence in their ability to cope, even though, in fact, they outperform the boys in A-level physics.

“The quality of physics teaching has a larger effect on girls than on boys and we also know from our reports that the type of school a girl attends affects her likelihood of choosing physics as one of her A-levels by as much as a factor of four.”

Professor Louise Serpell, professor of biochemistry at the University of Sussex, who is involved in a scheme to support female scientists, has noted a gender imbalance in physics and engineering at undergraduate level and has signed up to go into schools to talk to girls about working in science.

She said: “I think that showing female role models is one way to encourage girls to feel they can do science if they want to.

“Girls need to be encouraged at an early age to have an interest in science.

“At primary school level, it should be clear to girls that they are just as good as boys at maths and science and have the same potential, as they clearly do.

“I think there is a general perception that girls don’t ‘like’ science or maths. I don’t think that this is actually the case at all.”

Role models for girls are important, according to Dr Kathy Romer, Reader in Astrophysics at the University of Sussex.

Inspiring

She said: “When I started a physics A-level in 1985, there were two girls in a class of 30.

“We knew we were unusual, but that didn’t limit our aspirations because our teacher was female.

“It didn’t occur to us, or the boys in the class, that girls didn’t study physics at university, because our teacher had.

“Inspiring teaching and solid careers advice are also vital. I was sure I was going into medicine when I started my A-levels but my teacher got me hooked on physics.

“That wasn’t because she was a woman, but because she was an excellent teacher.

“The Opening Doors project involves teachers visiting each other’s schools to investigate how the school is succeeding or failing to counter gender stereotyping, reporting after each visit.

The reports will eventually form the basis for a code of good practice.

To find out more about Opening Doors,

Welcome to Women Actually, the bit in The Argus every week that’s devoted entirely to women.

It’s packed with news, features, blogs, fashion and beauty.

This week, we’re talking about how to get girls interested in studying subjects such as physics and maths to university level and why the Institute of Physics has chosen Sussex as one of two counties to pilot a new scheme. Inside, drool over the gorgeous pictures of dogs taken by Brighton photographer Sophie Sheinwald in her quest to find out why she should get one, find out how Deqa Warsame got her style and read about the mother and businesswoman who has designed pyjamas for eczema sufferers from bamboo. Finally, catch up with our regular mum blogger Anna Jefferson and her quirky take on motherhood. Enjoy!
Left, Dr Louise Serpell, and right, Kathy Romer  PICTURES: UNIVERSITY OF SUSSEX

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