

# Mind the STEM Gap at school



MIND THE STEM GAP IS A PARTICIPATORY PROJECT, AND IT NEEDS YOU!

## 1 Language

Educators can do a great deal in the classroom, by choosing inclusive words that make the female presence visible (in many languages, such as Italian, the masculine form is not neutral). They can underline the discrimination and stereotypes hidden in proverbs and traditional expressions, which may also appear in textbooks: “Daddy works and reads”, “Mummy cooks and irons”.

## 2 Stereotypes are powerful cultural constructs

They are transmitted from generation to generation and work at an unconscious level. This is why schoolchildren should be helped to recognise, discuss and discard them.

## 3 Develop critical thought

Building the ability to analyse the logical and empirical fundamentals of a statement combats the activation of stereotypes, one of which holds that boys are more able than girls in the study of maths and technology.

## 4 Promote heterogeneous work teams

Assigning roles on a rotating basis helps everyone build up self-confidence and belief in the group: leadership is based on competence, not gender.

## 5 Encourage girls to test their abilities

Logical and maths tests (through apps or digital games) help girls develop their self-esteem, their confidence about their abilities. It also re-establishes a balance, given that from a very young age boys are perceived as having greater competence than girls in maths and sciences.

## 6 The power of knowledge

Agronomist, chemist, immunologist, neuroscientist, geologist, marine biologist, aerospace engineer, computer programmer, naval architect: the scientific world offers many exciting professions, including some of the most in demand on the jobs market. By offering a broad range of careers and training paths, STEM helps girls imagine their professional future freely, without the constraints of conventions and stereotypes.

## 7 Enhance female models

A good approach is to promote involvement in the laboratories and experimental work of experts in the various STEM fields, and to give visibility to the lives and contributions of female scientists and researchers by rediscovering women innovators from the past who too often have been forgotten by the textbooks and learning about contemporary female professionals who are sometimes overlooked by the media.

## 8 Plan educational activities that help to bring out differences

And that give them value by focusing on the success of the group: competition but also discussion and cooperation.

## 9 Continuous training

Overcoming stereotypes and planning a more inclusive educational approach that introduces girls to science is a difficult task, on which discussions among the members of collegiate bodies is useful.

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Bridging the gender gap in STEM disciplines



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