

International Day of Women and Girls in Science

February 11 is International Day of Women and Girls in Science. We explore some of the reasons why there are fewer girls and women interested in working in science, technology, engineering and mathematics (STEM) and what's happening to encourage equality in these fields.

Before reading

Do the preparation task first. Then read the article and do the exercises.

Preparation task

Match the definitions (a–h) with the vocabulary (1–8).

Vocabulary

1. to discourage
2. to dominate
3. gender
4. a graduate
5. a minority
6. a researcher
7. to underestimate
8. discrimination

Definition

- a. to think that something is not as good as it actually is
- b. a group that is smaller than a larger group it is part of
- c. to be stronger or bigger in number
- d. treating people differently because of, for example, their age, sex or race
- e. to make someone not want to do something
- f. the social condition of being male or female
- g. someone who studies a subject carefully to discover new information
- h. a student who has completed a university course

International Day of Women and Girls in Science

In 2016, the UN declared 11 February as International Day of Women and Girls in Science. The main reason for this declaration was to encourage more girls and women to take up jobs in the fields of science, technology, engineering and mathematics (also known as the STEM subjects). Figures show that although there is no significant difference in ability between boys and girls in maths and science, less than 35 per cent of graduates in STEM subjects worldwide are women and there are even fewer in engineering and information technology.

Why is it important to involve more women and girls in science?

When one group of people dominates a field of study, whether it's an age group, a cultural group or a gender, there is danger of creating a narrow view of the subject. Including more women in male-dominated areas will bring in fresh points of view, new talent and creativity. It can also help increase women's social and financial position in some countries.

Why aren't more girls taking up careers in STEM subjects?

This is a difficult and complicated question. A number of answers have been suggested.

Early years

Some suggest that girls have less experience of activities and toys that encourage an interest in science. Others suggest that girls are more critical of their abilities and tend to underestimate themselves, so they might not think they're 'good enough' to study a STEM subject at university.

Making choices at school

Studies found that girls' test results in science subjects were as good as boys'. But since they often also do well in other subjects, girls have more choices when deciding what to study. This has an obvious influence on their future choice in jobs.

Entering the world of work

Another factor could be the fact that the thought of being one of a small minority on a university course, or in a job, may discourage girls from preparing for a career in research or engineering. There is a common fear that if you are in a minority, you will suffer discrimination and you will need to work much harder in order to succeed.

What can be done to encourage girls to take up science as a career?

There are a number of things that can be done to encourage girls to consider a career in science.

Early years

Parents and schools can introduce all children – boys and girls – to activities and toys that encourage them to build and make things and get them interested in exploring the world around them and how it works.

Making choices at school

A number of organisations send women scientists to talk to girls at school about their work. Some schools encourage older girls who are studying STEM subjects to talk to younger students in their schools about their passion for their subject. University and research facilities open their laboratories to schools so that the students can experience hands-on scientific research.

Entering the world of work

More and more workplaces and science departments are using mentor programmes to help and support women when they are working in a minority. Women in senior roles are often very keen to offer support to younger women entering their field.

Role models

Probably one of the most important things is to make sure that girls see plenty of examples of successful women scientists in the news and in the media.

If you want to find out more about women in science and this special day, look for #WomenInScience on social media.

Sources

<http://www.un.org/en/events/women-and-girls-in-science-day/>

<http://www.unwomen.org/en/news/in-focus/international-day-of-women-and-girls-in-science>

<https://www.theatlantic.com/science/archive/2018/02/the-more-gender-equality-the-fewer-women-in-stem/553592/>

Tasks

Task 1

Are the sentences true or false?

	Answer	
	True	False
1. International Day of Women and Girls in Science has been celebrated since 2015.	True	False
2. Research shows that boys and girls have the same ability in maths and science.	True	False
3. There are more women working in information technology than in other areas of science.	True	False
4. It's important to have a number of different views in scientific research.	True	False
5. Giving the same toys to boys and girls could encourage more girls to enter STEM fields.	True	False
6. Examples of successful women working in science are important to encourage girls to choose a career in science.	True	False

Task 2

Put the words in the correct order to make sentences.

- to take up jobs for this declaration The main reason was to encourage in STEM. more girls and women
- no significant difference Figures show that there is between boys and girls in maths and science. in ability
- increase women's social and financial position A career can help in STEM in some countries.
- a number of things to encourage girls There are that can be done in science. to consider a career
- to talk to younger students encourage older girls about their passion Some schools who are studying STEM subjects for their subject.
- in senior roles to offer support Women to younger women are often very keen entering their field.

Discussion

Can you think of any other possible solutions? Do you know of any famous women scientists from your country?

Answers

Preparation task

1. e
2. c
3. f
4. h
5. b
6. g
7. a
8. d

Task 1

1. False
2. True
3. False
4. True
5. True
6. True

Task 2

1. The main reason for this declaration was to encourage more girls and women to take up jobs in STEM.
2. Figures show that there is no significant difference in ability between boys and girls in maths and science.
3. A career in STEM can help increase women's social and financial position in some countries.
4. There are a number of things that can be done to encourage girls to consider a career in science.
5. Some schools encourage older girls who are studying STEM subjects to talk to younger students about their passion for their subject.
6. Women in senior roles are often very keen to offer support to younger women entering their field.