



United Nations  
MPTF Office

# BEING GENDER AWARE

WITH ARPI



#GirlsCanSTEM

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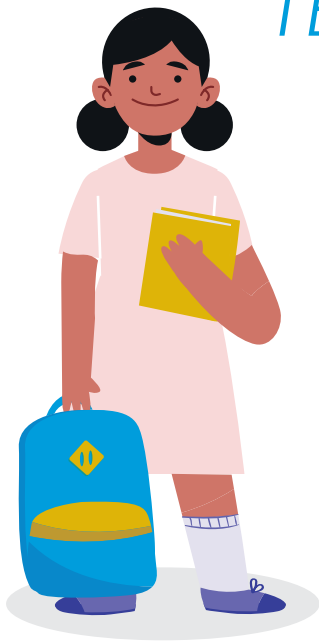
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MPTF Office**

*GENDER, SEX, BOYS, GIRLS,  
MEN, WOMEN,  
**GENDER STEREOTYPES,**  
*GENDER BIAS,*  
**GENDER ROLES,**  
GENDER AWARENESS,  
**EDUCATION,**  
***STEM FIELDS,*** SCIENCE,  
TECHNOLOGY, ENGINEERING,  
MATHEMATICS,  
MYTHS, FACTS*



# MEET ARPI

*Hello, this is Arpi.  
Let me tell you  
about myself!*

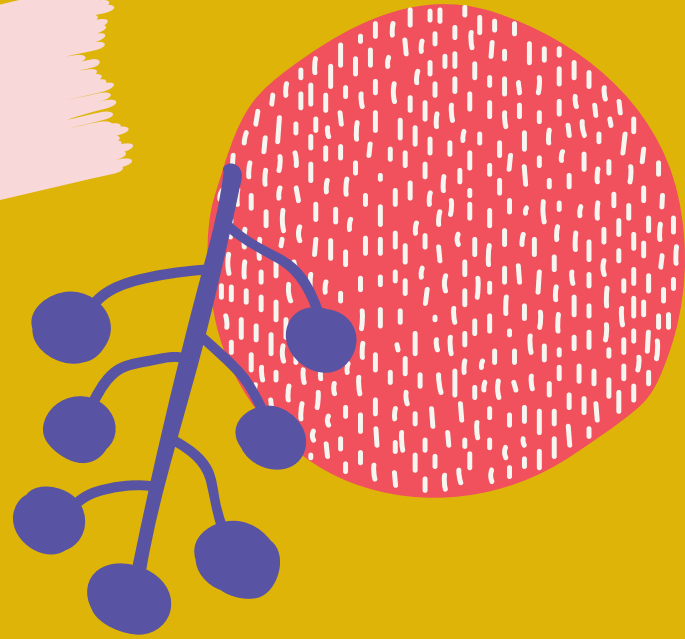
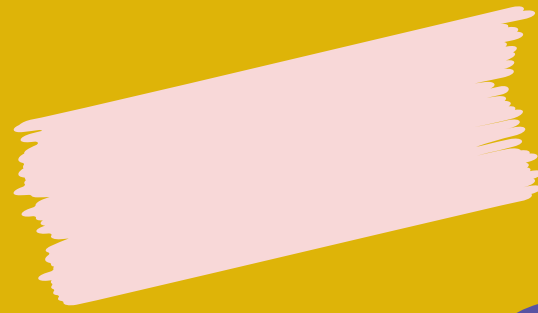
*I am 12 years old.  
My favourite food is Spas.  
My favourite colour is yellow.  
At school, math is my favourite subject  
although I used to be very bad at it.  
I love reading books and playing football  
with my friends.  
I also love keeping a journal. Today, I will  
be sharing some journal entries with you...*

*OK, let's start our journey!*

*To make things easy to follow, I have  
divided this journey into **three** modules.*

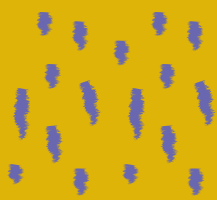
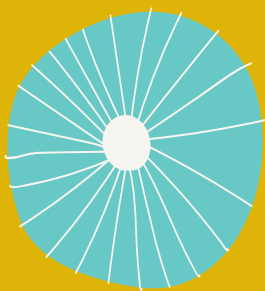
*Let's start with the first module!*





# 1. GENDER CONCEPTS

Gender and Gender Stereotypes with Arpi  
Gender Stereotypes and Education



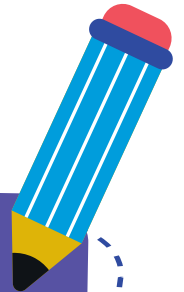
Below is an entry from my diary.  
It is important because it shows  
how **my gender awareness  
journey** started...



## Arpi's Diary



10/09/2021



Dear diary,

Today I was playing football with my friends, and somebody came and asked me why I was playing.

I did not understand their question. Then they said, "*why is a pretty girl like you playing football like a boy!*"

I was confused- I did not understand if they were saying something good or bad... But it made me feel uncomfortable.





## Activity 1 What do you think...

Choose the correct one



*Then they said, "why is a pretty girl like you playing football like a boy!"*

Do you think what they said to me was nice or not?

- A** They said something that is nice; they were complimenting you, Arpi.
- B** They said something that is not nice; Arpi, you have the right to play football.



*The next day at school, I talked to my math teacher...*

### Arpi's Diary

11/09/2021

Dear diary,

Today at school, I told my math teacher about what happened yesterday.

She told me that what the person said to me was gender stereotypical and was not nice at all. At first, that made me more confused- I did not know what "gender" or "stereotypical" meant.

She explained...





My teacher said, "To better understand what a **gender stereotype** is, you need to know what **gender** is"

## GENDER

"People are usually born either female or male. This is called their '**sex**'.

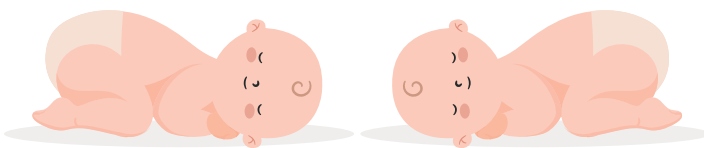
Based on our sex, our families and society start to teach us how to behave, based on the roles, attributes, and behaviours that are considered appropriate for women and men. This is about '**gender**'.

For instance, women can give birth; this is because of their sex. But if you say, "girls are gentle and boys are tough", then this is about gender, because it is not biological. It is a societal expectation."

### Activity 2 Gender vs. Sex



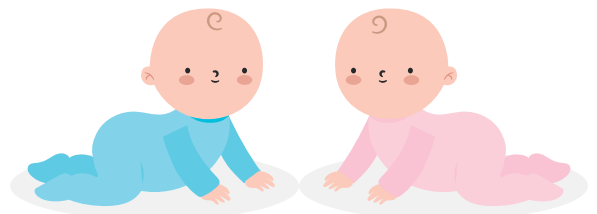
To help me better understand **gender**, my teacher showed me these pictures and asked questions. Can you answer these questions?



1. Can you guess the sex of these babies?

**A** Yes

**B** No



2. Can you guess the sex of these babies?

**A** Yes

**B** No



*I could only guess the sex of the babies in the second picture, because there was a baby in blue (a boy) and another in pink (a girl).*

*As soon as I answered the second question, my teacher said, "This is about gender. In many societies, the colour blue is considered appropriate for boys, and pink for girls. But this has nothing to do with biology."*

*Oh! I realised that we always buy blue baby rompers for boys and pink for girls. Even before babies are born, we decide for them which colours they should wear. How ridiculous! I think kids should be able to wear any colour, regardless of their sex.*



## **GENDER STEREOTYPES**

*"So, if you have a fixed belief about what girls and boys should like, or how they should behave, then that is a **gender stereotype.**"*

*My math teacher continued to ask me a few questions...*



## Activity 3 Gender Stereotype or Not?

1. **All** girls like pink.

- A** A gender stereotype
- B** Not a gender stereotype

2. **All** boys are tough and they do not cry.

- A** A gender stereotype
- B** Not a gender stereotype

3. **All** women are good cooks.

- A** A gender stereotype
- B** Not a gender stereotype

4. **All** boys love race cars and trucks.

- A** A gender stereotype
- B** Not a gender stereotype

5. **All** boys are good at science and technology.

- A** A gender stereotype
- B** Not a gender stereotype

6. **All** boys, unlike girls, like football.

- A** A gender stereotype
- B** Not a gender stereotype



*My math teacher told me that gender stereotypes are neither fair nor true because they put certain groups of people in a box and claim that they are all the same.*

*For example, I am a girl who loves to play football. So, it is wrong and unfair to say, "girls do not like, or should not play, football".*



*My math teacher also told me that gender stereotypes may be harmful, discriminatory, and limiting, especially for girls.*

*I did not quite understand this until our neighbours visited us a month later...*

*Here is my dairy entry from that day...  
Let's read it!*

## **Arpi's Diary**

**10/10/2021**

Dear diary,

Today our neighbours came to visit us. I have known them since I was very little. They have a daughter who is 5 years older than me.

While they were chatting with my parents, they asked me what I would like to become when I grow up and I replied: a software developer. They laughed and said: *"Honey, engineering is a job for boys not for girls. Our daughter wanted to become a data analyst but we convinced her to study social care instead. She was upset at first, but she will thank us later. You should do the same, otherwise you will regret your decision in the future when you have a family."*

I do not understand these people! Why should I not study engineering! Who said engineering is a job for boys only? This is ridiculous! I feel sorry for their daughter.



## Activity 4 Yes or No

1. My neighbours said, "Honey, engineering is a job for boys, not for girls." Is this a harmful and unfair gender stereotype?

**A** Yes

**B** No

2. Have my neighbours limited their daughter's educational choices and future opportunities?

**A** Yes

**B** No



*Later that night, a light bulb went off in my brain, and I finally understood what my math teacher was telling me!*  
**Gender stereotypes may be harmful, as they can limit girls' opportunities and potential!**

## GENDER STEREOTYPES AND EDUCATION

*This sudden realisation made me more eager to learn. I went to my room, and I researched all about gender stereotypes and education. I found this great video, let's watch it together!*

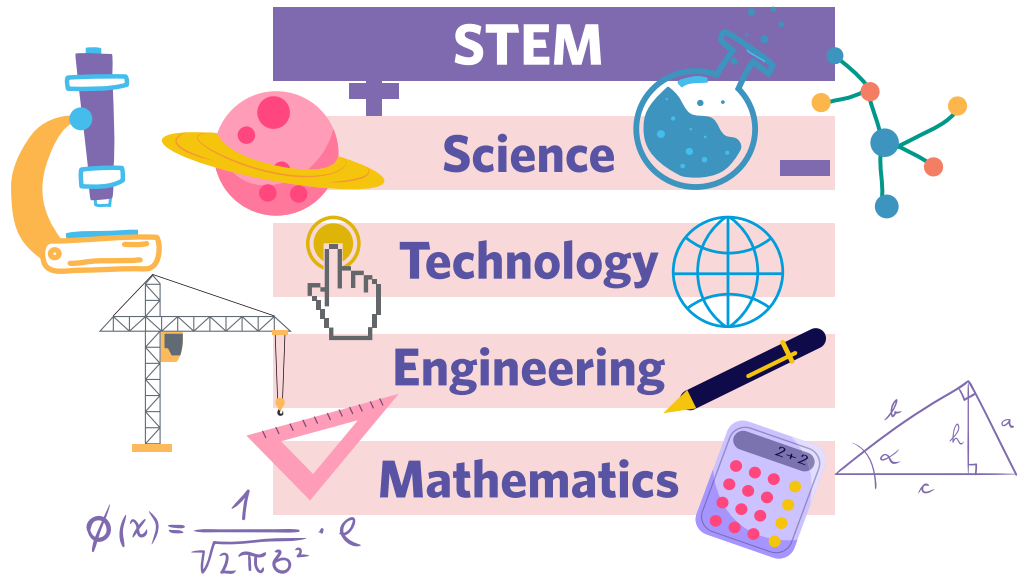


 **Lets Watch the video**

Video Resource: Gender Stereotypes and Education  
by European Institute for Gender Equality



# Activity 5 Gender Stereotypes and STEM

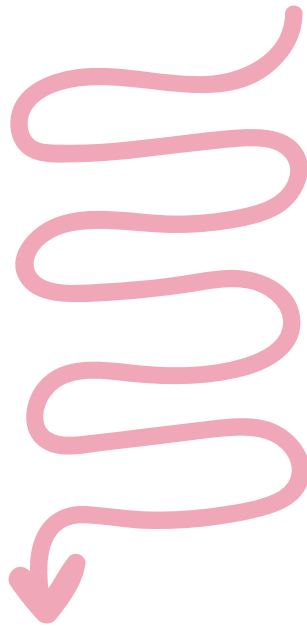


As girls, we grew up hearing that STEM fields are for boys.

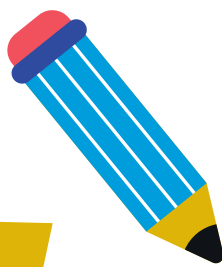


Girls might hear things like “STEM is only for boys or men” from their family, teachers, or friends. Because of this, girls might start to believe this stereotype is true, and might not choose to pursue STEM fields...





*If we can see the unfairness of this, we won't let gender stereotypes stop us! This is what I wrote in my diary later that night:*





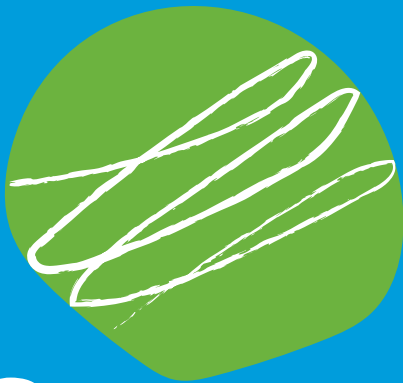
## **Arpi's Diary**

**10/10/2021**

My name is Arpi. I love football and I want to become a software developer.

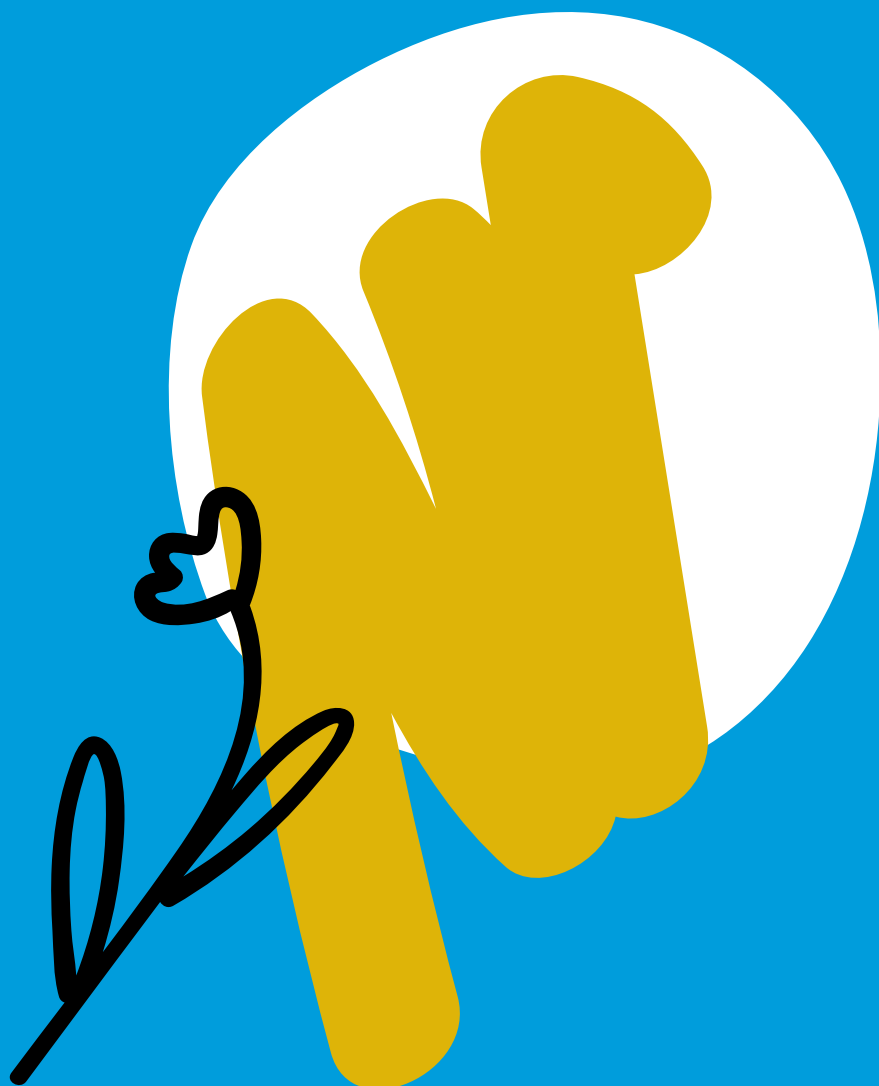
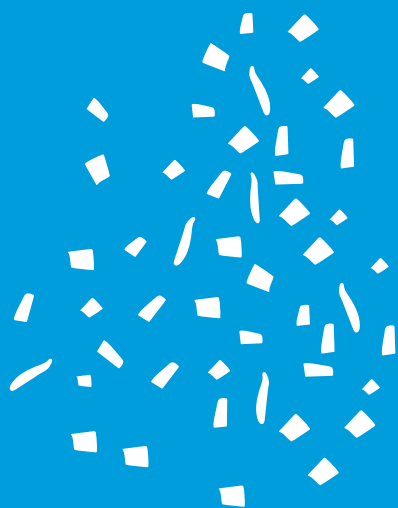
And gender stereotypes should NOT stop me from what I want to become!

Being a girl should NOT limit me and my dreams.



# 2. UNLOCKING GIRLS' POTENTIAL IN STEM FIELDS: #STEMUPYOURLIFE

Bust myths  
STEM skills  
STEM opportunities





## Activity 6 Have you ever heard people say...

1. Boys are better than girls at maths and science.

**A** Yes

**B** No

2. Girls are not as skilled as boys at computers and coding.

**A** Yes

**B** No

3. Women are not capable of working in STEM fields; that is why there are not many women working in these fields.

**A** Yes

**B** No

*If you answered YES to any of the questions, you should know that **you are not alone!***

*Most people still believe the myths surrounding gender stereotypes.*

*A myth, by the way, is a widely held idea that is false. Myths are there to be busted; busting myths is fun!*

*Shall we bust some of them together?:)*





**“Women and girls are not good at science or maths.  
Men and boys are naturally good at it.”**

**MYTH**

**FACT**

**MYTH BUSTED**

**FACT**



*I had heard this myth many times before, but my math teacher taught me that gender has nothing to do with how capable girls are in STEM fields.*

*I am here to spread this important message:*

***It is not a lack of ability but a lack of belief***

*that stops girls from engaging in STEM fields...*

*The good news is that I am not alone!*

*More and more girls have busted this myth.*

*Girls are increasingly engaging in STEM education around the world.*

*In Armenia, the female share of graduates from STEM programmes has increased from **32.8% in 2017 to 39.8%** in 2018. Yay!*

# "Girls interested in STEM are geeks."

MYTH

MYTH BUSTED

FACT

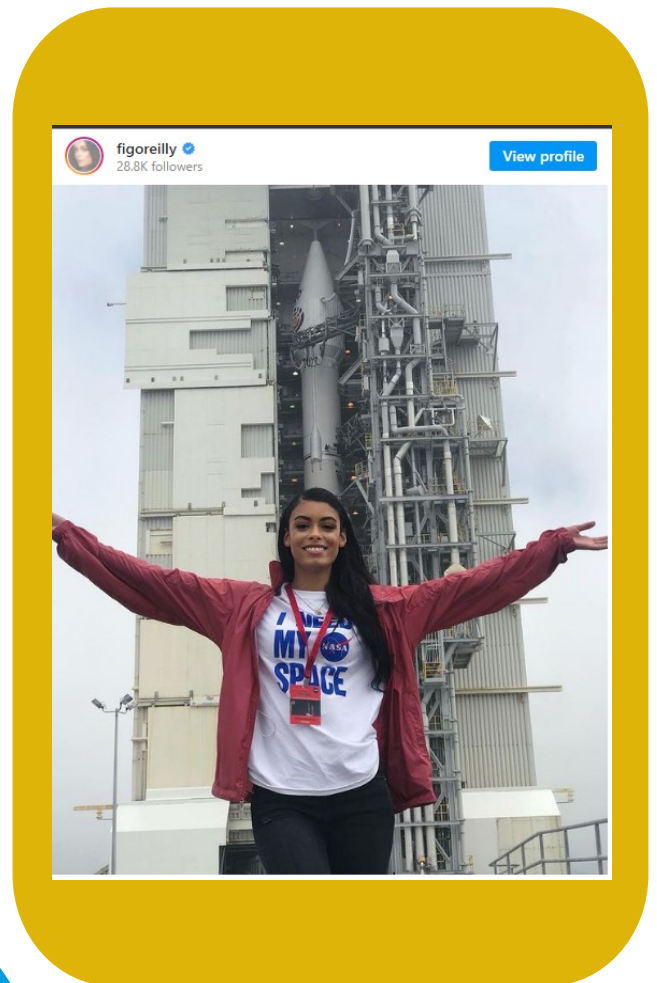
FACT



Did you know that Miss Universe Ireland 2019 works at NASA?

Fionnghuala O'Reilly is a data scientist at NASA, and she works hard to engage girls in STEM by breaking gender stereotypes.

Plus, I love maths and want to become an engineer! I am not a geek; as my friends say, I am a social butterfly.:)



## "Girls aren't good with technology."

MYTH

MYTH BUSTED

FACT

FACT

The first person to publish an algorithm was a woman.

Do you know who that person was?

- A** Yes
- B** No



Augusta Ada King, known as Ada Lovelace, was an English mathematician considered to be the author of the first computer program, written in the mid-1800s. At the age of 12, she designed a steam-powered flight machine.



Painting of Ada Lovelace by Margaret Sarah Carpenter (1836). Public domain.

## Activity 7 Technology and STEM



*On the topic of technology, let me ask you a few questions:*

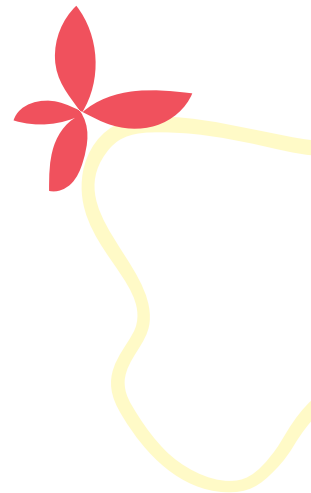
*How do you communicate with your friends when you are not together?  
Choose all that apply.*



- A** Through text messages using my mobile phone
- B** Through social media
- C** Through the telephone at our house

*If I need to look for information, I usually...  
(Choose all that apply)*

- A** Go online and Google it
- B** Go to the library and look in books



*Today, compared to 20 years ago, we use technology for almost everything: for communication, for information, for travel planning, and much more. Technology has become more and more important to us.*

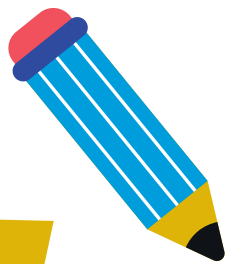
## Did you know that STEM skills are vital for future job prospects?



*In the future, technology will be needed in almost every aspect of our lives. Most jobs will require people who have STEM skills.*

### **What are STEM skills?**

*I used to think I did not have the skills required for maths. Read my diary entry from last year below...*



### **Arpi's Diary**

**09/03/2020**

Dear diary,

I should accept that I was not born with math skills. I simply cannot do maths...

We have a new math teacher. She is beautiful and very, VERY smart.

She must be naturally gifted.

Today, when I told her that I would like to become an engineer, but I do not have the skills that an engineer should have, she asked me some questions...



## Activity 8 STEM and You

*My math teacher asked me the questions below...  
Can you answer these questions?*



1. Do you like solving problems? (This can be helping your friends, or even your pet, when they need support)

A Yes  B No

2. Do you like learning new things and doing research?

A Yes  B No

3. Are you creative, or do you like creating things?

A Yes  B No

4. Do you want to have financial freedom, and control over your life and your decision-making?

A Yes  B No

5. Do you want to make the world a better place?

A Yes  B No

6. Do you want to help people?

A Yes  B No

7. Do you want to empower girls by being a role model?

A Yes  B No

*If you answered "Yes"  
to these questions....*

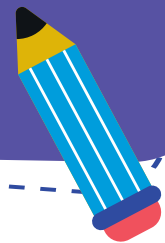


*You are a good fit for STEM fields.*

After I answered my math teacher's questions, she told me that I would be a great engineer. It made me very happy that such a smart woman believes in me. :)

She told me that if I can count my money, then I do have math skills. She also said that I can further improve my math skills, because STEM skills can be learned; people do not have to be "naturally gifted" to succeed. She said that as long as a person has the desire to learn and believes in themselves, then they can learn anything.

I love her! She is super amazing! :)



**Did you know that STEM education offers a very broad range of career opportunities?**

Music industry

IT

Medicine

Food industry

Fashion industry

Construction

Much more...

*As a STEM graduate, you can take on any challenge, from creating environmentally friendly automobiles to designing ethical and sustainable fashion.*

*Plus, many companies prefer to hire STEM graduates because STEM skills, like problem solving, are essential for any job!*

*Let's hear more from an expert. :)*







## Activity 9 STEM and Opportunities

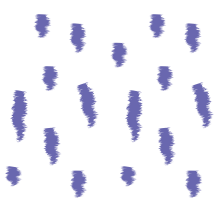
*"If you study STEM, the world really is your oyster."*

*"Growth in jobs is exponential. Tech has revolutionised every sector - media, music, fashion, health, transport - and they're all looking for people."*

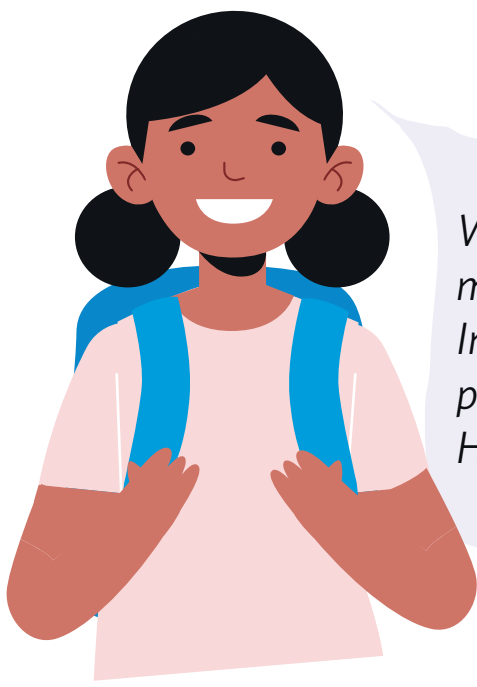


Helen Wollaston, chief executive of WISE an organisation that promotes women in STEM.

**"Careers in STEM fields are limited and boring."**



**MYTH BUSTED**



*We have already busted one of the most popular myths about STEM jobs. :)  
Imagine working on an app that aims to solve the problem of relocation during emergencies.  
How could that be boring?*



**Did you know that jobs in STEM fields are amongst the well-paid jobs globally and in Armenia?**

*Studying STEM can open you up to a variety of well-paid job opportunities. In Armenia, the two highest paid jobs are from STEM fields.*

*This can allow you financial freedom, and power over your own life and decision-making!*

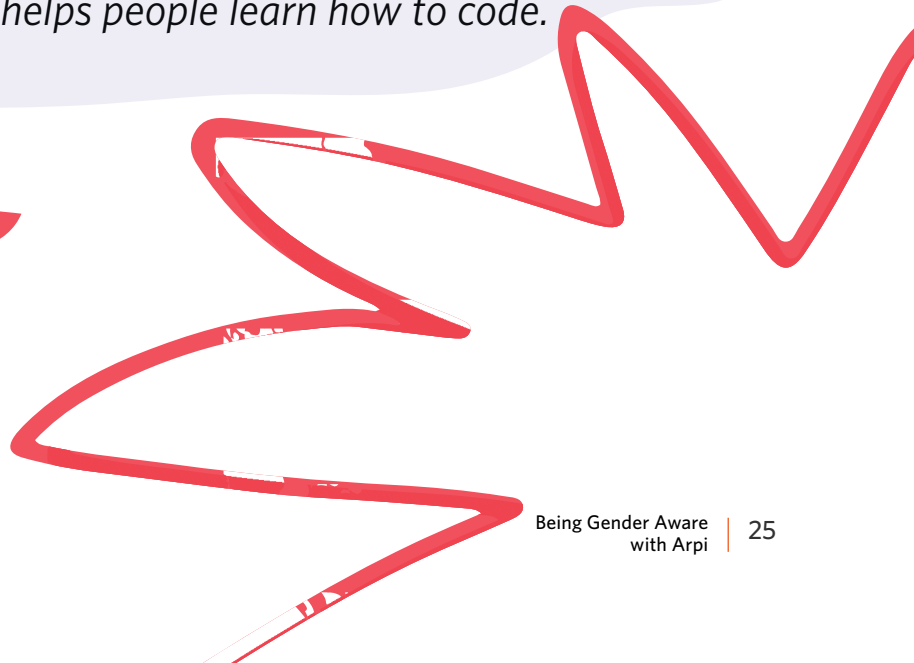
*Who wouldn't want financial independence and power over their own life? :)*



**Did you know that through STEM you can help people and change the world?**

*Would you like to help people and make the world a better place?*

*You can do this through STEM! No, I am not exaggerating. If you are not quite convinced, let's hear from Yeva Hyusyan, the CEO of Sololearn, a platform that helps people learn how to code.*



*"I want to see kids smiling. I want them to be healthy, happy, and have every opportunity for self-realization in whatever space they choose. In today's world, we have the ability to solve problems with less money and strive for the same starting point for every kid around the globe no matter what country they were born in. The next area on my radar is healthcare."*

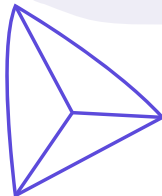


Yeva Hyusyan  
CEO and  
co-founder at Sololearn



*In short, STEM can empower you, and allow you to help people in need! Isn't it very exciting?*

Let's **#STEMPOWER** ourselves and others!  
:)





**3. BUILDING GIRLS'**  
**CONFIDENCE FOR**  
**FURTHER AND**  
**CONTINUOUS**  
**INVOLVEMENT IN STEM**  
**FIELDS: #GIRLSCANSTEM**

Challenge Gender Bias and

**#STEMUPYOURLIFE**

**#GirlsCanSTEM**

**#STEMVisionYourself**





## Activity 10 Have you ever thought...?

1. I am not smart enough to study STEM...

- A Yes  B No

2. I cannot do this...

- A Yes  B No

3. I do not have strong STEM skills...

- A Yes  B No

4. Is this field the right one for me?

Because there are not many women in this field...

- A Yes  B No

5. What if I cannot find a job in this field?

- A Yes  B No

*If you answered "Yes" to these questions, don't worry, because **you are NOT alone!***

*Until recently, I used to think that I was not smart enough to study STEM. Then, I realised that Arpi wasn't the problem; gender stereotypes and bias were preventing me from believing in myself!*

*I will explain how, but first, let's do a quick quiz together! I will read a short story and ask you a question. You should try to answer this question without overthinking it.*



# Activity 11

## Challenge Gender Bias



*A father and a son are in a car crash and are rushed to the hospital. The father dies. The boy is taken to the operating room and the surgeon says, "I can't operate on this boy, because he is my son."*

**Question:** Who is the surgeon?

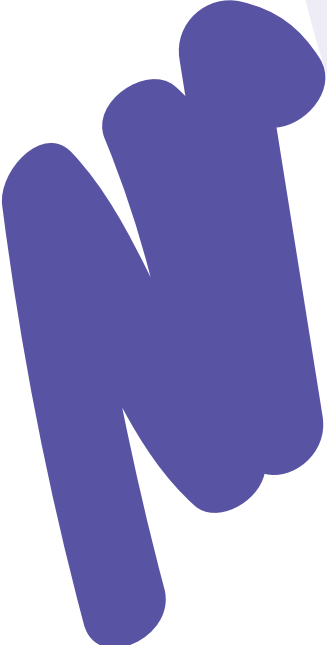
**Answer** .....  
.....

*Most people fail to guess that the surgeon is the boy's **mother**; do you know why?*



*Because deep down, we think that women cannot be surgeons. We were raised in societies where we hear people say, "women cannot do that" or "women are not as smart as men". We internalise and normalise these gender stereotypes.*

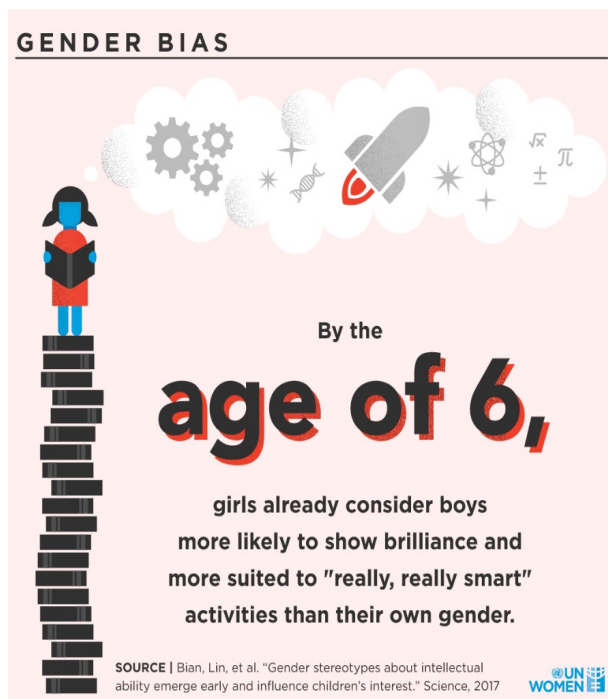
*Even without realising it, we may have biases against women. This is called **unconscious gender bias!***



*Did you know that by the age of six, girls already think that boys are smarter than them? This affects our self-confidence!*

*That is why I, like many other girls, used to think that I was not smart enough for STEM!*

*Thanks to my math teacher, I now believe in myself!*



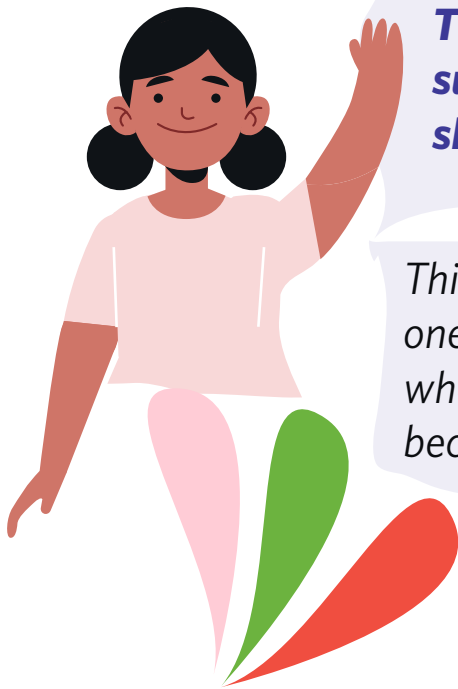
## Activity 12 #StemUpYourLife

So, what should we do?

We should ... (choose all that apply)

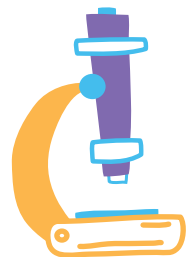
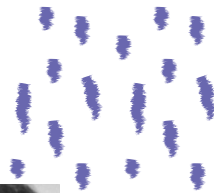
- ✓ Challenge gender stereotypes
- ✓ Be aware of gender bias
- ✓ Be inspired by women role models
- ✓ Always believe that #GirlsCanSTEM

## Activity 13 #GirlsCanSTEM



*There are countless examples of successful women in STEM, I am happy to share some of them with you.*

This is **Paris Pishmish de Recillas**, one of the prominent astronomers who supported other women to become astronomers as well.



This is **Marie Curie**, the first woman to win a Nobel Prize and the first person to win the prize twice! Her pioneering research on radioactivity has made a huge contribution to finding treatments for cancer.



This is **Marie-Lou Papazian**, a graduate of Columbia Teachers College, and the Executive Director of the Educational Foundation Simonyan and TUMO centre. She is also one of the co-founders of the "Education for Development" foundation. She has led the project "Three grenades" which connects Armenian students with their peers around the world through online educational activities. Marie-Lu Papazian is a member of the Information Technology Development Support Council adjunct to the Prime Minister of Armenia.







This is **Dr. Ninet Sinaii**, an Armenian-American epidemiologist at the National Institutes of Health Clinical Centre.

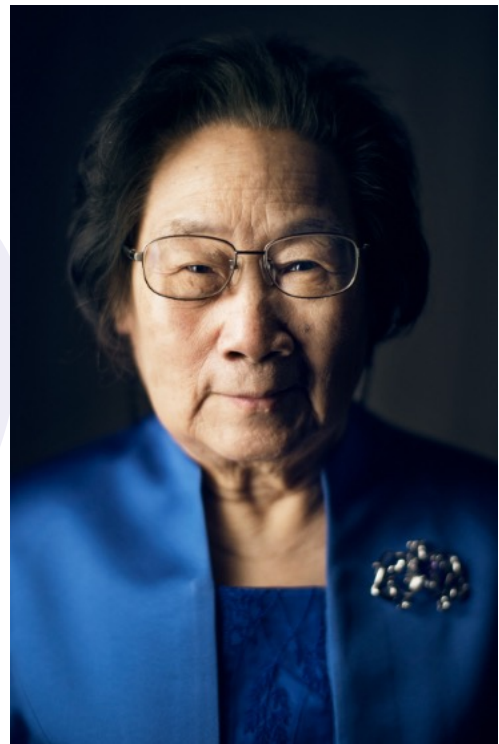
“ *Epidemiology matched my passion for people, my desire to understand disease, and my motivation to be part of the scientific process.* ”

*I live by the motto, live what you love. I was very fortunate in finding my professional calling. This motivates me to work hard and push through the challenges. Perseverance is key. ”*



This is **Tu Youyou**, a pharmaceutical chemist who discovered drugs to treat malaria. Her discovery has saved many lives around the world! She was also the first Chinese woman to win a Nobel Prize.

“ *Every scientist dreams of doing something that can help the world.* ”



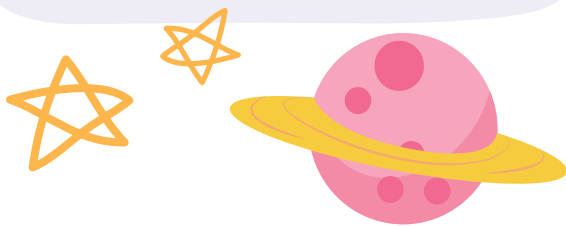




This is **Lilya Budaghyan**, an Armenian cryptographer, computer scientist who is known for her work on the Boolean functions. Budaghyan is the head of Selmer Center in Secure Communication at the University of Bergen and a leader of Boolean functions research team.



This is **Dr. Mae Jemison**, the first Black woman to travel in space.



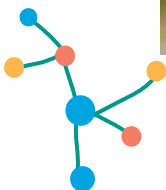
“Don't let anyone rob you of your imagination, your creativity, or your curiosity. It's your place in the world; it's your life. Go on and do all you can with it, and make it the life you want to live.”

– Mae Jemison



This is **Dr. Hayat Sindi**, one of the world's leading biotechnologists. She was the first Saudi woman to be accepted at Cambridge University to study the field of biotechnology.

“Find a mission in life and contribute something to humanity. For me, science is a universal language that transcends nationality, religion and gender. It can help solve any problem our world faces.”





This is **Juliana Rotich**, a tech entrepreneur based in Nairobi, Kenya. Her tech company enables communication in low infrastructure environments in Kenya.



“ When I was growing up, there was still that narrative of you finish school, you go and get married, you become somebody’s wife and you get kids and tend to them. I think it is really important to reach for something. I remember reading about Mae Jemison, that astronaut. That was immensely fantastic to me. This woman went to the moon! That was so encouraging and inspirational... ”

This is **Anna Kazanjian Longobardo**, the first woman to receive a Bachelor of Science in mechanical engineering from Columbia University. She was one of the founders of Society of Women Engineers. She was the first woman to receive the Egleston Medal for her engineering achievements. She was later listed as one of New York’s “100 Women of Influence.”



“ We, the women, should work on our self-esteem and not allow failures. ”





This is **Yeva Hyusyan**, the CEO and co-founder at Sololearn, a platform that help people learn coding skills. She uses technology to empower and help children!



“ Never underestimate your capacity to be great... ”



“ Don't overthink, don't doubt yourself, just find what you are good at and make it happen! ”



## Activity 14 Her Story



This is **Araz Kekejian**, Co-Founder, All for Armenia. Let's listen to her STEM story together!



**Lets Watch the video**



WOMEN'S  
FUND  
ARMENIA

**Her STEM**

**story**

Girls in Tech Armenia

*Do you know how these women succeeded?*


***They succeeded because rather than letting gender stereotypes and bias stop them, they believed in themselves and their own ideas!***



*Do you believe in yourself?  
Do you believe that #YouCanSTEM?*

***Yes, you can.  
Because anything is possible if you believe.***





# SOME TIPS FROM WOMEN IN STEM FOR GIRLS IN STEM

## DO

- ✓ ask questions, explore the world around you
- ✓ dream big
- ✓ believe in yourself
- ✓ focus on your strengths
- ✓ celebrate your achievements
- ✓ talk to people working in STEM
- ✓ do your research because STEM careers are endless
- ✓ attend STEM mentoring programs, online STEM workshops to improve your skills and connect with like-minded people

## DON'T

- ✗ limit yourself
- ✗ hesitate
- ✗ compare yourself with others
- ✗ be afraid of failure or mistakes



## Arpi's STEM Vision



My name is Arpi,

I am a software developer. I have my own tech company. I develop apps that support people's mental health. I am also a mentor. I encourage girls to study hard and work in STEM fields.

I am happy because I am a strong woman and I love what I do!

My message to all girls around the world is:

**"You are unique and important, never underestimate your power! Dream big and go for it!"**



### Activity 15 #STEMVisionYourself

I am ....., (your name)

I am a .....  
(what is your dream profession?)

I do ..... (what do you do?)

How do you feel, and why?.....

My message to all girls around the world is:

.....  
.....  
.....

*GENDER, SEX, BOYS, GIRLS,*  
*MEN, WOMEN,*  
**GENDER STEREOTYPES,**  
*GENDER BIAS,*  
**GENDER ROLES,**  
*GENDER AWARENESS,*  
**EDUCATION,**  
***STEM FIELDS,*** *SCIENCE,*  
*TECHNOLOGY, ENGINEERING,*  
*MATHEMATICS,*  
*MYTHS, FACTS*





*Thank you for joining me on this journey!*

*Never stop believing in yourself!*

**#STEMUPYourLife**, and remember that the sky is the limit!



**UN COVID-19 Response  
and Recovery Fund**

— #RecoverBetterTogether —