Empowering Women and Girls in STEM/STEAM

Alisha Koulen, Operations Manager- STEM Guyana
Educational Background

• Undergraduate Degree in General Biology - 2014
• Interned with Iwokrama as a Research assistant
• Post Graduate Diploma in Education (Science) - 2017
• Awarded ECCAM (Education for Climate Change & Mitigation) Scholarship - MSc in Biodiversity Conservation & Sustainable Development at UWI - Trinidad (2019/2020)
Professional Roles

- High School Science Teacher – Ministry of Education – 3 years
- Interned at Department of Environment- Data Management Unit, Antigua and Barbuda in 2020 for 3 months.
- Mitigation and GIS Apprentice- also apart of National Coordinating team for project ICAT- Initiative for Climate action Transparency- 1 year.
- Operations Manager, STEM Guyana- present
- International Youth Climate Delegate- attending PRECOP28, COY18 &COP28 in Abu Dhabi & Dubai
SKILLS GAINED

- Data Collection/ Data Analysis – using R
- Data Management
- QGIS – GIS Modeling
- Species sampling Techniques
- Teaching, planning, coordinating
- Project/ event management
- Technical Report Writing

Collaborative
Critical thinking
Problem solving
Innovation
Communication
Leadership
• Gender bias
• Unequal Pay
• Lack of Opportunities
• Lack of Representation/ Female role models
• Sexual Harassment/ Assault
WHY IS IT IMPORTANT TO HAVE MORE WOMEN & GIRLS IN STEM

• Breaking stereotypes
• Overcoming gender bias
• Representation
• Encouraging curiosity
• Building generation with technological competence – can innovate & create solutions for social issues.
• Benefit from opportunities in STEM fields- considering Oil & Gas industry and the demand for jobs in years to come.
WHY STEM GUYANA IS IMPORTANT

Third Quarter 2021

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No schooling and early childhood education</td>
<td>7.8</td>
</tr>
<tr>
<td>Primary Education</td>
<td>48.4</td>
</tr>
<tr>
<td>Upper Secondary Education</td>
<td>24.9</td>
</tr>
<tr>
<td>Post-Secondary</td>
<td>4.1</td>
</tr>
<tr>
<td>Short cycle Tertiary</td>
<td>2.6</td>
</tr>
<tr>
<td>Bachelor's or equivalent</td>
<td>2.8</td>
</tr>
<tr>
<td>Master's or equivalent</td>
<td>0.3</td>
</tr>
<tr>
<td>Doctoral or Equivalent</td>
<td>0.1</td>
</tr>
<tr>
<td>Not elsewhere classified</td>
<td>9.1</td>
</tr>
</tbody>
</table>

Note that Category 7 and Category 8 are not statistically different than 0.

% of working age population by level of education completed
STEM Guyana – Preparing the Next Generation of Innovators

• Strengthen: literacy, coding, robotics, math, English & science
• + Problem solving
• + Critical thinking
• + Intellectually curious
• + Confident
• + Collaboration
• + Innovators
• + Excellent communication
• + Technology skills
• + Globally competitive
• + Strengthen core academic skills
West Canje

• We’re in every region because genius is in every region
• At least ½ girls everywhere
• International teams (girls)
• 40 Learning Pods & 15 stem clubs
Critical Outcomes – Student Success

- Learners able to compete globally, regionally & nationally
- Learners strengthen literacy skills
- Learners improve Math scores
- Motivated to research for themselves
- Learners improve communications skills
- Curious about what is behind
- Technologies they consume
HOW TO GET INVOLVE IN OUR WORK?

• + Become a volunteer and help young learners.
• + Join a STEM club near you.
• + Open a STEM Club in your community or school.

- For more info on how to support, follow us on FB or IG-STEMGuyana.
- Email-stemguyana@gmail.com
- Contact Operations Manager-6432609