



## Alumni Engagement Innovation Fund (AEIF) 2023 in Gabon

# INTRODUCTION

In traditional classrooms, teachers lecture while students passively receive information. However, STEAM (Science, Technology, Engineering, Arts, Mathematics) education empowers students to take control of their learning.

STEAM learning has evolved over time involving a lot of hands-on activities. It focuses on the implementation of five subjects; science, technology, engineering, arts, and mathematics as the core basis of teaching. This technique centers on embracing approaches such as observation, research, innovation, and problem-solving.

STEAM gives students the opportunity to explore and relate to day-to-day activities. STEAM can be seen in our everyday lives, and it is everywhere. A good example of science is seen in our natural environment. Technology is applied on a daily basis from simple tools to complex appliances which are used to make our work easier and faster.

Engineering applied science, math, and technology to solve problems. Engineering is using materials, designing, crafting and building. It helps us understand how and why things work.



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We experience the beauty of engineering in our buildings, transportation system etc.

Arts involves active and self-guided discovery at its core to arts, unveiling students' creativity as they engage in painting, writing, music, etc. The act can be experienced through various forms of entertainment.

Math is numbers and operations, measurement, patterns, geometry, and spatial sense. From simple calculations of the distance from our home to our offices, how long it takes to complete the trip, measurement of cooking spice or calculating our finances. It also includes the informal knowledge of more and less, shape, size, sequencing, volume etc. STEAM is fully woven into our daily lives.

In this educational book, we embark on a journey to explore the multifaceted realm of STEAM Education. We will delve into various Non-Tech models of teaching STEAM. Through the pages that follow, we will uncover the ways in which STEAM Education inspires curiosity, fosters critical thinking, and empowers learners to become problem solvers of global challenges.



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*We will always have STEM with us.  
Somethings will drop out of the public  
eyes and will go away, but there will  
always be science engineering and  
technology . And there will always, always  
be Mathematics.*

Katherine Johnson