



IGNITING STELLAR DREAMS: ADVANCING ASTRONOMY OUTREACH IN NIGERIA AND AFRICA



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1. Abstract

In Nigeria, where opportunities for astronomy education have historically been limited, the "Asthera" Astronomy outreach program is fostering meaningful development by inspiring scientific curiosity, creative learning, and a sense of wonder among young scientists. Through these outreaches children/students are introduced to the fundamentals of Space science through interactive activities such as solar system exploration, telescope assembling, sun gazing, science story telling and reading. These hands-on experiences are strengthening early interest in STEM and encouraging scientific thinking. This programs adds to the growing efforts across Nigeria to build a strong foundation for astronomy awareness and youth engagement.



2. Core Objectives

- Inspire: Cultivate scientific curiosity in primary and secondary students.
- Democratize: Make space science accessible regardless of socio-economic background.
- Empower: Specifically target young girls to dismantle cultural barriers in STEM.

3. Methodology

We bridge the gap between abstract physics and tangible experience through four main pillars:

- Interactive Exploration, and Technical Skill-Building.
- Observational Astronomy, Science Storytelling.



4. Results & Impact

Asthera observes measurable growth in STEM engagement:

Activity	Skill Developed	Impact Metric
Telescope Assembly	Engineering	Technical Confidence
Storytelling	Literacy	+40% Retention
Sun-Gazing	Observation	Time Engagement

Key Finding: Early exposure (ages 7–15) significantly reduces "science anxiety."



5. Future Work (Scaling stellar dreams)

From local workshops to a sustainable national model:

- **Localized Kits:** Low-cost astronomy kits for rural schools.
- **AFAS Partnership:** Standardizing regional modules.
- **Digital Reach:** Expanding storytelling platforms.



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