

## Execution Plan for STEAM Support Program

### Module I: Teachers – STEAM Mentorship & Facilitation

**Duration:** 6 weeks (1 session per week, 2 hours each)

**Audience:** Teachers of Science, Mathematics, Arts, and Technology streams

- **Before the Execution:** Teachers’ Orientation Class to make them ready for the sessions

#### Week-by-Week Plan

Week	Theme	Activities	Outcomes
1	<b>Foundations of STEAM</b>	<ul style="list-style-type: none"> <li>- Interactive lecture on STEAM vs STEM</li> <li>- Case studies from Nepal &amp; abroad</li> <li>- Group discussion: “Where is STEAM in our classrooms?”</li> </ul>	Teachers understand STEAM philosophy and its relevance
2	<b>Pedagogical Approaches</b>	<ul style="list-style-type: none"> <li>- Workshop on inquiry-based learning</li> <li>- Demonstration: “Math in Music” or “Physics in Art”</li> <li>- Brainstorming interdisciplinary lesson ideas</li> </ul>	Teachers gain strategies for activity-based, student-centered teaching
3	<b>Lesson Design Framework</b>	<ul style="list-style-type: none"> <li>- Framework: Problem → Exploration → Creation → Reflection</li> <li>- Teachers design mini-STEAM lessons</li> <li>- Peer review of lesson drafts</li> </ul>	Draft STEAM lesson plans ready for classroom use
4	<b>Mentorship Skills</b>	<ul style="list-style-type: none"> <li>- Role-play: guiding students in projects</li> <li>- Techniques for encouraging curiosity</li> <li>- Assessment methods (formative, peer, self)</li> </ul>	Teachers develop mentoring and assessment skills
5	<b>Technology Integration</b>	<ul style="list-style-type: none"> <li>- Hands-on with digital tools (Scratch, GeoGebra, simulations) - Explore low-cost classroom innovations</li> <li>- Teachers adapt tools to their subjects</li> </ul>	Teachers integrate technology into STEAM lessons
6	<b>Implementation &amp; Reflection</b>	<ul style="list-style-type: none"> <li>- Teachers present their STEAM lessons</li> <li>- Peer feedback and refinement</li> <li>- Action plan for school-wide STEAM adoption</li> </ul>	Teachers leave with polished STEAM lessons and implementation roadmap

**Venue:** Shree Aadarsha Secondary School, Bhadrabas, Kageshwori Manohara Municipality

**Facilitator:** Manoj Acharya, STAN

**Co-Ordinated by:** Rotary Club of Jawalakhel, Lalitpur

**Helping Facilitators:** Engineers & Innovation Technicians, STEAM Expert Guides

### Facilitator's Role

- Guide teachers in lesson design and mentorship skills
- Ensure academic elegance, authenticity, and thematic cohesion

### Module II: Students – STEAM Exploration & Innovation

**Duration:** 6 weeks (1 session per week, 90 minutes each)

**Audience:** Interested Students from Grades 6–12

#### Steps of Execution Before the Support Program:

- Student's Orientation Class to form a STEAM Club
- STEAM Club will support to arrange the required support from students' side
- Maintain the participation in weekly class

#### Week-by-Week Plan

Week	Theme	Activities	Outcomes
1	<b>Introduction to STEAM</b>	<ul style="list-style-type: none"><li>- Icebreaker: "STEAM in Everyday Life" scavenger hunt</li><li>- short video + discussion</li><li>- Reflection journal</li></ul>	Students understand STEAM and its importance
2	<b>Curiosity &amp; Inquiry</b>	<ul style="list-style-type: none"><li>- Mini experiments (e.g., sound waves moving objects)</li><li>- Group Q&amp;A: "Why does this happen?" - Journal writing</li></ul>	Students practice inquiry and scientific questioning
3	<b>Creativity in Science</b>	<ul style="list-style-type: none"><li>- Art + Science activity (draw chemical reactions, math patterns in music) - Paper bridge challenge (engineering + math)</li><li>- Group reflection</li></ul>	Students connect creativity with science and engineering
4	<b>Technology, Robotics &amp; Engineering</b>	<ul style="list-style-type: none"><li>- Coding basics (Scratch/Python)</li><li>- Robotics</li><li>- Engineering challenge: build a water filter or wind-powered car</li><li>- Team presentations</li></ul>	Students apply technology, Robotics and engineering to solve problems
5	<b>Innovation Project</b>	<ul style="list-style-type: none"><li>- Teams identify local problems (waste, water, solar energy)</li><li>- Apply STEAM to propose solutions</li></ul>	Students design and develop innovative solutions

		- Prototype building (low-cost models)	
<b>6</b>	<b>Exhibition &amp; Reflection</b>	- Mini STEAM Fair: project presentations - Peer review and facilitator feedback - Reflection journals	Students showcase projects, gain confidence, and reflect on learning

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**Facilitator's Role**

- Mentor students in project ideation and execution
- Connect school projects with Exhibitions by STEAM networks

**Thank you**