STEM Grant Implementation Plan (Questions and Examples)

STEM Grant Implementation Plan

Required for all STEM Innovation Grant recipients

Due: September 30 of the implementation school year

Planning & Implementation

Describe how you will implement your STEM grant project during the school year.

Your implementation plan should:

- Outline the major steps of your project.
- Include an estimated timeline.
- Identify key milestones, such as purchasing equipment, professional development, curriculum development, student implementation, and evaluation.
- Be concise (typically ½–2 pages).

Tips for a Strong Implementation Plan

A strong implementation plan should:

- Include realistic dates or timeframes.
- Focus on major milestones rather than daily classroom activities.
- Demonstrate how the project moves from planning to student implementation.
- Show how teachers will receive training and support.
- Explain how the project will be sustained or expanded beyond the grant period.

Example timeline

Timeline	Activity
August–September	Purchase equipment and materials. Prepare classrooms and learning spaces.
September–October	Teacher professional development and curriculum planning.
October–December	Begin classroom implementation and student projects.
January–May	Continue instruction, refine activities, and expand student learning opportunities.
May–June	Evaluate project outcomes and plan for future sustainability.

Example 1 – Urban Agriculture STEM Project

June

- Purchase raised beds, gardening tools, soil, seeds, and classroom materials.
- Prepare the outdoor garden space and indoor learning area.

July

- Select and organize STEM curriculum resources that integrate gardening, engineering, environmental science, and mathematics.

August

- Lead teacher participates in professional development focused on school gardens and STEM integration.
- Finalize lesson plans and project schedule.

September–October

- Launch the urban agriculture unit with middle school students.
- Students learn gardening techniques, plant life cycles, sustainability, and engineering concepts through hands-on activities.

November–May

- Maintain the garden throughout the school year.
- Collect student data, complete STEM investigations, and integrate lessons across multiple subject areas.

May

- Evaluate student learning and project outcomes.
- Develop plans for sustaining and expanding the program.

Example 2 – Project Lead the Way (PLTW) STEM Initiative

June

- Ten teachers and the principal complete Project Lead the Way Launch professional development.
- Teachers gain access to curriculum resources for planning.

July

- Inventory donated PLTW materials.
- Compare available resources with curriculum needs.

August

- Purchase additional PLTW instructional kits and classroom materials.
- Organize resources and prepare classrooms for implementation.

September

- Begin using PLTW Launch as the elementary science curriculum.
- Students participate in hands-on STEM investigations aligned with grade-level standards.

October–May

- Teacher team meets regularly to share successes, identify challenges, and discuss additional resource needs.
- Monitor student engagement and instructional effectiveness.

Spring

- Use remaining grant funds to purchase additional instructional kits or expand robotics resources based on teacher feedback and program needs.

Example 3 – Sphero BOLT+ Robotics Implementation

June

- Purchase Sphero BOLT+ robots, repair protection, and professional learning resources.

August

- Set up and charge robots.
- Install the Sphero Edu app on student devices.
- Test connectivity and prepare classroom materials.

November

- Teachers attend Sphero professional development.
- Meet with a community volunteer who will assist during robotics instruction.

December–January

- Introduce students to basic robot operation, manual controls, and block-based programming.

February–March

- Students develop simple movement programs and begin incorporating sensors such as the accelerometer into their coding projects.

April–May

- Upper elementary and middle school students expand their programming skills using JavaScript, debugging techniques, obstacle detection, and engineering design challenges.

August (Following School Year)

- STEM grant teachers provide professional development for colleagues, sharing classroom lessons and strategies for integrating robotics into core instruction.