Project Summary: What causes a volcano to erupt, and how can we simulate this process using everyday materials?

Grade Level:
Elementary School

Project Overview:
In this project, students will explore the science of volcanic eruptions and create a simulation using everyday materials, enhancing their understanding of geological processes and scientific experimentation. This project aligns with NGSS and Common Core standards and includes rubrics to guide student learning.

Project Sections:

- **General Guidelines:** Offers instructions on organizing and collaborating in teams to execute the project.
- **Brainstorming:** Helps students generate creative ideas for simulating volcanic eruptions using simple materials.
- **Project Planning and Designing:** Guides students in setting goals, assigning tasks, and creating timelines for successful project execution.
- **Project Execution:** Provides a step-by-step process to build and test a volcano model, emphasizing teamwork and task management.
- **Experimenting:** Detailed instructions for simulating a volcanic eruption using baking soda, vinegar, and other materials.
- **Presentation:** Encourages students to choose between slides, posters, or videos to showcase their project findings.

Why Use This Project?
This project fosters critical thinking, creativity, and hands-on learning, giving students a real-world understanding of volcanic activity through scientific experimentation. By following structured guidelines, students will improve their research skills and teamwork, while teachers benefit from a standards-aligned, comprehensive lesson plan. This plan offers opportunities for interdisciplinary learning, combining science with communication and presentation skills.