Milltown Integration Plan

Please use this template to plan strategies for fostering an interdisciplinary approach by integrating STEAM concepts into your grade.

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Grade(s): 4

Subject Area(s): all

Common Practices Plan:

When do you anticipate implementing key common practices with your students? Please list a unit / topic, as well as an approximate time of year by month or marking period using the table below.

Common Practice to implement:	Unit / Topic that will be used for Implementation:	Approximate time of implementation:
Teaching with Stations Challenging students to work through different labs, activities, or experiments in stations is a great way to promote creative thinking and problem-solving, as well as foster collaboration among students.	Students will circulate through teacher, independent, and collaborative stations (including technology) to solve multiplication problems using various methods	Math Topic 4: Multiplication Marking Period 2 Unit 2a
Project-Based Learning Project-Based Learning describes activities that allow for students to demonstrate their knowledge through the creation of a project as an assessment.	Using a store circular, students will create a budget and plan a Fall party for 10 guests	Math Topic 2: Addition and Subtraction Marking Period 1 Unit 1b
Problem-Based Learning Problem-based learning describes instruction based around the utilization of a design process, sometimes called an engineering design process, or design loop.	Students will design earthquake resistant structures	Science Unit 6: 3 lessons Marking Period 1 Unit 1a
Visual Brainstorming Utilizing sketches, diagrams, or flow charts to allow for students to brainstorm different ideas, and choose optimal and appropriate ideas based on project details.	Students will use various brainstorming activities to create and visualize writing topics	Personal Narrative Unit 3 Marking Period 1

Experimentation Through this, students should be supported in testing different ideas safely as they work to find the best approach, or a possible answer to a problem.	During Science Lab activities, students will go through the lab process where they hypothesize, observe, collect data, analyze and evaluate information EX: How do water/wind contribute to erosion	Weekly during Science Lab Investigations MP 1-4
Reflection / Redesign Regardless of how big a project is, students should always have the opportunity to consider how they would improve or make changes based on what they have learned.	In Math, students will reflect on a collaborative game activity. Then, they will make adjustments to the game and have the opportunity to play again with those changes in place.	Math Unit 9: Fractions Marking Period 3 Unit 3b
Creating Real-world Connections With this, we want to provide students with a possible reason as to why they need to know this, or who out in the world uses this knowledge everyday.	In Math, problems are presented in a real world manner *EX: You were hired to bake cupcakes for a fundraiser and need to pack them on 6 platters. How many cupcakes will be on each platter? What will you do with any extras?*	Throughout the year, but most prevalent during multiplication and division units Marking Periods 2-3
Foster Design Thinking Inquiry based learning through the implementation of a problem solving process in order to develop a model or solution to a proposed problem.	Discuss ways that Milltown gets power/energy and problems that arise related to that energy source. Develop ways that Milltown could work to solve that problem	Science Unit 5 Marking Period 2 Unit 2b
Promoting Empathy As you choose real-world connections, relatable experiences, and constraints for your projects, challenge students to design solutions to help others.	Create a brochure to increase tourism in a NJ region. How will this help the economy and businesses in this region? How will this help tourists?	SS Unit 1 Marking period 1 Unit 1b
Support EDI Equality, Diversity and Inclusion is an important aspect to ensure fair treatment and opportunity for all. It aims to eradicate prejudice and discrimination on the basis of an individual or group of individual's	Compare how the same problem is addressed in different areas around the world (areas located along	Science Unit 6 Marking Period 1 Unit 1a

protected characteristics.	the “Ring of Fire” such as California and Indonesia). What resources or limitations of resources affect this?	

Interdisciplinary Project Plan - MP1 / MP2

Using the table below, plan and describe an opportunity for a larger-scale interdisciplinary project to take place in your classes.

Subject / Grade:	Science / Grade 4
When will this project take place?	Marking Period 2 Unit 2a
Describe the project, what is the main idea?	Students will be “hired” by National Parks Service to help prevent erosion Learn about a National Park, with a focus on the natural formations there and how they change due to erosion Propose a way to help reduce the effects of erosion Students will be researching, creating a slideshow, drawings, and presenting Reflect on pros and cons of your proposed solution to erosion *How will these solutions impact the living and nonliving organisms there? Will it impact tourism?*
What will students be challenged to produce?	Students will be challenged to produce a variety of solutions to how erosion is altering landforms at national parks
List common practices that will be incorporated:	● Project-Based Learning ● Problem-Based Learning ● Reflection / Redesign ● Creating Real-world Connections ● Foster Design Thinking ● Promoting Empathy
List areas where EDI (Equality, Diversity and Inclusion) took place throughout	● Explore historical figures that were involved in the creation of national parks ● Based on geography, what populations are near or have been affected by the National Park you are working on?

this activity.	