

7th Grade Cross-Curricular Projects

2023-2024



Quarter One: Future City Project

Introduction: In the first quarter, students will participate in Future City which is a hands-on national competition that brings STEM to life for students in grades 6th through 8th. Although the theme changes each year, students will learn valuable skills such as researching innovative technologies that can positively affect our climate, along with developing their presentation skills all while utilizing the engineering design process throughout. Students will learn about communities, engineers, and how to create a well functioning city in Social Studies and Religion and then build large city models that represent their research in STEM.

Purpose: Research skills, communities, climate impact....

Overview of Project by Subject and Skills

Skill	Subject	Objectives
Research	STEM	Students will learn how to conduct research based on the current Future City theme.
	Social Studies	Students will examine the development of cities across the Eastern Hemisphere conducting research of certain cities for inspiration.
	Health	Students will investigate environmental issues that arise within cities, industry, and agriculture.
	Religion	Students will learn how faith is integrated into communities, including churches, nonprofits and cemeteries.
Writing	STEM	Students focus on planning, outlining, and drafting their Future City essays.
	English	Students continue building academic writing skills by following the writing process and citing textual evidence with proper MLA format .
Presentation	Social Studies	General presentation practice. Focus will be on creating visual aids, presentation skills and following a rubric.
	Religion	General presentation practice. Focus will be on creating visual aids, presentation skills and following a rubric.
Product	STEM	Students will build a city model using at least 70% recycled materials.
	Math	Students will learn and practice scale factor.
	Health	Students will create a brochure examining a specific environmental concern and what we can do as individuals to address the problem.
Labs	Science	Students will learn about the basics of electricity and the functionality and purpose of circuits.

Quarter Two: Future City Project Continuation

Introduction: In quarter two students will be continuing the Future City project and focusing their energy on building their large city models and working together to compile their research on the current theme into a MLA paper. Upon completing their models and their research paper, students will present their work to finish up the semester

Purpose:

Overview of Project by Subject and Skills

Skill	Subject	Objectives
Research	STEM	Students will continue to conduct research based on the current Future City theme.
	Social Studies	Students will examine the development of cities across the Eastern Hemisphere conducting research of certain cities for inspiration.
	Health	Students will investigate environmental issues that arise within cities, industry, and agriculture.
	Religion	Students will learn how faith is integrated into communities, including churches, nonprofits and cemeteries.
Writing	STEM	Students continue writing their Future City essays, ensuring all sources are cited properly in MLA format.
	English	Students continue building academic writing skills by following the writing process and citing textual evidence with proper MLA format.
Presentation	Social Studies	Students will present in groups to develop and practice cooperative presentation skills.
	STEM	Students will present their Future City boards in a group presentation.
Product	STEM	Students will build a city model using at least 70% recycled materials.
	Math	Students will learn and practice scale factor.
	Social Studies	Students will create a map of the silk road.
	Health	Students will create a brochure examining a specific environmental concern and what we can do as individuals to address the problem.
Labs	Science	Students will learn about water quality, chemistry, and testing from different water sources.

Quarter Three: Business Project

Introduction: In the third quarter STEM will lead with the Business Project. This is a wonderful opportunity for students to continue to use their research skills to find pre-existing companies and business models to uncover what makes their products unique from all the rest of the competition. Students will brainstorm to create logos, websites, write a business proposal, cover letters, marketing strategies, cost analysis and then create a unique product for their business.

Purpose:

Overview of Project by Subject and Skills

Skill	Subject	Objectives
Research	STEM	Students will research pre-existing companies to learn business models.
	Social Studies	Students will research the silk road and exchange/trade.
	Spanish	Students will research different products and their countries of origin they wish to “stock” in their bodegas.
	Math	Students will research the cost analysis portion of the project.
Writing	STEM	Students will write business proposals and cover letters.
	Spanish	Students will write a short explanation of the products they “stock” in their bodegas <u>in Spanish</u> .
	English	Students will focus on business-themed technical writing by creating and refining resumes.
Presentation	Social Studies	Students will present in groups to develop and practice cooperative presentation skills.
	Spanish	Students will present their bodega (individually) and advertise their chosen products to other students.
	STEM	Students will present their business idea (as a group) to the whole class.
Product	STEM	Students will create a business website and physical 3-D version of their business product.
	Spanish	Students will create a menu for their bodega with the products they are selling, their prices, and the country of origin and Spanish explanation.
Labs	N/A	N/A

Quarter Four: African Leader Project

Introduction The students will conduct an open-ended inquiry about sub-Saharan Africa and leaders around the continent, collecting information on five topics that are connected in some way. The concept map they make will help them visualize the connections between those topics and serves as a rough draft for your final project and presentation. For the final portion of the Africa project, they will share what they have learned about sub-Saharan Africa and the connections made during their research. Their final project must show what they've learned about sub-Saharan Africa and should also reflect the connections between your topics in a final product.

Purpose:

Overview of Project by Subject and Skills

Skill	Subject	Objectives
Research	Social Studies	Students will begin a line of inquiry on a key figure of African history, developing individualized topics based off of a concept map exercise.
	STEM	Students will research influential African leaders in the fields of science.
Writing	Social Studies	Students write the body paragraphs of a multi-paragraph essay on their chosen leader/topic with a strong focus on MLA citations and final formatting and develop a script for their Social Studies Fair "elevator speech".
	English	Students write the introduction and conclusion paragraphs for their key leader essay with a strong focus on MLA citations and final formatting.
Presentation	Social Studies	Students will present their work for students and staff during a Social Studies Fair.
	STEM	Students will present their portraits and research papers on their chosen leader.
Product	Social Studies	Students will create a visual aid to use during their presentation for the Social Studies Fair.
	STEM	Students will create a portrait of their chosen African leader to present alongside their research paper to their classmates.
Labs	N/A	N/A