



**COMMUNITY
ON DEMAND™**
COMMUNITY • SCIENCE • INNOVATION

The STEAM Investigative Process Activity Worksheets

Your Roadmap for Critical Thinking
A Lesson From "The Build For Your Future" Curriculum
Created by Dana Jewel Harris



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The STEAM Investigative Process Grid

UNDERSTANDING YOUR PROBLEM SOLVING APPROACH

Discover your problem-solving style with the STEAM Investigative Process (SIP) Grid Worksheet! This essential tool helps you identify which critical thinking approach you naturally use to solve problems -- especially in a group setting.

By identifying your dominant approach, the SIP Grid Worksheet empowers you to work smarter, collaborate more effectively, and craft solutions that align with your strengths.

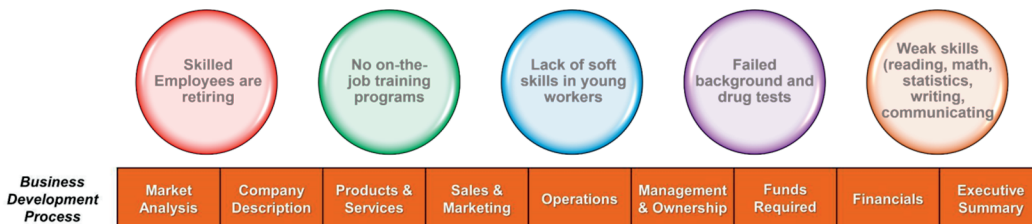
Start solving problems like a pro—get your STEAM Investigative Process (SIP) Grid Worksheet today!

Visit [The Pop Shop](#) to view more learning tools

SIP Approaches To Critical Thinking

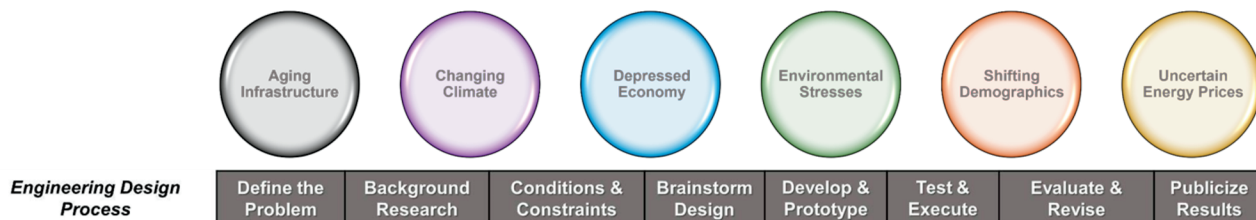
Business Stakeholders

The motive behind Business Development is to identify market opportunities, mobilize resources, and generate sustainable profits for entrepreneurial ventures



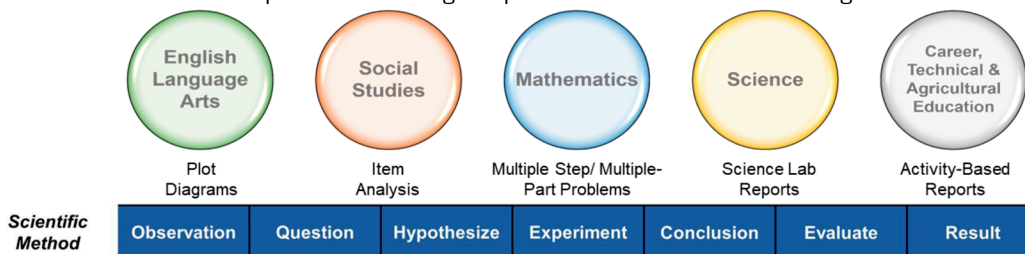
Governance Stakeholders

The motive behind the Engineering Design Process is to create efficient and sustainable solutions that address community needs and enhance public infrastructure.



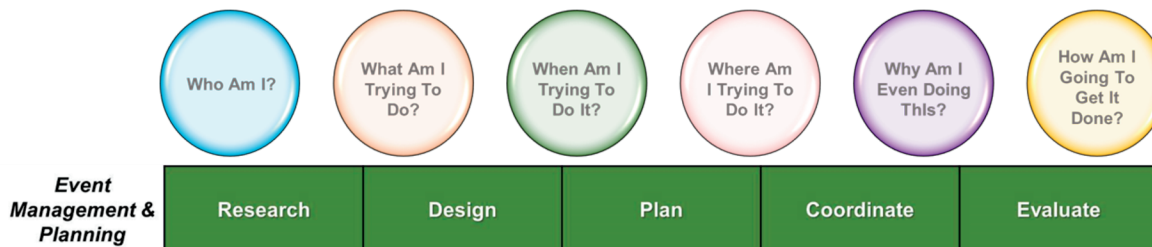
Educator Stakeholders

The motive behind the Scientific Method is to systematically question, test, and validate knowledge to foster deeper understanding and promote evidence-based learning.



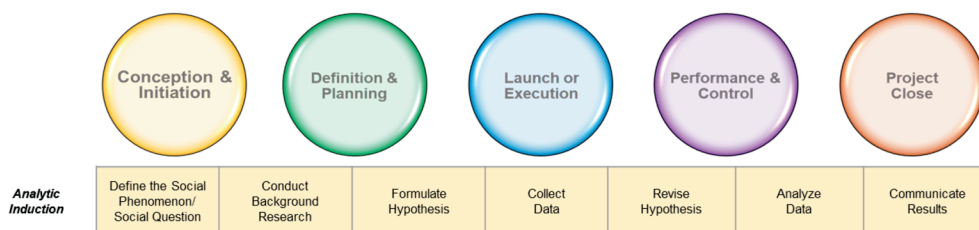
Individual Stakeholders

Individuals may find themselves in situations that require them to make decisions and take immediate action to solve a life-changing problem but may not have the skills needed to determine the best outcome



Research & Development Stakeholders

The motive behind Analytic Induction is to refine or develop theories by systematically analyzing data and uncovering patterns that guide new insights.



The SIP Grid

Breaks down communication barriers by visually displaying the steps that interconnect different approaches for solving problems.

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STEAM
Investigative
Processes

Steps they have in common

	Research	Design	Plan		Coordinate		Evaluate
Event Management & Planning							
Scientific Method	Observation	Question	Hypothesize		Experiment		<ul style="list-style-type: none"> Conclusion Evaluate Result
Business Development Process	Market Analysis	<ul style="list-style-type: none"> Company Description Products & Services 	Management & Ownership	Funds Required	Operations	Sales & Marketing	<ul style="list-style-type: none"> Financials Executive Summary
Engineering Design Process	<ul style="list-style-type: none"> Define the Problem Background Research 	<ul style="list-style-type: none"> Conditions & Constraints Brainstorm & Design 	Develop & Prototype		Test & Execute		<ul style="list-style-type: none"> Evaluate & Revise Publicize Results
Analytic Induction	Define the Social Phenomenon/ Social Question	Conduct Background Research	Formulate Hypothesis	Collect Data	Revise Hypothesis	Analyze Data	Communicate Results
Money Guide for Young Entrepreneurs	Lesson #1 "Explore Your Community"	Lesson #2 "Define Your Solution"	Lesson #3 "Build Your Team"	Lesson #4 "Map Your Value"	Lesson #5 "Manage Your Assets"	Lesson #6 "Share Your Success"	Lesson #7 "Package Your Skills"
Project-Based Learning Experience	Conduct a Community Health Assessment	Create A Project-based Mission Statement	Form a Junior Executive Management Team	Create a Project-based Skillset and Value Grid	Create a Skills-Driven Timeline	Create/ Implement a Marketing Strategy & Event	Create a Professional Presentation and Evaluation

WHAT'S YOUR APPROACH TO CRITICAL THINKING?

Circle how often you use one or more of the stakeholder's critical thinking approaches to solve problems. Use the spaces provided to briefly explain your answers.

Event Management	Never Use	Almost Never	Occasionally/ Sometimes	Almost Every Time	Frequently Use
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The Scientific Method	Never Use	Almost Never	Occasionally/ Sometimes	Almost Every Time	Frequently Use
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Business Development	Never Use	Almost Never	Occasionally/ Sometimes	Almost Every Time	Frequently Use
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Engineering Design Process	Never Use	Almost Never	Occasionally/ Sometimes	Almost Every Time	Frequently Use
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Analytic Induction	Never Use	Almost Never	Occasionally/ Sometimes	Almost Every Time	Frequently Use
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ABOUT US

The NEXT Steps Youth Entrepreneur Program (501c3 nonprofit)

Since 2008, The NEXT Steps Youth Entrepreneur Program (501c3) has served as a nonprofit workforce intermediary specializing in creating innovative tools and project-based experiential learning environments.

Key Impact of Project-Based Learning Environments



76%

Increase skills in problem-solving and critical thinking



71%

Learners feel more prepared for post-secondary education



88%

Learners feel they can apply what they learned to other settings



54-90%

Increase in student motivation



32%

Improvement in learners' ability to work in teams

Source: <https://zipdo.co/statistics/project-based-learning/>

CONTACT US

Do Better. Think BIGGER!



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COMMUNITY CHALLENGES



We help nonprofit organizations identify the root causes behind the socio-economic conditions that negatively impact their communities:



Aging Infrastructure



Changing Climate



Depressed Economy



Environmental Stresses



Shifting Demographics



Uncertain Energy Prices

OUR SOLUTION



In order to effectively address, reduce and/or eliminate negative impact, **we created the STEM Direct Youth Chamber of Commerce to develop meaningful, project-based experiential learning environments for service organizations** so they can empower their constituents to become active participants in their own growth and development.

BENEFITS



1

Empowerment and Ownership

By involving the community in the planning, implementation, and evaluation of projects, individuals gain a sense of pride and ownership in their accomplishments.

2

Relevant and Impactful Learning

By focusing on relevant issues, participants gain practical skills and knowledge that directly apply to their daily lives and future aspirations.

3

Collaborative and Social Learning

Collaborative learning environments foster a sense of solidarity and mutual support, which, in turn, strengthens the social fabric of the community.