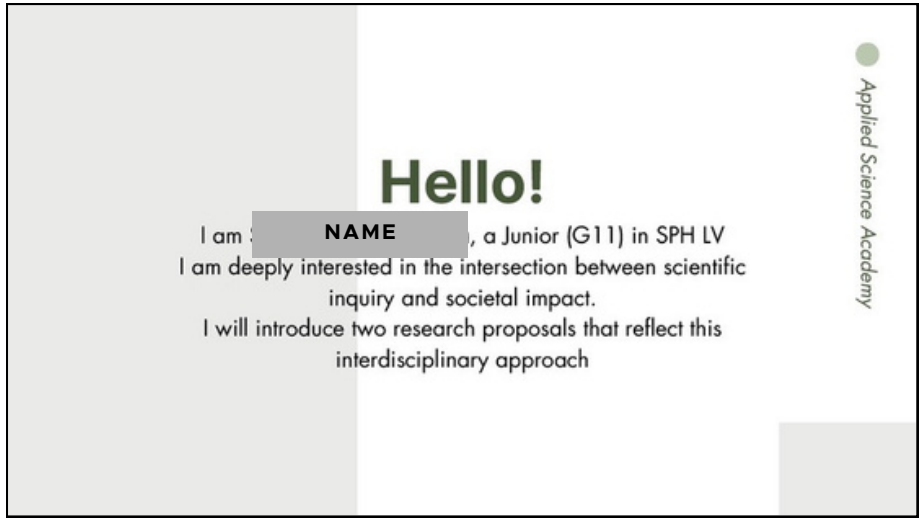
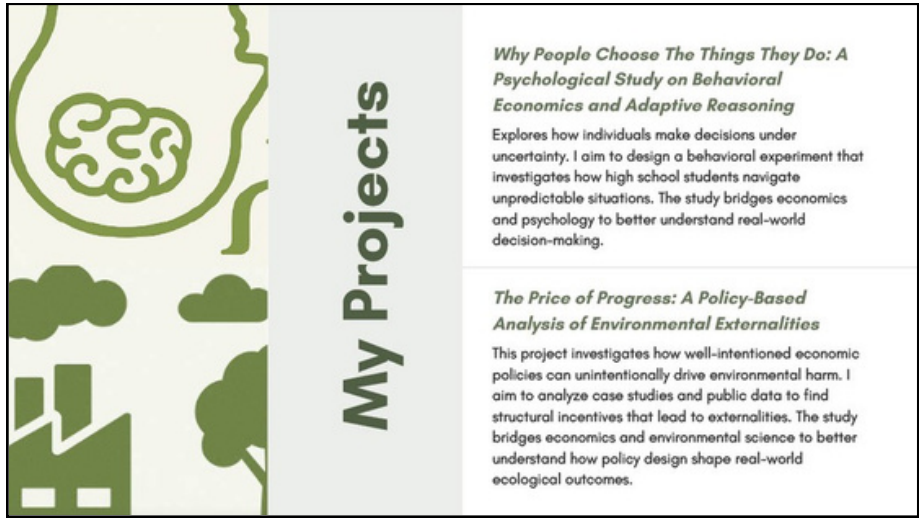
Presentation Example





Proposal 1 Example

WHY PEOPLE CHOOSE THE THINGS THEY DO: A PSYCHOLOGICAL STUDY ON BEHAVIORAL ECONOMICS AND ADAPTIVE REASONING

Project #1

Research Interest: Why This Project Matters to Me?

- Fascinated by why people make decisions that seem irrational (ie. overspending, avoiding long-term planning, etc.)
- Here's the question I got stuck on: "If people know something is harmful, why do they still do it? Or do they know, but choose to take the risk anyway?"

I believe this kind of thinking — combining psychology, experimentation, and policy relevance — reflects the spirit of the Applied Science Academy: using scientific tools to improve real lives.

Applied Science Academy

What Others Have Done

- Challenge the assumption that people are rational
- Decisions are made with bias and emotion
- First economic field to integrate psychological insights

Daniel Kahneman
Prospect Theory

Showed people fear losses more than they value gains. Revealed how people repeat predictable decision-making errors.

Amos Tversky
Heuristics and Biases

Showed how mental shortcuts (like the availability heuristic) lead to poor judgment under uncertainty.

Robert Axelrod
Game Theory (Prisoner's Dilemma)

Showed how people adjust their behavior over time during uncertain situations by learning from past outcomes and detecting patterns

Methodology

Game-Based Experiment

- Create an interactive experiment to simulate uncertain decision making
- Rules and probabilities will change secretly between rounds to observe how participants adapt

What I Will Do

- Collect data on choices & adaptation time
- Analyze how traits influence adaptive decision-making
- Reflect on how this could inform behavioral design or policy tools

My Contributions

Real World Context

- Kahneman and Tversky's experiments were conducted in controlled lab settings with static questions
- I want to test people during more dynamic and unpredictable contexts

Focus on Youth

- Most behavioral research focuses on adults in professional or consumer settings
- I'm interested in how students adapt. This could reveal meaningful patterns for how we design education systems

My Contributions

Interactivity

- Traditional studies measure bias in isolated questions
- I study adaptation through games which change and are uncertain across many rounds of decision-making

Policy Relevance

- This research informs how we design policies.
- The goal does not stop at academics but designing systems like in schools which help people make better choices

APPLICATION PROCESS & REQUIREMENTS

Proposal 2 Example

THE PRICE OF PROGRESS: A POLICY-BASED ANALYSIS OF ENVIRONMENTAL EXTERNALITIES

Project #2

Research Interest: Why This Project Matters to Me?

- I wonder why, despite all the conferences and climate policies, humanity still fails to stop environmental harm
  - At first, I thought climate inaction was because of a lack of solutions or politicians just being ignorant
- I've come to realize that maybe the barrier is not political, but something more ingrained and structurally flawed.

That's why I'm interested in studying how policies meant to help people, especially in developing countries, can unintentionally cause long-term harm. This reflects the Academy's goal of using science to design better outcomes for people who need it the most

Applied Science Academy

What Others Have Done

- Shifted the focus from pure science to policy
- Showed how economics are tied with the environment
- highlighted that well-meaning policies can still cause harm

Esteban Rossi-Hansberg
Pollution Haven

Showed how firms relocate polluting industries to countries with weaker environmental regulation especially developing nations with weak regulations

Nicholas Stern
Cost and Convenience

Showed that climate action should not only weigh the environmental urgency but the economic trade-offs that create inaction

Arun Agrawal
Environmental Governance

Showed how local institutions and decentralized decision-making systems worsen environmental outcomes when enforcement is weak

Methodology

Data and Policy Analysis

- Using data science to analyze real-world policies (i.e fossil fuel subsidies)
- Using public datasets to quantify harm
- Suggest policy reforms to minimize environmental harm

What I Will Do

- Conduct data analysis on real-world cases
- Identify gaps between goals and outcomes
- Propose policy redesign that align economic growth with environmental protection

My Contributions

Data-Based Thinking

- Using data analysis to evaluate how real-world policies produce unintended environmental impacts
- The project becomes measurable in evidence rather than theory alone

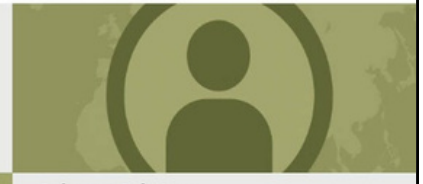
Evidence-Driven

- Moving beyond emotional appeal and an oversimplified narrative of the environment
- Uses real policy outcomes to show how it's ingrained in the system, not just individual choice or lack of awareness

My Contributions

Focus on Developing Nations

- Traditional studies are mostly general and global environmental trends
- I highlight how this economic policies disproportionately harm developing nations such as Indonesia



Relevant Solutions

- Current climate talks only blame and criticize others for neglect or ignorance
- I don't just diagnose the problem but recommend reforms to balance economic growth and environmental protection

APPLICATION PROCESS & REQUIREMENTS