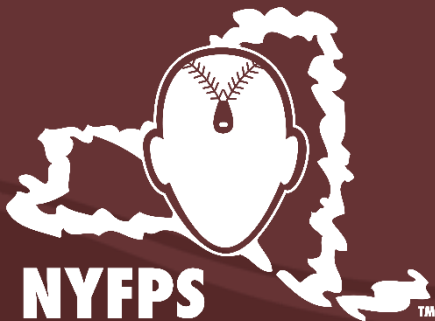


# EDUCATORS' GUIDE

*Future Problem Solving Fulfilling Education Needs*



# FUTURE PROBLEM SOLVING AS A SOLUTION

*The Six Steps Towards The Future Starts Today*

New York educators today face a unique problem, they require an effective model to teach critical / creative thinking, problem solving, and decision-making, while also maintaining compatibility with state and national standards. We are the solution that meets these needs. Future Problem Solving (FPS) can be implemented in the classroom or as an extracurricular activity. Teachers and school advisors can make a lasting impact on their students by bringing the FPS experience into students' education.

FPS encourages students from grades 4-12 to become more aware of a diverse range of community and global topics. These include business and economics, science and technology, as well as social and political concerns affecting our world today. Topics include STEM, Global Citizenship, and Social Sciences issues.



- ✓ Teaches critical thinking
- ✓ Stimulates creativity
- ✓ Encourages development of a vision for the future
- ✓ Prepares students for leadership roles.

**NYFPS is an educational non-profit dedicated to teaching students creative problem solving, collaboration, research, and effective communication skills.**

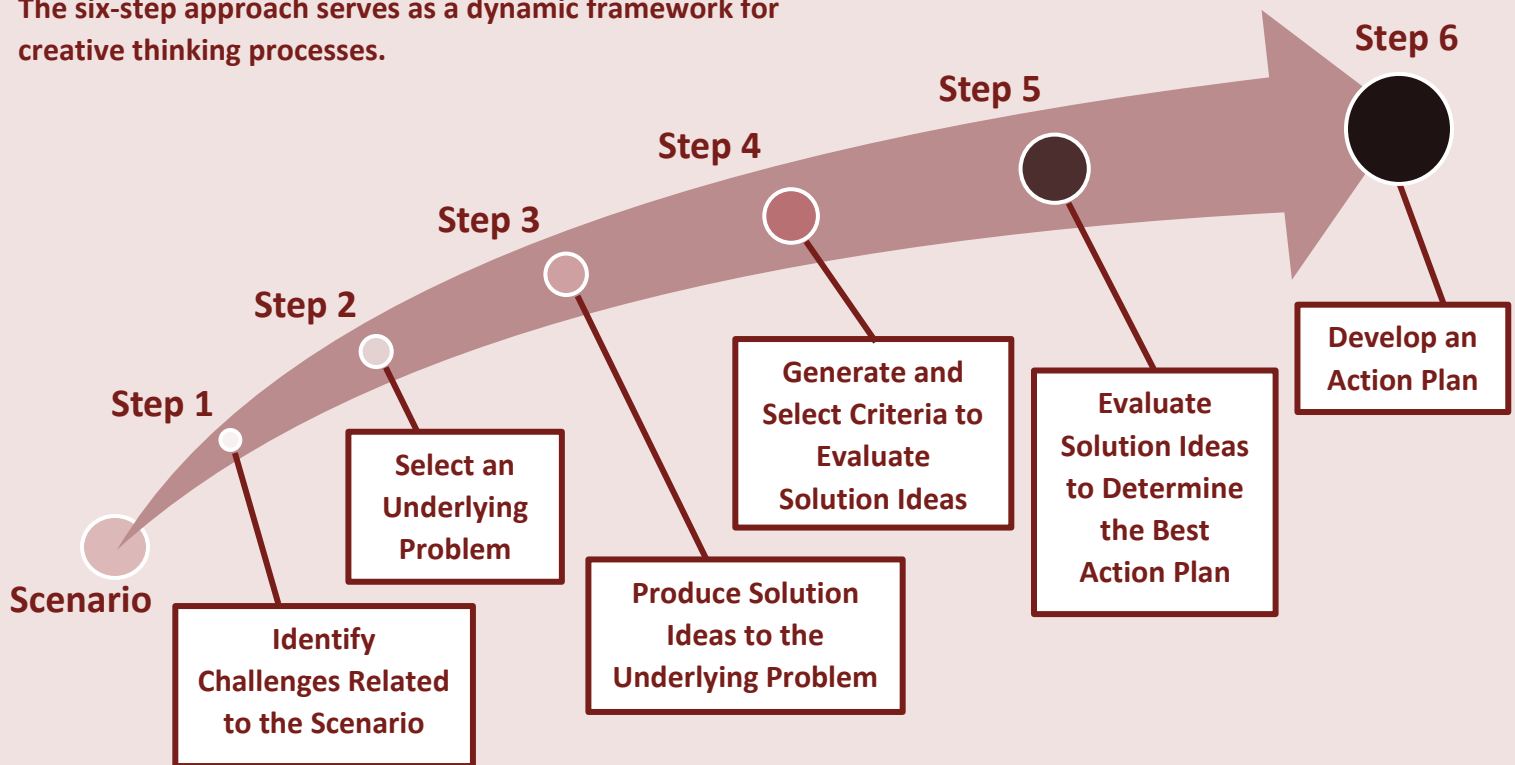
In 1974, Dr. Ellis Paul Torrance developed Future Problem Solving in response to a critical need for curriculum reform. He designed the program to address multiple educational priorities in a single curriculum model.

Decades forward, the program has become an international organization with affiliates in multiple states and countries, including NYFPS which administers the program in New York State.



# Problem Solving Framework

FPS is based on a creative problem solving six-step model. The six-step approach serves as a dynamic framework for creative thinking processes.



## Relevant Topics

Annually, FPS announces topics for the academic year aimed at helping students become aware of a diverse range of contemporary global trends. These topics represent themes and concepts from the strands of Business & Economics, Social & Political, and Science & Technology. Educators can leverage these topics to further enhance lesson plans or incorporate these issues within classroom discussions. Past examples include:

### STEM

- Agriculture
- Alternative Energy
- Artificial Intelligence
- Biosecurity
- Cyber Conflict
- Invasive Species
- Nanotechnology

### Global Citizenship

- Climate Change
- Cultural Prejudice
- Environmental Law
- Food Loss & Waste
- Freedom of Speech
- Global Status of Women
- Orphaned Children

### Social Sciences

- Coping with Stress
- Healthy Living
- The Global Workplace
- The Impact of Social Media
- Rage and Bullying
- Sensory Overload
- Social Isolation

# Core Competencies

These four essential skills underscore the FPS process.

## Creativity



Scenarios are set in the future to stimulate inventive thinking when problem solving. Students are encouraged to extrapolate future possibilities from the present.

## Collaboration



Teamwork is developed as students work through challenging and exciting situations while applying problem solving skills.

## Critical Thinking



Students analysis a scenario to gain an understanding of issues and apply those determinations to comprehend the critical aspects of complex situations.

## Communication



While working within a team or the community, students develop clear and articulate communication skills. Ideas are presented in written form and verbally.

## Bring Lessons To Life



Through competitions, FPS brings lessons to the next level. FPS encourages students to become inquirers; developing an affinity for researching, constructing, and applying complex theories and technologies. Real world problems are often multi-layered. FPS teaches students to take a step back and examine the bigger picture and understand emerging trends. Competition topics, such as nanotechnology, are explored in creative and critical ways to find solutions to global issues. Working in teams, ideas are refined and applied. In competition, students see how others solve the same problem, resulting in an incredible learning experience.

# Educational Competencies Development



## Reading / Literacy

- Extensive reading of non-fiction / informational text
- Build content area literacy through research of the specific topics
- Opportunity for writing using evidence from texts to build challenges, solutions, action plans, and scenarios
- Content in the Lexile stretch band to increase exposure to complex texts
- Development of content-rich academic vocabulary and comprehension skills through diverse annual topics

## Math / Finance

- Real world application of content
- The ability to solve mathematical problems beyond the classroom
- Strategic use of appropriate mathematical tools
- Financial and economic choices
- Project development requiring demonstration of conceptual understanding

## 21st Century Skills

- Learn and utilize skills of creativity, critical thinking, communication, and collaboration (Core Competencies)
- Assess and evaluate information in an efficient and effective manner
- Apply information accurately and creatively
- Examine how and why media messages are constructed

## Leadership / Responsibility

- Apply problem solving skills to guide a team toward a goal
- Seek other perspectives and experiences to contribute to local and global community
- Demonstrate integrity and ethical behavior
- Serve the community

## Life / Career Skills

- Ethical leadership for positive change
- Gift and talent development
- Independent investigation
- Achievement in areas across dimensions of learning
- Incorporate feedback effectively
- Adapt to changing situations, roles, and contexts



*The most basic skill that can be taught in today's schools is problem solving, especially skills in solving future problems.*

- Dr. E. Paul Torrance, FPS Founder

