

Curriculum Connections: Meeting Standards of Today and The Future

Problem

Educators today face a unique problem, they require an effective model to teach critical and creative thinking, problem solving, and decision-making, while also maintaining compatibility with state and national standards.

Future Problem Solving Program International (FPSPI) is the solution that meets these needs.

Solution

FPSPI is a research-based, academic program that teaches problem solving strategies, collaboration, critical and creative thinking, and effective communication. The interdisciplinary approach helps develop ethical leadership skills and provides a unique opportunity for students to learn and apply essential life skills in the 21st century.

FPSPI is an educational non-profit, teaching problem solving skills to students in grades K-12.

Future Problem Solving was developed in 1974 by Dr. E. Paul Torrance in response to a critical need for curriculum reform. Dr. Torrance developed the Future Problem Solving program to address multiple educational priorities, an accomplishment that no single curriculum model had yet achieved.

Today, FPSPI continues to address essential education priorities. The FPS program:

- Comprehensively meets standards for curriculum and instruction
- Stimulates critical and creative thinking skills
- Encourages students to develop a vision for the future
- Features curricular and co-curricular opportunities to engage students in problem solving
- Allows students to participate in academic oriented competitions
- Provides varied themes for students to develop research and investigative skills
- Promotes written and verbal communication skills
- Fosters collaboration and teamwork
- Engages students with the real-world



The Four C's

These four core thinking skills are the cornerstone of the Future Problem Solving process.



Creativity

Problem solving situations are set in the future to encourage inventive thinking. Students extrapolate future possibilities from the present.



Communication

Clear and articulate communication is developed while working with a team or in the community, and ideas are presented in written and verbal modes.



Critical Thinking

Students use analysis to gain an understanding of issues in today's world and to comprehend significant aspects of complex situations.



Collaboration

Students work together while learning and applying problem solving skills. Teamwork is nurtured as students advance through challenging and exciting situations.

Problem Solving Model

FPS is based upon
Creative Problem Solving

Learning and applying this process enriches students by providing open-ended support to align with a multitude of standards using complex thinking to address real-world problems.

Students use primary and secondary resources, conduct research on selected topics, and then apply their knowledge and ideas to the problem solving model.

Step 6: Action Plan
Based on the strongest solution as determined by the criteria, develop a plan of action to explain and implement the best solution

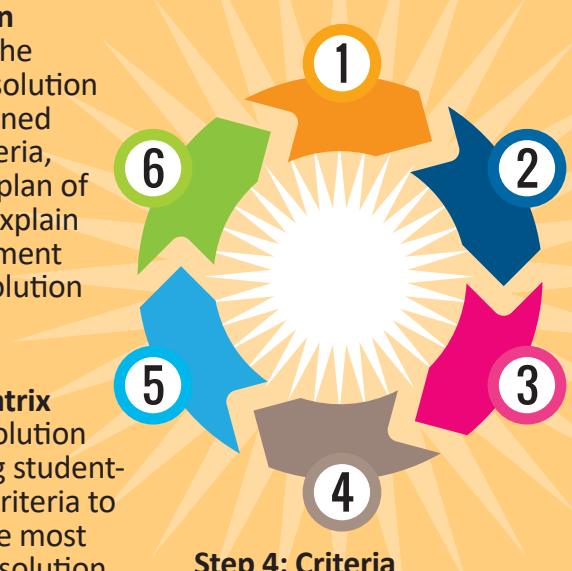
Step 5: Matrix
Evaluate solution ideas using student-designed criteria to identify the most promising solution

Step 1: Challenges
Generate challenges or issues related to a specified situation

Step 2: Underlying Problem
Analyze possible challenges to determine a single focused area to address

Step 3: Solutions
Generate a variety of potential solution ideas to resolve the selected Underlying Problem

Step 4: Criteria
Create criteria to measure the merit of solution ideas



Standards

FPSPI aligns with virtually all state, national, and international teaching standards.

These include, ESSA, Australian Curriculum, New Zealand Curriculum, 21st Century Skills (P21), PISA, International Baccalaureate Programme, and the National Association for Gifted Children (NAGC) Programming Standards.

Educational Competencies

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 FPSPI topics

Mathematics/Finance

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

21st Century Skills

- Learn and utilize skills of creativity, critical thinking, communication, and collaboration (the 4C's)
- Assess and evaluate information in an efficient and effective manner
- Apply information accurately and creatively
- Examine how and why media messages are constructed

Leadership and 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 and 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



Topics

FPSPI helps students become more aware of a diverse range of contemporary global topics, including business and economics, science and technology, and social and political concerns affecting our world today.

Recent examples of topics covered include:

STEAM

- 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/Emotional

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



Our Mission

To develop the ability of young people globally to design and achieve positive futures through problem solving using critical and creative thinking.



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