

Future Problem Solving Program International

Global Issues Problem Solving



Coach Information
2018-19

Global Issues Problem Solving Overview

What is Global Issues Problem Solving?

Global Issues Problem Solving (GIPS) is a competitive component of Future Problem Solving Program International (FPSPI). It is a team or individual activity in which participants research a series of global topics and learn a six-step creative problem solving process. In competition, participants apply their knowledge and the problem solving process to address a Future Scene, an imagined situation set in the future. Topics for the Future Scenes include global issues in the areas of business & economics, science & technology, and social & political areas. Each year five topics are addressed: two practice problems, a qualifying problem, an Affiliate Bowl/Final problem, and the problem at the International Conference. Check out full descriptions of the current topics on our [website](#).

Why Global Issues Problem Solving?

Future Problem Solving Program International provides the tools and strategies students need to face the challenges of today and the future. What better way to prepare students than by guiding them to learn in depth about topics of global importance, to systematically address related complex situations, and to evaluate multiple solutions in order to best address the situation through an Action Plan? Those involved in Global Issues Problem Solving practice powerful problem solving skills using critical and creative thinking. Participants improve their communication skills through collaboration and learning to write concisely with a specific focus in mind. The non-fiction/informational text reading skills, writing skills, and teamwork collaboration skills address many academic standards identified as critical skills by Common Core, STEM, 21st Century Skills, and NAGC (Nat'l Association for Gifted Children). The 4Cs – collaboration, communication, critical thinking, and creative thinking are infused into FPS and strengthened with membership in Partnership for 21st Century Learning (P21) www.p21.org.

Does FPS have to be done in the classroom?

FPS participants come in as many varieties as you can imagine. Many coaches utilize classroom time for FPS, while others use it in an after school enrichment setting. Still other groups participate as non-school affiliated clubs in their community. Parents, teachers, administrators, retirees – if you are interested in helping students to achieve their goals, and become better prepared for the future, then you can be a coach.

Whom is Global Issues Problem Solving for?

Students may participate in competitive Global Issues Problem Solving in multiple divisions equivalent to grade levels of the USA: Junior (grades 4-6), Middle (grades 7-9), and Senior (grades 10-12), and an Adult division for team participation. Many Affiliates also offer options for non-competitive participation as young as kindergarten, including Action-based Problem Solving, curricular and/or novice problem solving, and other Affiliate created options. Check with your Affiliate Program for more information.

Recent Topics in Business & Economics

Philanthrocapitalism
The Global Workplace
Trade Barriers
Counterfeit Economy
Debt in Developing Countries
Intellectual Property

Recent Topics in Social and Political Areas

Criminal Justice Systems
Educational Disparities
Disappearing Languages
Impact of Social Media
Propaganda
Culture of Celebrity

Who can compete in GIPS?

Teams of four, or fewer, and individuals participate in Global Issues Problem Solving. The composition of the team does not have to be the same for each practice problem, as this is when the dynamics of a good team are being determined; however, rules apply to team composition from the qualifying problem through the international level. Students may compete in a division higher than their grade level, but not in a lower division. Coaches may work with multiple teams and individuals.

How can I get started with my students?

Training in the problem solving process is essential for Global Issues Problem Solving coaches. Affiliate Programs often schedule workshops in the problem solving process – check your Affiliate Program’s website for specifics. If you are not able to attend a workshop, you can find many valuable resources at fspimart.org. “GIPS Essential Offerings” highlights information focused on Global Issues Problem Solving. Additionally, interaction through the optional FPSPI Association, provides support and information for all components.

How do I register for Global Issues Problem Solving?

Each Affiliate Program determines its own processes, fees, and due dates for registration and entries. Your Affiliate can provide you with registration and submission materials and may be able to put you in touch with experienced GIPS coaches. If you need contact information for your Affiliate, you can find it at on our [website](#).

Recent Topics in Science and Technology

Spread of Infectious Disease
Toxic Materials
Biosecurity
Desertification
Space
Energy of the Future

How are GIPS booklets evaluated?

GIPS booklets are scored by trained evaluators who carefully read and assess the written booklets. Scoring is completed using a rubric-based score sheet, and feedback is provided with suggestions for improvement. Some Affiliate Programs require that all coaches receive evaluation training and participate as evaluators. If yours does not, serving as an evaluator is highly recommended and always improves coaching skills!

Quality teams from the qualifying competition move on to the Affiliate Bowl/National Competition and champion teams and individuals in each division at this level earn invitations to the International Conference competition.

2018-19 Topics

Mission to Moon, Mars, and Beyond
Drones
Food Loss & Waste
Coping with Stress
IC Topic Announced March 1st

The Creative Problem Solving Process

Global Issues Problem Solving (GIPS) is based on the Creative Problem Solving (CPS) process, a powerful process that can be applied to many complex situations in education, business, community, and personal settings.

1. Identify Challenges (16/team; 8/individual)

- Generate issues, concerns, and problems, applying background knowledge to the Future Scene.
- Consider major issues and categories of problems in order to think of more challenges.
- Select the sixteen best challenges.
- Write the sixteen challenges clearly and concisely, showing cause and effect and tying directly to the Future Scene.

2. Select an Underlying Problem (UP)

- Consider the major issues in the sixteen challenges.
- Select an issue, one that will have a major impact on the Future Scene, for the focus of the Underlying Problem.
- Be forward-looking and proactive, not regressive and reactive, in developing the UP.
- Write the Underlying Problem in correct format, beginning with the Future Scene conditions that are the basis or rationale for the idea.
- Indicate a desired action to be taken, a purpose for the desired action, and parameters tying the problem to the Future Scene.

3. Produce Solution Ideas (16/team; 8/individual)

- Generate multiple solutions to the Underlying Problem.
- Think futuristically and consider the use of technological advances.
- Focus in on the 16 best solution ideas, checking that each idea addresses the UP.
- Write the 16 solutions clearly.
- Elaborate by telling who will implement the solution, what action will be taken, and how or why the action will be taken.

4. Generate & Select Criteria

- Considering the UP and the Future Scene, generate criteria that could be used to evaluate the solutions.
- Select five important criteria to be written in question format.
- Write criteria using the superlative form, one dimension, and the desired direction.

5. Apply Criteria (8/team; 5/individual)

- Select the eight most promising solutions and enter in the grid.
- Rank the solutions based on each of the criteria separately.
- Identify the best solution (highest number of total points).

6. Develop an Action Plan

- Plan how the best solution can be implemented.
- Describe the actions and steps of the plan.
- Clearly state how the plan will address the Underlying Problem and impact the Future Scene.



Future Problem Solving Program International

GIPS: 2018-19 Competition Season

For each topic, individuals or teams of 4 or fewer persons research and study a topic area and complete a written problem solving booklet based on the provided Future Scene. A team of evaluators assesses the booklets and provides extensive written feedback focused on improvement of writing and thinking skills. See your Affiliate Calendar for submission due dates.

Practice Problem 1

Topic for study: **MISSION TO MOON, MARS, and BEYOND**
Steps completed: Steps 1-3: Challenges, Underlying Problem, Solutions
Participants: Any students of registered coach
Working conditions: Flexible, based on educational needs of students, guidance recommended for young or beginning students

Practice Problem 2

Topic for study: **DRONES**
Steps completed: All 6 steps
Participants: Any students of registered coach
Working conditions: Flexible - based on educational needs of students, some guidance recommended for students in first couple of years, may do booklet work in 2 hour practice session to prepare for Qualifying Problem

Qualifying Problem

Topic for study: **FOOD LOSS & WASTE**
Steps completed: All 6 steps
Participants: All registered teams/individuals
Working conditions: "Competitive" conditions in place:
2 consecutive hours, unassisted, no notes
Note: Top teams qualify for Affiliate/National Competition

Affiliate Bowl (also called State Bowl or National Finals)

Topic for study: **COPING with STRESS**
Steps completed: All 6 steps
Participants: Teams/Individuals advancing from Qualifying Problem
(Affiliates may vary selection of participants for advancement.)
Working conditions: "Competitive" conditions must be met:
2 consecutive hours, unassisted, no notes, usually on-site

International Conference

Topic for study: **TOPIC ANNOUNCED MARCH 1ST**
Steps completed: All 6 steps
Participants: First place teams from Affiliate Bowls/National Competitions and Mentored Regions are invited; Affiliates may qualify for additional invitations according to scale (size of program)
Working conditions: "Competitive" conditions are in place:
2 consecutive hours, unassisted, no notes; on-site only

Explore Global Issues Problem Solving

Your students' problem solving skills can be developed in a variety of ways through FPS, whether or not they are going to be competing. Consider the following non-competitive opportunities for introducing the skills to young students, an entire classroom, or for those not yet ready to embark in the competitive options.

Action-based Problem Solving (AbPS)

Action-based Problem Solving is designed for use in the classroom, and introduces students to the skills of creative problem solving in a hands-on, non-threatening manner while delivering the same rich content and methodologies as the competitive components.

- The [Action-based Problem Solving Manual](#) is available in two skill levels – primary (K-3) and Junior/middle (grades 3-9). The manual provides instructional materials and lesson plans for initial learning of the problem solving process using easy children's stories or nursery rhymes.
- AbPS teaches a simplified version of the problem solving process, providing guidance in the writing of ideas. The materials may be used with a few students or with an entire class; either the teacher or the students may record the ideas that are generated; the work may be completed with teacher guidance or independently in small groups.
- Some Affiliates offer AbPS as a non-competitive component and provide additional problem solving situations based on the annual topics, allowing for real-world based discussion and decision-making. This registration entitles students' work to be submitted for feedback twice during the year. Information is also provided on conducting an Action-based Problem Solving Fair where students address real problems within their school or community.

Contact your Affiliate directly for details regarding these additional benefits.

Problem Solving Curriculum

[The Problem Solving Experience: Classroom Curriculum](#) is a complete curriculum targeted at grades 5-8, designed to promote 21st century problem solving.

- Included activities provide direct instruction for the Creative Problem Solving process, applying it in a variety of contexts for student enrichment and engagement. The curriculum can be implemented as a full semester course, or separated into sections.
- Complete lesson plans and resource materials are provided for implementing the curriculum.

The nine units include:

- Harrison Bergeron
- Digital Music Rights
- Prejudice

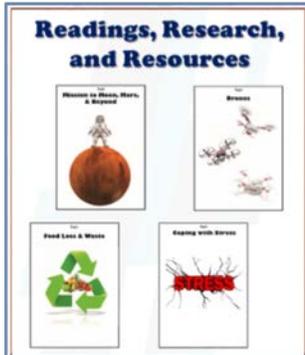
STEAM Units

New for the 2018-19 season, FPSPI is launching a series of [STEAM units of study](#) that serve as stand-alone curriculum. The cross-curricular integration of themes and concepts allows students to excel in contextual learning, meaningful engagement, and the synthesis of knowledge. It allows for a diversification of teaching methods and empowers the educator to serve as a facilitator to adaptable learners.

2018-19 GIPS Resources

Please consider FPSPI's 2018-19 Topic related publications. These include new research strategies, exciting article summaries and engaging student activities to incorporate FPS topics into classroom lessons and after school curricula. Check out these and more publications at www.fpspimart.org.

Readings, Research, and Resources (RR&R)



Provides research strategies and content for use by the new and experienced coach with students of all ages.

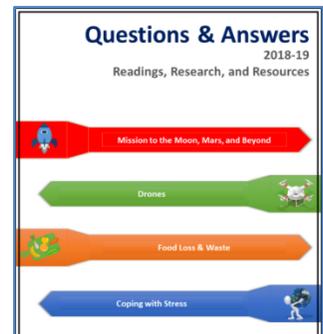
Paper: \$55
Electronic: \$50

For each of the annual topics, the RR&R includes:

- Terms and Definitions to establish early understanding of topics
- Overview of major trends to look toward the future
- Idea Generating and Focusing tools
- Questions for Discussion to develop analytical skills
- Themes and Concepts to guide student research
- 50+ article links and summaries for each topic!

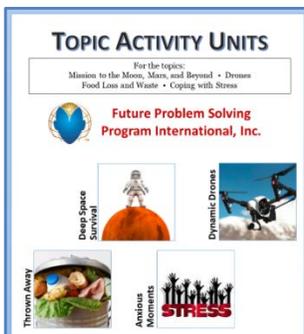
Questions & Answers

True and False, Multiple Choice, and Fill in the Blank questions and answers were developed from the RR&R. Serves as an excellent companion to Readings, Research, and Resources or as a standalone component for independent research. Great for use in the classroom as a curricular supplement.



Available on card stock, for cutting into flashcards or as an electronic download.

Paper: \$44
Electronic: \$40
Interactive Edition: \$15 per topic



Topic Activity Units

Engages students in a wide variety of instructional activities incorporating topic research with the six-step process.

Lesson plans developed from best practices to integrate critical thinking. Each topic can be used as a standalone unit of study, or singular activities may be used as desired to focus learning on particular steps within the Creative Problem Solving process.

Paper: \$65
Electronic: \$60

Combine and Save!

RR&R + Q&A

Paper: \$85

Electronic: \$80

RR&R + TAU

Paper: \$105

Electronic: \$90

RR&R + Q&A + TAU

Paper: \$140

Electronic: \$125

Looking for examples of the problem solving process in action?

NEW FOR
2018

- Check out the 2018 International Conference Champion work and their score sheets.
- See real world examples of excellence. The team and individual champions are included for each division.

GIPS IC 2018 Champs

\$10 per division



GLOBAL ISSUES PROBLEM
SOLVING (GIPS)
JUNIOR DIVISION

2018 INTERNATIONAL
CONFERENCE
CHAMPIONS



GLOBAL ISSUES PROBLEM
SOLVING (GIPS)
MIDDLE DIVISION

2018 INTERNATIONAL
CONFERENCE
CHAMPIONS



GLOBAL ISSUES PROBLEM
SOLVING (GIPS)
SENIOR DIVISION

2018 INTERNATIONAL
CONFERENCE
CHAMPIONS



FPS STEAM UNIT MEGACITIES



FPS STEAM curricula allows for a diversification of teaching methods and individual learning styles that encourages the educator to serve as a facilitator to learners. FPS STEAM units empower educators to meet guidelines in a variety of unique and engaging ways. Cross-curricular activities allow students to more fully engage a subject and meaningfully engage concepts and vocabulary on topics exploring science, technology, engineering, art and mathematics.

Electronic: \$25



New units will be
made available
throughout the
year!

WARNING – Do Not Post



Future Scenes: Every Future Scene contains the following warning: ***Do not post on any website until 2022.*** This means that Future Scenes should not be posted on any unsecured site, anywhere or at any time, until that date.

The main reason for this policy is to make sure the confidentiality of Future Scenes is maintained for all Affiliate Programs.

- Different Affiliates have different calendars, especially those in the southern hemisphere where the school year begins and ends much differently from the northern hemisphere; thus, they may be using a Future Scene at a much later date.
- Affiliate Programs are free to change the order of topics. For example, the Future Scene identified for practice problem #2 could conceivably be used as the qualifying problem by another Affiliate; therefore, practice problems must also be kept confidential.

Videos/Images: “Do Not Post” also applies to any videos, such as Presentation of Action Plan or images that might include details from Future Scenes.

Evaluation Notes: Evaluation notes from any topic may not be posted on any publicly accessible site as they provide specific details of the Future Scene.

FPSPi Publications: A purchase of any publication entitles that person to use the content only with his/her students. Such publications should be posted only on secure sites to which only his/her students have access.

Those found to have violated this policy will be charged \$500 per incident, plus additional costs incurred by the International Office and other Affiliate Programs and Mentored Regions.

Thank you in advance for complying with this policy!

Category List



Arts & Aesthetics



Basic Needs



Business & Commerce



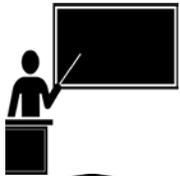
Communication



Defense



Economics



Education



Environment



Ethics & Religion



Government & Politics



Law & Justice



Miscellaneous



Physical Health



Psychological Health



Recreation



Social Relationships



Technology



Transportation