



2021-2022 UTAH FUTURE PROBLEM SOLVING



www.utahfps.org

Future Problem Solving is a fun and futuristic program that teaches **creativity, critical thinking, teamwork, and communication skills** to students in grades 4-12. Work with your students in creative writing or to solve global and community problems using our **powerful 6-step problem-solving process** in competitive and non-competitive divisions.



The Future Problem Solving 6-Step Process

1. Identify problems.
2. Choose a significant problem to solve.
3. Brainstorm solutions to the chosen problem.
4. Develop criteria to evaluate solution ideas.
5. Apply the criteria to identify the best solution.
6. Develop an action plan for making the best solution happen.

More information...

www.fpspi.org

www.utahfps.org

Like us on Facebook at

Utah Future Problem Solving

Prepare students for the future *today!*

FPS Registration

[CLICK HERE](#)

or go to

www.utahfps.org

Registration due October 29, 2021
(late fee \$10 per entry)

FPS NEW COACH TRAINING IS AVAILABLE UPON REQUEST

Register for the 2021-2022 Future Problem Solving Program



As exciting as ever!

FPS Competitive Divisions

Participate in the full program—with potential to compete at the State Bowl and Internationals!

Global Issues Problem Solving (Team) \$90.00 per team

In Global Issues Problem Solving (GIPS) students in grades 4-12 compete in teams of four to research and problem-solve topics of current relevance in the world. Teams complete two practice problems (optional), which are evaluated and returned with feedback. They then submit a third problem to try to qualify for the competitive State Bowl. Qualifying teams are invited to compete at State for the opportunity to represent Utah at the annual International FPS competition in June.

See: <https://www.youtube.com/watch?v=0NB5CxAUNow&sns=em> (fast forward to 2:42)

Global Issues Problem Solving (Individual) \$35.00 per student

Individual Global Issues Problem Solving is designed to give self-motivated, confident students the opportunity to compete, using the same format as the Team Division but completing shorter booklets independently. This is an ideal option for coaches who have a few extra students who won't fit evenly onto teams. Individuals complete two practice problems (optional), which are evaluated and returned with feedback, and then submit a third problem to qualify for the competitive State Bowl. Qualifying individuals are invited to compete at State for the opportunity to represent Utah at the annual International FPS competition in June.

Community Problem Solving (Team or Individual) . . \$60.00 per team or \$50 per individual

In Community Problem Solving (CmPS), teams in grades 4-12 use the FPS process to identify and solve current problems in their own communities. This experience builds hands-on problem solving skills, strengthens analytical skills and leadership ability, and offers many different types of communication opportunities—all while actively involving students in giving back to the community in which they live. Teams spend the year working on the problem they chose, and compete for invitation to the State Bowl and the International competition. Because teams may include 15 or more students, this is an excellent experience for whole classrooms. Individuals are also welcome in Community Problems Solving and will be evaluated separately.

See: https://www.youtube.com/watch?v=n1_QL169aY0&sns=em

Scenario Writing (Individual) \$40.00 per entry

Scenario Writing gives students in grades 4-12 who are interested in creative writing the opportunity to research any of the year's topics and compose a creative, dramatic, and futuristic scenario. Length of entry is a maximum of 1,500 words. Winning scenarios are chosen to compete at the International competition.

See: <https://www.youtube.com/watch?v=WSQePNTiBhl&sns=em> (please make sure to use this year's topics – shown on pages 3-4)

Scenario Performance (Individual) \$40.00 per entry

Scenario Performance (ScP) is for students who enjoy telling stories. Students in grades 4-12 are challenged to create a story that is between 4-5 minute duration, set at least 20 years in the future, and arises from any one of the topics set for Scenario Writing in the FPS year. Submission will take the form of a video file of the student delivering an oral telling of their story, undertaken in one take without any edits.

See: <https://www.youtube.com/watch?v=SDpv84hwdzU&sns=em>

International Competition

Teams, individuals, scenario writers, and community problem solvers who qualify for the State Bowl compete for the opportunity to represent Utah at the International Conference, which will be held June 8-12, 2022 at University of Massachusetts at Amherst. At least one team/individual from each level of Global Issues, Community Problem Solving, Scenario Writing, Scenario Performance will move on to compete at the International Conference. This is an exciting opportunity that students will not want to miss, if selected. Utah students will be among 2,500 students from around the world participating in the competition. For more information about the FPS International Competition, visit www.fpspi.org.

FPS Non-Competitive Curricular Divisions

*Learn problem solving methods
without the pressure of competition*

Action-based Problem Solving (K-9) (Individual or Team) \$35.00 per class

This year-long, non-competitive component (AbPS) is designed for use in the regular classroom and introduces students to the skills of global issues problem solving in a hands-on, non-threatening manner. Students are encouraged to work on two topics, one per semester. Three divisions are offered: Primary (grades K-3), Junior (grades 3-6) and Middle (grades 6-9).

Community Problem Solving (4-12) (Individual or Team). \$35.00 per entry

Similar to the competitive CmPS, but in a non-competitive format.

Topics for Global Issues and Scenario Writing

Topic

Global Issues Submission Date

Practice Problem #1 – WATER SUPPLY

Thursday, October 14, 2021

In many parts of the world, freshwater is in short supply. Water is often pumped for miles, streams diverted and reservoirs and dams are constructed to provide for the growing populations in dry areas. As water levels drop and aquifers decline, people become more concerned about preserving their water resources. More than 2 billion people lack access to safe drinking water services, and more than 4 billion lack safely managed sanitation services. Differing governmental and commercial demands must be balanced so that communities have enough safe water for their needs. As available water supplies deplete, adjacent areas begin to battle with water contracts and water rights. How might the right to access clean water be achieved? How will regulations shape the future of access to water? How will water scarcity shape society?

Practice Problem #2 – BUILDING GREEN**Thursday December 9, 2021**

The world is now more urbanized than ever before, and more and more people are flocking to live in large cities. Singapore was once known as the 'Garden City,' now it is being promoted as the 'Garden in the City' as new buildings incorporate trees and other greenery in their designs. Many quickly growing population centers are more environmentally aware as they expand the living spaces for their citizens. This awareness is not just a case of saving the environment and reducing emissions; it is a matter of necessity for creating healthy cities. Buildings can be designed to conserve both energy and water while improving the indoor and outdoor environment. Advancing technology is changing how architects are incorporating sustainable living practices into buildings. Light-based modulated sunlight, improved insulation, enhanced ventilation, eco-friendly building materials – are a few of the ecologically-preferred innovations changing the face and function of buildings. Some buildings now incorporate wind turbines to provide the necessary energy to power the building. Will these developments solve the problems they have set out to address? Will these change the way cities work and the way people live in them? Will these changes improve safety during natural disasters or introduce new problems?

State Qualifying Problem – INSECTS**Thursday, February 3, 2022**

insects - human's best friends and worst enemies. We are surrounded by more than a million species of insects. Without them, humankind couldn't survive. Some insects destroy crops and carry diseases. Mosquitoes, which carry diseases such as malaria, dengue fever, Ross River, Zika, and West Nile viruses, kill and maim more people each year than any other animal. Others do essential jobs like pollinate blossoms, aerate the soil, decompose dead plant material, or eat other harmful insects, making them essential to the food web. As weather patterns and temperatures change, the distribution and habitat of many insect species are likely to change dramatically. The numbers of bees around the world have been radically reduced due to disease. How does the reduction of some species and relocation of others impact health, agriculture, and horticulture?

Over 1,900 insect species have been identified as suitable for human consumption and animal feed and could assure food security. Incorporating insects into the human food and medical supply indicates the ever-growing importance of insects in the world. Will insects and their products, such as genetically modified mosquitoes or manuka honey help to fight diseases? Will toasted grubs, fried crickets, and other edible insects become important global protein choices?

State Bowl – MINING**Problem due March 10, 2022****Presentations March 18, 2022**

Mining is a long-standing means of gathering a wide range of resources vital to aspects of everyday life. The growing demands of mined materials continues to see the mining industry expand at an incredible pace. The technologies in use today and projected for the future are more minerals intensive than ever before. While technology that has made mining both safer and more environmentally sensitive than any other time in history, environmental and other risks remain. Yet without the collection of these important materials, the cornerstones of society like buildings, machines, and communication would not be possible. With environmental protections varying greatly from country-to-country, how can the world collaborate on the best way to extract and share geological materials? With mining as the foundation of countless communities, how will they be impacted by the changing landscape of mining? In the future, are there new areas that might be mined for resources?

State Bowl – TBA
International Competition – University of Massachusetts – Amherst

March 18, 2022
June 8-12, 2022

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Other Dates:

Registration due for all competitions (late registration accepted until Feb. 3) October 29, 2021

Scenarios due (Scenario Writing) February 3, 2022
Scenario Performance due February 10, 2022

CmPS Proposal due November 4, 2021
CmPS Intent due December 16, 2021
CmPS due March 13, 2022

What? A free team? How???

- **Evaluate** at least two of PP1, PP2, the Qualifying Problem, and State Bowl packets this year. Please contact Jill Powlick (jpowlick@gmail.com) for more information, or
- **Recruit** a new coach with no previous FPS experience who registers at least one team for this school year.
- **Granite Schools:** GSD pays registration for up to two entries per teacher.

[CLICK HERE TO REGISTER](#)

or go to

https://docs.google.com/forms/d/1pfynn7Ge-FkWymakou_jpqQi3d85nl24krVnLh7JiRw/edit?ts=6104ab41

Get Involved in Utah Future Problem Solving!!!

Utah FPS needs people willing to help! If you are interested in helping out, please contact one of the members of the board listed below:

Utah FPS Board Members:

Tamera Wright: Affiliate Co-Director; Treasurer
Jill Powlick: Affiliate Co-Director; Evaluation Chair
Elisa Jennings: Teacher outreach;
GIPS Specialist; evaluator

twright@graniteschools.org
jpowlick@gmail.com
ejennings@graniteschools.org

Patti White: CmPS Coordinator
Jennifer Flitton: Scenario Writing Coordinator
Sheri Sohm: CmPS Coordinator; Awards program
Jennifer Shields: Parent outreach

patti.white@uw.org
jflitton@graniteschools.org
sls@xmission.com
jzshields@gmail.com

For more information on FPS, please visit fpspi.org or watch this overview:
https://www.youtube.com/watch?v=OsKH0B_rlg&sns=em