Question: What do you think happens at the National Institute of Aerospace based upon the banners that hang in the front hallway?

Answers:
design
class visits teacher development
aeronautics
STEM Education
creativity
outreach
Professional Development opportunities

Question: What universities are represented in the banners?

Answers:
U Va
Georgetown

Question: Why do you use design challenges?

Answers:
Foster creativity, problem solving
Application of learned content
to express critical thinking and teamwork
Teaches the design process
teach essential content
Application of learned content

Question: What design challenges do you already use?

Answers:
first robotics, oil spill clean up methods
Rocketry, Bridge Building, Robotics
First Lego & First Robotics
Nice!
boat building, tower building, bridge building
car crash test simulation
VEX Robotics
maglev vehicle, drones, mini battle bots
Testing Engineering Aptitudes with Math and Science (TEAM+S (TSA Event))

Question: What grades do you teach?
Answers:
7-9
9-12
K-5
grades k-6
supervise 6-12
9-12
7 thru 12
10-12
6th - 8th grade
Teacher education, 10-12

Question: Are the challenges open internationally? Answer: NASA OPSPARC is open to US citizens and all parts of Canada except Quebec.

Question: What are NASA Spinoffs?
Answers:
Something that comes as the result of another project
a related project or concept
Starts with NASA, then brought to the rest of the world
Young Sheldon -> Big BangTheory
Activities and projects that can be done with our students
Innovation
CO2 Sensors to Monitor Vehicle Emissions

http://edu.glogster.com/

Question: Could a US university sponsor a school overseas? Answer: Yes, but the students need to be US citizens or Canadian citizens to participate in NASA OPSPARC.

Question: Have you used Second Life?

Answers:

yes

yep I'm in there

No

yes

no

I have used it with difficulty

No

yes

Yes

Yes

nope

No

Question: What do you know about the James Webb Space Telescope?

Answers:

Hubble replacement?

Here's an example of students presenting InWorld: https://www.youtube.com/watch?v=gsj2uAvTGCg&index=1&list=PLOyTYArLxcbLq6qXGoHJqDZCERaxkqwZ&t=416s


Here's the link to the NASA OPSPARC challenge: https://nasaopsparc.com/

Question: Oversea students can also join? Answer: Only US and Canada citizens may participate in NASA OPSPARC.

Question: I'm considered with my graduating seniors. Can this work for graduating seniors. I teach only seniors. Answer: Yes, this would be great for seniors.
Question: And is there a cost? Answer: No cost.

Question: What criteria do you use when selecting design challenges?

Answers:

- Sustainability
- Content driven
- How well it addresses content I am required to teach, student interest in the topic, resources available
- Materials needed
- Large Scale Application, Financial Literacy and sustainability
- Relevance and student interest
- Presented a problem solving scenario
- Cost, and storage

From Betsy McAllister to everyone:

**Here's the link to the LiveBinder of examples of design challenges:**
http://www.livebinders.com/play/play?id=2313269

Question: Is the livebinder link available anytime? Answer: Yes

Question: Do these challenges have a state standard equivalency? Answer: We align our work to National Standards, but it would be easy to match these to state standards.

Question: What interesting challenges did you find in the LiveBinder?

Answers:

- Water Filtration Challenge, Building for Hurricanes.
- We like the water filtration challenge too. Important for third world countries
- Yes!
- Vertical farming, Eco World
- Aerodynamics
- Propeller challenge
- Boomerang looks fun

**Here's the link to an example NASA Spotlite:**
https://www.youtube.com/watch?v=1e4bnUohXUs&list=PLV9y-BbZecPbjxPC658CUj2Tb5xXYp0&index=5
Question: Not to beat a dead horse but can Cambodian schools be involved? Answer: International students CAN participate in the Spotlite project.

Question: cost of registration for OPSPARC? Answer: No cost.

Question: for track 2, is there a cost? Answer: No cost. 😊

Question: If we implement any of the design challenges are there additional resources or direct contacts we go to ask questions or receive guidance on them? Answer: If you need help, contact one of us. Sharon.Bowers@nianet.org. We can try to help.

Question: minimum and maximum number of students per team? for opsparc, is there a limit of team members? Answer: Track 1: individuals to 4 to a team. Track 2: 2 – 4 students.

Question: How many teams can you have? Can you have multiple teams? Answer: No limit to the number of teams entering.

Note: If you’d like me to Skype in to try to build excitement for your students, please ask. Sharon.Bowers@nianet.org

Question: any material costs w/ Track 2? (thinking about models etc....) Answer: Only the cost of creating a prototype for a video.

Question: Has anyone done track 2 for graduating seniors? Answer: Yes ... it works great with graduating seniors.

Question: Do you take physics students as mentors? Answer: Yes

Question: Is it too late to get involved with track 2, since the deadline is so soon. Answer: No, not too late. This project could be completed in 8 – 10 hours.

Comment:

Perfect this would be for my engineering design and problem solving class.

Emails: Sharon.bowers@nianet.org; joan.harper-neely@nianet.org; betsy.mcallister@nianet.org