Boy Scout Roundtable White Horse District September 2015 STEM

Local organizations that you can partner with:

General Science:

- Franklin Institute Philadelphia, PA https://www.fi.edu/ (including Weather and Astronomy Merit Badge programs)
- Salem Nuclear Power Plant Nuclear Science Merit Badge day. Next one December 19? Not yet confirmed
- South Jersey Astronomy Club http://www.sjac.us/ Public viewings, local members will sometimes do programs for Scout groups
- Rotor-E Drone Club Oaklyn, NJ

Engineering:

- Dewberry in Mt. Laurel annual Surveying Merit Badge program
- Palmyra Nature Cove Palymra, NJ http://www.palmyracove.org/ (including an Engineering Merit Badge program, plus activities for Orienteering, insects and animals in winter, tree id, wetlands ecology, forest ecology, bird id, wildlife observation hikes, and more!
- Liberty Science Center North Jersey lsc.org (offer Geology, Fingerprinting, Engineering, and Electricity Merit Badge Programs)

Ecology:

- Woodland Cedar Run Wildlife Refuge (Medford) www.cedarrun.org/
- Academy of Natural Sciences Philadelphia, PA http://www.ansp.org/ (including Reptile and Amphibian Studies, Mammal Studies, and Environmental Science Merit Badge programs)
- Wetlands Institute Stone Harbor, NJ http://wetlandsinstitute.org/ (Bird Study, Environmental Science, Fish & Wildlife Management, Geocaching, Insect Studies, Nature, Oceanography, Plant Science, Reptiles and Amphibian Studies, Soil and Water Conservation, and Sustainability Merit Badge programs)
- Rancocas Nature Center http://www.rancocasnaturecenter.org/ (Badge programs available)
- Pineland Preservation Alliance Southampton, NJ http://www.pinelandsalliance.org/

Some ways White Horse District Troops are using STEM in their programs:

- Built homemade radios
- Model rocketry building and implementing then, sending them up. Propellant can be considered ammo, so check with local town regulations before using a park, or use private land (ex: Pine Hill Scout Reservation)
- Identifying a simple machine each day at camp, and how it can be used to improve a campsite

How do I make STEM fit with patrol method? Do **not** make this school... hands-on > lecture

One idea - mousetrap cars (engineering)

Meeting #1 - Lay out the challenge and have each patrol design a mousetrap car. They can be given directions, maximum specs, and a mousetrap each (that was, all traps are the same).

Meeting #2 - Patrols, having brought the materials from home for their plans, build their cars. The patrols then test the cars to see which car will go the furthest. After the competition, can break it down in after talks with the patrols - what part of their design worked? What didn't? Why? What could be done better for next time?

"I have not failed. I've just found 10,000 ways that won't work." ~ Thomas Edison

Have each patrol work out design improvements.

Meeting #3 - Repair/change/improve the cars, and repeat competition.

Troop loves it? Have your Patrol Leader Council investigate robotics kits and such that get more complicated. A quick online search found kits as cheap as \$25 going up into the many thousands of dollars range. Lego, Radio Shack, Wal-mart, and many other places carry kits. Your PLC can work out what they want and how to fundraise for kits for each patrol (or better yet, have your patrols work out how each one will fundraise/earn the money for it).

Troop really loves it? Nova and SuperNova Awards - http://www.scouting.org/stem.aspx for more details.

Resources/more information:

- September/October issue of Scouter Magazine
- September Issue of Boys Life
- http://www.scouting.org/stem.aspx

Boy Scout Roundtable Open Forum

Camping Ideas (hoping to grow this into a database of places to camp):

- NJ Motorsports Millville [Troop 179]; can camp there http://www.njmp.com/
- Pequea Creek Campground hike Conestoga Trail to Wind Cave DIY caving (bring flashlights and bike helmets)

http://southjerseytrails.org/2014/09/16/conestogatrailpequea/

- Camping in NYC Camp Pouch on Staten Island Ferry to NYC Historic Trails, Statue of Liberty/Ellis Island.
- Urban historic Trails trips also located in Washington DC and Philadelphia
- Washington DC Greenbelt State Park

Day trip idea:

- Atco Raceway

New scoutmaster – team building, problem solving to work better as a group there

Cell phones - how do Troops handle them?

Runs the gamut -

Available tools uses - camera, for astronomy, research for trips, compass, emergencies

Troop A – everyone brings one – so how to use for the program as a tool

Troop B- not allowed but know they must address it

Article in Scouting magazine

Troop C - generally banned at meetings

Troop D - Allowed to have, but remain unseen

Troop E - Had ban, considering changing policy

Food for thought - interesting article in Sep/Oct Scouter about cell phone use guidance based on the Scout Law.

Art's idea – Would Scouts be interested in inter-council competitions with shooting or archery? Would compete via the web, as teams.