



2020 Challenge

By conserving energy, we can reduce air and water pollution, lower our electric bill and create a healthier planet. Your team's challenge is to create a way of conserving energy in the future. For example, transforming energy from one object to power another or creating a new type of energy to power a city. Create a model of your energy conservation idea out of K'Nex pieces. Be creative!

Additional Middle School Challenge

Teams competing in the grades 6-8 division will also be asked to present a budget of their project. They will need to inventory each K'Nex piece they use and list a price for each piece. They will need to present their inventory and an overall cost of their project.

Rules:

- A team of four students (maximum) will work together on the project. Teams may not use alternates.
- Teams may use up to 1400 pieces. Any pieces, as long as they are K'Nex, may be used.
- Each project must use at least one motor.
- Schools must bring their K'Nex pieces and motors on the day of the competition.
- Students will have 2 hours to put together their project at the competition.
- No pieces may be brought to the competition already joined.
- Each team will need to bring a journal and a blueprint to the competition.
- Each team will need to prepare a presentation (max 2 minutes) on their model and how they answered the challenge. Middle school students will also need to present their inventory.
- The model is a representation of your idea. Each team will need to create a presentation that describes their idea in more detail.
- Projects must fit on a 6-foot long table.
- No water or other live objects may be used in the project.
- Teams may use background materials but those will not be judged as part of the project.
- String and rubber bands may be used.

Judging Criteria:

- Creativity
- Teamwork
- Challenge Success
- Design
- Presentation



Parts of the competition:

Journal

- This should be a diary of the team's journey from start to finish.

Blueprint

- Can be a photo, drawing, cad drawing, etc. Be creative!
- Students may present this on a tablet/ laptop but judges will not award additional points for technology.

Project

- Teams may include a backdrop or artwork but judges will not consider this in their scoring.
- Must use at least 1 motor.
- Cannot exceed 1400 pieces.

Presentation

- Each presentation will be 2 minutes or less
- Students may use a tablet/ laptop but will not be awarded any additional points
- Middle school students must also present their inventory and cost

Awards:

- Awards will be given to top three teams in grades 4-5 and grades 6-8
- Additional prizes may be awarded (best blueprint, most creative, etc.)
- Top team in each division at each regional competition will advance to the state competition being held in May 2020 in Harrisburg, PA.

ThermoFisher
S C I E N T I F I C

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Allegheny Intermediate Unit