



2019 Challenge

Teams across Pennsylvania are being tasked with creating a machine that will move 3 objects at least 6 inches across a table. The “crane” must pick up the object, move it at least 6 inches and set it back down. Your team can choose the objects that need to be moved. Please consider how environmentally friendly your machine is while presenting about your project. 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 4 students (maximum) will work together on the project.
- Each project must use at least 1 motor.
- Teams may use up to 1400 pieces. Any pieces, as long as they are K’Nex, may be used.
- Schools must bring their K’Nex kits 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.
- Teams must create a new machine. Using kits that are currently sold will not be rewarded.
- Projects must fit on a 6 foot long table.

Judging Criteria:

- Creativity
- Teamwork
- Challenge Success
- Design
- Presentation

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 on Friday, May 17 at Harrisburg University in Harrisburg, PA



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