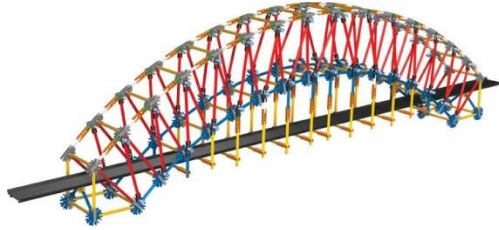


# 2020

## K'Nex Design Challenge

(updated 11/15/2019)



## Frequently Asked Questions

Below is a list of frequently asked questions for this year's event. The questions and answers are in no particular order. If you have any additional questions, please email Nadine Homentosky (nhomentosky@iu19.org).

### 1. Are there any restrictions to what parts the students can use?

Teams are only permitted to use K'Nex parts for the machine. Additional individual parts and STEM Design Challenge Kits may be purchased through NEIU 19. The kits contain a diverse assortment of almost 1400 pieces, including one motor, but no drawings or lesson plans. These are the same kits sent to IUs as a part of the Thermo Fisher grant in years past. The price for each kit is \$50.00. The IU has a limited number of these sets in stock at our Archbald location for purchase by districts who need K'Nex pieces to participate.

### 2. Can teams use pre-designed K'Nex kits?

One of the goals of this event is to allow teams to develop their own ideas into working models. Teams are not allowed to build with prepackaged kits according to the directions (such as the ones available for retail purchase). Additionally, teams should not purchase existing kits and modify the design *slightly* and present the final "project" as their original work. Teams at the state event who use existing kits will be automatically disqualified.

### 3. What teams need to include a budget as part of their project?

Only Grade 6-8 teams (Middle School) are required to include a budget as part of the project. The budget (and price sheet) must be part of the student presentation for Grade 6-8 only. A PDF document of the [Cost per Part List](#) is available via the competition webpage

<http://www.iu19.org/competitions/> Please see the Design Challenge description for additional information.

**4. Are there restrictions to the design?**

For the challenge this year, teams are 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. Teams must build a model of their energy conservation idea out of K'Nex pieces. Please encourage teams to not use any fundamentally applicable kits available through K'Nex for purchase. At the state level of competition, one of the head judges has worked with K'Nex for many years and can easily pick out which projects are utilizing kits. The judges have not judged projects favorably because of that in the past.

**5. Do all projects need to include a motor in their design?**

Yes. All projects need to include at least one motor as part of their design. The motor must be functional to the overall design.

**6. Do all teams need to include a journal as part of their presentations?**

Yes. All teams need to include a journal as part of their presentation. This journal should be a diary of the team's journey from start to finish.

**7. Do all teams need to include a blueprint in their presentation?**

Yes. All teams must include a blueprint as part of their design. Blueprints can range from hand drawn images (to scale), to digital pictures, to computer generated designs.

**8. On the day of the event, what can we expect when teams first arrive?**

Teams will be escorted to their assigned table. An NEIU 19 staff member will check all kits to make sure no parts of the project are pre-assembled at that time, since 2 hours will be allocated for building. Be sure to bring any signed media releases for students with your team.

**9. Where is the event being held this year?**

The event will be held at Johnson College.

**10. How is the term “team” defined for the local event?**

Teams are defined locally as no less than three students, but no more than four students within the appropriate grade band.

**11. Can we name our projects?**

Yes! The best projects are not only designed well but also have a great presentation prepared and project name too.

**12. Can we include items in our presentation that are not made of K’Nex pieces?**

Yes. Any items that are part of your presentation that are not physically part of the K’Nex machine can be made of anything (not necessarily K’Nex pieces). However, the actual product itself should be made exclusively of K’Nex pieces. Please note that no water or other live objects are allowed in or around your design, which must fit on a 6ft table.

**13. How long are the student presentations?**

On the day of the event, each student team will present to two different teams of judges for 2 minutes. Judges are instructed to keep the presentations on schedule.

**14. I am the point of contact for my district/school. What does that mean?**

Each district/school designated one point of contact. This person exclusively will receive all of the communication for the event from the NEIU. The point of contact is expected to share all of the information for the event with other teachers/ stakeholders in his/her district/school.

**15. Is there a rubric for the event?**

Yes. There is a rubric which will be sent to all points of contact to be shared. It is highly recommended that you share the rubric with your teams prior to the event to determine if your team meets all of the rubric elements. There is one rubric for MS teams and one for ES teams.

**16. Can teams use zip ties to secure parts of their project?**

No. Rubber bands and string are the only items allowed to be used to secure small parts of the project. The rubber bands and string should not provide structural support to the project.

**17. Can parents and guardians attend the event?**

No. Please inform the parents/guardians that they are not allowed to attend the event.

**18. What is the size of the tables and how will the tables be arranged?**

Teams should plan on a standard 6 foot folding table. Tables will be standing. All projects, accessories and posters should be displayed on the table. Please do not set up any portions of the final project on the floor (this includes posters). Teams must have all of their materials on the table for judging.

**19. Are electrical outlets and WIFI available?**

Teams will not have access to electrical outlets. Please charge all electronics prior to the event, and make sure they are able to hold a charge for at least 4 hours. Teams are encouraged to bring additional batteries for their motors. WIFI may be available, but is not guaranteed.

**20. Is there a new procedure in place for media releases?**

Yes. This year, team leaders will collect and keep their media releases for the event. Teams are required to submit media releases for all students on their teams. If there are any students who cannot be photographed, please indicate their identities to the IU coordinators on the day of the event.

**21. I have a question about the event that was not answered by this FAQ, the rubrics or Design Challenge paperwork. What do I do?**

If you have any questions about the event, please contact Nadine Homentosky ([nhomentosky@iu19.org](mailto:nhomentosky@iu19.org)).