



ACADEMY OF APPLIED SCIENCE PRESENTS



WELCOME!

Welcome to the first VIRTUAL Northern New England Invention Convention!

This wasn't how we envisioned our regional event and we miss seeing you in person immensely. However, the show goes on and we are thrilled that you will participate!

The following pages details how to compete, competition guidelines, and FAQs about submitting video presentations and photos for our virtual competition. If you have any problems, please contact Tina White, Director of the Young Inventors' Program at: twhite@aas-world.org or 603-228-4530 x213.



HOW TO COMPETE

Students nominated by their YIP teachers/leaders will receive instructions on how and where to upload their videos and photos for the virtual competition. Each student will upload materials into designated Google Drive folders. Only judging teams will have access to these materials. Parents are required to complete media release forms as part of the registration process.

General & Challenge Categories Competition Submission Materials

1) Video submission: general & challenge categories

- Submit a 4-6 minute video.
 - Don't feel that you must use the entire 6 minutes. If your presentation takes less time, it is not a problem.
- Video must include:
 - Student(s) name(s), grade, school, city, state, and invention name.

TIPS:

- Don't feel that you must use the entire time. If your presentation takes less time, it is not a problem.
- Make sure that we can see and hear you.
 - Stand in a well-lit, quiet place.
- Stand in front of your display board & show your prototype.
 - If you don't have your display board, just show us your prototype.
 - You may use your display board to talk about your invention process and highlight key points.
 - If you want a close-up of one part of your board or your prototype, please submit a photo of it rather than zooming in and out.
- "One take" submissions.
 - No editing or production is allowed in your video.
 - Video should run continuously.
- Film horizontally/landscape.
 - When filming on a smartphone, hold the phone horizontally.
 - You may also record a Zoom meeting for submission too.
- For students in grades K-3, parents may prompt students with questions.
- For TEAMS:
 - We understand that you may not be in the same place as your teammate(s).
 - Choose one person to film the video or film in a Zoom meeting to allow everyone to say a few words.

2) Photos:

- You may submit up to 5 photos that showcase your poster, prototype, or team

3) Registration form:

- Complete our registration form with \$25 participation fee
 - Scholarships available if cost is an issue. Please email Tina if cost will prevent you from participating: twhite@aas-world.org

4) Release form:

- Parents/guardians must complete the media release and upload into the inventor's Google Drive folder.

Chain Reaction Category Competition Submission Materials

Chain Reaction inventors are allowed to submit 2 videos: one to explain their inventions and one to show the steps of the chain reaction.

1) Videos: chain reaction category

- VIDEO 1: 2-3 minutes explaining your invention, the problem it solves, and your invention process.
 - Video 1 must include: Student(s) name(s), grade, school, city, state, and invention name.
- VIDEO 2: 3-4 minutes following the chain reaction invention in action.

TIPS:

- Don't feel that you must use the entire time. If your presentation takes less time, it is not a problem.
- Make sure that we can see and hear you.
 - Stand in a well-lit, quiet place.
- Use your display board as needed.
 - You may use your display board to talk about your invention process and highlight key points.
- "One take" submissions.
 - No editing or production is allowed for either of your videos.
 - Video should run continuously.
- Film horizontally/landscape.
 - When filming on a smartphone, hold the phone horizontally.
 - You may also record a Zoom meeting for submission too.
- For students in grades K-3, parents may prompt students with questions.
- For TEAMS:
 - We understand that you may not be in the same place as your teammate(s).
 - Choose one person to film the video or film in a Zoom meeting to allow everyone to say a few words in video 1.

2) Photos:

- You may submit up to 5 photos that showcase your poster, prototype, or team

3) Registration form:

- Complete our registration form with \$25 participation fee
 - Scholarships available if cost is an issue. Please email Tina if cost will prevent you from participating: twhite@aas-world.org

4) Release form:

- Parents/guardians must complete the media release and upload into the inventor's Google Drive folder.

FAQ

What is my display and prototypes are at my school?

If you don't have access to your display board and/or prototype, you may compete! If you have access to your invention journal, you may use drawings and other pages to explain your invention process. If recreating your prototype isn't possible, you may use sketches of your prototype in your video and submit photos of the sketch, drawing, or blueprint.

What if I worked as a team?

In the efforts to respect social distancing, you may choose one inventor to present your team's video. That inventor will be responsible for filming the video and submitting it. The inventor who does the video presentation should have the display board and prototype to use in the video, if possible, and should mention each team member's name at the start of the video. If your team has already shot your video as a team or finds a way to shoot as a team using an online platform like Zoom.

What about my inventor's journal?

We appreciate all of the work that you put into your inventor's journal. For the virtual competition, it is not feasible to upload and store all 300+ journals for judges to review. PLEASE SAVE YOUR JOURNAL! If you advance to the national competition, you will need to submit it.

RULES OF COMPETITION FOR VIRTUAL NORTHERN NEW ENGLAND INVENTION CONVENTION

COMPETITION CATEGORIES

General Invention & Design Category

The General Invention & Design Category includes inventions developed through the Invention & Design track of the YIP program. In this track, students have the freedom to identify any problem and design a solution for it. From environmental concerns, helping those with physical disabilities, to pet care and fun and leisure inventions, projects in the general category cover an infinite range of topics.

Challenge Category

Each year, the Young Inventors' Program offers an additional challenge. Inventors who accept the challenge must incorporate a special element into their invention design. The Challenge Invention Category includes all inventions which incorporate the year's theme. These inventions are developed through the Invention & Design track of the program, similar to the General Invention & Design Category, however the Challenge may provide more direction for students who need more guidance to choose a problem to solve, or for those students seeking to push themselves to think outside of the box around the challenge theme.

YIP CHALLENGE 2020: THE GREEN SCHOOL CHALLENGE

Each year, the Young Inventors' Program offers an additional challenge. Inventors who accept the challenge must incorporate a special element into their invention design. The Challenge Invention Category includes all inventions which incorporate the year's theme. The Challenge may provide more direction for students who are overwhelmed by the thought of brainstorming a problem to solve, or for those students seeking to push themselves to think outside of the box.

The YIP Challenge theme for 2020, is the Green School Challenge. Now is your opportunity to make your school more efficient and environmentally friendly. What can you do to reduce food waste in the cafeteria, cook or serve meals differently, save energy, make an easier or fun way to recycle or compost, or reduce water usage? We know you have some bright ideas. So let's begin to make your school a "greener" place.

Chain Reaction Machine Category

The Chain Reaction Machine Category (formerly known as the Rube Goldberg® Machine Category) allows inventors to design a contraption or devise that is deliberately over-engineered to perform a simple task in a complicated fashion. These inventions are not eligible to advance to Invention Convention U.S. Nationals as they do not include this category.

ELIGIBILITY

Inventors from grades K-12 who have participated in a school/local Invention Fair and have been nominated by their teacher or leader are eligible to compete in the regional Invention Convention. Nominated inventors must register for the regional event online by the stated deadline. Individuals and teams may compete in all three categories of competition.

Teams

The Young Inventors' Program encourages collaboration and welcomes teams to compete in the Northern New England Invention Convention. Teams may compete against individuals, and vice versa. All team members must participate in the development of the invention and should keep their own YIP Inventors Journal or invention logbook.

Rules for teams in our competition categories are:

Teams: Invention & Design Inventions and Challenge Inventions

- Two students will be allowed per Invention Team.
- Students do not have to be from the same grade.
- Video submissions do NOT have to include all team members. See above for video submissions.
- Each student can enter only one project (General Invention & Design Invention, Challenge Invention or Chain Reaction Machine) for the School/Local Invention Fair, the regional Invention Convention, and the Invention Convention U.S. Nationals.
- No student can enter both an individual and a team project.
- Teams will compete against individuals and vice versa.
- The judging process for individuals and teams is exactly the same at all levels.

Teams: Chain Reaction Machine Inventions

- Teams of up to four students will be allowed per Chain Reaction Machine Team.
- Students do not have to be from the same grade.
- Video submissions do NOT have to include all team members. See above for video submissions.
- Each student can enter only one project (Invention or Chain Reaction Machine) for the School/Local Invention Fair, the regional Invention Convention, and the Invention Convention U.S. Nationals. Note that Chain Reaction Inventions are not eligible for Invention Convention U.S. Nationals.
- No student can enter both an individual and a team project.
- Teams will compete against individuals and vice versa.
- The judging process for individuals and teams is exactly the same at all levels.
- Project Requirements

COMPETITION PRESENTATION VIDEOS & PHOTOS

All projects must have the following components:

VIDEO

- 4-6 minute video submission (see above).
 - If display boards and prototypes are not accessible, students may use drawings and photos. See FAQs for more details.
 - Video must include: Student(s) name(s), grade, school, city, state, and invention name.

TIPS: For video presentation:

- State the problem that you are solving with this invention.
- Explain how your invention solves the problem.
- Explain details of prototype construction. Use photos to show diagrams and details.
- Models or prototypes (which may be working or non-working) are not required but are recommended. These models demonstrate the key characteristics that make the invention valuable, original, and useful. This model does not have to be fully functional.

PHOTOS

- Students may submit up to 5 photos showcasing details of design, prototypes, or teammates.

Project Restrictions

The following items are not allowed on your person or in your project:

- Electric stun guns, martial arts weapons or devices
- Guns, replica guns, ammunition, and fireworks
- Knives of any size
- Mace and pepper spray
- Razors and box cutters

INVENTION CONVENTION JUDGING

The judging process is an important component of the regional competition. Judges at the Northern New England Invention Convention receive training to understand the goal of the program and their roles as judges.

As they review inventors' projects, judges are asked to keep in mind that:

- All participants are winners, having already won at their school/local level.
- Participants include some first-time inventors. They may be nervous in their presentations.
- Judging process is a positive experience for students to showcase their ideas and celebrate their accomplishments.
- Presentations will not be judged on the quality of video submissions; rather the content and ideas presented by students.

Inventions at the regional Invention Convention will be judged according to category of competition: General Invention & Design, Challenge Inventions, and Chain Reaction Machine Inventions. Judges will be assigned in teams of at least two people for grade level awards.

JUDGING CRITERIA

Each category of competition will be evaluated on a set of stated criteria by the judging team. Judges will be given a standard rubric/scoresheet to guide their evaluations. Judges will meet by Zoom to discuss their notes and their scores and to deliberate before selecting winners in various award categories.

General Invention & Design Inventions criteria

Originality/Usefulness

- Does the invention represent an original and creative thought?
- Is the invention a novel or unique solution to an identified problem?
- Does the overall presentation of the invention reflect creative or original work?
- Does the invention have marketable value?

Research Performed

- Was time and effort given to see if this invention has already been invented?

Challenge Inventions- The Green School Challenge – criteria:

Originality/Usefulness

- Does the invention represent an original and creative thought?
- Is the invention a novel or unique solution to the challenge problem?
- Does the overall presentation of the invention reflect creative or original work?
- Does the invention have marketable value?

Research Performed

- Was time and effort given to see if this invention has already been invented?

Chain Reaction Machine Inventions criteria:

Use of Simple Machines

Is there evidence of 4 simple machines used at least once

- wheel & axle
- pulley

- incline plane
- screw
- wedge
- lever

Construction/Complexity

- Is it safe and reasonably well constructed?
- Does the task use at least 6 steps?

Successful completion of task

- Video 2 should show the successful completion of the task that the machine is intended to do.

Creativity

- Creativity and overall appearance of the completed contraption and the task it accomplishes.

REGIONAL AWARDS

The Young Inventors' Program seeks to inspire and encourage students to engage in STEM activities at all levels. Participation is always recognized and inventors are commended for their efforts to challenge themselves and to take positive risks to create and present their inventions. All inventors are considered successful and we strive to celebrate their accomplishments.

Awards are presented in addition to recognition for participation in all three categories of competition, across grade levels, in designated specialty categories, and best in show achievement. In addition, the Young Inventors' Program will grant Best In Show awards which may change year to year. An inventor/team may win up to two awards at the regional Invention Convention.

Select winners at the regional Invention Convention will be invited to represent the Northern New England region at the Invention Convention U.S. Nationals hosted by Invention Convention Worldwide in partnership with the Henry Ford. Designated regional Invention Convention awards serve as National Qualifiers and automatically qualify an inventor for the national competition. Other regional winners may be invited to participate at the national level as space allows and these inventors and their teachers will be contacted following the regional convention.

REGIONAL NOMINATIONS

Program teachers and leaders nominate student winners from each school or organization's local invention fair for the Northern New England Invention Convention. School and local programs may develop their own award systems and processes to nominate students for the Northern New England Invention Convention.

Typically this allows schools/organizations to nominate the winning inventions in each of the categories of competition per grade level: General Invention & Design Category, Challenge Invention Category, and Chain Reaction Machine Category.

Please remember that schools and organizations must be registered as a YIP Program to be able to nominate students for the regional competition. If you have not registered or are unsure, please contact us as soon as possible at 603-228-4530 x213.

