



Invention Convention Program

- 1) Introduction to Invention Convention Letter
- 2) Intent to Invent Form / Parent Permission Form (**DUE MARCH 15, 2019**)
- 3) Congratulations for Accepting the Challenge & Timeline
- 4) Invention Questionnaire
- 5) Rules for Journal Keeping
- 6) Naming the Invention
- 7) Display Board Tips
- 8) Patent Search
- 9) Presentation Practice Questions
- 10) Sample Scoring Sheet





2019 Invention Convention

Clinton-Massie Schools are participating in the 2019 Invention Convention! The Invention Convention is an academic option in which students use their imaginations and problem solving ability to seek out a problem, create solutions, select the best solution, and develop an invention prototype. We will hold a local Invention Convention on **April 10, 2019**, and the top three prototypes will be invited to participate in the Ohio Invention Convention & Entrepreneurship Competition – Sunday, July 28, 2019, at The Ohio State Fair. Additional prototypes may be selected to participate in the Invention Convention State Qualifying Round, competing with students across the state for a spot at the Invention Convention & Entrepreneurship Competition. In total 600-800 students are expected to participate in the state final.

Between now and March 29, 2019, you should be thinking about problems in your everyday life that a new invention could solve. Once you choose an invention to work on, you must return the **Parent Permission and Intent to Invent forms by March 15, 2019**. Once these forms have been returned, you will receive updates via your e-mail address to support completion of the project.

The Invention Convention is an **at home** project, so please consider the time commitment before agreeing to participate. It is an **OPTIONAL** project, but a very worthwhile learning activity. You may get help from your families to acquire materials, build prototypes, and prompt your critical thinking about your ideas and design, but all ideas **must** be original to the YOU. Remember, the you are competing for scholarships and other prizes and the work needs to be your own work. Your responsibilities are as follows:

- ◆ Choose a problem and brainstorm solutions
- ◆ Determine if the idea is already invented (patent search)
- ◆ Select a partner to work with (optional—teams can be of two students, but both students must attend CMMS and be in grades 6-8. If partners are from different grades they will be judged at the higher grade level)
- ◆ Document research conducted and data collected in the development of the invention
- ◆ Build and modify a prototype—no larger than 2' x 3', use of electricity at the competition will not be permitted (battery operated is acceptable)
- ◆ Document all steps and tests of the prototype in the Online Student Journal
- ◆ Create an Invention display board
- ◆ Practice the presentation of the invention
- ◆ Bring journal, board, and prototype to the CMLS Invention Convention on April 10, 2019.

This is sure to be an exciting and memorable learning experience for you. There is a wealth of information available for you online at the CM Invention Convention website, <http://cm-inventionleague.weebly.com/>, which you may find helpful. If you have any additional questions or concerns, please contact CMMS/CMHS Gifted Intervention Specialist, Mrs. Binau at jill.binau@cmfalcons.org



Intent to Invent Form

DUE March 15, 2019

After reviewing the information in this entire packet, I [student name] _____ intend to participate in the Invention Convention.

My Grade: _____

Will you be working with a partner (partners are optional)? Yes No

If you are working with a partner, please indicate your partner's information below:

Partner's Name: _____

Partner's Grade: _____

Invention Convention Permission Form

DUE March 15, 2019

After reviewing the information in this entire packet, I give my child, _____ permission to participate in the 2019 Invention Convention. I understand that he/she will need my support and assistance while completing this project.

Student Signature: _____ Date: _____

Parent Signature: _____ Date: _____

Parent Email: _____



Congratulations!

You have accepted the challenge of participating in the 2018 Clinton-Massie Invention Convention! All the handouts and information you will need to complete your project are contained in this packet. Read your timeline carefully so you know which handouts you should be reading as you work on your project. The most successful inventions are the simplest, so just remember to **Keep It Simple**.

Four Common Means to Inventing

1. Improve upon a product. Change something and make it better.
2. Combine ideas. Put two or more inventions together to create something new.
3. Create a new use for an item.
4. Create an original invention—a totally new product or idea.

Invention Convention Timeline

Now – March 15, 2019

Tuesday, February 26 (2:30 - 3:30) Gather in Mrs. Binau's room (CMMS 601)

Friday, March 1 (Lunch) Gather in the Student Center

Tuesday, March 5 (2:30 – 3:30) Gather in Mrs. Binau's room (CMMS 601)

Tuesday, March 12 (2:30 - 3:30) Gather in Mrs. Binau's room (CMMS 601)

Friday, March 15 (Lunch) Gather in the Student Center

1. **Step 1: Seek out a Problem** – Identify problems and possible inventions that may solve them. Complete pages 5 – 6 in your electronic journal.
2. **Step 2: Find a Solution** – Think about different ideas and options to solve your problem. Identify the BEST solution for the problem. Research your idea to make sure it does not already exist. Do a patent search for your idea. Complete pages 7 – 11 in your electronic journal.
3. Complete and return the **Intent to Invent** and **Parent Permission** forms – due March 15, 2019.

Now – March 28, 2018

Tuesday, February 26 (2:30 - 3:30) Gather in Mrs. Binau's room (CMMS 601)

Friday, March 1 (Lunch) Gather in the Student Center

Tuesday, March 5 (2:30 – 3:30) Gather in Mrs. Binau's room (CMMS 601)

Tuesday, March 12 (2:30 - 3:30) Gather in Mrs. Binau's room (CMMS 601)

Friday, March 15 (Lunch) Gather in the Student Center

1. **Step 3: Design a Prototype** – Decide how to create or design your prototype. Complete pages 12 – 14 in your electronic journal.



2. **Step 4: Build/Create your Prototype** – Build your prototype and create the supporting documents and presentation materials. Complete page 15 in your electronic journal.
3. **Step 5: Test, Redesign, and Summarize** – Test and make improvements where possible. Start working on pages 16 – 20 in your electronic journal. Experiment with your idea. Remember, if your idea is not successful, try another ... and another ... and another...

March 18 – March 29, 2019

Tuesday, March 19 (2:30 – 3:30) Gather in Mrs. Binau's room (CMMS 601)

Friday, March 22 (Lunch) Gather in the Student Center

Tuesday, March 26 (2:30 – 3:30) Gather in Mrs. Binau's room (CMMS 601)

1. **Step 5: Test, Redesign, and Summarize** – Test and make improvements where possible. Complete pages 16 – 20 in your electronic journal.
 - a. Complete your invention and your Student Journal.
 - b. Create a *catchy* name for your invention. See the **Naming Your Invention** handout for guidance.
 - c. Create a display board for your invention. Information included on your board should be typed. Be creative and make the board colorful. See the **Tips for A Quality Display** handout for guidance. The Internet also has many websites devoted to creating quality display boards.
2. **Step 6: Entrepreneurship** – Learn about the next steps for protecting your product. These pages do NOT need to be completed for the local competition. They should be completed for the state competition. Begin working on pages 21 – 29 in your electronic journal

April 1 – 9, 2019

Tuesday, April 2 (2:30 – 3:30) Gather in Mrs. Binau's room (CMMS 601)

Friday, April 5 (Lunch) Gather in the Student Center

Tuesday, April 9 (2:30 – 3:30) Gather in Mrs. Binau's room (CMMS 601)

1. Finalize all aspects of your project. Continue to work on your display and make sure everything is neat and complete.
2. Optional: You may want to ask family members or friends to write an endorsement for your new invention. Include these with your display. Include patent research as well.
3. Practice your presentation. Have someone ask you questions about your invention so you are comfortable talking to the judges. See the **Inventor Questions** handout for guidance.

Wednesday, April 10, 2019

Wednesday, April 10 (2:34 – 3:00) Gather in Student Center to QUICKLY set up!

Clinton-Massie Invention Convention Make sure you have the following:

1. Your invention prototype
2. Completed student journal (The journal will need to be written neatly **in ink or printed out and signed by hand**)
3. Display board



Invention Questionnaire

Use this form to ask family members and friends about problems that need to be solved. This may help you think of an idea for an invention. (Optional—does not need to be returned)

What does not work as well as you would like it to work?

What problems would you like to have solved?

At home?

At school?

Other (car, store, etc.)?

If you could invent something to make your life easier, what would you invent?



Rules for Journal Keeping

- If you are handwriting your journal please write neatly and use pen for your final copy.
- If you are completing the online journal, you should sign and date it by hand after printing your final copy.
- The journal is available online by visiting: www.inventionleague.org/inventors, click on About the Invention Convention and select from one of the two journals available.
- Make notes each day about the things you do and learn while working on your invention.
- Record your idea and how you got it.
- Write about problems you encounter and how you solve them.
- Add sketches and drawings to make things clear.
- List all parts, sources, and cost of materials.
- Date all entries at the time they are made.
- You may keep a “rough draft journal” during the process, but will need to transfer the information to the official Invention Convention journal before the competition.
- Use complete sentences in your journal.

Naming Your Invention

An invention can be named in one of the following ways:

- Using the inventor’s name:
 - Levi Strauss = Levi jeans
 - Louis Braille = Braille alphabet system for the blind
- Using the components or ingredients of the invention:
 - Root beer, peanut butter
- Using initials or acronyms:
 - IBM, SCUBA
- Using word combinations (notice repeated consonant sounds/rhyming words):
 - Hula Hoop, Pudding Pops, Kit Kat, Cap’n Crunch
- Using the product’s function:
 - Earmuffs, hairbrush, Swiffer

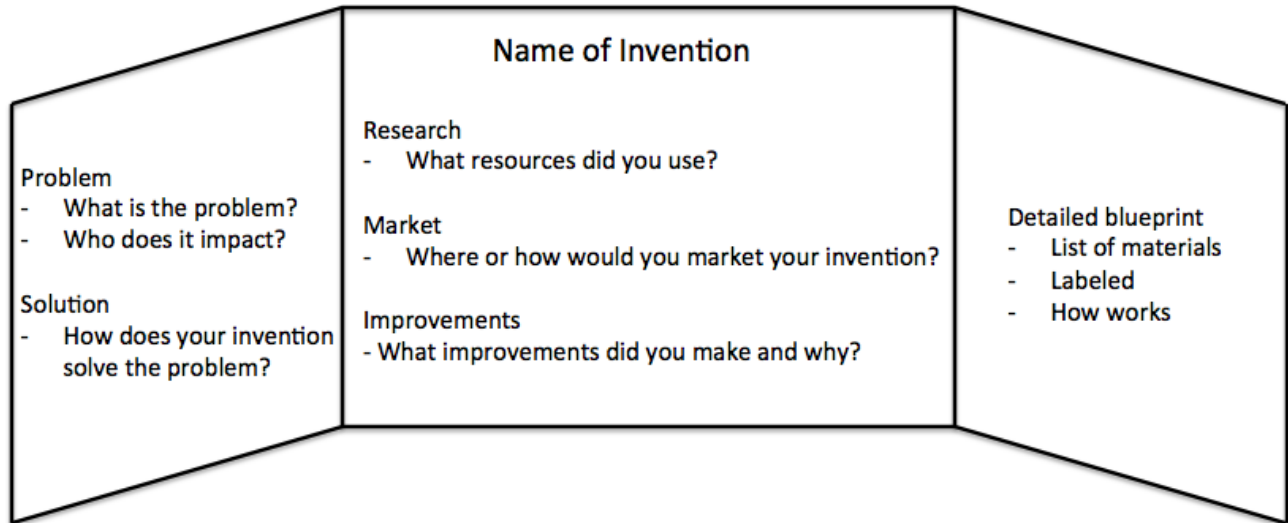
Tips for a Quality Display

- Design your display board so that it represents your invention clearly and attractively.
- Use a tri-fold board so it is sturdy enough to stand by itself and large enough to show pictures and drawings.
 - A tri-fold display board can be purchased at office supply stores.
- Titles and subtitles should be large and clear.
- If possible, all information for the board should be typed and printed from a computer.
- Use colorful paper to make borders and frames for your titles and information.
- Do not leave large empty spaces on the display board. Include photos and drawings.
- Balance the arrangement of materials on the board.
- Rubber cement or double-sided tape is neater than white school glue.
- BE CREATIVE!!!



Sample Invention Display Layout

Hundreds of examples of display boards can be found online through a simple image search using keywords like Invention Convention display board. Here is a sample layout to get you started:



Patent Search

You must complete a patent search of your invention to verify the originality of your invention. Here are some online resources to help you get started:

<http://www.uspto.gov/video/cbt/ptrcsearching/>

<http://www.uspto.gov/learning-and-resources/support-centers/patent-and-trademark-resource-centers-ptrc/resources/seven>

http://www.uspto.gov/sites/default/files/documents/7_Step_US_Patent_Search_Strategy_Guide_2015_rev.pdf

<http://www.uspto.gov/patents-application-process/search-patents>

Presentation Practice Questions

Have someone ask you these and other questions to practice your presentation.

- What problem does your invention solve?
- How did you get your idea?
- How do you know that this has not been invented before?
- Are you interested in pursuing a patent?
- What was the most difficult part of creating your invention?
- Who would benefit from your invention? How would they benefit?
- How could you market your product?
- Explain your student journal. How was it helpful?
- Where could you go next with your invention



INVENTION CONVENTION SCORE SHEET

Judge # _____

Circle only one number for each answer

Process	1=not at all / 10=extremely well	PTS
1. Problem: To what extent does the student effectively identify the problem and need for a solution?	1 2 3 4 5 6 7 8 9 10	
2. Research: How fully explored was the relevance and potential use for this invention?	1 2 3 4 5 6 7 8 9 10	
3. Solution: Did the student demonstrate critical thinking in the development of their solution/invention?	1 2 3 4 5 6 7 8 9 10	
Results	1=not at all / 10=extremely well	
1. Function: Does this invention solve the problem originally identified?	1 2 3 4 5 6 7 8 9 10	
2. Design: To what extent is the prototype useful, relevant and operational (optional)?	1 2 3 4 5 6 7 8 9 10	
3. Originality: Is the solution measurably different and unique from others?	1 2 3 4 5 6 7 8 9 10	
Impact	1=not at all / 10=extremely well	
1. Audience: Does the student fully grasp this invention's user(s) and benefactor(s)?	1 2 3 4 5 6 7 8 9 10	
2. Industry: Does the student clearly understand how their solution/invention might meet the needs of various industries?	1 2 3 4 5 6 7 8 9 10	
3. Overall Effect: Does the student understand the effect their solution has on solving the problem.	1 2 3 4 5 6 7 8 9 10	
Communication/Expression	1=not at all / 10=extremely well	
1. Was the Oral presentation clear, complete and effective?	1 2 3 4 5 6 7 8 9 10	
2. Was the journal clear, complete and effective?	1 2 3 4 5 6 7 8 9 10	
3. Did the inventor effectively utilize the prototype and display to aid in the inventions use?	1 2 3 4 5 6 7 8 9 10	
Total Points →		
Supplemental Question	1=not at all / 10=extremely well	
1) Rate the overall viability in the marketplace.	1 2 3 4 5 6 7 8 9 10	

Comments:

[Student Label(s)]