Invention Convention Handbook
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Invention Convention
Requirements

1. Brainstorming a Problem...
   - An inventor sees a problem, and decides how they want to solve it.
   - Students should begin by brainstorming a list of problems, and what they can do to change the world around them.
   - Remember: KEEP YOUR IDEAS A SECRET UNTIL YOU APPLY FOR A PATENT... So no one can “steal” your ideas.

2. Problem Research...
   - An inventor researches what has already been discovered about this problem.
   - Use the books and materials provided, or use the library or internet to learn more information.

3. Writing the Patent...
   - The inventor writes a detailed patent report and submits it for approval. If an expert agrees that the idea is new, and original, the inventor gets a special number and "owns" this idea. No one may copy this idea from them.
   - As an inventor you will need to complete the Invention Convention Patent Application.
4. Plan your Invention...
   ▪ Gathering materials to create and engineer their project
   ▪ Inventors will sketch and label a diagram of their invention.
     ➢ This sketch should be on a 8x11” sheet of paper, and attached to your display board.
     ➢ All parts of the invention should be clearly labeled

5. Build your Invention
   ▪ Using your gathered materials build your invention.
   ▪ An adult may assist you, but this needs to be mostly your work.
   ▪ Take photos and notes of the engineering process to display on your board. Make notes in your Log Book (see step 6) of any issues or other interesting events that might arise along the way.

6. Log Book and Journaling
   ▪ Inventors keep notes to document the invention process while they create their inventions.
   ▪ You will be required to write several entries discussing the steps you went through in the creation of your invention.
   ▪ You will use the journal entry forms as part of this packet.

7. Prepare for the “Invention Convention”
   ▪ Use the schematic of the tri-fold board included in this packet to create your presentation board.
   ▪ Bring your invention with you to school.
Inventions from Kids Just Like You!

- **Catcher Cone** - Sick of your ice cream cone dripping all over your hands? The catcher cone is a drip collector that saves your hands from getting sticky!

- **Plastic Bag Rope** - Students used recycled plastic bags to create rope, which can be used in many ways. Students claimed that this would help our world by cutting down on waste.

- **Recycled Clothing Blankets** - Students used old clothing to create blankets that were donated to the homeless and those effected by natural disasters.

- **All Purpose Banana** - Students created a Swiss Army type contraption, using a banana as the base. When you are done with your tools, you can eat the banana!

- **Helping Hands** - A student watched his mom struggle to wash the dishes each night. He invented dishwashing gloves with scrubbers and sponges built right in! How smart!

- **Automatic Cereal and Milk Dispenser** - Students created a working machine that dispensed both milk and cereal! Students claimed that this helped get ready for school faster, and saved their mom the stress of getting their breakfast ready!

**Begin to notice some everyday problems all around you...**

**Big and small!**

**What solutions can you think of????**
Safety Guidelines

STOP! You may not bring any of the following to school...

1. Anything that would be hazardous to the public, the student, or the school is PROHIBITED!

2. You may not use or display any harmful objects!
   Nothing sharp or pointed, no weapons, knives, razors or blades, no guns!
   If you are using power tools to build your invention... get an adult to help you!

3. No hazardous liquids may be displayed in school including: acids, bases, mercury, insecticides, repellents, cleaning products (including bleach), no flammable liquids!
   a. If these items are used in the invention (use caution) you may display photos of the actual items, but they may not come to school!

4. Use caution if using fire or electricity!

5. All experiments must be supervised by an adult at all times!

Safety of the students, your family and our school community is our #1 priority. Use caution when choosing experiments.
Invention Convention
Tentative Schedule

Teacher / Parent Information Session

Student patent applications and contract due back to teachers!

Teacher approval due back to students!

Teacher / Parent Conferences
Science Fair Project check-in...
How are things going? How can we help you?

Student Progress Reports Due

Inventions, Display Boards, and Invention Logs due back at school! Judging and Grading!

Invention Convention Day!

*** Teachers may periodically assign check-ins or additional reports.

Due dates will be announced in advance! ***
I, _____________________________, will submit my invention

Child’s Name

and Inventor’s Log for the Invention Convention due on:

____________________. I understand that this is a requirement and

I must follow the directions outlined in this handbook.

I further understand that failure to follow all directions and

instructions in this guide will affect my final project grade.

Class: ____________________________

Student’s Name ____________________________

Student’s Signature ____________________________

Parent’s Name ____________________________

Parent’s Signature ____________________________
Inventor’s Name: __________________________________________________________

Date of Application: ______________________________________________________

Name of Invention: ________________________________________________________

The problem that my invention will solve and how this invention will change the world:

________________________________________________________________________

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Description of Invention:

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Materials List:

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___________________________________________________________________

Simple sketch of the Invention:

[Blank]

Inventor's Signature: _____________________________________________

Inventor's Parent Signature: _______________________________________

Official HLA Official's Approval (Teacher): _______________________________

Official Patent Number: _____________________________________________

Notes from the Office of Patents:

___________________________________________________________________

___________________________________________________________________

___________________________________________________________________
# Invention Convention Progress Report

**Name:** _________________________________

Please fill out this document and return to school by ____________.

**Directions:** Check “yes” or “no” for each item. If you check “no” for any item, please provide an explanation in the comment field.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you gathered all your materials you will need for your invention?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you begun creating your invention?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are you taking photos of your invention and progress?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you been writing in your Inventor’s Log?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you begun your diagram with labels?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you begun assembling your presentation board?</td>
<td></td>
<td></td>
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<tr>
<td>Are there any issues or problems your teacher should know about?</td>
<td>(If “YES” please explain here)</td>
<td></td>
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Inventor’s Journal:

For this part of the assignment, you will need to provide a minimum of five entries discussing the process you went through in the creation of your invention. Each entry should be dated, and should be about a page long.

Do NOT leave this to the last minute – you should be doing a little bit each time you work on another part of your invention.

You may use the pages provided as part of this handbook, or you may type your entries.

Possible Journal Topics:

- How you came up with your idea
- What you worked on each day
- Where you got your supplies
- People who helped you with your project
- Research materials you found helpful
- Problems you encountered along the way
- Steps you went through during this process

Your writing should be clearly understood by the reader. Use your best spelling, grammar, and punctuation. This is part of your overall grade!
Inventor's Journal:

This Journal Belongs To: ____________________________________________

Date: ____________________________________________________________

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Display Board Instructions

☐ Your teacher will give you the display board.

☐ You MUST include the Display Board with your project.
   This must include:
   - An attractive title or heading and your name
   - Your inventor’s log MUST be displayed with an attractive cover!
   - You must follow the display board diagram above exactly!
   - Including:
     - the problem
     - solution
     - materials
       - how it is made, how it works
     - research about the invention
     - A labeled diagram and photographs.

☐ You may want to include:
   - a commercial jingle for your invention
   - a marketing or campaign slogan
   - an example of a marketing advertisement for your product or invention.
Judge's Worksheet
For Invention Convention

Student's Name ___________________________ Class ____________

Invention Title ____________________________

Points

Problem Solving
___ 1. There is evidence that thought, study, and effort went into this project.
___ 2. The inventor suggested realistic solution to this problem.
___ 3. The inventor researched the problem thoroughly, and includes important information about this topic and problem on their board.
___ 4. The inventor explains AND demonstrates thoroughly how the invention solves the problem.
___ 5. The inventor can demonstrate through the use of the invention how the problem is solved.

Creative Effort
___ 6. There are elements of originality in the project.
___ 7. There was an imaginative use of materials, and materials are listed.
___ 8. The display is organized, neat, and includes pictures, diagrams or charts.
___ 9. The display board has a clearly labeled diagram of the invention.

Level of Completion
___ 10. The inventor was informative about their product. I learned something new!
___ 11. The invention is operational and a demonstration was conducted for me.
___ 12. Samples of data are displayed including photographs, charts, diagrams, etc.
___ 13. A completed inventor’s journal was displayed.
Set-up and Display

___ 14. The display is neat, attractive, easy-to-read, and understandable.

___ 15. There is a logical sequence and organization to the display.

___ 16. The purpose of the project is clear.

Knowledge of the Subject

___ 17. The inventor appears to have learned something new by engineering their invention.

___ 18. The inventor is able to describe their invention confidently and knowledgeably.

___ 19. The inventor is able to answer questions about their invention.

___ 20. The inventor was able to describe how their invention solved a specific problem.

___ Total Points ____________________________ ____________________________

Date Judge’s Signature

Note to Judges: There are 20 evaluation areas; each rated on a scale from zero to five. The maximum points possible are 100. Use the following as a guide:

0 = No evidence 2 = Fair 4 = Very Good
1 = Minimal 3 = Good 5 = Exceptional

Thank you Judges for your time!
We appreciate your participation!