The

##### Edison

##### Regional Fair

###### Inventor’s Log

### The Edison Young Inventor’s Code

*I recognize the ‘power of one’, the unlimited potential and influence one person can have. I pledge to myself, I will observe with interest, question with curiosity, research meaningfully, and apply myself with integrity at all times, with admiration for those who contributed before me, with respect for all who share the present, and with the desire to influence the future for the better.*

c.1998 Gary H. Nelson

An official document of the Thomas Alva Edison Regional Inventors Fair

Southwest Florida Hub, Henry Ford National Invention Convention

My Invention Story

Invention Title

Inventor

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Grade Level

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Folder Code

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Successful inventors often learn the hard way about what it takes to get their invention(s) to the marketplace. Every person who markets something eventually learns the value of good planning . . . whether the product happens to be based on one’s STEM research, intellectual or physical abilities, or artistic skills.

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## INVENTION LOGBOOK

**THE FIRST STEP: RECOGNIZING PROBLEMS**

If I plan to invent something worthwhile, I must first identify one or more problems that are of concern to me. ***A problem may affect the young or elderly.*** ***It may be at home, school, work, or play, within the community or on a global scale***. ***It may be on land, in the air or about the water.*** Here are problems that catch my attention along with the reason(s) each are important to me. Besides the potential profit for me personally, who or what will benefit most from solving each problem? ***Thomas Edison said he would not invent anything he couldn’t sell.*** Pay attention to what people want and need! Pay attention when things go wrong (***accidents, illness, disasters***)! Pay attention to population shifts (***demographics***)! I ask myself what beneficial IMPACT could I make!

**PROBLEM: WHY THIS IS IMPORTANT**

1.

2.

3.

4.

I am interested in doing something about Problem # \_\_\_\_\_ .

Date \_\_\_\_\_\_\_\_\_\_\_\_\_ Teacher’s Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Before I give up my valuable time to work on this problem, it is important to know what solutions other people have already come up with! If I skip this part, I may wind up inventing something that has already been invented. This will prevent me from claiming my idea as *new or novel*. I will need permission from the original inventor to use the idea or else I would be infringing (*stealing* the idea). To the best of my ability, I must prove that I came up with this idea first!

**SEARCHING FOR CLUES**

Here’s the plan. I learned the ***United States Patent Depository Library***, was ***THE PLACE*** ***to perform a “patent search”*** as far back as the late 1700’s! Computer searches are now possible at <http://www.uspto.gov>. By clicking on PATENTS and then on PATENT SEARCH, this will take me to a Search Box where I can use key words to describe my invention and learn what others have already come up with. This can be tricky, so I need to think carefully about how to describe my invention in the simplest of terms! Here are some of the key word descriptions I have come up with:

(Example: *‘fluid container’* key words: bottle, container, cup, glass, jar, vessel.)

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***GOOGLE*** is a great alternative to the USPTO site. For fun and experience, I can go to ***patents.google.com*** and even watch a video on how to make the most of my patent search efforts! ***I’m excited to try this with my experience playing computerized games! It’s really a new type of Quest or Adventure!* *Once I find patents with similar inventions, I can use the references in each patent as clues to expand my own patent search and close in the prize!***

***I’ll make sure to check other places, too, (stores, magazines, field trips – hey, I can even do this on a computer, etc.) to see if products or scientific and engineered ideas like mine exist and are already being sold or put into action to help improve our environment and planet!*** Check out [www.oceancleanup.com](http://www.oceancleanup.com), an invention by a person while in high school!

Having performed this “research” adventure, I believe my idea to be new and original (a true ***invention***) or a unique improvement on what currently exists (***innovation***). ***I am now ready to take the next step!***

**THE CHALLENGE**

***What do Thomas Edison, Nikola Tesla, Dr Grace Murray Hopper, Henry Ford, Dr. Temple Grandin, Jeff Bezos, Ruth Handler, Tim Berners-Lee, Stephanie Kwolek, and Elon Musk have in common? Scientists, inventors and entrepreneurs challenge themselves!*** ***They recognize a problem or limitation and explore what doesn’t exist. They brainstorm, investigate and experiment to find a better solution.*** ***Here is*** ***my personal* *story* *about how I decided on my final idea.*** All the details can be found in my ***LOGBOOK***. ***I will give a very clear account of my journey, what works and what doesn’t.*** I provide ***witnessed proof of my work and the dates I did the work!*** If I read special books or received help or ideas from anyone, I recorded this information, too! ***I record the names of everyone who helped me on my journey*** whether or not I used any of his or her suggestions to improve my invention!

**SUMMARY**

1. This is what I began with: (*My original concept*.)
2. I learned I could do better by adjusting this or adding that. I am including what did not work as well.
3. This is what finally worked best.
4. A List of Key People who helped me doing this Quest to understand and improve my project . . . and how they contributed:

**ORIGINALITY**

**My new or novel idea**

Anyone filing a patent must provide one or more ***CLAIMS*** explaining why his or her idea is ***new, unique and better*** at solving a problem than anyone else has ever come up with to this day! ***This is an explanation of what makes my invention different than what already exists*.**

For example: You have improved a way to better secure a roof shingle so it can not blow off a roof. You did not invent the shingle or the roof nail. You invented the new way to attach it to the roof. Describe the attachment and how it functions to secure the existing shingle in one or more ways that distinguishes it from anything previously used.

**Here are special features I would like to CLAIM about my invention.**

1.

2.

**SAFETY**

***Personal safety and the safety of others***

I have paid careful attention to safety rules at all times! If my invention required using equipment or experimentation, I made sure I had adult supervision, worked under safe conditions with access to a fire extinguisher and eye protection. Here is a written description of what I did to maintain safety during all times.

**LIABILITY**

**The Other Safety Issue**

I have learned inventors must think about liability, the risk of being hurt or causing damage when using a invention – especially MY PRODUCT! Here is what I believe could happen if people are not careful using my product or storing it properly. (*Include any safety improvements made to the product as well as any cautions or safety directions that should accompany this product. Attach an extra page if necessary*.

**PICTURE THIS!**

**Invention Illustration**

Patents require detailed illustrations or drawings of what the invention ( a product or a new method) looks like, including the different parts of the invention and how each part works in relationship to the whole invention. This is a drawing of my invention with special features labeled. I understand a computer graphic or hand drawn illustration is desirable. In addition, I can transfer a digital photo of my final model to an extension of this page to show how my illustration turned out.

Check one:

[ ] I created this illustration myself

[ ] I had the following people assist me \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**THE DISPLAY & PROTOTYPE**

To be successful, I will need to prove to myself and others my invention will work. It may take testing and refining of more than one prototype to get it right. It is perfectly acceptable for me to save money and use a detailed drawing or a computer-generated true-to-life image. Awesome! **I will record all my steps in this logbook**.

**Any invention project involving STEM research must meet all Rules and Regulations of the Thomas Alva Edison Kiwanis Regional Science & Engineering Fair in addition to those of the Inventors Fair.**

The same thing goes for demonstrating my invention, ***SAFETY comes first!*** I will have appropriate adult supervision. Any live animals may not be part of the ‘at home’ demonstration.

***For Virtual Competition, you can complete the Digital Display Board in your Student Folder***. If you decide to make a physical display, the standard size display is a 36” x 48” Corrugated Tri-Fold Display Board. The height may be 36” up to 72” tall, must be stable and not easily toppled over.

**Virtual “Video” Competition performed at HOME** **will allow for a prototype or model to be of a size that would be larger than “On Site” competition can allow.** *Remember****,*** *parents must approve of your choices by giving permission at the end of this Log Book*.

**BUILDING MY PROTOTYPE**

It is a BIG RELIEF to know I can have help with my prototype! If I do, I know it is VERY IMPORTANT to give credit in my LOGBOOK for any help I get.

Check one:

[ ] I did it myself.

[ ] Here is a list of who helped and how they helped with my prototype:

***Can I use 3D printing? It is very cool!*** *It is definitely worth knowing about this as an inventor. I know I am NOT expected to use this technology for my invention at this competition but if I can I just might look into it and give it a try.*

How much did my prototype cost to make? Here is a list of materials and cost. (Long list? Add a sheet.)

**Parts/Material Cost**

1.

2.

3.

4.

5.

6.

**Total Cost: $ \_\_\_\_\_\_\_\_\_\_\_\_\_**

There is a lot to learn about manufacturing, making special production molds, using the most economical verses the best materials for the product and deciding on the right packaging. ***The retail cost of a product averages about four times the manufacturer’s production cost. Internet sales can impact costs.*** *Why? Consider all the things necessary to get your product to the final user: packaging, advertising, sales people, insurance, transportation, storage, and having money tied up in inventory!* That’s a lot to consider. I might want to ***LICENSE*** my idea to a company***. The benefits of licensing are?***

**NAMING MY INVENTION**

What I name my invention can be a *HUGE* factor in getting *ATTENTION*.

Until I understand what BRANDING means for a business or product line, **I will do my best to** **title my invention so it’s purpose or function can be recognized.** If I can create a BRAND that represents purpose or function then I am the real deal! Think of Nike or Amazon Brands! What images come to mind?

For this competition, putting the emphasis on purpose or function will immediately reveal the benefits of my invention. Judges will not have to try and figure out what it is I invented! The name says it all!

In case I come up with a something special I can always make a surprise announcement in my video! (and write it down here too!) Shhhhhh, it’s a secret for now but I will protect it with a temporary, unregistered trademark.

*Protecting a product’s name with a* ***TRADEMARK*** *or literature with a* ***COPYRIGHT*** can be even more important and very profitable.

I understand I can use for free a non-registered trademark (**™**) and non-registered copyright (c.year my name) . . . (c.2004 Jamie Doe) by placing symbols in just the right location. These symbols alert everyone to my claim that I came up with a unique product name, phrase, literature, or work of art. I can pay a fee to register the trademark or copyright with the U.S. Trademark Office and Copyright Office in Washington, D.C. A ***Registered Trademark*** allows you to claim ownership and is represented by **®** following the product name. A **Registered Copyright** symbol is **©.**

**Let Me Give It A Try**

**TM**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Unique Invention Name**

**C.2021 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**My name**

My Brand

(optional)

**MAKING A PROFIT FROM MY INVENTION**

I am pleased with myself knowing that I can recognize a problem and do something about it! ***I have come to realize all the different subjects I am taught in school can influence the success of my invention!*** Understanding and practicing what I learn, I can do things to make my life and the lives of others better – people, animals, and the environment. ***But wait! I can also make a profit by creating a business and help people even more by creating new jobs!***

Inventors often become entrepreneurs, people who risk time and money for the sake of making a profit. This often requires starting a new business. ***A vital part of successfully getting a new business up and running relies on having a . .***

**“BUSINESS PLAN”**

***This is optional (not required)***

***Entrepreneurs don’t plan to fail, they fail to plan.***

*Most inventors need money to protect their intellectual property, for research or development, to license their new ideas or for manufacturing and marketing. Do you have a really great idea and believe it is a winner? What are you going to do about it? How would you raise the funds to accomplish this?*

I realize I am not required to complete this section for the Regional Invention Fair Competition, but it can be important at the National Invention Convention.

1. Who or what is the competition?
2. Where can I find information about writing a business plan? (eg. One Page Business Plan from the [www.SCORE.org](http://www.SCORE.org) )
3. How many different sources of money could I pursue? (eg. venture capital, angel funding, friends, family, relatives, crowd funding)
4. Any idea how much $$$ this ‘start up’ business will need for the first three years? (Successful startup businesses use this an important milestone.)
5. The positions of leadership and the team of people I envision taking my product or service to the top would consist of?
6. What is a possible ‘Marketing Strategy’ for my product or service? (eg. Licensing, Selling Product or Method, Starting a new business, Internet)

***Just a reminder, “luck’ happens when “preparation” meets “opportunity”!***

**ABOUT ADDITIONAL RESOURCES**

Helpful Inventor Fair Competition resources can be found online at [www.edisonfairs.org](http://www.edisonfairs.org). The *Inventor Fair Student Guidelines* provide additional helpful invention process, invention impact, and inventor communication details to support the information provided in this Log Book. Check out the helpful *RESOURCE LIST* provided, too! There are exciting opportunities along with very helpful information for students of all ages!

Parents/Guardians can be better informed by reviewing the website Inventor Fair details at *Guidelines for Parents and Guardians.*

**VIRTUAL ONLINE COMPETITION**

**This type of competition includes creating a 6 minute (or less) video presentation.** I will complete my ***Student Folder*** and will be sure to make note of my ***Student Folder Code (ID)***. I understand I will need to make an ***Unedited Video***. I also understand it is okay to be prompted with questions by a person off screen. Cue Cards can also be used to help keep me on track and to remind me to discuss important topics. I will not, however, just read cue cards. I will speak in conversation style to the camera. I am inspired by my invention and I am excited to share it on the video!

**MY PLEDGE TO CONDUCT MYSELF ACCORDING TO THE FOLLOWING:**

**I pledge** to follow the rules and regulations in creating, researching, and presenting my invention fair entry. My unedited video presentation can be up to 6 minutes. I pledge this for safety reasons and in fairness to other inventors participating in the fairs.

**I understand** I have more opportunity at home than in an exhibit hall space to access electricity, to create an invention prototype or model that is larger than normally allowed, and to access water if needed to demonstrate my invention. I understand it is still acceptable to simply use pictures, illustrations or digital imaging to represent my invention.

**I am aware** that live animals are not allowed to be used as part of my exhibit or presentation. A personal service animal is allowable with permission from fair officials.

**As an Inventor Fair Participant**, I will conduct myself with respect for others, with careful consideration for my actions, and have qualified supervision while working on my project.

**All students are required to have this page attached at the back of their logbook.**

**Your teacher and a parent/guardian are required to sign this form**

I believe my invention is original! Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Inventor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Grade Level \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student Folder Code \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Invention

Title \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

School \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Teacher (please print) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## PARENT/ GUARDIAN

**VIRTUAL ONLINE COMPETITION: As parent/guardian, I will provide safety, supervision, and technological support while my child participates in this invention process. My child and I will follow Virtual Inventor Student Guidelines as provided at** [**www.edisonfairs.org**](http://www.edisonfairs.org) **.**

**Signature** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Phone Number** (\_\_\_\_\_\_\_\_\_\_) \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**E-mail** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature of Teacher \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_