



Invention Log

The Story of Your Invention

What is an invention?

An invention is something new that enables us to solve a problem or do something better or easier.

The Purpose of This Invention Log

All stories have an ending and in this case, the ending of what you are doing is your invention, itself. But all stories also have a beginning and middle. The purpose of this Invention Log is to tell the entire story of your invention and in it, you will record what you did, why you did it and how you did it, during every step in making your invention. This Invention Log is an important part of the invention process and is a **complete and accurate record** of the ideas, plans, and process by which the invention was created.

How to Use This Invention Log

The Invention Log is not a book report that is created after you are done, but rather a diary, that is **continuing being filled in as you work** on your invention. Follow the steps in the Invention Process and fill out the various pages as you work on them. When you are done with any page, **print your name and the date** at the bottom. If you need extra space for any section, make copies of the Blank Page and use that for any purpose. Once you are done, put the pages in the order in which you did them and staple them to make a complete Invention Log. This log will also be used as part of the final presentation. Because of this, except for things like a list of materials, all **sections should be filled in using complete sentences** and not single words or short phrases.

The Name of This Invention:

The Problem That It Solves:

Statement of Originality

I promise that the ideas in this Invention Log are my own.

Inventor's Name:

Signed:

Date:

Grade: School:

Town:

Steps in the Invention Process

As you work on your invention, follow these steps and check them off as you complete them.

1. What problem are you trying to solve?
2. What is the result you are trying to achieve?
3. What is a possible solution?
4. Has this solution been done before?
5. Make a drawing of the invention.
6. What problems might you encounter with this design?
7. How will you fix those problems?
8. Repeat steps 5 to 7 until you have a design that you think will work.
9. What parts and materials will you need to make the invention?
10. Where will you get those parts and materials?
11. What additional skills will you need to make the invention?
12. Who can help you do those activities?
13. Get the parts, materials and build the invention with help.
14. Test and evaluate the invention.
15. Identify any problems with the invention.
16. Repeat steps 5 to 15, until the invention works as planned.
17. Name the invention.
18. Plan and create the Invention Display Board.
19. Practice what you will say about your invention in the Judging Circle.
20. Be proud of what you have done.

Explaining the Problem and Identifying a Solution

1. **What problem are you trying to solve?**

The more specific you are in describing the **problem**, the better your solution will be. How did you come up with the problem?

2. **What is the result you are trying to achieve?**

How can you measure the result you want? The more specific you are in describing the **result** you want, the better your solution will be.

3. **What is a possible solution?**

The more specific you are in describing the **solution** you will create, the better your invention will be. How did you come up with the solution? How is this better than other solutions for this problem?

4. **Has this solution been done before?** What research did you do to see if this invention had been done before? Who did you talk to? Where did you look? What Internet site did you search?

Creating and Improving the Design

5. **Make a drawing of the invention you are thinking about building.** Label all the important parts and features. Explain how the invention will work. If you need more space, use another blank page.

6. **What problems or issues might you encounter with this design?** Who did you talk to about this design? (another student, parent, teacher, etc.) What were their comments about your design?

7. **How can you fix those problems or address those issues?**

8. **Repeat steps 5 to 7 until you have a design that you think will work.** You may have to copy and make multiple copies of this blank page until you have a good design.

Building the Invention

9. What parts and materials will you need to make the invention and how much will they cost?

10. Where will you get those parts and materials?

11. What additional skills or abilities will you need to make the invention?

12. Who can help you build the invention?

13. Get the parts, materials and build the invention with help

14. Test and evaluate the invention. What did you do to test the invention? How did you measure how good the result was?

15. Identify any problems with the invention. What will you change to make it better?

16. Repeat steps 5 to 15, until the invention works as planned. You may have to copy and make multiple copies of this blank page until you have an invention that works the way you want.

17. Naming the Invention

What words describe your invention?

Think in terms of words that will help you name your invention.

What is the function of your invention?

Think in terms of marketing it. How will it solve the problem? How will it help others? How is your invention different from others that may already be on the market?

Who is your target audience? Who would use your invention?

Some creative, attention-getting techniques you can use, are:

Alliteration (using the same first letters or sounds): "Kit Kat"

Rhyming: "Light Bright"

Alternative spelling: "Sno Bal"

Using numbers in the name: "Super Clean 2000"

Describing the function of the invention: "Hydro-Blast"

Based on this analysis, what are some good names for your invention?

Which name do you like best?

18. Plan and create the Invention Display Board

This is an example of what a Display Board might look like, but you can make it look anyway you want.

This is YOUR invention and YOUR display so use your creativity to tell the story of your invention the way you want.

However, be sure you use

Fonts that are readable (style, size, color)

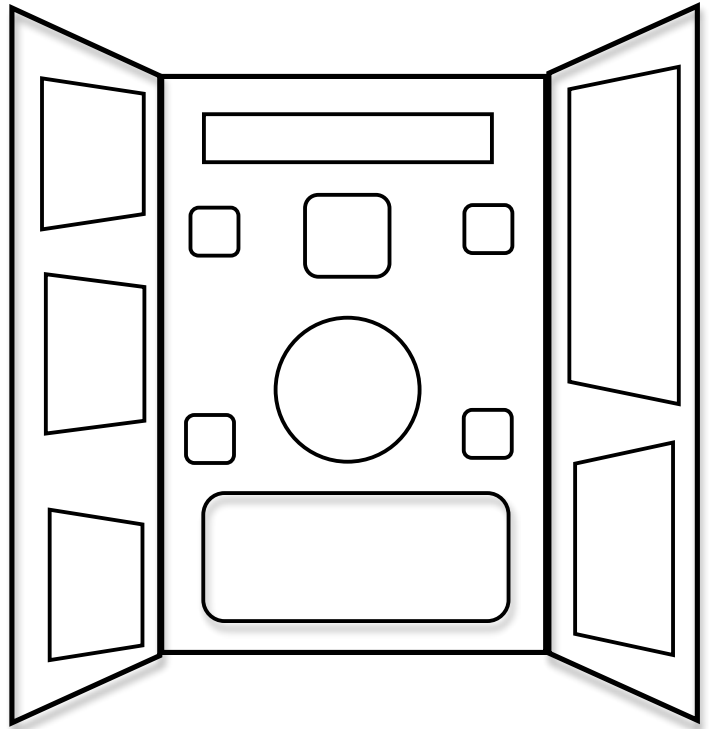
Colors that look good together

Shapes that are the right size

Correct **grammar**

Proper **punctuation**

Check the **spelling** of all words



Your **Display Board MUST contain** the following

The name of your **invention**

The **purpose** of the invention or the problem it solves

A **description** of how the invention works

Your **name, grade, school & town**

You **might also want to add** this information:

How the invention was made

How the invention is used

Biography of the inventor

Supporting and explaining picture/photographs/drawings/charts

What scientific principles were used in your invention? (Examples: buoyancy, heat transfer, etc)

What engineering disciplines were used in your invention? (Examples: Electronics, optics, etc)

Testimonials from users

Any other information about the invention that will help explain it, what it does or why it's good.

Maximum Size: With the wings folded in, the Display Board can only take **24" of table space**. However, you are allowed to open up the wings during your Judging Circle presentation

19. Practice what you will say about your invention

Here are some **questions that you might be asked** in the Judging Circle by the judges or fellow students. To help you prepare, you might want to write down some of the important parts of your answers so that you have them when you practice giving your presentation.

How did you come up with the idea for this invention?

What types of people does this problem affect?

How did you think up your solution to the problem?

Where did you get the materials for the invention?

Who helped you build the invention and what did they help you do?

Are there other materials that you could use that are better?

Who has used your invention and what did they think about it?

What changes might you want to make to your invention?

20. **Be proud of what you have done**

You will use the problem-solving and communication skills you have gained here throughout your life and career. Congratulations on what you've done!

Blank Page for additional information about what you've done

This blank page is available for you to add anything to your Invention Log that will help explain what you did, how you did it and what the results were. This could be drawings, calculations, descriptions, test results, etc. Multiple copies of this page can be inserted anywhere you want in the Invention Log.