

The Story of Your Invention

Invention Log

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. In this case, the ending of what you are doing is your invention. But all stories also have a beginning and middle. The purpose of this Invention Log is to tell the entire story of your invention. In it, during every step you take in making your invention, you will record what you did, why you did it, and how you did it. This Invention Log is an important part of the invention process and is a complete and accurate record of the ideas, plans, and processes by which the invention was created. Invention Logs can be used by students to prove they came up with the idea and invention. Oftentimes, they are used as part of the patenting process.

How to use this Invention Log

The Invention Log is not a book report that is created after you are done. Rather, it is a diary that is continuously filled in as you work on your invention. Follow the steps of the invention process and fill out the various pages as you work on them. When you are done with a page, print your name and the date at the bottom. If you need extra space for any section, make copies of the Blank Page (Page 17) 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 and needs to be filled in using complete sentences (except for things like a list of materials). Teams share one Invention Log and should attach signatures of all inventors.

The name of the invention: Portable Notes

The problem that it solves: Loosing my notes and don't know where they are.



Statement of Originality

I promise that the ideas in this Invention Log are my own. (If a team, all should complete.)

Inventor Name(s): Jayari Terrance Shiva Kumar

Signature(s): Jayari

Date: 1-12-19

Grade: 3rd grade

School: King Elementary

Town: Ann Arbor

Explaining the Problem and Identifying a Solution (Identifying and Understanding)

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?

I lose my notes.

My first problem had alot of gear and it will break.

2. What is the result you are trying to achieve? The more specific you are in describing the result you want, the better your solution will be.

To make reminders portable so kids won't forget.

3. What are some possible solutions? Which one did you choose to pursue? How did you decide which solution to try? 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?

My solution wasent easy because I had to go trough alot of stages and process.

I know that it's hard to bring notes every where so you can lose them.

I tried different solutions to find my 7 and only section.

4. Has this solution been done before? If it exists, how is your approach different and better? What research did you do to see if this invention had been done before? Who did you talk to? Where did you look? What website did you search? You should show 4 pieces of evidence of different types of research – talking with experts, searching the internet, interviewing friends and family as to how useful this would be, etc.

Where I looked to see if my idea is new:

A. Internet

B. Shops

C. Parents

D. Mentors

Document any similar inventions you found, describing how yours will be different:

There is one that only holds sticky notes mine holds reminders

Teacher Signature - REQUIRED FOR ALL PARTICIPANTS

I approve of the solution/invention my student has chosen to pursue and agree that it not only meets the guidelines shown on the Restrictions and Requirements page, but that it is also safe.

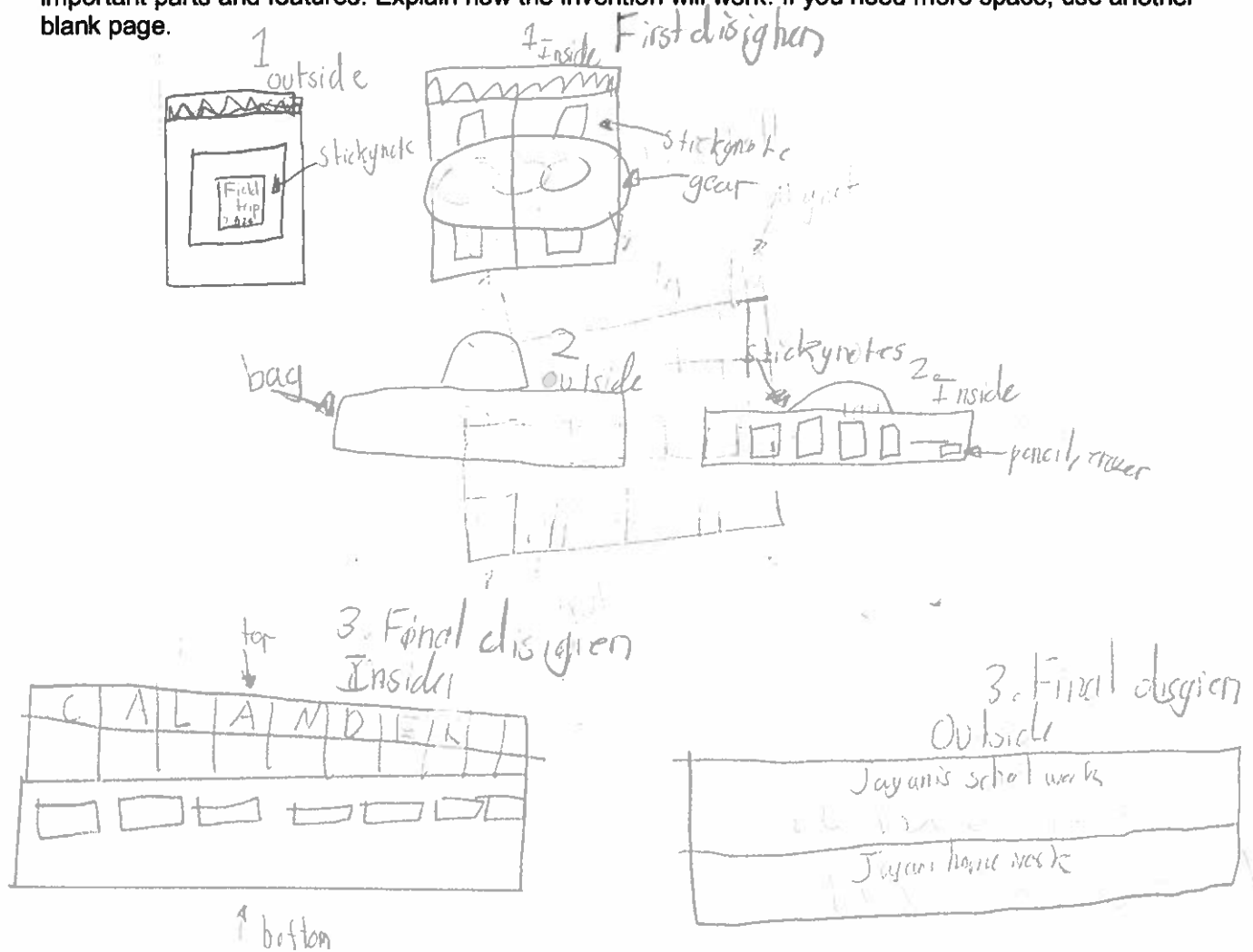
Teacher's Name (Printed)

Teacher's Signature _____ Date

I approve of the solution/invention my student has chosen to pursue and agree that it not only meets the guidelines shown on the Restrictions and Requirements page, but that it is also safe.

Creating and Improving the Design (Ideating and Designing)

5. Draw a model (a sketch or 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? Is this design compatible with the principle of sustainability? Who did you talk to about this design (another student, parent, teacher, etc.)? What were their comments about your design?

1st
 Prototype
 problem
 : too
 portable
 too heavy

2nd
 Prototype
 problem
 : too many
 materials
 school subject

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

Make
 it portable

Make it small
 and thin

Heavy

Make it thin
 and use different
 materials to make
 it lighter.

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

Building the Invention or Prototype (Designing, Building, Testing)

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

- Folder \$1
 - Stickynotes \$1
 - Pencil \$0.50
- Buyable

- Print your school work
- Print calander with all months

10. Where will you get those parts and materials?

- Ollies
- home
- home depot

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

- Learning to use a hot glue gun
- Glueing it carefully
- Learning to use spper glue
- Cutting carefully

12. Who can help you build the invention?

- My parents
- My brother

13. Get the parts and materials and build the invention (with help).

14. Test and evaluate the invention. What did you do to test the invention?

I tested if all the features work.

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

It didnt look good

Add decorations

It was too heavy

Use different materials to make it lighter

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.

Naming the Invention (Communicating)

17. Naming your invention is important.

- What words describe your invention?

• light
• decorative
• smooth

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

Portable notes

- What is the function of your invention?

Help keep people track of
their week.

- Think in terms of marketing it. How will it solve the problem? How will it help others?

It will help others by helping them keep track
of their week.

- How is your invention different from others that may already be on the market? If it is similar, what did you do to make it better? How is it different?

A planner is different because it is for older kids. Calendars are for adults. But mine is designed for elementary kids.

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

Kids in elementary school.

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 3000"
- Describing the function of the invention: "Hydro-Blast"

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

Portable notes
Keep tracker

- Which name do you like best and why?

Portable notes and because it describes my invention.

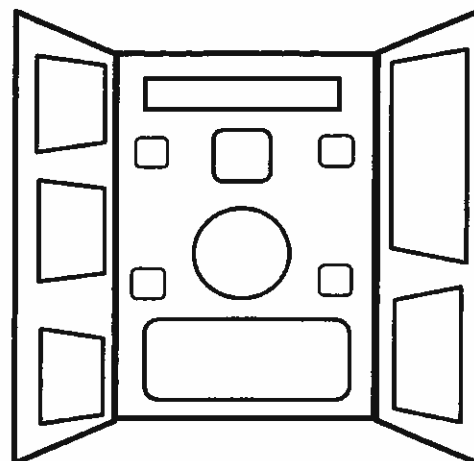
Planning and Creating the Invention Display Board (Communicating)

18. Create your display board. This is an example of what a Display Board might look like, but you can make it look however you want. This is your invention and your display, so use your creativity to tell the story of your invention the way you want.

Be sure you use:

- Fonts that are readable (style, size, color)
- Colors that look good together
- Shapes that are the right size
- Correct grammar and spelling
- Proper punctuation

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.



Your Display Board **MUST** contain the following information in one consolidated place on the poster:

- Student(s) Name(s)
- Project Name
- Student(s) Grade(s)
- Student(s) School
- School City, State
- Preferred Industry-Focused Award Category (e.g. Telecommunications)
- Patent Status (three options: None, Under Counsel, or Patent Pending)

Students should note "Patent Pending" on their posters for Patent Status **only** if a provisional or non-provisional patent application has been officially filed with the USPTO. If you are currently represented by an attorney or patent agent (pro bono or otherwise), then mark "Under Counsel." It is possible to be both "Under Counsel" and "Patent Pending", or just "Under Counsel", or just "Patent Pending" (if you did the filing yourself).

You might also want to add this information:

- Images showing you building or testing
- How the invention was made
- How the invention is used
- The biography of the inventor
- Text which supports and explains any pictures, drawings, charts, etc.
- What scientific principles were used in your invention? (e.g. buoyancy, heat transfer)
- What engineering disciplines were used in your invention? (e.g. electronics, optics)
- Testimonials from users, research results
- Any other information about the invention that will help explain it, what it does, or why it is good



- 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, better materials you could have used that would improve the invention?
- 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(s)

These blank pages are 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 include drawings, calculations, descriptions, test results, etc. Multiple copies of this page can be inserted anywhere you want in the Invention Log.

