



## **Inventor Badge for Brownies (grades 2-3)**

Goal: Learn how to think like an inventor!

You can earn this badge by following the five steps. When you do them in order, it will help you think like an Inventor. To help keep track of all your observations and ideas, it helps to have an Inventor's Note book.

If you have a notebook with pages you can use great! If not, don't worry. It's easy to make an Inventor's Notebook.

You'll need:

- Paper (about 10-20 sheets) it can be any kind
- Some kind of fasteners to bind them together on one side, like: stapler, binder clips, hole punch and twine, or even a needle and thread
- Optional: you can add a cardboard cover by cutting up an empty cereal box.

### **Step 1. Warm up your inventor's mind**

*What I'll do:*

Use your Inventor's Notebook to record your thoughts. Think about an empty box. What could you do with it? Could you use it as a type of toy, organizer, what else?

*What I'll need:*

- Notebook or Paper
- Pencil

*How I'll do it:* I'll draw or write five things I could do with the box.

### **Step 2. Find lots of ways to solve a problem**

*What I'll do:*

Inventors look for problems to solve, right? There are lots of ways to solve a problem! Pretend that the problem is there is a concert, but no instruments! Can you think of ten ways to make music using things that are in your house or yard? Once you have a list, you'll try out two ideas.

*What I'll need:*

- *Found objects to make into instruments. (boxes, tubs, cans, etc)*

Looking for inspiration?

Listen to this Recycled Orchestra

<https://www.bing.com/videos/search?q=recycled+music&view=detail&mid=E9B48CF7517B59081CE2&FORM=VIRE>

Or this Junk Music Band

<https://www.bing.com/videos/search?q=recycled+music&view=detail&mid=1D50B57D849C1A0019161D50B57D849C1A001916&FORM=VIRE>

Your Instruments don't need to be so fancy. You can use things just as they are like these glasses filled with water.

<https://www.bing.com/videos/search?q=glass+rim+sounds&view=detail&mid=8847857FAD8DBEC0B3B88847857FAD8DBEC0B3B8&FORM=VIRE>

*How I'll do it:*

After I make a list of ten ways to make music, I'll try two ways?

### **Step 3. Make needs list**

What I'll do:

Look around your home for problems or needs to solve. Watch someone in your family do something routine. A routine is something they do all the time. Sometimes, we get so used to doing something the same way, we never consider that there could be a different way.

Some ideas are: feeding, caring or walking a pet, Getting the mail, making a meal, cleaning, getting up in the morning or ready for bed at night. Keep your Inventor Notebook handy, you'll want it to record at least five needs that you see.

Here's an example of a need: My brother spilled the cereal when he poured it into the bowl.

*What I'll need:*

- Time to observe someone doing a routine
- Notebook or paper
- Pencil

*How I'll do it:*

I'll observe at least one person during their routine. I'll write at least five things I see as needs they might have.

### **Step 4. Solve a Problem**

*What I'll do:*

Choose one of those needs and draw your solution to that need. It doesn't need to be perfect, just a sketch to show what your invention will be.

For the need above, maybe the solution was a spout or a handle on the box. Remember there are lots of ways to solve a problem!

*What I'll need:*

- My list of observed needs that I noticed while watching someone during their routine.
- Paper or notebook and pencil

*How I'll do it:*

I'll think of at least one way to solve a problem, and make a quick sketch of what that solution would look like.

### **Step 5. Share Your Invention**

*What I'll do:*

Create a more detailed drawing or make a model of your invention, and show it to other people. What could a detailed drawing look like? You could label part of your invention, or give it a scale to show how large it would be.

*What I'll need:*

What can you use to make a model? Ask your family to save clean, safe recyclable items like, paper, boxes, and plastic containers. You might want to gather tape, scissors, string or ribbon, old cloth or shirt. If you gather items into one spot, you've created your own maker space! Now that you know the steps to make inventions, you can make more things or teach someone else in your house to do it. Have fun!

*How I'll do it:*

You can ask a parent to post it on social media and see what people say about it, video chat with a friend and explain what it looks like, or ask your family to watch you while you make an advertisement that demonstrates your new invention. What do people think of your invention? Would you make adjustments to it, or was it a success?

When you have earned the Inventor Badge, Your family may purchase the Badge here

<https://www.girlscoutshop.com/search?keywords=inventor>