

BEND-VENTION

The goal of the **BEND-VENTION** is to encourage students to investigate the world around them to solve real world problems. This promotes a creative spirit, while allowing students to express their ideas through building their own invention.

What is BEND-VENTION?

Bend-vention is an enrichment opportunity for 3rd-6th graders. Participating students will design an invention that will solve a problem in their daily life. Students verify that their inventions have not already been invented through patent research. Students will build their inventions staying under a budget of \$15.00. **No more than three students in a group.** Students may also work in pairs or individually. In addition, students will share their process, research, and marketing ideas on a poster or project board for display.

What are the requirements for students?

- **Inventor's Notebook Packet (all completed)**
 - Brainstorming
 - Patent Information Chart
 - Decision Making
 - Planning for Invention Idea
 - Description
 - Marketing
 - Bend-vention Entry Form/Signature Page
- **Poster or Project Board**

Students will display their research and steps of the design process for students and parents at the exhibit. ****Please note: Students should not give away food or candy as part of their presentation.**
- **Invention**

Students will build and test invention (budget \$15). Inventions will be displayed at the exhibit for students and parents.

Inventor's notebook, display, and invention are due **Tuesday, April 4** (the day before the event) at 8:00 in the auditorium.

BEND-VENTION Exhibit

Wednesday, April 5, 2023

8:00-10:00 for Students

1:00-2:00 for Parents

BEND-VENTION



Inventor's Notebook

Student's Name

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Brainstorming

List many, varied, and unusual ideas. Look for problems in you daily life that you would like to solve. Try to brainstorm at least 5 problems you would like to solve. Use the back if needed.

1. Problem: _____

Invention Idea: _____

2. Problem: _____

Invention Idea: _____

3. Problem: _____

Invention Idea: _____

4. Problem: _____

Invention Idea: _____

5. Problem: _____

Invention Idea: _____

PATENT INFORMATION CHART

Your next step is to research your ideas to find out whether or not they have already been patented.

Definition of a patent: the exclusive right granted by a government to an inventor to manufacture, use, or sell, an invention for a certain number of years.

Use the following websites to help with your patent research:

<http://www.uspto.gov/patents/process/search>

http://www.google.com/advanced_patent_search

<https://www.uspto.gov/kids/index.html>

Invention Idea	Website used to search patent	Already Patented: Yes or NO	Teacher/Parent Initials



DECISION MAKING



Now, narrow your ideas to your top **3 favorite ideas** from the previous brainstorming and patent pages. Consider the following questions:

Invention Ideas	Do I know how to build this?	Can I easily make/buy all of the materials?	Is the invention a reasonable size?	Do I think it has already been invented?	Does it solve a problem?

Once you have answered the questions above, complete the information chart below for your **top 3 inventions**.

	Invention Idea #1	Invention Idea #2	Invention Idea #3
Materials I will need			
Estimated Cost			
Estimated time to make the invention			



PLANNING for INVENTION IDEA

I chose _____ because

_____.

Here is a list of all the materials I will need. I remember my budget is \$15.

Here are the steps to build my invention:

Here is a description of how I plan to test my invention to make sure it works:

Below are problems that I might encounter and my solution ideas:

DESCRIPTION

Problem:

Solution:

How it works:

Labeled Drawing of Invention:





MARKETING

DESIGN A LOGO

A logo is a symbol or other design adopted by an organization to identify its products, uniform, vehicles, etc. Insert original logo design below.

MARKETING IDEA:

Marketing a product is the action or business of promoting and selling products or services. This can describe how you will help people know about your product through advertising. Please outline your marketing plan below.



Cherokee Bend
ELEMENTARY



BEND-VENTION 2023

Name of Inventor(s) _____

Teacher _____ Grade _____

Title of Invention _____

Explain the problem it solves.

Describe HOW it solves the problem.

To the best of my knowledge, I am the first and sole inventor of the invention described herein.

I understand my child's invention is not legally protected by this disclosure; and if such protection is desired in the U.S., a patent must be submitted to the United States Patent and Trademark Office (U.S. PTO) within one year of the date that the invention was publicly disclosed. Within the one-year period, I will take appropriate steps if I decide to pursue legal protection of the invention. I also agree to hold the Bend-vention sponsors and Cherokee Bend harmless from any action resulting in the loss of the patent rights due to disclosure of the invention as a part of the above identified program. The member Bend-vention sponsors may use my child's invention, name, and photographs to publicize this program.

Student Inventor's Signature _____ **Date** _____

Parent or Guardian's Signature _____ **Date** _____