

Invention Convention Packet

Central Elementary School Gym

Nobody really knows what makes some people imaginative and creative. Absolute geniuses like Leonardo da Vinci, Sir Isaac Newton, and Albert Einstein just seem to appear, with no sign that the world is ready for their ideas. They see very far ahead, sometimes hundreds of years, and they don't just come up with ideas.

They try to make their ideas work, to show the world something so completely unexpected and important that can change the world. In some way, a "big new idea" is never enough for them. They need to see it work—no matter how many complications, problems, and failures get in the way—and if that takes a year, five years, or twenty, they just keep going.

Not every idea will actually work, even geniuses. But that kind of sharp, determined focus is probably the one thing that all creative people share, whether they're trying to design a machine that can think, write a new song, or find ways to make farm fields grow more wheat.

In fact, being creative could mean:

- ✓ Being open-minded enough to let guesses become new ideas;

✓ **Then being patient enough to test, refine, and improve those ideas.**

**THE INVENTION CONVENTION
STEPS FOR STUDENTS (GRADES K – 3)**

Can you invent something? Can you think of an idea or invention that will help people? Read the five steps below. They will help you to become an inventor. Then bring your idea or invention to the Invention Convention.

1. Learn about inventors. Read about them in books. Talk to people about them.

Think about something people need in order to make life better. Talk to people about something they would like to see changed. Then, talk with your teacher about it.

2. Use your plan to make an invention. Or write about how your Invention would help to solve a problem. Be sure to follow science safety rules when you make an invention. Use the Personal Project Summary as a guide.

Test your invention or your plan. Make sure it works.

Create a display board using the Display Board Sample Guide.

3. Get your invention or plan ready for the Invention Convention. Try to make it look as good as you can. Learn all you can about how it works and what it is good for. Bring it to the Invention Convention.

Be ready to answer questions. Review the Judging Criteria so you will know what the judges will be evaluating you on and what types of questions they may ask you.

THE INVENTION CONVENTION STEPS FOR STUDENTS (GRADES 4-8)

STEP 1 LEARNING ABOUT INVENTORS

The first step in becoming an inventor is to learn all that you can about inventors and their inventions. You will discover how and why certain products were invented. Did you ever wonder why the safety pin was invented? Or how toothpaste was packaged before it was put into tubes? And how about mousetraps? Did you ever think of how many different types have been invented? In reading about inventors, you will learn that their inventions were made to fulfill a need.

You will also learn that successful inventors

- Keep an open and curious mind. They are always looking for a better way to do things, and they do not resist change.
- Gather as much information as they can about an idea before they begin to invent.
- Keep trying to find a solution to their problem. They go through a lot of trial and error as they seek a solution. They do not give up.
- Continue to improve their products.

You should complete your study of inventors and inventions by writing a paper on an inventor that you have found inspiring. Title your paper “Tribute to an Inventor.”

STEP 2 FINDING AN IDEA

It can be said that need is the mother of invention. Your idea for an invention will come from something that you or someone you know needs.

There are several ways to find ideas for inventions. One way is to ask people if there is anything they need. Another method is called brainstorming. You can brainstorm along or with others. Here is an example of how brainstorming works. Name an object such as a lunchbox. Take ten minutes to list everything you can that is wrong with lunchboxes. Next, find a way to correct some of the problems. Your ideas for solving the problems can be a big step toward inventing a new or improved product.

Keep in mind that your invention does not have to be a product. Instead, it can be a new process for doing something. For example, it may be a better way of memorizing a list of objects, or a new card game.

When you find an idea you like and you want to make it into an invention, ask your teacher for an intent to invent form. Fill it out, have your parent sign it, and then return it to your teacher.

STEP 3 RESEARCH AND PLANNING

Before an invention can be successful, you have to make a plan. Your plan should include all the steps you can think of, from beginning to end. When writing your plan, ask yourself questions such as these.

- What can I read about that will help me with my invention?
- Who can I talk to about solving problems and planning properly?
- What materials will I need?
- How can I control the cost of my invention?

- What steps should I follow?
- How much time should I allow for each step?
- How can I test my invention?

Don't be surprised if you have to change your plans along the way.

Sometimes a plan will not work as well as you first thought it would.

So keep an open mind for change. You may even discover a better way of completing a certain step.

STEP 4 DEVELOPING AND TESTING

Now the work begins. Follow your plan step by step. If you have difficulty with a certain part of your invention, find an expert to talk to. Try different things until you overcome the difficulty. Most of all, don't give up! As Henry Ford, one of the inventors of the automobile, once said. "Failure is only an opportunity to start again more intelligently."

Beaver County Invention Convention

Inventor _____ Grade _____

Please use the following point system to evaluate this invention.

<u>Categories</u>	<u>Possible Points</u>	<u>Points Given</u>
Originality (Uniqueness & Novelty)	20	_____
Usefulness (Solves a problem, is needed, has a market)	10	_____
Presentation (Content, clarity)	10	_____
Construction (Quality of Materials)	10	_____
Illustration (Parts labeled clarify visual explanation)	10	_____
Total Points	60	_____

Comments _____

Judge's Name

Suggested questions for judges:

What problem does your invention solve?

How does it solve the problem?

Why do you think it is a good solution?

Explain how it works.

What was the biggest problem you faced with your invention?

Did you have to change your original idea in any way?

Do you think a company might market your invention some day? If so, by whom?