



# Inventor's Journal

tracking your invention  
journey in innovation

a program of



University of New Hampshire  
Leitzel Center

# HELLO INVENTOR!

Welcome to the Young Inventors' Program and the world of invention. As you begin your journey, we encourage you to take positive risks. Ask questions. Be creative. Most important, do not be afraid to fail. Innovation is all about testing and re-testing and pushing boundaries to make the world a better place. No matter where your journey takes you, you will learn new things, challenge yourself, and ultimately be successful.

## Tell the Story of Your Invention

This Inventor's Journal is a place for you to record your ideas, activities, research, and discoveries as you create your own invention. The journal is not a book report that is created after you are done. It is a diary that is continuously filled in as you work. The purpose of the journal is to tell the story of your invention. For every step, you will record what you did, why you did it, and how you did it. Invention journals are important because they provide a complete and accurate record of your ideas, plans and processes by which your invention was created. It is proof that you came up with the ideas and the invention on your own.

## About the YIPLit: Inventor's Journal

Your YIPLit: Inventor's Journal includes worksheets and activities that you will do in your class. You can write on these pages as you do the activities with your classmates or on your own. You can take notes, draw pictures, and write down key words. Adults may help you with your writing if needed. The rest of the journal is an open space for you to record your own invention story – you can add more notes or drawings or show how you make changes to your design ideas over time.

You do not have to complete every page at one time and you can always go back to pages as your work. Your teacher will guide you through it. But remember, never erase! If you make a mistake or make a change, simply cross it out, and then make your new notes. Your missteps and modifications are valuable parts of your story.

You are welcome to insert additional pages to your journal. Simply staple or clip them in. You may add photographs of yourself working on your invention, drawings, notes taken on different paper, or other records you may have. Each time you record an entry, be sure to sign and date the page at the bottom. If you are working with a team, each team member will keep their own journal, but all team members should sign each other's journals each time you work together.

When your YIPLit: Inventor's Journal is complete, it will become part of your final project presentation. Your teacher may give you more guidelines and requirements for your Young Inventor's Journal, so be sure to follow them.

## Have fun and good luck!

The YIP Team





# Inventor's Journal

This Journal tracks the innovations by

Inventor Name:

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Grade: \_\_\_\_\_

School/Organization Name:

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Teacher/Leader Name:

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## INVENTOR'S CHECKLIST

### Checklist of the Process of Invention

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Inventor's Name

- ☐ Identify the problem to be solved
- ☐ List ways to solve the problem
- ☐ Choose the solution
- ☐ Sketch ideas
- ☐ Make a model (prototype) of your invention
- ☐ Decide if your invention solves the problem
- ☐ Improve your invention and prototype as needed
- ☐ Make your display board
- ☐ Present your ideas
- ☐ Have Fun



# STATEMENT OF ORIGINALITY

I promise that the ideas in this Inventor's Journal are my own. (If a team project, all members of the team should have their own logbook, but complete this statement together and all members should sign.)

Inventor Name(s):

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Signature(s):

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Date: \_\_\_\_\_

Grade: \_\_\_\_\_

School/Program:

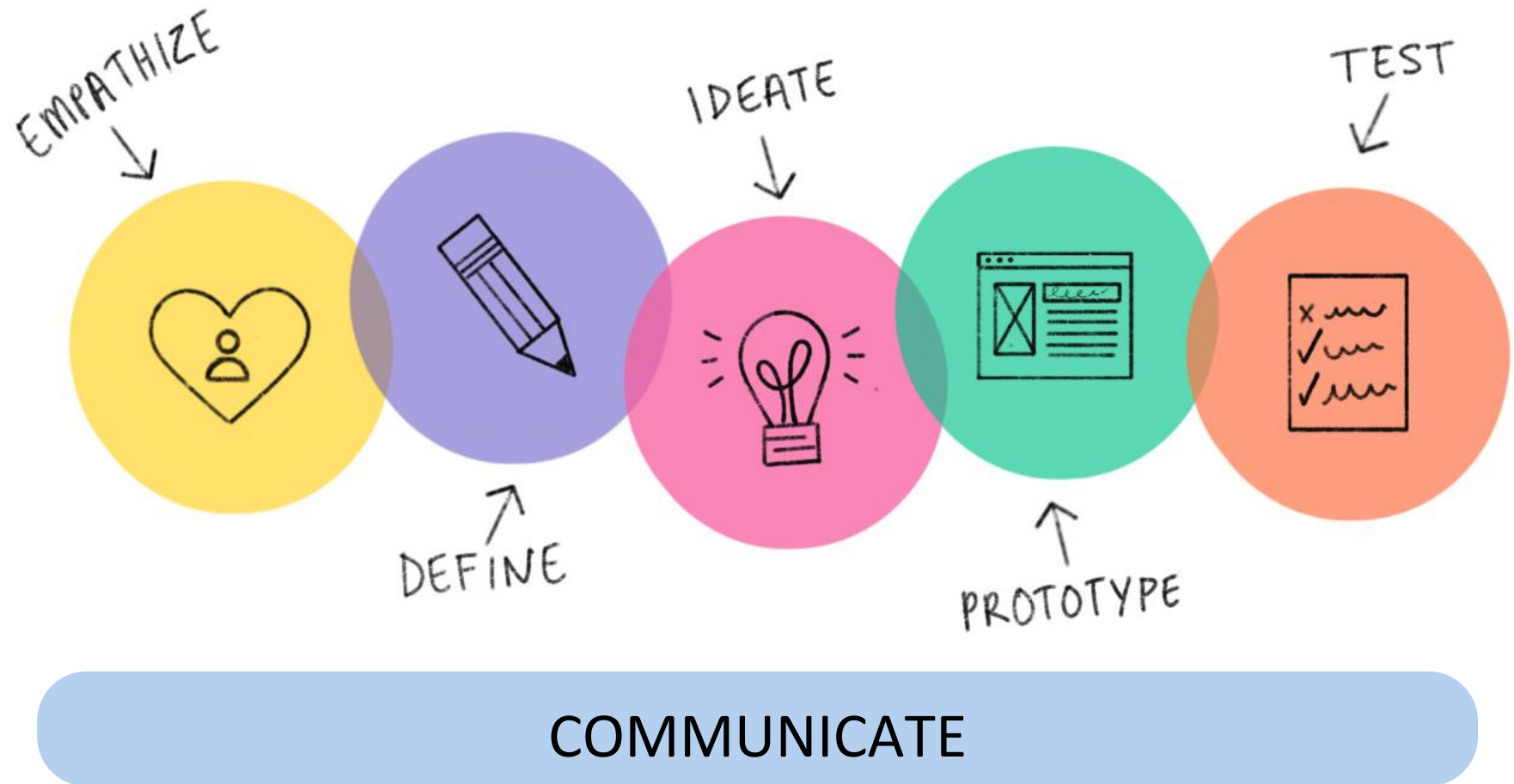
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Town:

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# INVENTION PROCESS



# NO PECKER EGG COLLECTOR QUESTIONS

What are the initial NEEDS/ISSUES/PROBLEMS for the Inventor?

\*He needs to...

\*When he collects eggs...

\*The chickens...

\*His parents want...

\*The eggs are...

- What is the final PROBLEM that the Inventor decided needed a SOLUTION?

- How does his problem affect the chickens?













- What are the steps he took to solve his problem?

- What are some other things you thought about when you watched the video?

















# I WONDER...?

## CHARACTER CHART

Who are the characters in the book? What problems do they have? How do you think they feel?  
**Write down your ideas** in the chart below.

What is the character's name?	How is the Character Feeling?	What problem is the character experiencing?
	   	
	   	
	   	



What is the character's name?	How is the Character Feeling?	What problem is the character experiencing?
	<div data-bbox="508 352 573 415"></div> <div data-bbox="508 436 573 499"></div> <div data-bbox="508 520 573 583"></div> <div data-bbox="508 604 573 667"></div>	
	<div data-bbox="508 716 573 779"></div> <div data-bbox="508 800 573 863"></div> <div data-bbox="508 884 573 947"></div> <div data-bbox="508 968 573 1031"></div>	
	<div data-bbox="508 1079 573 1142"></div> <div data-bbox="508 1163 573 1226"></div> <div data-bbox="508 1247 573 1310"></div> <div data-bbox="508 1331 573 1394"></div>	
	<div data-bbox="508 1442 573 1505"></div> <div data-bbox="508 1526 573 1589"></div> <div data-bbox="508 1610 573 1673"></div> <div data-bbox="508 1694 573 1757"></div>	

# BRAINSTORMING!

1. Choose one character. Who is the character and what problem are they experiencing?

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2. Why is this a problem for your character?

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Come up with as many solutions as possible to this problem (at least 3).

1. 

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2. 

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3. 

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4. 

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5. 

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# SCAMPER WORKSHEET

Choose an item you use every day...or not! Try to look at this item in different ways. Use the SCAMPER technique to help you think of different ways to look at this item. **Record your ideas** in the chart below.

Put an "X" by each way you SCAMPER	Ways to SCAMPER	Tell or show how the object changed.
	<b>S</b> ubstitute something	
	<b>C</b> ombine things	
	<b>A</b> dapt or <b>A</b> dd something	
	<b>M</b> inify, <b>M</b> agnify, or <b>M</b> odify	
	<b>P</b> ut it to another use	
	<b>E</b> liminate something	
	<b>R</b> earrange or <b>R</b> everse	

# WHAT'S THE PROBLEM?

**Identify the character you want to help and the problem they are experiencing.** Write or draw your ideas to the prompts below. Remember that this solution will be the focus for your very own invention project.

**The character I will help is**

**My character's problem is**

**This is a problem because**

**Brainstorm ideas to solve the problem.** Write or draw at least 3 ideas for solutions for your problem.

1.	2.
3.	4.
5.	6.

**Narrow your list.** Choose your 3 favorite invention ideas from above and put a circle around them.

**Think about your invention.** Complete the following chart for each idea. Check the boxes for **Yes** or **No** as you read each question. You may not be able to complete each question now, so you may go back to it as you learn more.

## IDEA #1:

Is My Idea...	YES	NO
Realistic? Is it something that could exist in real life?		
Something I can draw or make a model of? (The model can be working or non-working.)		
Useful to someone or a group (a target audience)?		
Can your idea be made from recyclable materials and other items that you have or can get?		
Something that already exists or is sold in a store? (You may need to research this on websites like Amazon or Target later.)		
If the idea already exists, my idea is different because... (If Yes, write how it is different here.)		

## IDEA #2:

Is My Idea...	YES	NO
Realistic? Is it something that could exist in real life?		
Something I can draw or make a model of? (The model can be working or non-working.)		
Useful to someone or a group (a target audience)?		
Can your idea be made from recyclable materials and other items that you have or can get?		
Something that already exists or is sold in a store? (You may need to research this on websites like Amazon or Target later.)		
If the idea already exists, my idea is different because... (If Yes, write how it is different here.)		

## IDEA #3:

Is My Idea...	YES	NO
Realistic? Is it something that could exist in real life?		
Something I can draw or make a model of? (The model can be working or non-working.)		
Useful to someone or a group (a target audience)?		
Can your idea be made from recyclable materials and other items that you have or can get?		
Something that already exists or is sold in a store? (You may need to research this on websites like Amazon or Target later.)		
If the idea already exists, my idea is different because... (If Yes, write how it is different here.)		

**Share your ideas.** With the class, share your ideas with your classmates.

- What do they like about your ideas?
- What suggestions do they have?
- Which one is their favorite idea?

Name of Sharing Partner	They liked idea...	Why did they like this idea?

**Choose your final project solution.** After Sharing your top ideas, which one is the best?  
Write it below: (This is your Problem Statement)

My project solution is

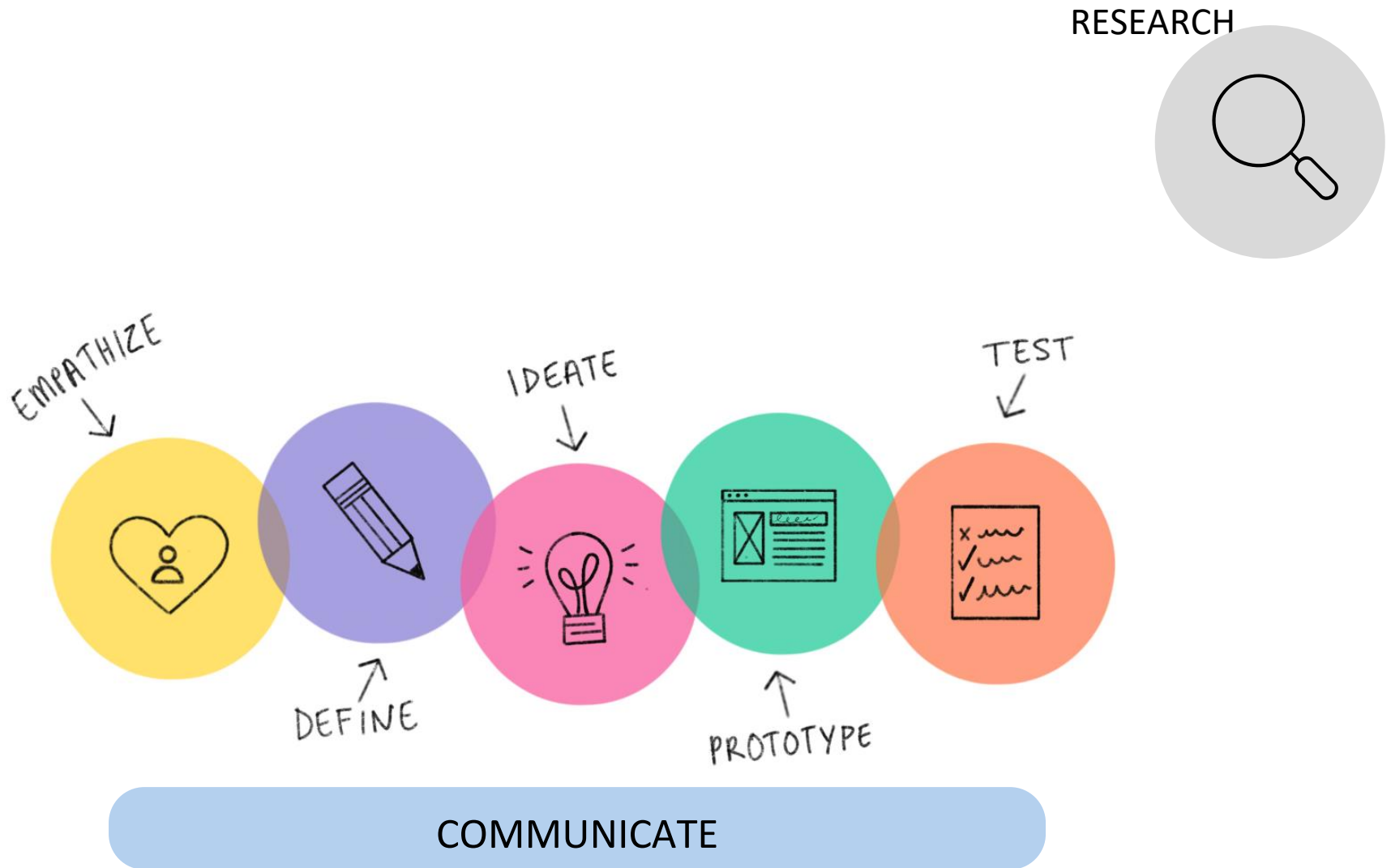
**Draw your solution.** Use the rest of the page to draw what you want your solution to look like! This will be the design for your prototype.

**Draw your solution.** Use the rest of the page to draw what you want your solution to look like! This will be the design for your prototype.



# INVENTION PROCESS

Where do you think **RESEARCH** fits into the Invention Process? Draw a line from the Research circle to where you think it goes in the order of steps needed to create an invention.



# MY PROTOTYPE PLAN

**I will build my invention prototype by doing the following steps:**

**1.**

**2.**

**3.**

**4.**

**5.**

**6.**

**I will use the following materials in my invention:**



# CHANGES TO MY PROTOTYPE PLAN

**After testing and feedback, I will make changes to my original design plan.**

# INVENTION TESTING FEEDBACK GRID

It's time to test! Use this grid to help you evaluate your prototype and see where you want to make changes.

**What did you like?**



**How can you make it better?**

**Do you have any questions?**



**What new ideas were introduced?**

# MY INVENTION NAME

1. List all the key words and ideas you have for a name for your invention below. You may try to combine words or rearrange them, add other words and try different combinations.

2. List at least 2 ideas you have for your invention name. You may use your ideas from above to help you. Then take a poll (vote) of your classmates. Which name do they like best? Record the number of votes each name gets in the chart below.

Name Idea	Number of Votes

3. Select your favorite name.

**My Invention is called the**

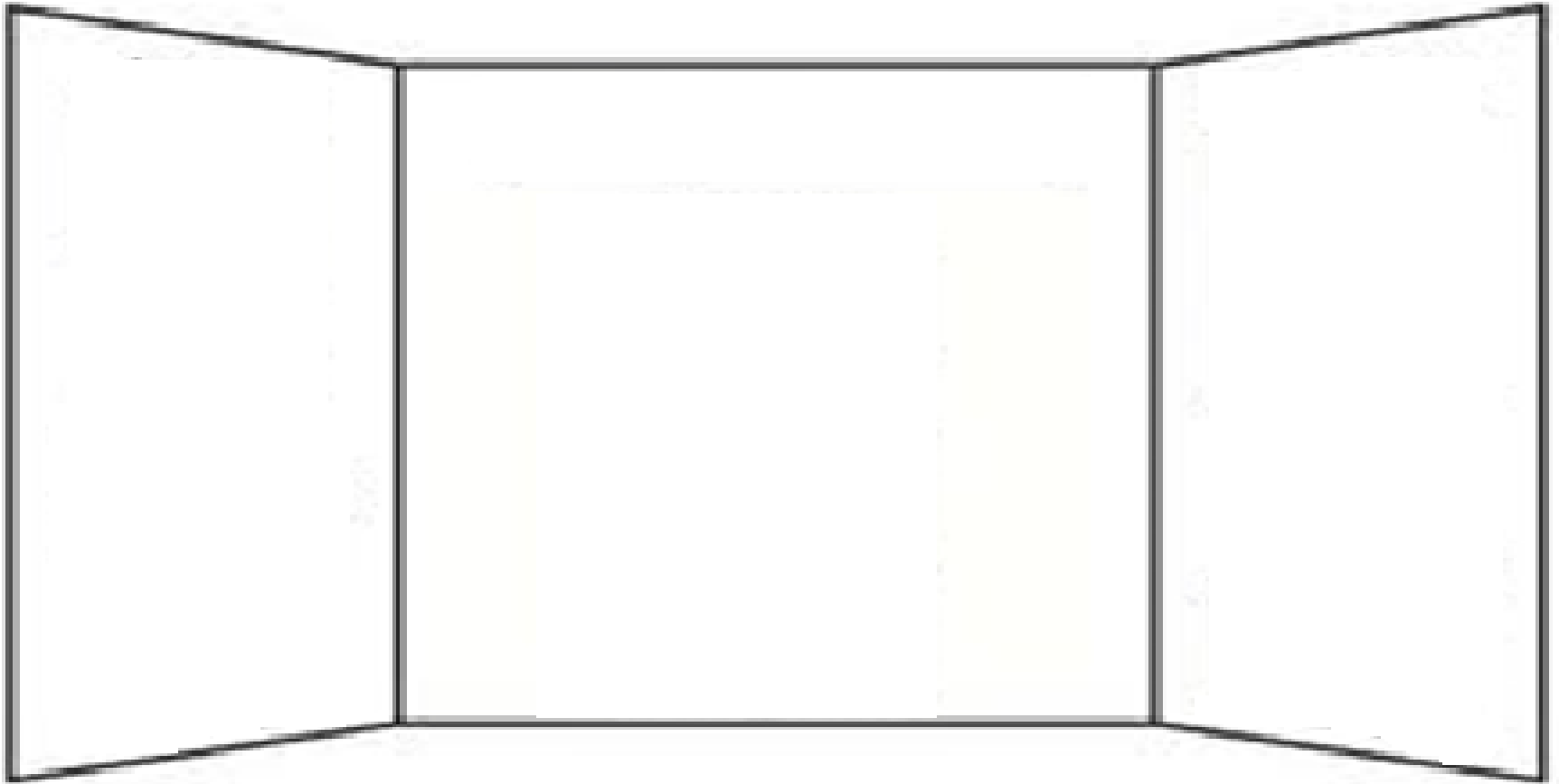
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# STORY MOUNTAIN

BEGINNING	MIDDLE	ENDING
Problem statement:	Show design drawings and explain solution ideas:	Show and explain prototype:
Who has the problem?	I made it by:	It solves the problem because:
Why is it a problem?	I had trouble when:	It will help others by:
	I changed it by:	

# INVENTION DISPLAY TEMPLATE

Draw your ideas for your own invention display board here:





# INVENTION JOURNAL PAGE

Record steps to develop ideas, research, and notes as you build your invention.

**Inventor's signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

# INVENTION JOURNAL PAGE

Record steps to develop ideas, research, and notes as you build your invention.

Inventor's signature: \_\_\_\_\_

Date: \_\_\_\_\_

# INVENTION JOURNAL PAGE

Record steps to develop ideas, research, and notes as you build your invention.

Inventor's signature: \_\_\_\_\_

Date: \_\_\_\_\_

# INVENTION JOURNAL PAGE

Record steps to develop ideas, research, and notes as you build your invention.

Inventor's signature: \_\_\_\_\_

Date: \_\_\_\_\_

# INVENTION COMPETITION REQUIREMENTS

## All projects must have the following components

### 📖 YIP Inventors Journal or invention logbook (hardcopy or virtual)

The journal documents the student's journey and all aspects of the invention process. Journals should be used throughout the development of the project and should not be a report completed after the fact.

### 📋 3-panel Display Board (tri-fold board or virtual display)

Displays are a visual aid to communicate significant aspects of the invention. Displays must include the student name/s, grade level/s and title of the invention. A tri-fold display board may be a maximum of 48" wide and 36" tall (the board should be 24" with both 12" sides folded in.) The board must fit into a footprint of no more than 30" wide (with sides folded in) on the tabletop. Prototypes and models should fit within this tabletop space as well or on the floor in front of the table and should not encroach upon neighboring display spaces. No oversize displays will be allowed.

Display boards must have the following information in one consolidated place on the poster:

- Student(s) Name(s)
- Name of Invention
- Student(s) Grade(s)
- Student(s) School
- School City, State
- Statement of the problem
- Explanation of the invention as a solution to the problem
- Details of model construction
- Diagrams of design



Note: **Models or prototypes (which may be working or non-working) are not required but are recommended.** These models demonstrate the key characteristics that make the invention valuable, original, and useful. This model does not have to be fully functional.

## Project Restrictions

The following items are not allowed on your person or in your project:

- 📖 Electric stun guns, martial arts weapons, or devices
- 📖 Guns, replica guns, ammunition, and fireworks
- 📖 Knives of any size
- 📖 Mace and pepper spray
- 📖 Razors and box cutters

**Also: No balloons, glitter, or confetti are allowed in any form. If a project requires batteries, these must be provided by the inventor.**



a program of the University of New Hampshire Leitzel Center  
<https://www.unh.edu/leitzel-center/young-inventors-program>