



STEM KIDS JOURNAL

Book to Record Your Inventions,
Big Ideas or STEM challenges!
Follows Engineering Design Process Prompts
6-10 years

Sumita Mukherjee
www.wizkidsclub.com

More books from WIZKIDS CLUB:

Stem/Steam Activity Books: 6-10 Year Kids



COOL SCIENCE EXPERIMENTS FOR KIDS

Grades: 1-5

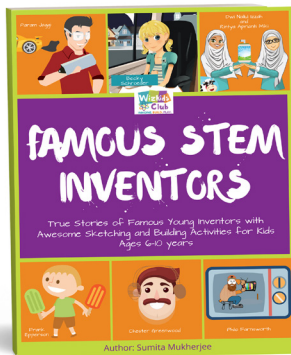
Skill level: Beginner

Time: 19 projects; 30-40 minutes each

COOL SCIENCE EXPERIMENTS FOR KIDS is an amazing book full of hands-on activities. With awesome Science, Technology, Engineering, Art and Math project ideas, it is an easy way to entertain any bored kid! A great way to acquire 21st century skills and STEM learning.

Inside this book you will find projects on Simple Machines, Merry-go Round, Spinning Doll, Exploding Bottle, Safe Slime, Architecture, Crafts, Games and more!

Loads of fun with projects that burst, glow, erupt, spin, run, tick and grow!



FAMOUS STEM INVENTORS

Grades: 1-5

Skill level: Beginner

Time: Reading time: 15-20 mins and activities of 20-30 minutes each.

FAMOUS STEM INVENTORS introduces kids to the world's most famous young inventors in the field of S.T.E.M. (Science, Technology, Engineering and Math). All things that we enjoy are a product of brilliant minds, scientists and engineers. This book imparts information that is interesting and engaging to young boys and girls between 6-10 years of age.

STORY OF INVENTORS: Kids will be transported to the fascinating world of famous creators and learn about their first inventions: Glowing paper, Popsicle, Windsurf board, Television, Earmuffs and more. The book arouses their natural curiosity to be inspired from their role models.

DESIGN PROCESS: It showcases the Engineering Design Process behind every invention. Highlights what they invented and how they invented, thereby, revealing the steps to all new discoveries.

SKETCHING AND DESIGNING ACTIVITY: It encourages kids to sketch and design their own ideas through the design activity. This book prompts kids to think creatively and it arouses their natural curiosity to build, make and tinker.



STEAM AHEAD! DIY FOR KIDS

Grades: 1-5

Skill level: Beginner

Time: 21 projects; 30-40 minutes each

STEAM AHEAD! DIY FOR KIDS is an amazing book full of hands-on activities. With awesome Science, Technology, Engineering, Art and Math project ideas, it is an easy way to entertain any bored kid! A great way to acquire 21st century skills and STEM learning.

Inside this book you will find projects on LED cards, dance pads, handmade soaps, bubble blowers, Play-Doh circuits, cloud lanterns, scribbling bots and more!

Awarded 5 stars by READERS' FAVORITE site, Parents, Educators, Bloggers and Homeschoolers.



JOIN THE WIZKIDS CLUB TEAM!

The WIZKIDS CLUB features Highly Engaging Activities, Experiments, DIYs, Travel Stories, Science Experiment Books and more!

Visit www.wizkidsclub.com today!



The logo for Wizkids Club features the word "Wizkids" in a white, brush-stroke font, with each letter placed on a different colored, tilted rectangular background: 'W' on teal, 'i' on lime green, 'z' on purple, 'k' on orange, 'i' on purple, 'd' on orange, and 's' on orange. Below "Wizkids" is the word "Club" in a purple, brush-stroke font. To the left of "Club" is a stylized atom symbol with three elliptical orbits in teal, orange, and purple, and three green spheres representing electrons. Below the main text is the tagline "IMAGINE. BUILD. PLAY." in a bold, sans-serif font, with "IMAGINE." in teal, "BUILD." in orange, and "PLAY." in purple.

Wizkids Club

IMAGINE. BUILD. PLAY.

Copyright©2019 Sumita Mukherjee. All rights reserved. No part of this book may be distributed, reproduced, stored in retrieval system or transmitted in any form or by any means, electronic, mechanical, recording or otherwise, without written permission from the copyright holder. For information regarding permission, please contact wizkidsclub.com.

 www.wizkidsclub.com

Author: Sumita Mukherjee

Illustrator/Designer: Lester D. Basubas

Table of Contents

Getting Started	6
Engineering Design Process	7
My invention #1	8
My Invention #2	15
My Invention #3	22
My Invention #4	29
My invention #5	36
My Invention #6	43
My Invention #7	50
My Invention #8	57
My invention #9	64
My Invention #10	71
My Invention #11	78
My Invention #12	85
My invention #13	92
My Invention #14	99
My Invention #15	106

Getting Started!

STEM stands for science, technology, engineering, and mathematics. STEM is a problem-based learning.

Your “STEM Invention Journal” will record all your inventions and big ideas. You will have time to design something that solves a problem or any new idea that you have! You will use your science knowledge, math skills and technology resources in the STEM journal.

During each STEM invention you will:

- Ask Questions
- Solve Problems
- Design a Plan
- Create
- Test
- Improve

It's important to know the Engineering Design Process before you begin. See the poster on next page.

Engineering Design Process

ASK

What is the problem?
What do you know?
What are your constraints?



IMPROVE

How can you modify
your design to make
it better?



IMAGINE

Brainstorm Ideas
What is the BEST
solution?



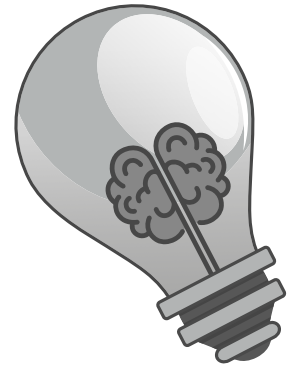
CREATE

Follow your plan and test it.
What worked?
What didn't work?



PLAN

Draw a diagram of
your design.
Gather your materials.



My Invention #1

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

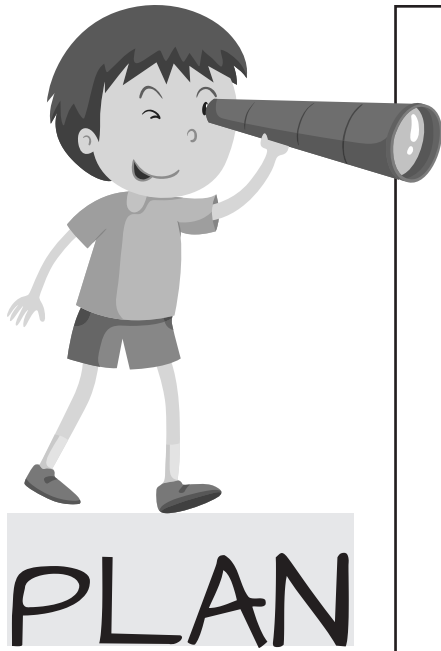


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

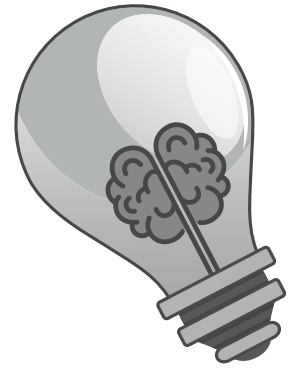
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #2

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

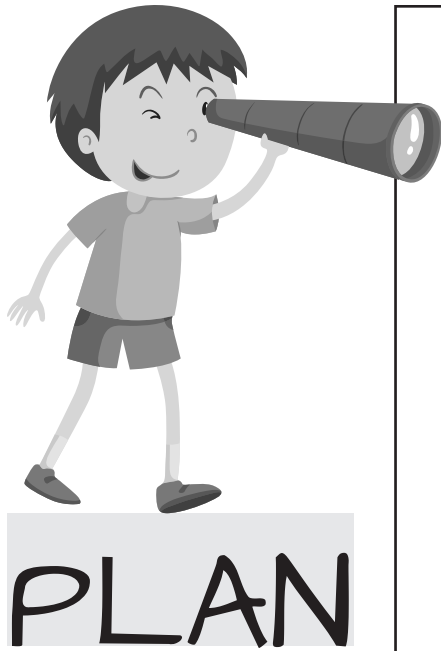


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

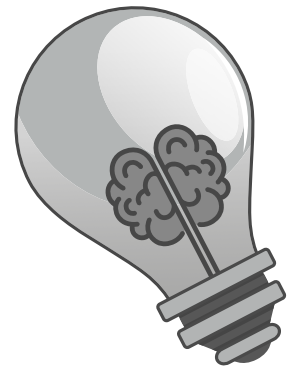
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #3

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

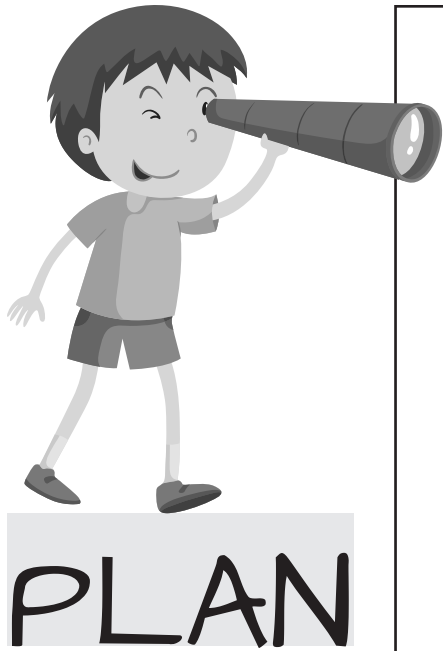


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

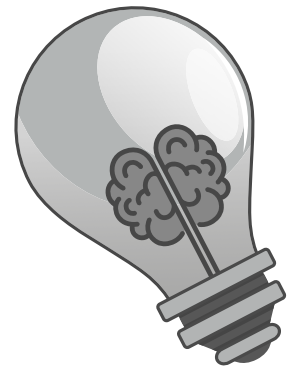
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #4

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

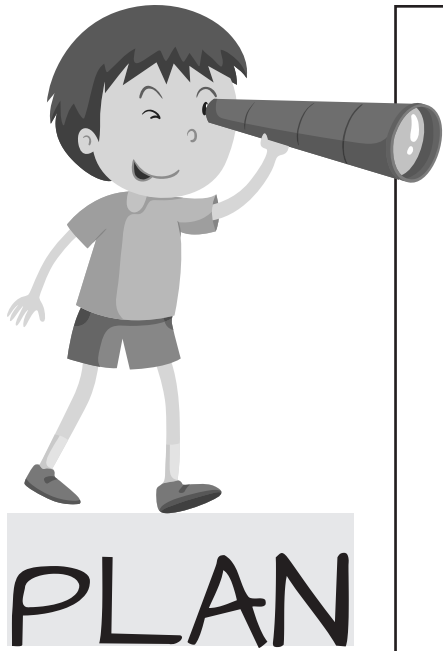


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

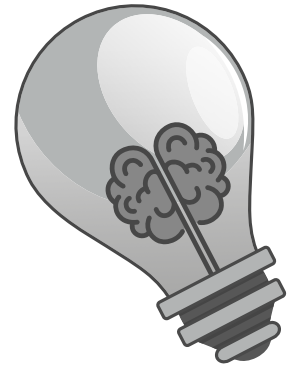
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #5

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

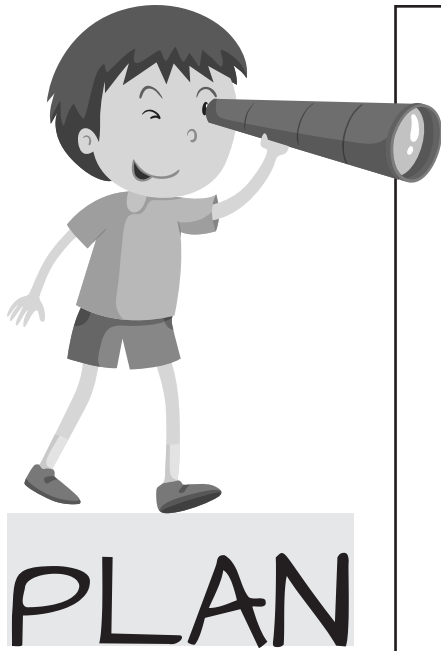


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

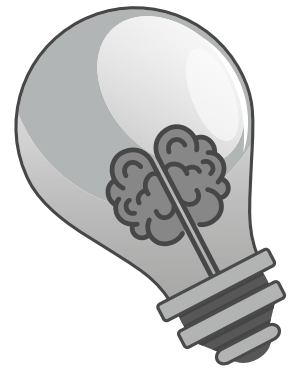
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #6

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

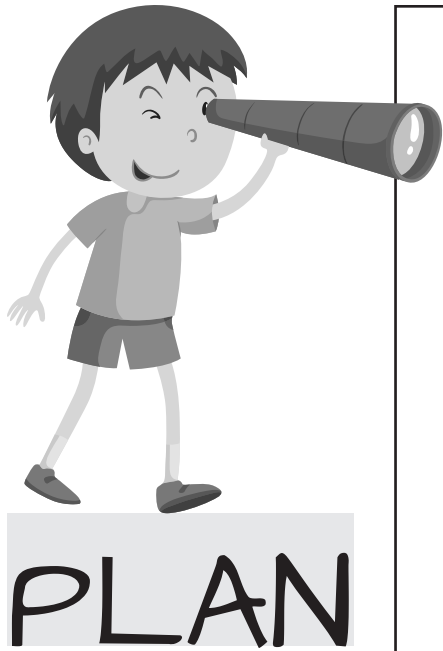


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

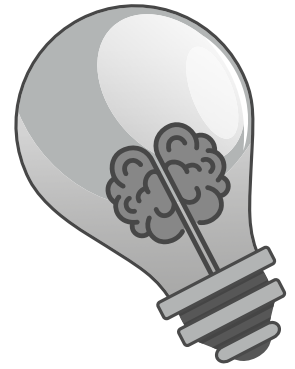
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #7

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

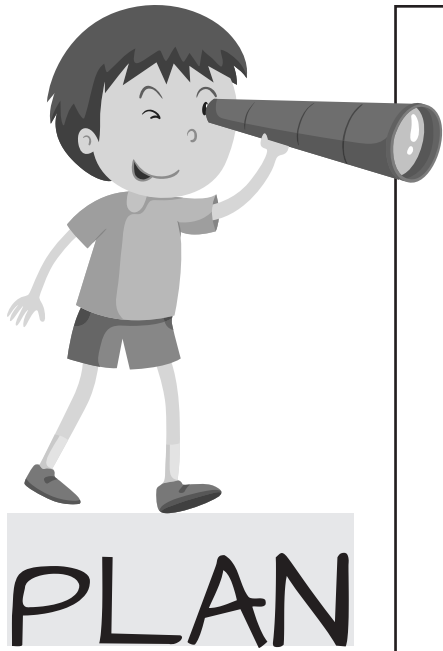


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

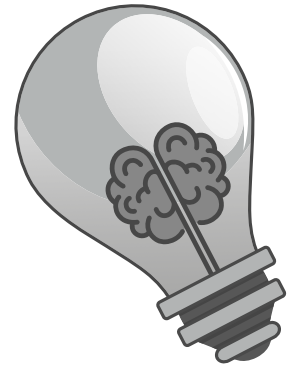
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #8

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

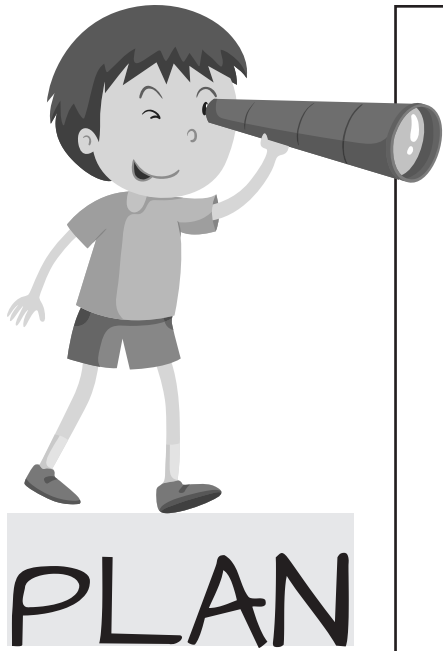


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

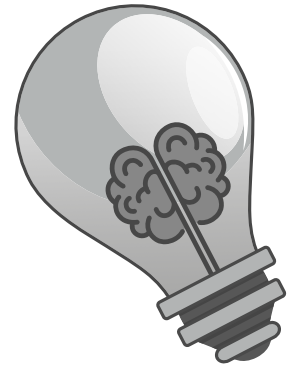
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #9

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

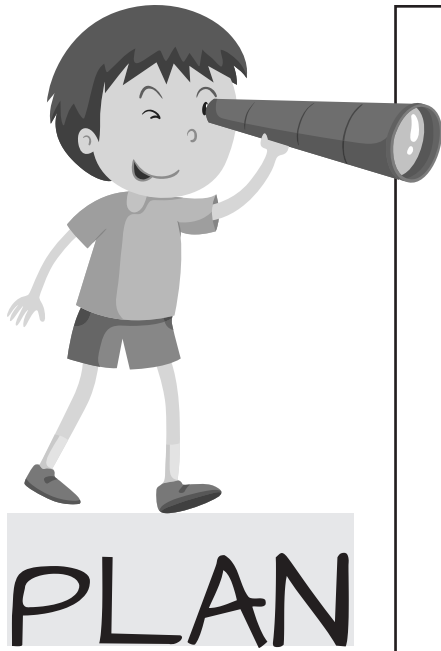


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

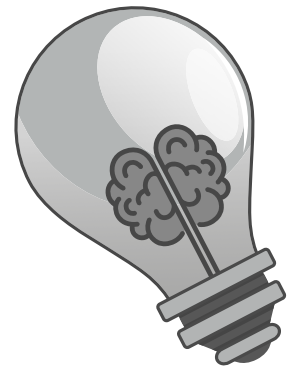
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #10

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

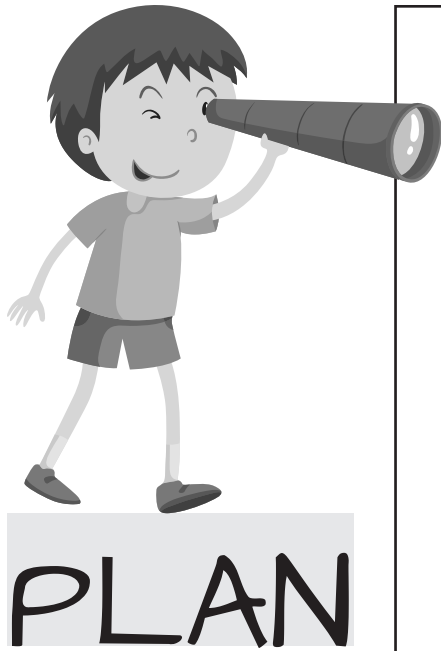


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

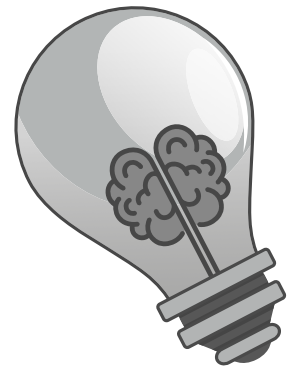
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #11

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

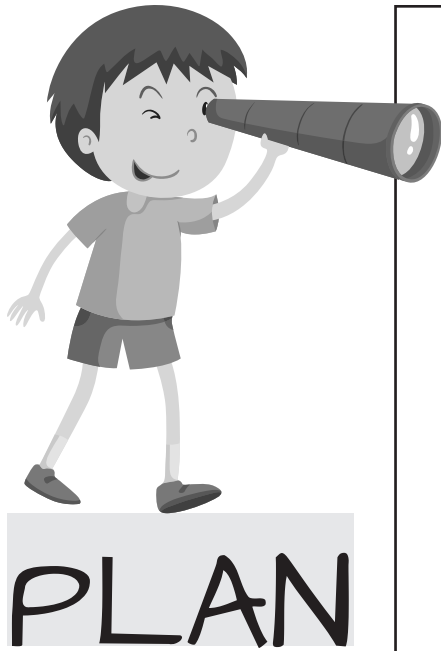


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

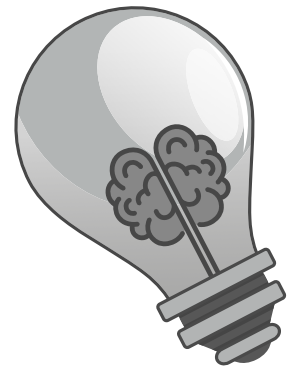
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #12

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

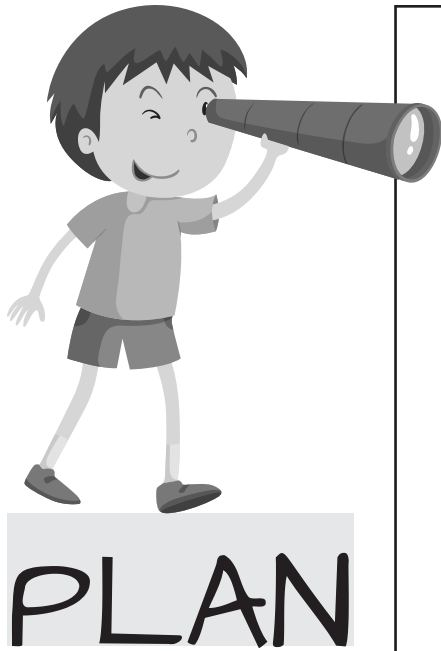


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

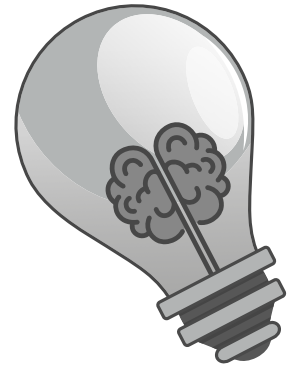
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #13

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

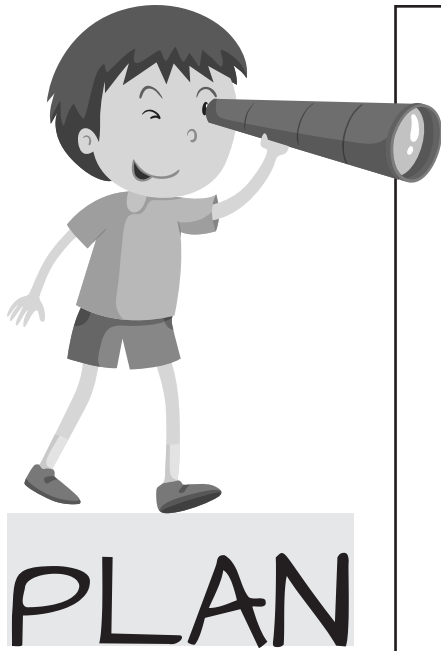


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

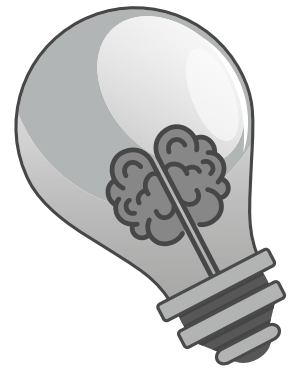
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #14

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

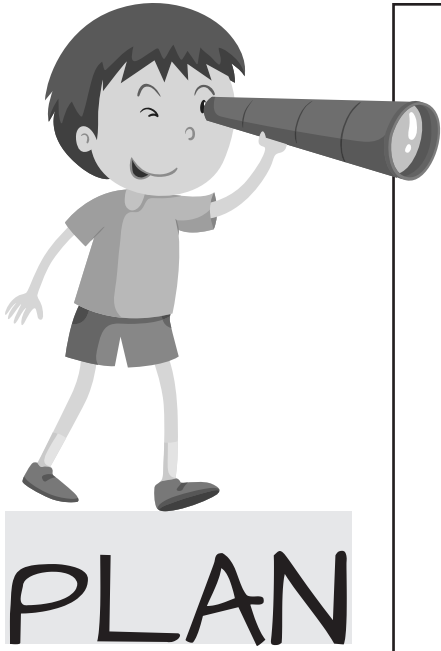


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

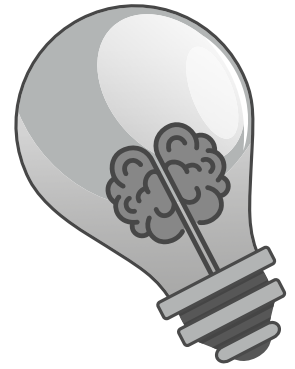
How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



My Invention #15

Date: _____

My idea came from: _____

Short description of my idea: _____

What my idea could look like:

Action Plan using Engineering Design Process:



What is the problem?

What do you know?

What are your constraints?



How can we solve the problem?

- ✓ Brainstorm ideas using drawings or words.
- ✓ Choose the best idea and explain what it is.

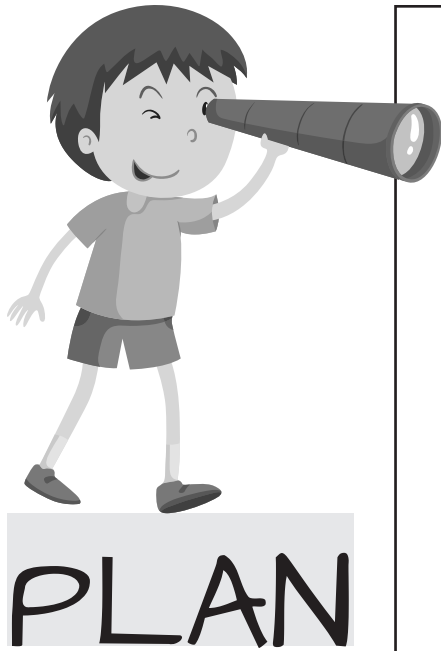


Books to read:

Websites:

Social Media:

The BEST solution is _____



Draw a diagram of your design

List the steps you will take:

Materials Needed:



CREATE

- ✓ Follow your plan
- ✓ Build your design
- ✓ Work together
- ✓ Manage your time
- ✓ Test your design

What worked well?

What didn't work well?

Date accomplished:



IMPROVE

How can you make your design even better?

Create a plan to modify your design.

Draw your new design and explain.



Lessons learnt and other notes:



Join the WIZKIDS CLUB

Enter today and win
a FREE BOOK!

Do you have any travel
adventure stories or project ideas
you want share with me? Yes?
Great! You can mail me at my id
and become a member of
the WIZKIDS CLUB!



www.wizkidsclub.com

Write to me at: sumita@wizkidsclub.com

