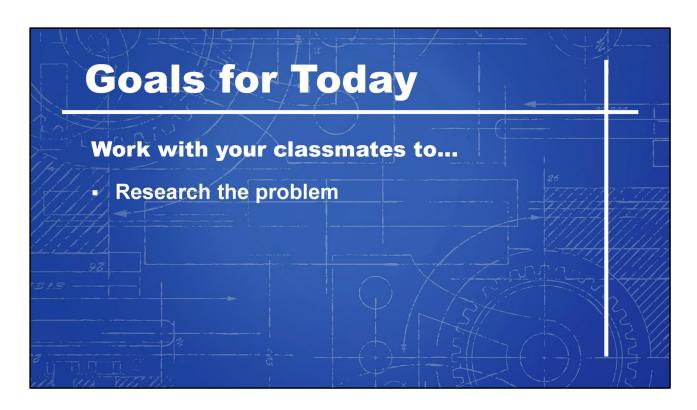


### **Invention Project**

PowerPoint Lesson Slides Created by Michael Bryson

www.andrews.edu/go/invent

Andrews University STEM Division January 2022



Project: Research the Problem

Read the Logbook for more information (pg. 6).

### Requirements

### What are requirements?

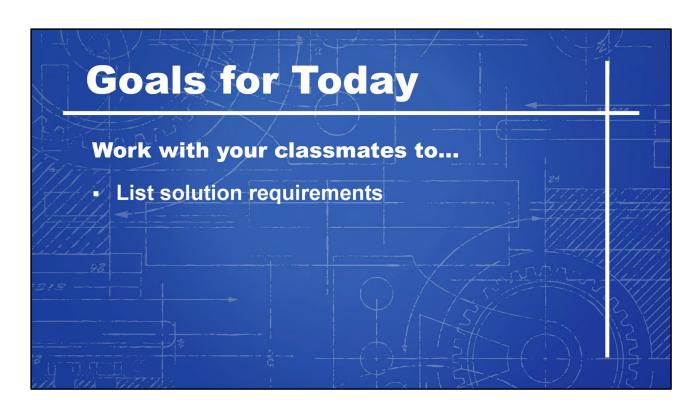
- What does the solution need to do?
- What must the solution not do?
- Safety, size, weight, strength, time, cost, etc.
- Do not say <u>how</u> it will be solved

**Project: Requirements** 

What are requirements?

- What things must the solution meet or do?
- What must the solution not do (limitations or restrictions for the design)?
- Consider the requirements for the solution without choosing a specific solution yet.
- The requirements will be the checklist for the invention.

Read the Logbook for more information (pg. 7).



**Project: Requirements** 

Show the previous slide and read the Logbook for more information (pg. 7).

# Goals for Today Work with your classmates to... Draw solution ideas Share and compare ideas Choose the best solution

Project: Find & Choose a Solution

Read the Logbook for more information (pg. 8).

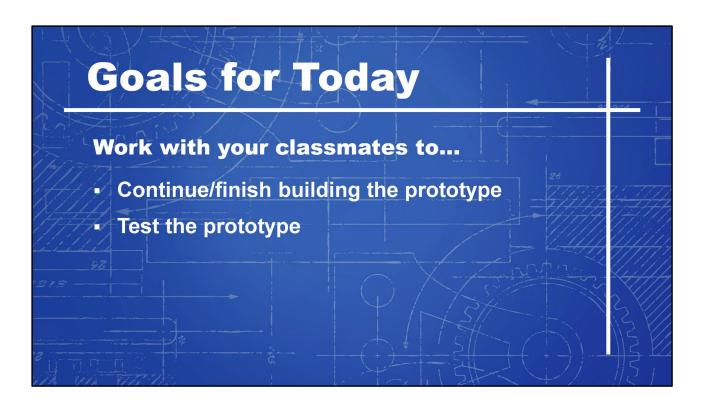
(this step may require extra time)

# Goals for Today Work with your classmates to... Draw and describe invention design Build the prototype

Project: Design & Build the Prototype

Read the Logbook for more information (pg. 9-10).

(this step may require several days)



Project: Test the Prototype

Read the Logbook for more information (pg. 11).

(this step may require several days)

# Goals for Today Work with your classmates to... Improve the prototype Run new tests Finish the prototype

Project: Improvement

Read the Logbook for more information (pg. 9-11).

(this step may require several days)



Project: Wrap-Up

Read the Logbook (pg. 12) and the Presentation Guidelines (available on our website, Presentation Resources section in Teacher Resources) for more information.

(additional resources available in the Presentation Resources section)