Invention Project

PowerPoint Lesson Slides
Created by Michael Bryson

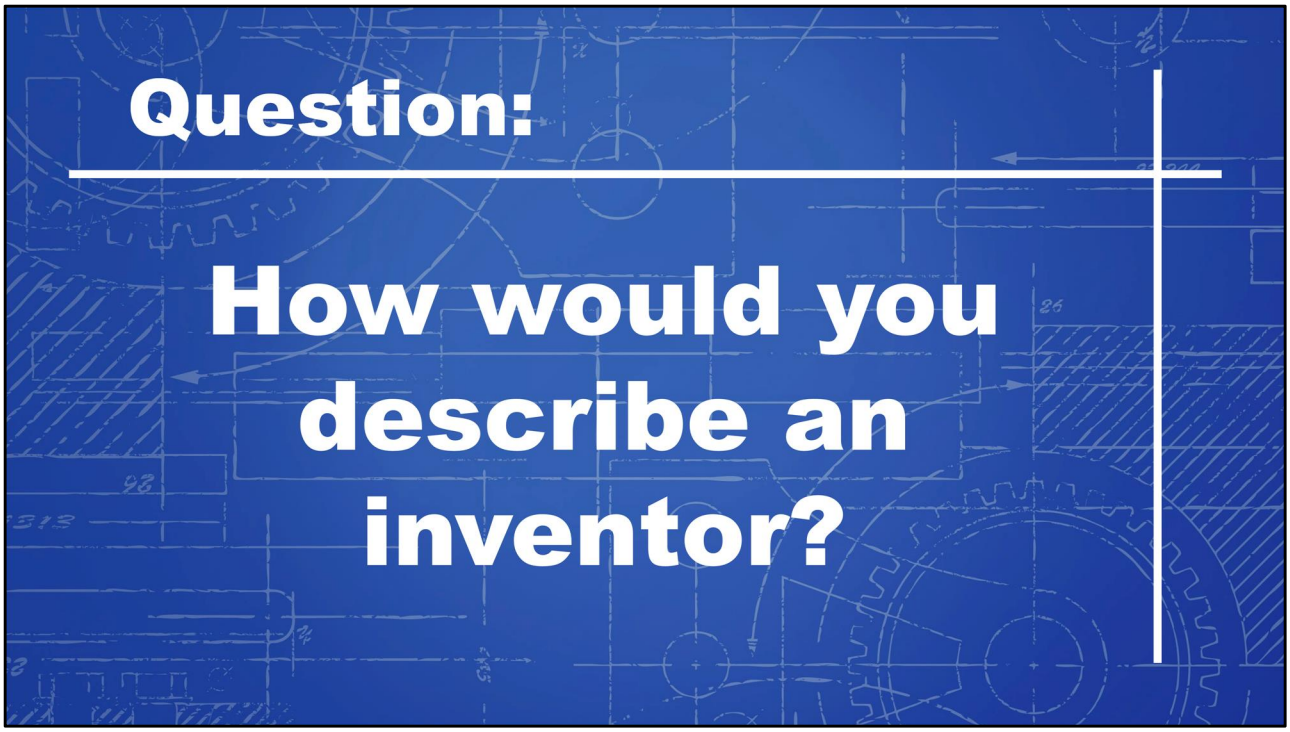
www.andrews.edu/go/invent

Andrews University STEM Division
January 2022

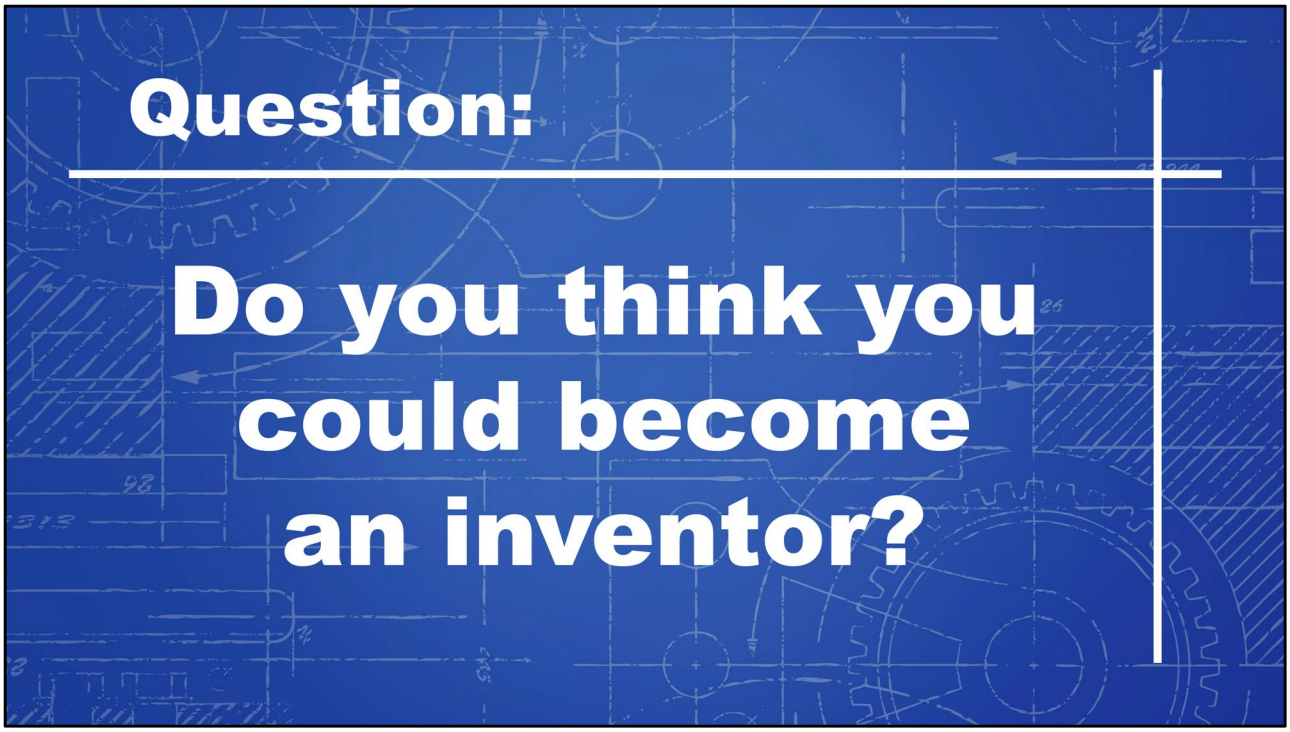
Note:
Some slides in the PowerPoint have text or images that appear out of place until full-screen playback. This is because some elements are animated and will not appear in the right place until the slide is played. There are also some animated transitions that require an extra slide to animate properly. These slides were simplified for the notes version to improve readability.

Page numbers in this document do not correspond to slide numbers in the PowerPoint.

Lesson 1: Who Are Inventors?



Discussion Question 1



Discussion Question 2

Possible Preconceptions:

- All inventors are adults.
- Inventors are a thing of the past.

Inventors can be YOUNG too! (examples – ages shown)

Benjamin Franklin (11 years old) – Swim Fins (1717) – handheld wooden paddles to swim faster

Louis Braille (12 – 15 years old) – Braille Alphabet (1824) – alphabet for blind people

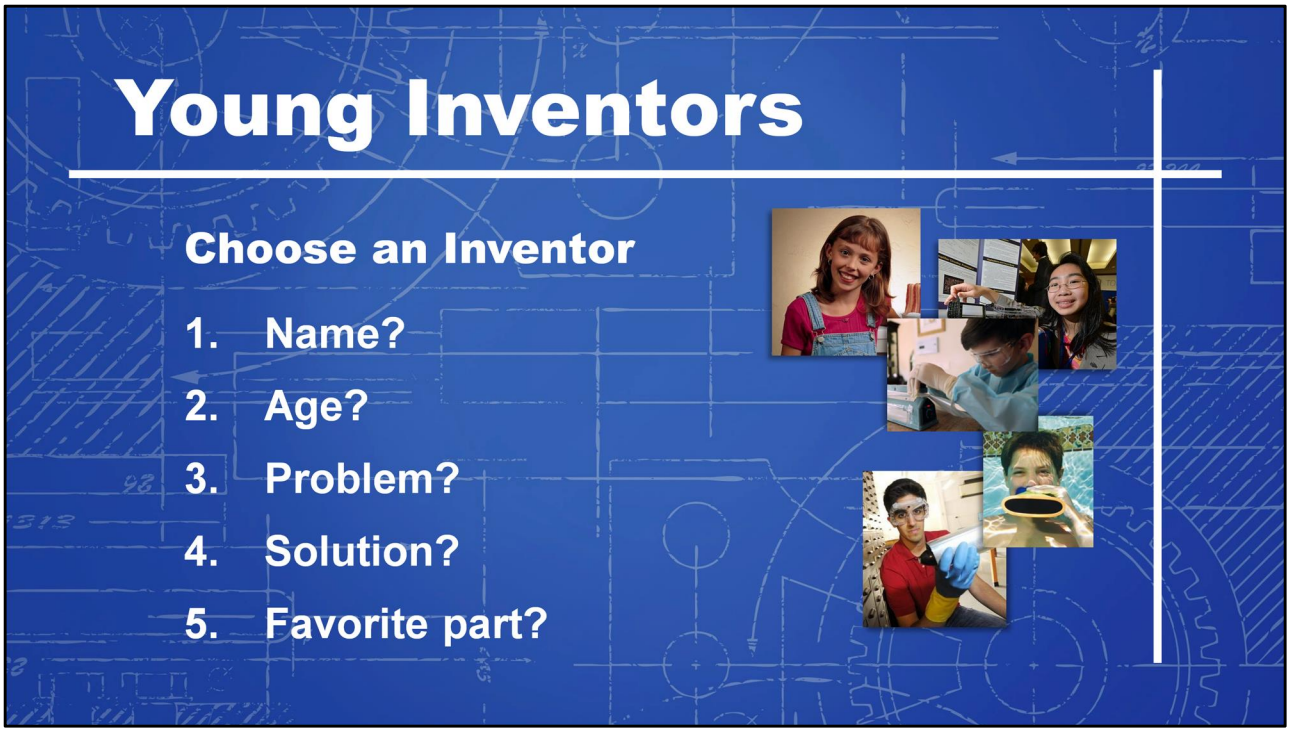
Peter Chilvers (12 years old) – Windsurfing Sailboard (1958) – a surfboard with sail attached

William Kamkwamba (14 years old) – Makeshift Windmill (2001) – recreated a windmill to power his family home

George Nissen (16 years old) – Trampoline (1930) – fun athletic equipment for gymnasts

Young Inventors: (modern examples – ages shown)

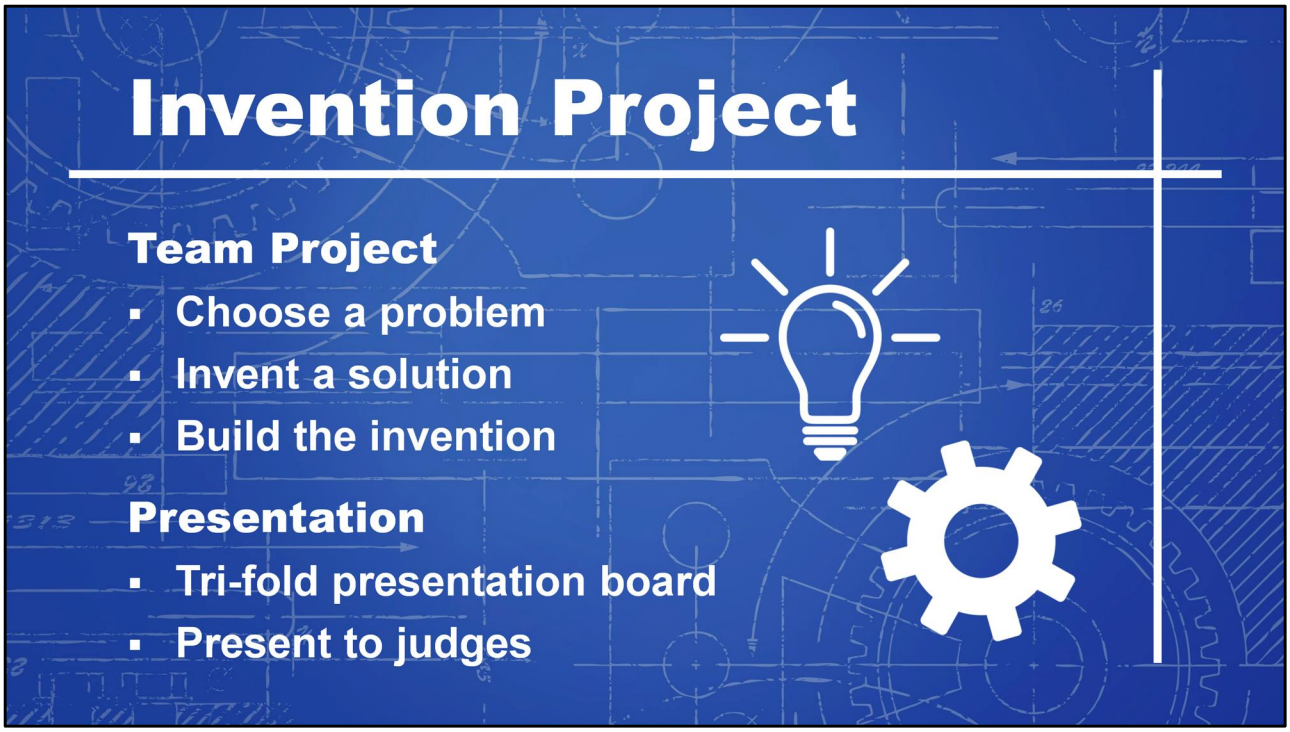
- Kids and teens of all ages can be inventors!
- Examples taken from activity (next slide)



Suggested Activity: Young Inventors

- Print activity sheets, browse provided websites, or find other lists of young inventors.
- Choose several young inventors (as a class, in small groups, or individually).
- Identify the inventor's name, age, problem, solution, and your favorite thing about the inventor/invention.
- Talk about the inventors together as a class or extend it into an art prompt, craft, or other hands-on activity.

Handout available on our website: (Activities section in Teacher Resources)
https://www.andrews.edu/cas/stem/invent/downloads/young-inventors-activity_k-2.pdf



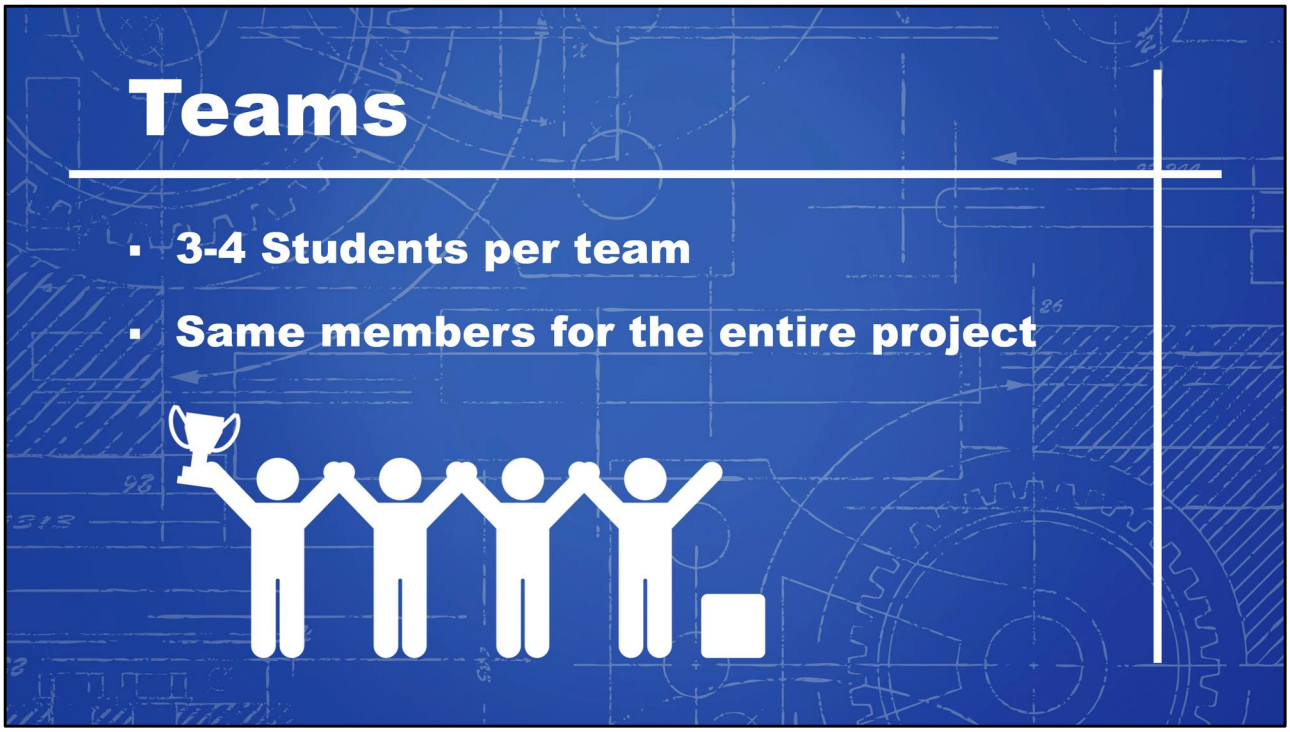
Invention Project Overview: (notes only - no slide)

- Major components
- Goals & expectations
- Local invention fair

Introduce the Logbook: (notes only - no slide)

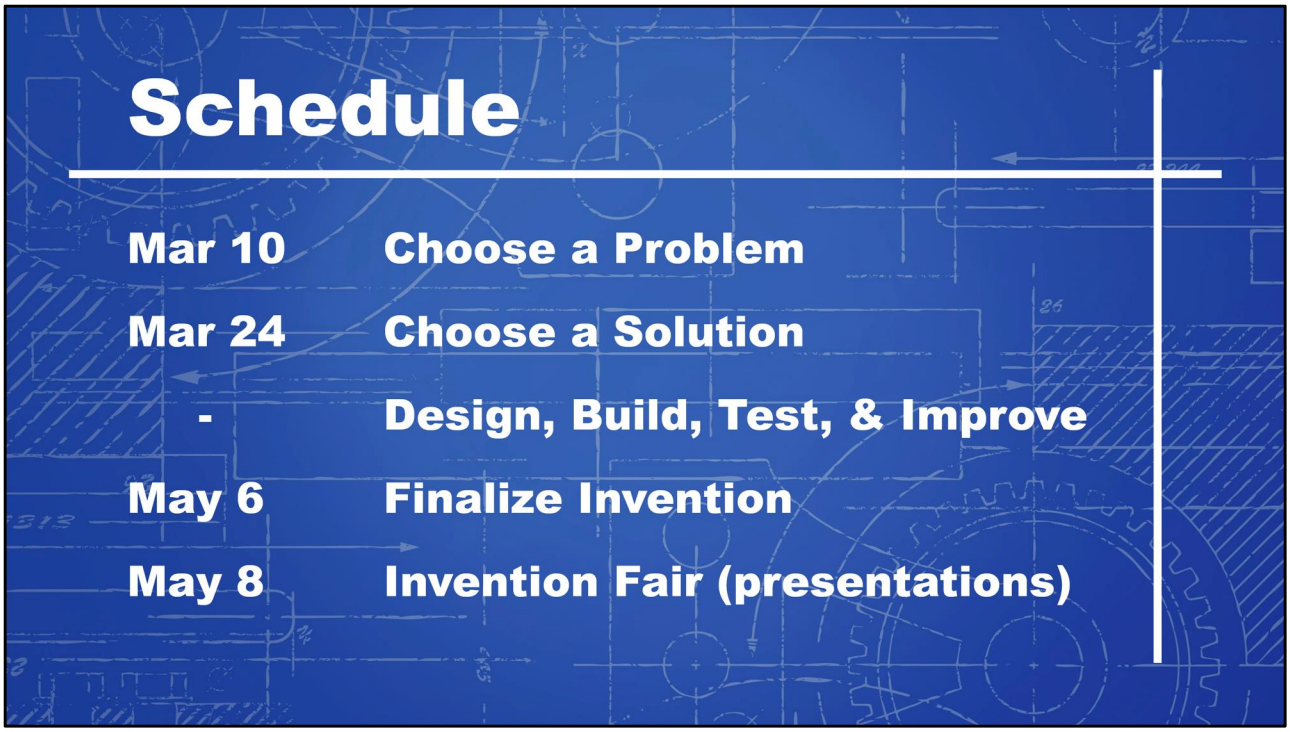
- Explain its purpose and use
- Fill out over time, not all at once
- Give each team 1 Logbook

Logbook available on our website: (Project Resources section in Teacher Resources)
https://www.andrews.edu/cas/stem/invent/downloads/logbook_k-2_small-group.pdf



Form Teams for the Project: (notes only - no slide)

- 3-4 Students per team
- Smaller classes may need a team of 2



Example Project Schedule: (notes only - no slide)

- Adjust the deadlines to match your schedule

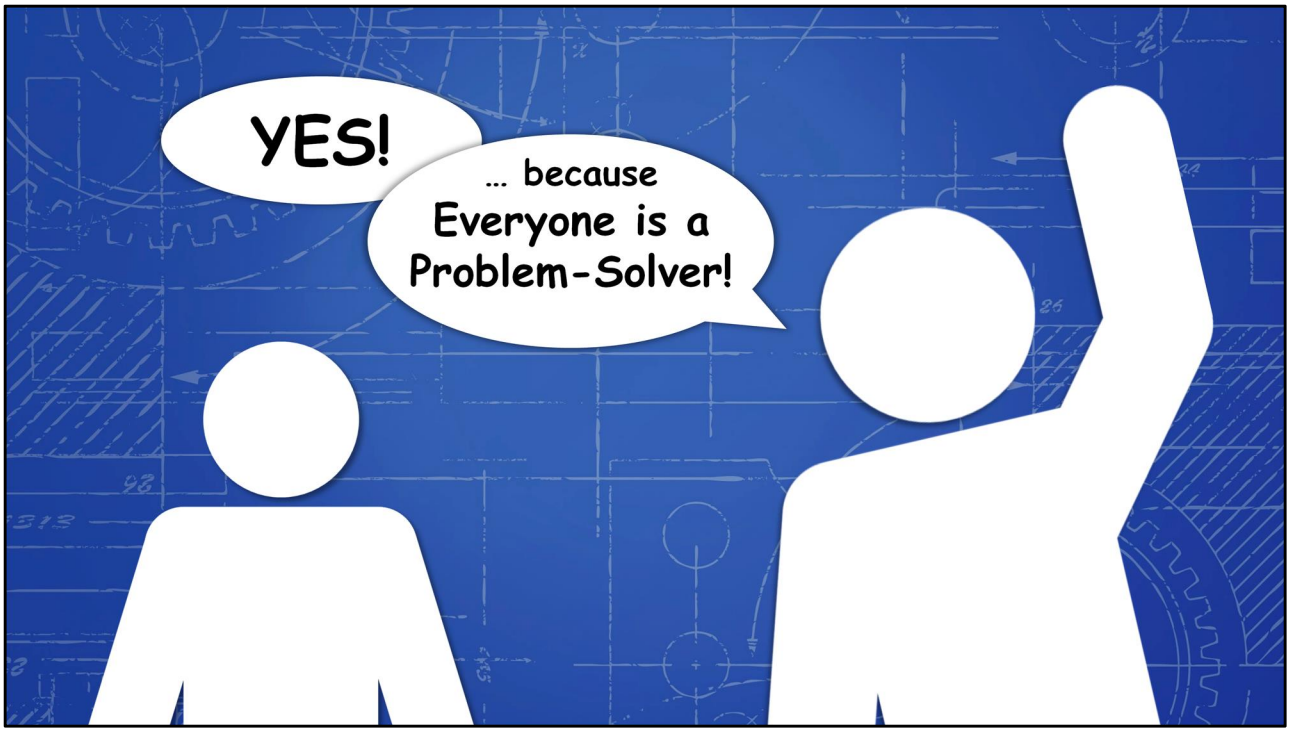
Introduce Mission: Invent 2022 (notes only - no slide)

- Annual NAD-wide invention fair
- Top inventions from each school are eligible to enter (small-group option only)

Question:

Can everyone be an inventor?

(answered on next slide)

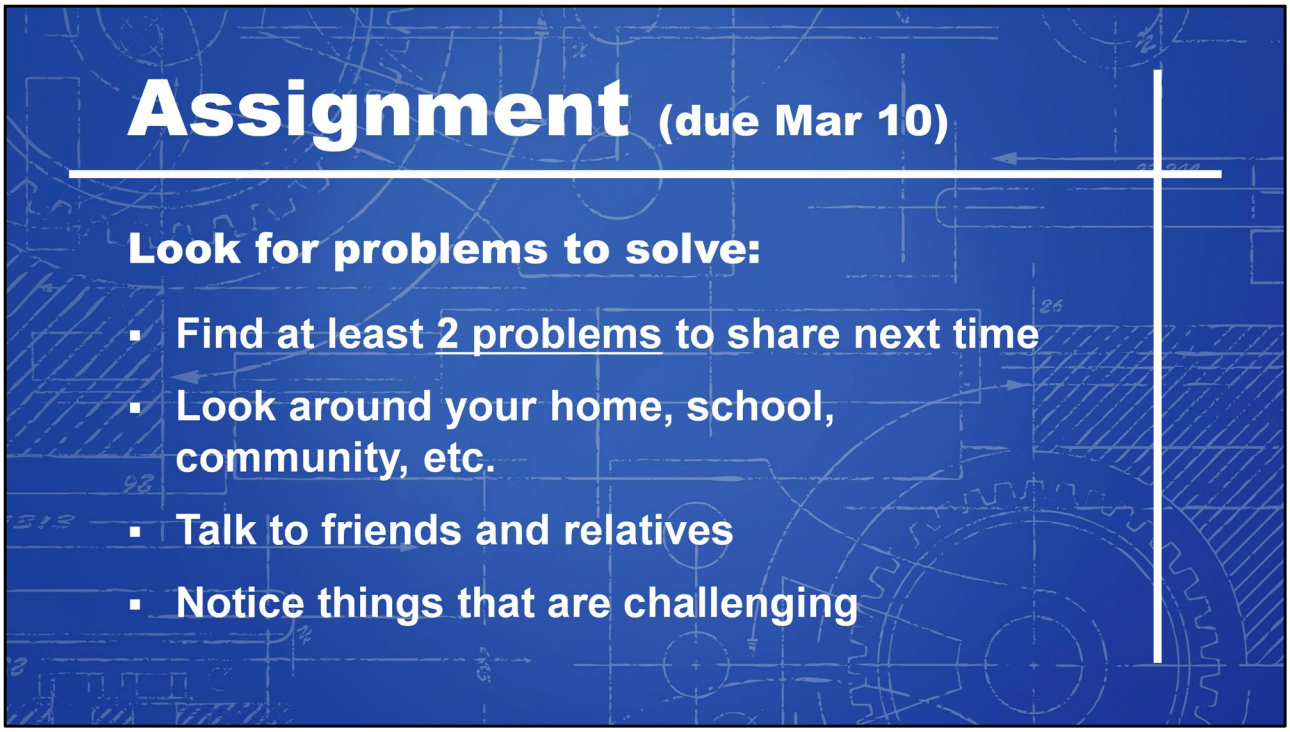


Answer:

Everyone can be an inventor because everyone is a problem-solver!

Everyone is a Problem Solver!

- Inventors
- Scientists
- Engineers
- Business People
- Construction Workers
- Police Officers
- Farmers
- Doctors
- Athletes
- Artists
- Chefs
- Parents
- Students
- Everyone



Assignment: (due next class – adjust date accordingly)

Each team will need to choose a problem by the end of next class. To prepare for this, students need to find problems to share with everyone.

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

Worksheets available on our website: (Project Resources section in Teacher Resources)
https://www.andrews.edu/cas/stem/invent/downloads/logbook_k_problem.pdf
https://www.andrews.edu/cas/stem/invent/downloads/logbook_1-2_problem.pdf


Invention
Project