Thursday, November 2, 2017
6:30 – 7:00 p.m. ET
Lemelson-MIT Program Overview

National Awards
- Lemelson-MIT Prize
- Lemelson-MIT Student Prize
- EurekaFest

Invention Education
- JV InvenTeams
- InvenTeams

- 15 years of experience
- 228 high school teams
- 7 U.S. patents

LEMELESON-MIT
Celebrating invention, inspiring youth
Presenter Don Domes

• Special Projects in STEAM and CTE for the Office of School Performance, Hillsboro Public School District, Oregon

• Member of the Board of Directors of Oregon Robotics Tournament & Outreach Program

• Retired high school CTE teacher

Lemelson-MIT Invention Education Experience

• Hillsboro High School InvenTeam (2007)
• Self-installed Automotive Heads-up Display
• Master teacher with LMIT for 9 years
Basic Safety Rules for Tool Use

Wear safety glasses.

If you are in doubt about how to use a tool, ask!

Have a plan for what you are going to do with the tool.

Be mindful of others who might enter into your workspace accidentally.

Secure the workpiece.

Have a balanced stance while using a tool.

Remove all jewelry, watches, and loose clothing before working with machinery.

Pin up long hair and wear closed-toe footwear.

Never work when you are tired or unfocused.

Leave the workspace cleaner than you found it.
Whose workstation?

Who has a workstation like this?
Set Up a Library to Stay Organized

Tool Storage System

Material Storage System
Basic Materials: Clay, Cardboard, & Foam

Clay

Cardboard

Foam core board

Multi-purpose foam
Clay

JV InvenTeams Shoe Soles

Reynolds Advanced Materials

Making Society
Tools for Working with Clay

- Safety Glasses
- Gloves
- Clay tool set made of sturdy plastic for modeling & clay
- Sculpting tool set
- Consult the art teacher in your school!
Cardboard

- Treasure Box
- Display board for tools
- Toolboxes
- Cell Phone Stand-make your own!
- For more ideas, check out Make.Do

LEMELSON-MIT
Celebrating invention, inspiring youth
Cardboard Creations

Dragon made by an MIT undergraduate student

Gumball machine made by Sebastian, a 11-year old inventor
Cardboard

- Safety glasses
- Scissors
- Utility knife
- Rotary cutter
- Hot glue gun
- glue
- Tapes
- Cutting board
Foam

Check out Josh Ramos’ videos on YouTube for working with various types of foam:

https://www.youtube.com/watch?v=bF2zZ9s8_kY

https://www.youtube.com/watch?v=2c1bArlGA-8
Lemelson-MIT Resources

- Lemelson-MIT Program
  http://lemelson.mit.edu/

- InvenTeams National Grants Initiative
  http://lemelson.mit.edu/inventeams

- JV InvenTeams Curriculum Materials
  http://lemelson.mit.edu/jv-inventeams

- Inventor Archive
  http://lemelson.mit.edu/search-inventors
Other Resources

Science Fair Central

Instructables

Caine’s Arcade

HowToons

Books on tools and materials:

Field Guide to Tools: How to Identify and Use Virtually Every Tool at the Hardware Store

Exploring Materials: Creative Design For Everyday Objects

Materials and Design: The Art and Science of Material Selection in Product Design
THANK YOU!

Contact Us at PD-lemelson@mit.edu

Invention Education
Webinar Series