

THE CAMP INVENTION DAILY SECOND DAY



CAMP INVENTION AT HOME

MAKING CONNECTIONS

Throughout the week in Camp Invention Flight Lab, campers are exploring the connections between LINK, their robot flight trainer, and flying machines.

This type of investigation can continue at home! Make it a fun challenge to take everyday household objects and toys and point out the mechanical features that are found in other applications or may have been inspired by nature!

Visit invent.org/blog for more at-home STEM activities!

HERE'S WHAT'S HAPPENING AT CAMP!

CAMP INVENTION CHAMPIONS™

Today we met the inventors behind our sports gear–like National Inventors Hall of Fame® (NIHF) Inductees Stephanie Kwolek, the inventor of Kevlar® fiber, which is used in safety equipment, and Joseph Shivers, the inventor of LYCRA® fiber, which is used in sportswear for activities on land and water! It was tough to choose our next draft picks for our Innovation Dream Team after hearing all about these game-changing innovations. The focus on our sports complex today was to add moving pieces and simple machines.

RESCUE SQUAD™

We zipped into a riverside town and met with the local Wildlife Resource Ranger to receive our next mission. He explained that because salmon are in short supply, bears are raiding city trash cans. We discovered that beavers play an important role in balancing this river's ecosystem. Today's level included airdropping beavers, creating habitats for hatching salmon and safely moving young salmon past hydroelectric dams. The river's ecosystem balance has been restored and we're ready to level up!

CAMP INVENTION FLIGHT LAB™

We earned our second wing from today's flight simulation challenge! We explored thrust and experimented with wing dynamics using gliders and paper airplanes. LINK provided a moving, illuminated target as we tested our aeronautical designs. We also got to personalize our own LINK, adding feathers and customized stickers.

DESIGN THINKING PROJECT™

Today we explored the first steps in the Design Thinking Process—identifying and exploring. We brainstormed possible inventions, investigated existing patent drawings, and explored Prior Art on patents for our own designs. We heard from the inventor behind an assistive technology to provide internet access to blind and visually impaired users, NIHF Inductee Chieko Asakawa, about the power of empathy in design thinking.

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CONNECTION QUESTIONS

1. What topic do you want to explore further?
2. Which materials have you been using to create your inventions?
3. What materials do you like to use most?



For more information, visit invent.org/camp or call 800-968-4332.

THE INVENTION PROCESS



GET PERSPECTIVE

"Know the problem you are trying to solve and approach it from several different directions."

NIHF Inductee *Radia Perlman*, Inventor of Robust Network Routing and Bridging

KEEP OPEN

"My inventing style is to first learn everything I can about the problem, work to understand it, and then think deeply about how I can connect what I know to solving what I don't know."

NIHF Inductee *Kristina Johnson*, Co-Inventor of Polarization-Control Technology



PERSIST

"If I don't fail every once in a while, I'm not working hard enough... I know all of my ideas are not good ones."

NIHF Inductee *Jim West*, Co-Inventor of the Electret Microphone

MINDSET

"Anybody can invent. You don't have to be an old person to invent. The most significant inventions have come from young people very early in their careers."

NIHF Inductee *Thomas Fogarty*, Inventor of the Embolectomy Catheter



IMAGINATION

"All creative people want to do the unexpected."

NIHF Inductee *Hedy Lamarr*, Co-Inventor of Frequency Hopping Communication System

INGENUITY

"A very important thing is to look beyond what we are seeing and just use all that information to create something that is new and novel and useful."

NIHF Inductee *Sumita Mitra*, Inventor of Nanocomposite Dental Materials

TM PATENT

"A patent is the heart and soul of making an invention."

NIHF Inductee *Raymond Damadian*, Inventor of the MRI Scanner

TRADEMARK

"I challenge you not just to be inventors, but to be involved in the business side. Trademarks are important to your product."

NIHF Inductee *Gary Sharp*, Co-Inventor of Polarization-Control Technology



DISRUPTION

"If you've got a good idea, follow it even when others say it's not."

NIHF Inductee *Frances Arnold*, Inventor of Directed Evolution of Enzymes

IMPROVE

"Good ideas are even better ideas when they can improve people's lives and help the Earth."

NIHF Inductee *Edith Flanigen*, Inventor of Molecular Sieves



FIND THE GAP

"Look for what's missing."

NIHF Inductee *Garrett Brown*, Inventor of the Steadicam® Camera Stabilizer

ADAPT

"An inventor changes, modifies, or adapts specific things to specific directions and recognizes connections."

NIHF Inductee *George Alcorn*, Inventor of the X-ray Spectrometer



DISCOVER

"Learn as much as you can about science, math, and technology."

NIHF Inductee *Ted Hoff*, Co-Inventor of the Microprocessor

EXPLORE

"To create anything innovative, you have to do a lot of homework, first."

NIHF Inductee *B. Jayant Baliga*, Inventor of the Insulated Gate Bipolar Transistor



PITCH

"The important thing about invention is to become passionate about what you do and sell, sell, sell it."

NIHF Inductee *Spencer Silver*, Co-Inventor of Post-it® Notes

FINANCIAL LITERACY

"We're in a business to add value to society. In the process of adding value, if we're successful... we'll be profitable."

NIHF Inductee *Edmund O. Schweitzer III*, Inventor of Digital Protective Relays



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