

## My Innovation Icon™

Unlock your superpower by finding out which inventor superhero you are most like!

1. What activity would you most like to do?
  - A. Cook food
  - B. Play an instrument
  - C. Solve math puzzles
  - D. Play on the computer
  - E. Build new things
2. What question do you often ask yourself?
  - A. How could I make this better?
  - B. How can I create something new?
  - C. What can I try next?
  - D. What can I make that everyone can use?
  - E. What will I find?
3. What word best describes you?
  - A. Curious
  - B. Fearless
  - C. Persistent
  - D. Thoughtful
  - E. Imaginative
4. What type of book do you most like to read?
  - A. Mystery
  - B. Adventure
  - C. "How-to"
  - D. Science fiction
  - E. Joke book
5. What would you do if you won the lottery?
  - A. Build a cool chemistry lab
  - B. Start a band
  - C. Buy a new computer
  - D. Build a jet and explore the world
  - E. Create a machine that could do anything
6. What advice would you give a friend?
  - A. Create your own path
  - B. Dance to your own beat
  - C. It will be a piece of cake!
  - D. Ask "why"
  - E. Be curious
7. Which power would you choose?
  - A. Super senses
  - B. Hyper connection
  - C. Laser beam hands
  - D. Shrink anything
  - E. Freeze time



Camp Invention®

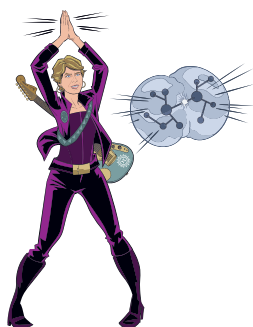
## Now that you are part of the Innovation Force™, who is your Innovation Icon and what is your superpower?



If you got mostly **As**, you are most like **Frances Ligler**

Superpower: **Super Senses**

You are curious and don't give up, just like Frances Ligler! She loves to go outdoors and always challenges herself to make things better. Frances invented the Portable Optical Biosensor which helps to see if certain chemicals or molecules are present in certain objects. This invention has made food safety, medicine, air quality, and government safety better! Her superpower is her super sense, which allows her to detect things from miles away! She uses her portable scanning device to make her senses even stronger, and shield us from dangerous things and evil villains. Now that you have super senses, make your own scanning device at home and see what new safety measures you can bring to your house!



If you got mostly **Bs**, you are most like **Carolyn Bertozzi**

Superpower: **Hyper Connection**

You like to boogie-down to the beat of your own music and don't take no for an answer, just like Carolyn Bertozzi! Her go-getter personality led her to fearlessly invent a whole new field of science called Bioorthogonal Chemistry, which allows scientists to change molecules in living things to make them stick together with unbreakable strength. Her superpower is hyper connection, which allows her to make a super tough bond with just about anything! As the connection between two objects grows in strength, Carolyn's own personal strength grows as well, helping her ward off bad enemies! Now that you have the power to join together anything, what new connections will you make?



If you got mostly **Cs**, you are most like **Marshall Jones**

Superpower: **Laser Beam Hands**

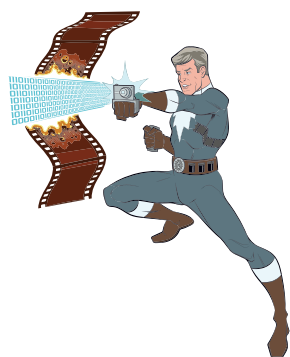
Your gentle but ambitious personality is just like Marshall Jones! He wasn't afraid to fail and invented ways to connect unlike metals through a process called welding, and also created new tools using lasers to make the headlights for cars! His superpower is his laser beam hands, from which he can shoot lasers at different strengths and speeds, allowing him to cut steel, titanium, and nickel-based metals to create new things that keep the bad guys away. How can you use your new laser power to change the world?



If you got mostly **Ds**, you are most like **Eric R. Fossum**

Superpower: **Shrink Anything**

You like to create things with your hands and use strong problem-solving skills to tackle big challenges, just like Eric R. Fossum! Eric invented a mini camera, which is more officially known as the CMOS active pixel sensor camera-on-a-chip. His camera is most commonly used in cell phones across the world and makes the selfies that you and your friends take possible! Eric's superpower is the ability to shrink anything, just like the time he shrunk a large shoebox-sized camera to the size of a coffee cup for NASA! Now that's tiny, especially in space! With your new ability to shrink anything, how will you use your superpower?



If you got mostly **Es**, you are like **Steve Sasson**

Superpower: **Freeze Time**

You love to use your imagination and truly believe that creating anything is possible, just like Steve Sasson! As a kid, Steve grew up always wanting to build new things which led him to invent the digital camera, the world's first camera to not use film for photos. This was a huge game-changer for the field of photography! A photograph is a memory frozen in time, and that's exactly what Steve uses to stop bad guys. His superpower is freezing time, which allows him to stop the clock from ticking while still having the power to move around like normal. This can stop bad guys from doing harm. Now that you can freeze time, what will you do to change the world?



# SUPER SENSES CHALLENGE



FRANCES LIGLER

## DESIGN A SUPER SENSE KIT!

You have super senses, just like Innovation Force™ member and National Inventors Hall of Fame Inductee Frances Ligler! Make your super sense superpower even stronger by designing a kit that enhances your taste, sight, touch, smell and sound!

### WHAT YOU NEED:

- Scissors
- Tape
- Glue
- Markers/pens
- String
- Construction paper
- Old pair of gloves
- Cool stickers
- Empty shoebox, or box of a similar size

### STEP ONE

Create a prototype of what you want your Super Sense Kit to include. Here are some ideas to get you started!

#### TASTE

Create a spray that neutralizes the flavor of foods you don't like

#### SIGHT

Create jumbo-sized binoculars that help you see miles and miles away

#### TOUCH

Invent a new type of glove that has ultra-sensitive temperature and texture detectors on the fingertips

#### SMELL

Create a nose strip that you can stick on the tip of your nose which will heighten your smell

#### SOUND

Amplify your hearing by creating mega ears that allow you to hear around corners

### STEP TWO

You need to keep the items that make up your Super Sense Kit safe! Create a protective box that only you can unlock.

### STEP THREE

Test out your super senses and write about your experience in your Camp Invention inventor's log! Things to think about:

- What is the name of your Super Sense Kit?
- When do you need it? Are there times you need it more than others?
- What problems does it help you solve?
- How can it help other people?



# HYPER CONNECTION CHALLENGE

## CREATE YOUR OWN GAME!

You have hyper connection superpowers, just like Innovation Force™ member and National Inventors Hall of Fame Inductee Carolyn Bertozzi. Strengthen your ability to join any two forces together by merging your favorite board games to create an even better game of your own!

### WHAT YOU NEED:

- Board games
- Marbles
- Construction paper
- Markers
- Dice
- Playing cards
- A timer



CAROLYN BERTOZZI

### STEP ONE

Gather all of your game materials together. Take the pieces of each board game out of the box so that it's all on the table in front of you.

### STEP TWO

Play a round of each board game. Decide what you like and don't like about each game.

### STEP THREE

Create your own game. Here are a few things to think about:

- What's the name of your game?
- How many players can play at a time?
- What rules would you like to keep from the board games?
- What rules would you like to add to make your game more fun?
- How are your new rules improving the game?
- How do you decide the winner?
- What's the grand prize?
- How long should your game take to play?
- How is your new game better now that you have combined the best pieces?

### STEP FOUR

Once you've got it all figured out, write out the rules of your new game.

### STEP FIVE

Now it's time to play! Grab your friends and play your new game! Write down your experiences in your Camp Invention inventor's log!





# LASER FOCUSED CHALLENGE



**MARSHALL JONES**

## BUILD THE STRONGEST TOWER EVER!

You have the superpower of laser beam hands, just like Innovation Force™ member and National Inventors Hall of Fame Inductee Marshall Jones! Using your precision abilities, laser-focus your superpowers to build the strongest tower ever using upcycled items that you have around your home. Test your tower's strength by trying to knock it down! Using your new superpower, how strong can you make your tower?

### WHAT YOU NEED:

- Building blocks, any size
- Tape
- Miscellaneous toys
- Milk jugs/cartons
- Construction paper
- Other upcycled items
- Empty boxes
- Markers/pens
- Paper towel rolls
- Balls (of all sizes)
- Cars/trucks

### STEP ONE

When you are upcycling objects around your home, start by looking for objects that will create a sturdy base.

### STEP TWO

#### Assemble your tower!

Things to think about:

- How does the weight shift as you add levels to your tower?
- What can you do to make the tower balance better?

### STEP THREE

After you are satisfied with how your tower looks and stands, test its strength by trying to knock it down! If you think you can build a stronger tower, try again!

### STEP FOUR

As you test out your superpower, write down your experiences below or in your Camp Invention inventor's log! More things to think about:

- What made your tower strong?
- If you could build your tower with any materials in the world, what would you choose and why?
- How can laser-focusing on a challenge help you problem solve in the future?





# SHRINK ANYTHING CHALLENGE

## SHRINKIFY YOUR TOY!

You're a hands-on problem-solver, just like Innovation Force™ member and National Inventors Hall of Fame Inductee Eric R. Fossum. Channel your ability to shrink just about anything and create a miniature version of your favorite toy!



**ERIC R. FOSSUM**

### WHAT YOU NEED:

- Your favorite toy
- Tape
- Ruler
- Scissors
- Construction paper
- Glue
- Markers
- Anything else!
- Building blocks

### STEP ONE

Play with your toy for a bit. After playing with your toy, write about your experience in your inventor's log.

Here are some things to consider:

- What's the purpose of this toy?
- How can I replicate this experience using my own supplies?
- How can I make this toy more fun?
- How can I make this toy smaller without getting rid of the cool things it can do?

### STEP TWO

It's time to shrinkify! Build a miniature version of your toy with some of the materials you set aside.

\*Don't forget, just because it's smaller doesn't mean it can't be better. Eric R. Fossum proved that when he invented the mini camera that you use to take selfies on your cell phone!

### STEP THREE

**Play with your new toy!**

### STEP FOUR

Write down your observations in your Camp Invention inventor's log. Here are a few things to think about:

- How does your new toy compare to the original one?
- Which toy is more fun to play with?
- Now that your favorite toy is smaller, what are the benefits?
- What new things can it do? Can it fit in new places?
- What will you shrink next?





# SUPER FREEZE CHALLENGE



**STEVE SASSON**

## FREEZE A TEE AND SEE WHO CAN DE-THAW IT FASTEST!

You have the ability to freeze time, just like Innovation Force™ member and National Inventors Hall of Fame Inductee Steve Sasson did when he invented the world's first digital camera! In this two-day challenge, put your superpower to use by testing time, and your friends, to see who can unfreeze a frozen T-shirt the fastest. The person that speed de-thaws their shirt the fastest and says "Brrrr!" first is the winner!

### WHAT YOU NEED:

- Your Camp Invention T-shirt (you won't need to wear it, just have it ready)
- An old shirt that you don't mind getting wet
- A friend or family member
- Water and some empty space in the freezer

### STEP ONE DAY ONE

Completely soak your Camp Invention T-shirt in water and ask your friend or family member to do the same with the other shirt. Now, get rollin'!

- Wring out each shirt, then separately fold and roll them up.
- Place both shirts in the freezer and make sure they don't touch. Let them sit overnight.

### STEP TWO DAY TWO

Now that your shirts are completely frozen, it's time to compete! Grab your friend and take the shirts out of the freezer.

### STEP THREE DAY TWO

Ready, set, un-freeze! Problem-solve to see who can thaw out their shirt the fastest. Once your shirt is not frozen, put it on! The first person to complete this task and yell "Brrr!" is the winner! (Please do not hit the frozen T-shirt against any objects like furniture or other people.)

### STEP FOUR DAY TWO

Write down your experiences in your Camp Invention inventor's log!  
Things to think about:

- What's the first thing you thought of when you pulled your T-shirt out of the freezer?
- What was the method that helped you thaw out your T-shirt?
- How is freezing an item like stopping time?

