



2012 THE CHALLENGE

Independent. Engaged. Connected.

Think About It

From the second you are born to this very minute, you are getting older. At first, this means growing bigger, learning to walk and talk, and discovering your connection to the people and the world around you. You grow from baby to toddler to child to teenager to adult to senior. Your challenge this season is to investigate that last stage of growth: being a senior.

Have you ever thought about...

- What is it like to be 60 years old or older?
- How old are you today? What was it like to be your age 60 or more years ago?
- How have things changed in the past 60, 70, or 80 years?



What is it like to be a senior? "Boring!" you say? Think about these questions: If you are a senior...

- Can you still have fun?
"Banana" George Blair entered his first barefoot waterskiing competition when he was 64. Since then, he has waterskied barefoot on all seven continents. He was still waterskiing at age 93.
- Can you still think of new things?
At age 100 years, inventor Eemeli Väyrynen became the oldest person ever to receive a patent in Finland.
- Can you still compete in sports?
Ruth Frith, 100 years old, competed in track and field at the 2009 World Masters Games in Sidney, Australia.
- Can you become famous?
Annie Elizabeth "Bessie" Delany (age 101) and her sister Sarah Louise "Sadie" Delany (age 103) published a book about their first 100 years and were on the New York Times bestseller lists for 105 weeks.

What was it like to be your age 60 or more years ago? Some things were very much the same. Children went to school, ate, read books, saw movies, and played with toys—some of the same toys kids play with today. Some things were very different.

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Did you know that until 1952, there were no commercials for toys on TV? Mr. Potato Head was the first toy ever advertised on television. How do you think kids 60 years ago learned about all the new toys being sold in stores?

Did you know that the Swedish police used the first mobile phone in 1946? That phone wasn't very practical. After just 6 calls, the police car's battery was dead. Did you know that in the early 1940s in Britain, very few families had phones? In those days in the USA, two out of three families had no phone. No one could carry a phone in their pocket or purse.

Did you know that in 1940 the smallest computers filled entire rooms? No one had a computer at home. No one could even pick up a computer.

Identify a Senior Partner

Your challenge this season is to learn about a senior and the changes they have experienced in their lifetime. Not sure where to start? Consider these suggestions:

Each Team Member — Begin by looking at your own family and friends. Consider your grandparents, great grandparents, neighbors, assisted living residents, business owners, or babysitters. Many people define seniors in different ways. For the Super Senior Challenge, look for someone who is 60 years of age or older.

Here are some ideas to help you get started:

- Who do you know who is 60 years of age or older?
- Do seniors volunteer at your school?
- Do you volunteer with seniors?
- Is there a senior center in your community?
- Are there activities, classes, or social events for seniors in your community?



Choose a Senior that your team, the adults who work with you, or your family know. Ask your coach to help you identify a Senior Partner for your team.

Each Team Member — Make a list of the seniors you know. How do you know each one? Did a relative, neighbor, or friend tell you about them?



As a Team — Next, take a look at each team member's list. Talk about how your team can connect with these people. Are they near you? Can you talk with them in person? Over the phone? Using email or social media? By letter? Can you learn about what life was like when they were children? Teenagers? Young adults?

As a Team — Choose a senior and invite them to be your partner and help with your Project. Remember, not everyone who is asked will be able to help your team. If a senior says, "I'm sorry. I can't help," invite someone else. Your team can also choose to research a famous senior.

Learn About Your Senior Partner's Life

Now that your team has a Senior Partner, learn more about their life. You will want to find out about their childhood, their family, their education, their work life, and what they like to do for fun. Here are some questions to ask.

- Where were you born? Did you grow up there?
- What was the house you grew up in like?
- Did you have a room of your own? If you shared your room, who shared it with you?
- What did your parents do for work?
- Do you have brothers or sisters? Are they older? younger? both?
- Did you go to daycare? Who took care of you?

- When you were our age, what was your favorite game or toy? What did you like to do best?
- Who were your best friends? What did you like to do together? What do you do for fun now?
- Did you have pets? What kind? Do you still have pets?
- Did you have to do chores? What were they?



- Where did you go to school?
- What was your favorite subject? What subject did you dislike the most?
- Did you use computers at school? If not, how did you do your school work?
- Did you play sports or join clubs?
- What did you wear to school? Did you wear different clothes for play?

- What was your first job? Did you have other jobs? What were they? Do you still work?
- Did you have a career? What was it? How did you learn to do that work?
- Were you in the military? Where did you serve?
- Did you get married? Who did you marry? How did you meet?
- Did your husband or wife work? What did he or she do? Does he or she still work?
- Did you have children? How many? Where do they live now? Do they have children?
- How was life different when you were young? What do you miss most?
- What things do we have now that you didn't have when you were young? Do they make your life easier or harder?

Identify and Learn About a Change

As a Team — Get to know more about your team's senior partner and the changes they have seen. Ask them about how life has changed since they were younger. Ask them to tell you about changes in how they cook food, do laundry, communicate with people, get from one place to another, have fun and stay entertained, or stay healthy and active? Ask your senior partner what they think are the biggest changes in their lifetime. Think about all the inventions that make life easier and more fun. Think about all the inventions make life more difficult, too.

Here are some examples of changes in technology, transportation, entertainment, other areas that some seniors talk about:

- Computers are everywhere
- Cars have seatbelts, air bags, and turn signals
- Telephones fit in your pocket
- Almost everybody has a color TV
- Sports teams can be for boys, girls, and boys and girls together
- Cameras take pictures without using film
- Robots help build things in factories

Once you know about some of the changes seniors have experienced, do some research. What can your team learn about how those changes happened? How do those changes help seniors stay independent, engaged, and connected? Is anything more difficult because of the change.



As a Team — Choose one item that your senior partner identified as having changed in their lifetime and learn about it. Some resources you may use to look for information are: reports, books, magazines, and websites. Check with professionals who work in and around your community. Use any research tools you have available. Be prepared to share your information sources. Ask everybody you know—your family, teachers, and friends. Read books. Look at Web sites. Go on a field trip. Write letters. Ask the people who design, build, or sell the item your team chose. Talk to people who work in museums and at historical societies. What can they tell you? Be ready to share where you hunted and what you learned.



As a Team — While you are researching the change your senior experienced, find out about a professional who is working on even more changes. Is a scientist, physician, or engineer helping with research or developing new technology? Is a social worker, community activist, or health care worker developing new programs?

Build It

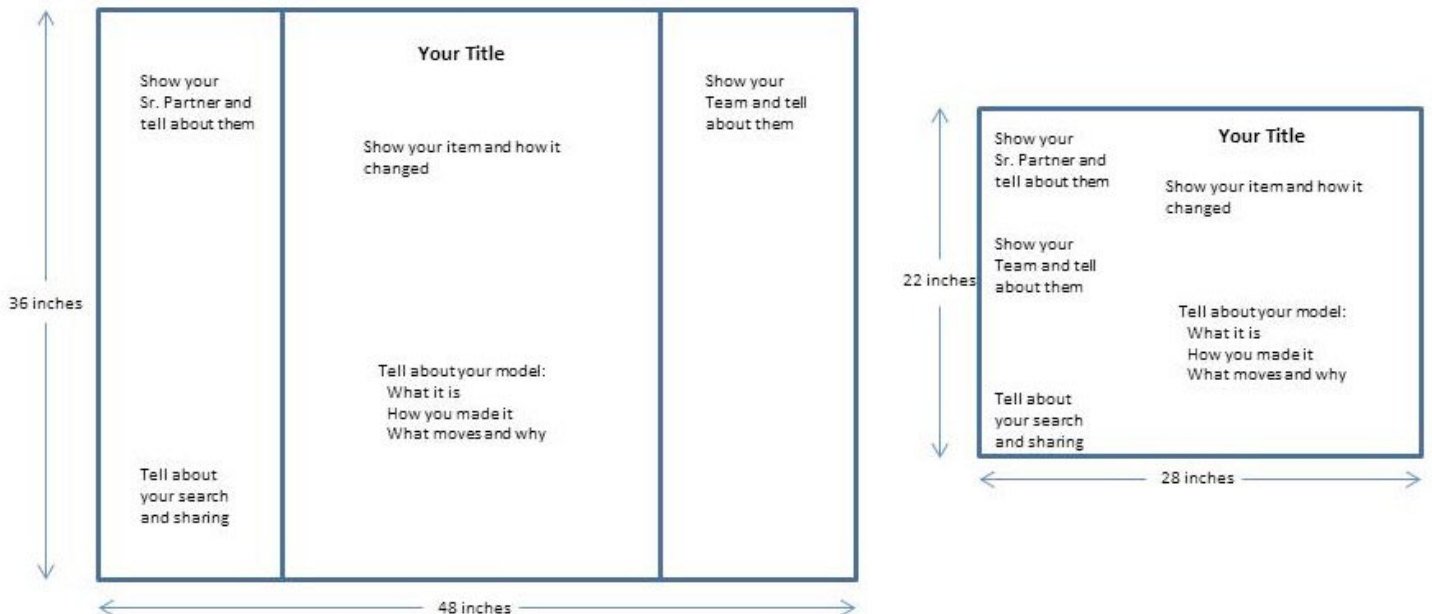
Time to build your model. Can you build a LEGO model that shows the item that your team and senior partner chose and how it has changed over time? What was it like then? What is it like now? Make something in your model move. Here are the rules:

- Design your own model. Be creative! Be original! Don't just put together a kit that anyone could buy in a store or on the web.
- The model must be no bigger than 15-inches x 15-inches—a LEGO baseplate or other premeasured footprint makes it easier to keep the model the right size.
- The model should be made of LEGO parts—you can use any LEGO bricks, figures, or moving parts you need.
- The model should have at least one motorized, moveable part. You can use any LEGO motor to make your part move. There is a LEGO motor included with the optional Jr.FLL Base Set that your team can purchase after registering.
- The model should include one simple machine—you can use LEGO parts to build ramps, levers, pulleys, gears, wheels and axles, screws, or wedges. You can find many of the pieces to make these items in the optional Jr. FLL Base Set.
- You cannot paint or decorate the LEGO parts; you cannot use other art or craft materials in your model.



Show It

Make a *Show Me!* poster. Show your team and tell something nice about each member. Show the item your team chose.



Show how it changed over time. Show how you learned about it. Show how others can learn more. Here are the rules:

- Use a 22-inch x 28-inch flat poster board or a 36-inch x 48-inch tri-fold presentation board—no bigger!
- You can use words, drawings, photos, and small objects attached to the poster to tell about what your team learned.
- Tell about your team—your team name, your team members (remember to make space to share something special about each one), and your coach.
- Tell about the places you hunted for answers, the people you asked.
- Tell about the item that changed and show how it changed—what it is, when it was invented, and how it changed during your senior partner's life.
- Tell about your model and your machine—what is moving, where, and how.

And remember, the most important thing is to have fun while you show how things changed for your senior partner.

Share It

Now, share what you learned. You decide how to share what you've learned. Invite parents, teachers, people who helped you find answers, team sponsors, and other kids to see your poster and your model. Get permission and put your poster up at school, the library, or another public building. Tell the story. Answer questions. Sing a song. Put on a play. Be serious. Be funny. But find a way to share what you know!

If you attend a Jr.FLL event, reviewers will visit with you for 5 to 10 minutes. Be prepared to:

- Listen to the reviewers and answer their questions
- Tell the reviewers about your team
- Tell the reviewers about your senior partner
- Tell the reviewers about the item your team studied and your hunt for answers
- Show the reviewers how your model works
- Tell the reviewers about how you shared what you learned
- Be sure you have lots to share; the reviewers are looking forward to learning from you!



Coaches, Need Help Getting Started?

This season's Junior FLL Challenge builds an understanding of the way the world has changed and the complex network of technology and innovation that affects us all. The sheer scope can be mind-boggling, even for adults, but the *SUPER SENIORS*SM Challenge lays the groundwork for understanding the roles that all kinds of careers play in creating change. It allows your team to play a role in keeping seniors independent, engaged, and connected. It brings awareness of the history of technology and its impact on the real world. The *Junior FLL Coaches' Guide* contains more information about Junior *FIRST* LEGO League, community events and awards, along with hints for a successful season, including scheduling and activity suggestions. The *SUPER SENIORS 2012 Coaches' Resources* contains discussion topic ideas, a glossary, and a wide variety of age-appropriate resources, both print and online.

Information and resources are also available online.

- At www.jrfirstlegoleague.org you will find general information.
- At <http://www.usfirst.org/jr.fll> you will find the Event Guide and other helpful information.

If you have more questions, e-mail jrflteams@usfirst.org for support.