



## 2014 COACHES' RESOURCES

**Around the world, many children spend time learning nearly every day.** Inside or outside of school, kids are learning. Sometimes they learn “school subjects” like math, history, or literature. Other times they are learning about the natural world by exploring the woods, or they learn how to cooperate with other people by playing with friends. However, most children never think about the process of gathering new information and skills – they just do it.

The Jr.FLL THINK TANK<sup>SM</sup> Challenge is about introducing kids to the idea of learning. No matter where or how it happens, learning will be an important part of their lives for many years to come. In fact, many careers involve learning and teaching in some way, so the children on your team might never stop gathering new information and skills. This is their opportunity to begin thinking about the connection between learning and their everyday lives.

Although many of these resources are easily understood by children, the list was compiled for use by coaches. **FIRST<sup>®</sup>** does not control or endorse the content of these external websites. They are provided as optional references only. Please preview all resources based on the maturity level of your team.



## Discussion Questions

The Team Meeting Guide provides activities to help you brainstorm with your team. It can be downloaded from the Online Showcase Coach Portal. You may consider introducing some of these discussion questions as an additional way to help your team think about the concept of learning. Remember to keep your language kid-friendly and be open to any answers they give. There are no right or wrong answers.

- What does the word learning mean to you? What happens when you learn something?
- For most people, learning simply means getting some new information or skill you did not know before. What is your favorite thing that you have learned this week? Month? Ever?

- Did you ever learn something using a tool that seemed very strange? For example, maybe you never expected to learn about math using blocks, but your teacher used blocks for a math lesson in class. Did you enjoy learning from an unusual tool? Can you think of any objects you have at home that you could use to learn something?
- What is your favorite way to learn? Do you like learning from another person? Or do you prefer to learn by yourself (from a book, computer, or other learning tool)? Do you like reading, listening, or watching? Or do you prefer touching, manipulating, or moving around the room? Do other people on your team like to learn a different way?
- After your team chooses a learning tool for the Jr.FLL THINK TANK Challenge, think about what types of people might use that learning tool. Can you think of any jobs that might use the learning tool you chose? Where do those people work and what do they do every day? Could you interview someone who uses the learning tool for their job?

## Examples of Kids Teaching Others

Think about what topic these kids are teaching. Do they use a learning tool to help them? Are you using a tool to learn from them right now?

- In *Sylvia's Super-Awesome Maker Show*, Sylvia teaches viewers how to make simple technology and craft projects.  
<http://sylviaashow.com/>
- Thomas Suarez gives a brief introduction to how he develops and publishes apps at 12 years old.  
[http://www.ted.com/talks/thomas\\_suarez\\_a\\_12\\_year\\_old\\_app\\_developer](http://www.ted.com/talks/thomas_suarez_a_12_year_old_app_developer)
- Quin Etnyre teaches programming and robotics to adults.  
[www.bbc.com/news/magazine-24931542](http://www.bbc.com/news/magazine-24931542)  
<http://www.popsoci.com/technology/article/2013-08/short-circuit>

### Videos

- This video series and list of resources from the George Lucas Educational Foundation looks at ways that teachers use technology in their classrooms.  
<http://www.edutopia.org/tech-to-learn-classroom-technology-resources>  
The website includes a quiz to help you think about your favorite learning methods.  
<http://www.edutopia.org/multiple-intelligences-learning-styles-quiz>
- Education researcher and speaker Sir Ken Robinson was interviewed by a group of children about his ideal school (3-part interview).  
<http://www.youtube.com/watch?v=dG4uQ2gHyO4>
- TED provides a playlist of videos from different perspectives about how to improve education.  
[http://www.ted.com/playlists/24/re\\_imagining\\_school](http://www.ted.com/playlists/24/re_imagining_school)



## Websites and Articles

- Your local library probably has subscriptions to a variety of research websites just for kids. You may want to check out sites like World Book Online for Kids through your library.  
[www.worldbookonline.com](http://www.worldbookonline.com)
- PBS Kids provides online learning tools like videos and games.  
<http://pbskids.org/>
- Find learning resources by grade, subject, or learning need on Internet4Classrooms.  
<http://www.internet4classrooms.com/k12links.htm>
- The Lawrence Hall of Science presents 24/7 Science, which provides different types of online and in-person learning ideas.  
<http://www.lawrencehallofscience.org/kidsite/>
- Scholastic provides activities to teach many different subjects.  
<http://www.scholastic.com/teachers/student-activities>
- The radio show Marketplace takes a year-long look at how technology is being used in education. This site includes an interactive timeline of education technology history.  
<http://www.marketplace.org/topics/learning-curve>
- Check out the American Museum of Natural History's site on the brain.  
<http://www.amnh.org/explore/ology/brain>
- The LEGO Foundation publishes reports on various topics of education and play.  
<http://www.legofoundation.com/en-us/research-and-learning/>
- See how the Smithsonian Institution provides learning opportunities for kids of all ages.  
<http://smithsonianeducation.org/>

## Books

- *Learning to Ski with Mr. Magee* by Chris Van Dusen  
Chronicle Books LLC (2012)
- *Thank You, Mr. Falker* by Patricia Polacco  
Philomel (2012)
- *Learning to Learn, Revised Edition: Strengthening Study Skills & Brain Power*  
by Gloria Frender  
Incentive Publications (2003)
- *All Kinds of Minds: A Young Student's Book about Learning Abilities and Learning Disorders*  
by Melvin D. Levine  
Educators Publishing Service, Inc. (June 1992)





# Glossary

**Assessment** - In a school, assessment usually means the way that a teacher measures the knowledge or skills of a student.

**Author** - A person who writes stories, articles, or other types of written work.



**Cartographer** - A person who researches, studies, or prepares maps.

**Curator** - A person who manages exhibits in places such as museums, zoos, and historic sites. Curators plan and prepare exhibits to teach about the collections they manage.

**Curriculum** - Curriculum usually refers to the specific knowledge and skills a student should learn, lessons, assignments, and materials used to organize and teach a particular course.

**Learning** - To get some knowledge or skill by studying or being taught.

**Learning disorder** - A learning disorder is a condition in the brain that makes it more difficult to store, process, or give information.

**Learning environment** - The place where learning happens.

**Learning tool** - For the Jr.FLL THINK TANK Challenge, a learning tool is an object, program, or system that can help someone learn. For example, a map, a learning game on a tablet computer, or a website could all be learning tools.

**Librarian** - A person who helps others use books and other materials to find information (usually in a library).

**Park ranger** - A person who ensures the safety of visitors to state and national parks. A park ranger may also prepare exhibits, lead tours and nature walks, or develop conservation programs.

**Professor** - A teacher at a college or university.

**Student** - A person who studies or learns. A student could be a person of any age – as long as they are learning.

**Teach** - To show or help to learn new information or skills.

**Teacher** - A person who helps others learn information or skills. Teachers often work in schools, but you will also find teachers in dance studios, museums, parks, libraries, and many other places.



[www.usfirst.org](http://www.usfirst.org) | [www.juniorfirstlegoleague.org](http://www.juniorfirstlegoleague.org) | Jr.FLL is the result of an existing alliance between FIRST and the LEGO Group.

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