

# **FIRST® LEGO® League**

## **TUTORIALS**

teach

share

learn

### FEATURES OF A GOOD PRESENTATION

TEAM 3659 NeXT GEN

# ABOUT THE AUTHOR

- Middle school team from Garrett County, Maryland
- 13 years in FIRST LEGO League (including competing in International Tournaments)
- First place 2013 Global Innovation Award for the Gramma Jamma
- Top 20 GIA Semi-Finalist in 2017 for innovative solution, BeeHaven
- First Place Innovative Solution at Mountain State Invitational in 2017



# START WITH THE PROJECT RUBRIC

- Start by examining the FIRST LEGO League Project rubric.
- We recommend writing a script for the presentation that includes everything that is required in the Project Rubric.
- Highlight the three areas (Research, Innovative Solution and Presentation).
- Tip: Cover everything on the rubric in the 5min presentation.
- You can watch our video of our research project presentation at <https://youtu.be/lbN3kgpQIOU>

| Project Judging Room  |  |   |   |  |                           |
|---|--|---|---|--|---------------------------|
| Team Number _____   |  |   |   |  |                           |
| <b>FIRST LEGO LEAGUE</b>  |  |   |   |  |                           |
| Directions: For each skill area, clearly mark the box that best describes the team's accomplishments. Teams should demonstrate what they know at the level; if they are missing part, mark the level below. If the team does not demonstrate an area, put an 'X' in the first box for Not Demonstrated (ND). Please provide as many written comments as you can to acknowledge each team's hard work and to help teams improve. When you have completed the evaluation, please circle the team's areas of strength. |  |   |   |  |                           |
| Comments  | <b>Beginning</b>   | <b>Developing</b>   | <b>Accomplished</b>   | <b>Exemplary</b>   |                           |
|   | Problem Identification * Clear definition of the problem being studied   |   |   |  |                           |
|   | N<br>D   | unclear; few details  | partially clear; details missing                                | mostly clear; detailed   | clear; very detailed      |
| Sources of Information Quality and variety of data/evidence and sources cited   |  |   |   |  |                           |
| N<br>D  | minimal quality; variety limited   | quality OR variety need improvement; did not include professional(s)                    | sufficient quality and variety; included multiple professionals | extensive quality and variety; included multiple professionals           |                           |
| Problem Analysis Depth to which the problem was studied and analyzed by the team, including extent of application of existing solutions   |  |   |   |  |                           |
| N<br>D  | minimal study; no analysis   | minimal study; some analysis  | sufficient study and analysis                                   | extensive study and analysis   |                           |
| Comments  | <b>Innovative Solution</b>   | Clear explanation of the proposed solution and description of how it solves the problem |   |  |                           |
|   | N<br>D   | difficult to understand   | some parts confusing  | understandable   | easy to understand by all |
|   | Innovation Degree to which the team's solution makes life better by improving existing options, developing a new application of existing ideas, or solving the problem in a completely new way |   |   |  |                           |
| Solution Development Systematic process used to select, develop, evaluate, test, and improve the solution (Implementation could include cost, ease of manufacturing, etc.)  |  |   |   |  |                           |
| N<br>D  | existing solution/application  | solution/application contains some original element(s)                                  | original solution/application; potential added value            | original solution/application; demonstrated added value                  |                           |
| Presentation  |  |   |   |  |                           |
| Sharing* Degree to which the team shared their Project before the tournament with others who might benefit from the team's efforts  |  |   |   |  |                           |
| N<br>D  | shared within the team and/or relatives  | shared once outside the team  | shared with one audience who may benefit OR one relative        | shared with multiple audiences who may benefit OR multiple professionals |                           |
| Creativity Imagination used to develop and deliver the presentation   |  |   |   |  |                           |
| N<br>D  | minimally engaging OR unimaginative  | engaging OR imaginative   | engaging AND imaginative  | very engaging AND exceptionally imaginative                              |                           |
| Presentation Effectiveness Message delivery and organization of the presentation  |  |   |   |  |                           |
| N<br>D  | unclear OR disorganized  | partially clear, minimal organization   | mostly clear, mostly organized                                  | clear AND well organized   |                           |
| Strengths: Research Innovative Solution Presentation  |  |   |   |  |                           |
| *Required for Award Consideration   |  |   |   |  |                           |
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Note: New Rubric for 2017

# RESEARCH SECTION

- **Problem Identification\***: When planning the script, the team needs to discuss the problem they chose to solve and figure out how to state that problem in one clear sentence that everyone on the team knows.
- **Sources of Information**: Somewhere in the presentation, the team needs to state what types of sources they researched and cited. This is where a bibliography helps.
- **Problem Analysis**: The team needs to show that they know the problem and every aspect that contributes to that problem. In the presentation the team needs to explain the existing solutions, why the team's solution is better, and what makes their solution **their** solution.

|                         | Beginning  | Developing  | Accomplished   | Exemplary  |
|-------------------------|--|---|--|--|
| Research                | <b>Problem Identification</b> * Clear definition of the problem being studied        |   |  |  |
|                         | N<br>D   | unclear; few details  | partially clear; details missing   | mostly clear; detailed   |
|                         | <b>Sources of Information</b> Quality and variety of data/evidence and sources cited |   |  |  |
|                         | N<br>D   | minimal quality;<br>variety limited   | quality OR variety need<br>improvement; did not include<br>professional(s) | sufficient quality and variety;<br>included professional(s)<br><br>extensive quality and variety;<br>included multiple professionals |
| <b>Problem Analysis</b> |  | Depth to which the problem was studied and analyzed by the team, including extent of analysis of existing solutions |  |  |
| N<br>D                  | minimal study; no analysis   | minimal study; some analysis  | sufficient study and analysis  | extensive study and analysis   |

\* Required for award consideration

# INNOVATIVE SOLUTION SECTION

- **Team Solution\***: The team needs to be able to explain the solution in one sentence that is easy to understand by all. That sentence doesn't need to include many details. It just needs to be a simple statement that is the overview of what the solution is. No technical description is required for this aspect.
- **Innovation**: The team needs to explain to the judges how their solution is better and why their solution benefits others.
- **Solution Development**: The team needs to explain how they developed and tested their solution. They also need to figure out the cost. Your experts or professionals or a survey can help the team determine this. The team also needs to discuss how they would manufacture the solution. If it would be very complicated and difficult to manufacture, the team needs to discuss what they can do to improve the solution and make it easier to manufacture.

| Core Values   |  |   |  |   |
|---|--|---|--|---|
| Innovative Solution   | Team Solution*   |   |  |   |
|   | N<br>D   | difficult to understand                 | some parts confusing                                   | understandable  |
|   | Innovation   |   |  |   |
|   | Degree to which the team's solution makes life better by improving existing options, developing a new application of existing ideas, or solving the problem in a completely new way. |   |  |   |
|   | N<br>D   | existing solution/application           | solution/application contains some original element(s) | original solution/application; potential added value              |
| Solution Development  |  |   |  |   |
| Systematic process used to select, develop, evaluate, test, and improve the solution (Implementation could include cost, ease of manufacturing, etc.) |  |   |  |   |
| N<br>D  | process AND explanation need improvement   | process OR explanation need improvement | systematic process included evaluation                 | systematic process included evaluation; implementation considered |

\* Required for award consideration

# PRESENTATION SECTION

- **Sharing\*:** Somewhere in the presentation, the team needs to state that they shared their project with multiple people including groups and professionals. It's always good to tell the judges about the feedback that was received and how the team improved their solution based off of that feedback.
- **Creativity:** The presentation needs to be creative, engaging, informative, and fun! Don't be afraid to be crazy or funny (wear hats/costumes) in the presentation. Judges love to see the teams having fun and smiling. You can add a theme. We recommend newscasts or movie themes for the presentation.

| Criteria   |   |  |  |
|--|---|--|--|
| Presentation   | Sharing*  |  |  |
|  | Degree to which the team shared their Project before the tournament with others who might benefit from the team's efforts |  |  |
|  | N<br>D  | shared within the team and/or relatives                      | shared once outside the team   |
|  | N<br>D  | shared with one audience who may benefit OR one professional | shared with multiple audiences who may benefit OR multiple professionals |
| Creativity   |   |  |  |
| Imagination used to develop and deliver the presentation |   |  |  |
| N<br>D   | minimally engaging OR unimaginative   | engaging OR imaginative                                      | engaging AND imaginative   |
| N<br>D   | very engaging AND exceptionally imaginative   |  |  |
| Presentation Effectiveness                               |   |  |  |
| Message delivery and organization of the presentation    |   |  |  |
| N<br>D   | unclear OR disorganized   | partially clear; minimal organization                        | mostly clear; mostly organized   |
| N<br>D   | clear AND well organized  |  |  |

\* Required for award consideration

# PRESENTATION SECTION, CONT.

- Presentation Effectiveness:
- Overall, the presentation must clearly explain the problem, team's solution, why it's innovative, how feasible it is, etc.
- Try to memorize your script instead of reading it. Keep the lines short so that they are easy to memorize.
- Make sure that everyone on the team participates.
- When a team member is giving their lines, the whole team needs to be engaged.



| Sharing*                   |   | Degree to which the team shared their Project before the tournament with others who might benefit from the team's efforts |  |  |
|----------------------------|---|---|--|--|
| N                          | shared within the team and/or relatives | shared once outside the team  | shared with one audience who may benefit OR one professional | shared with multiple audiences who may benefit OR multiple professionals |
| Creativity                 |   | Imagination used to develop and deliver the presentation  |  |  |
| N                          | minimally engaging OR unimaginative     | engaging OR imaginative   | engaging AND imaginative                                     | very engaging AND exceptionally imaginative                              |
| Presentation Effectiveness |   | Message delivery and organization of the presentation   |  |  |
| N                          | unclear OR disorganized                 | partially clear; minimal organization   | mostly clear; mostly organized                               | clear AND well organized   |

# JUDGES' QUESTIONS



- After the presentation, judges ask questions. The judges may ask a specific team member or they may ask the whole team.
- Choosing a “captain” for that judging session can be useful. The captain helps direct the questions and makes sure everyone on the team answers a question.
  - The captain does have to answer a question, too.
  - Whoever is the captain needs to know what each team member is most comfortable talking about. For example, say the judges ask a question about the existing solutions and why they don’t work. The captain could say, “I know Sara researched that topic. Sara, would you like to answer the question?”
- You can give the judges additional information if they don’t have any questions.
- Everyone on the team needs to be able to answer questions and when a particular person is answering the entire team should be engaged

# DISPLAY BOARDS

- Having a display board at the pit area sparks conversation and is useful when judges visit. The team can bring this display board into judging as well.
  - The display board can be used to explain the team's research project.
  - We recommend using the research project rubric to help in the design layout of the board.
  - Draw the layout of the display board and plan out where certain information needs to be.
  - Include several photos of the team and the solution.
  - Typed descriptions enhance the look of the display board.

**Tip:** Use both sides of the board to allow for more information.



# TEAM NOTEBOOK

- A team notebook is a good way for other teams, judges, and visitors to get to know the team. The team can bring their notebook into judging to show the judges. It's nice way to remember the season, too.

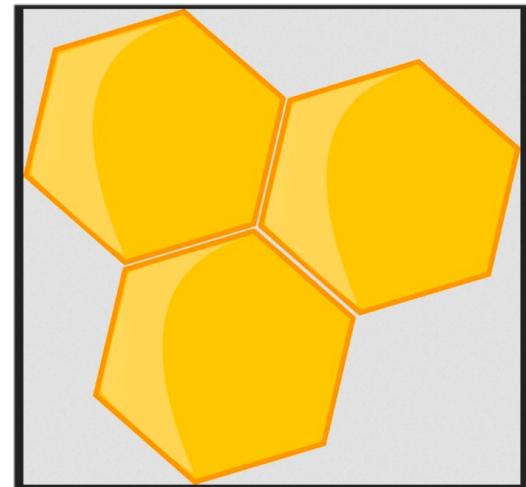


Here are some things you might include in your team notebook:

- Introduction to the team members/coaches/mentors
- Photos from competitions
- Information about the project
- Photos and description of the team sharing and demonstrating their project
- Documentation about the solution development
- Judges handouts
- Thank you letter to sponsors
- Marketing plan
- Newspaper articles about the team

# JUDGES HANDOUTS

- Teams can create handouts to give to their judges.
- Judges handouts can be used to highlight the main points of the team's presentation and to remind the judges of the team
- Design the judges handouts to be a quick reminder of the presentation
- Do not include long paragraphs explaining the team's project
- Consider the judging rubric when designing the judges handouts
- Be creative! For our Animal Allies season, we made hexagon shaped handouts to represent honeycomb since our project was related to bees.



# CREDITS

- This lesson was written by Team 3659 NeXT GEN
- You can contact Team 3659 NeXT GEN through their Facebook page: Garrett County FIRST LEGO League Team 3659.
- More lessons available at [www.ev3lessons.com](http://www.ev3lessons.com) and [www.flltutorials.com](http://www.flltutorials.com)



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