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| Slide 1 |  | Welcome to *FIRST* LEGO League Project Judge training. |
| Slide 2 |  | After this part of the training, you’ll be prepared to assess FLL team projects and presentations. |
| Slide 3 |  | So why do we have a project in *FIRST* LEGO League?  In order to tackle a real-world problem, you need to feel like you have a realistic shot at being successful. The *FIRST* LEGO League project guides youth through the process of working to solve a real-world problem. We believe FLL kids are more likely to go out and make changes in the world, because they’ll going to feel empowered to try.  Working on the FLL project develops a wide range of life skills, including divergent thinking, project management, time management, interpersonal communication, and presentation skills.  By working on the project, FLL team members learn the science behind the challenge. It’s important to have basic knowledge when working toward innovation in any field.  The project also develops a person connection with the Challenge topic and gives youth the opportunity to explore careers and meet professionals in related fields. |
| Slide 4 |  | The Project is posted each year as part of the FLL Challenge.  Teams find the Challenge document on the *FIRST* LEGO League website. Sometimes, important Project questions come up throughout the season. Those questions are posted with the Challenge as Project Updates, in a similar format as Robot Game updates.  As you read the Challenge document, pay close attention to what’s stated as a requirement. Anything that is not specifically required is considered guidance for teams on how to go about the project. Except for required items, you’ll find that each team approaches the challenge a little bit differently. |
| Slide 5 |  | Sometimes there is a season-specific requirement. For example, in the Power Puzzle Challenge, teams were required to complete an energy audit. In the Senior Solutions Challenge, each team was required to find a senior partner. The Challenge document will specifically state if any season-specific instructions are requirements or just suggested procedures to tackle the Project.  While there’s not a place on the rubric to track completion of season-specific requirements, keep note when teams do not meet them.  Occasionally, a team won’t follow the season specific requirements. If this happens, be sure to comment on the team’s rubric under Research, as they did not identify the problem within the scope of the Challenge. The team also won’t be eligible for Project Awards, Champions Awards, or to advance. |
| Slide 6 |  | Each Project judging session will last at least 10 minutes and will be held in a designated area. Teams are allowed 5 uninterrupted minutes, including set up time, for their presentation. You’ll then have the remaining minutes to ask questions. |
| Slide 7 |  | When teams give their presentations, you’ll see teams who perform skits, give formal PowerPoint presentations, sing songs, or present in many other creative ways. |
| Slide 8 |  | Whatever the format of the presentation, teams should complete and demonstrate all three parts of the Project.  They must identify a real-word problem and then create an innovative solution. The solution does not need to be technical or include designing a new piece of technology. Some of the most innovative projects do not involve technological solutions. Teams must also tell the judges with whom they shared their research and solution.  The best teams will include all three parts of the project, including sharing, in their presentation. Be ready to ask if the team leaves out any part of the project from their presentation. It’s okay to evaluate the team lower under presentation if they didn’t include all three parts. |
| Slide 9 |  | As you decide what questions to ask, choose those which will help you complete the rubric. Be sure to ask about any items on the rubric if you need more information.    As mentioned in the general FLL Judge training, good questions are open ended, contain only one idea, and lead the team to provide the information you need. Word the questions positively and avoid questions that try to catch teams with some aspect of their project they haven’t considered. A few good questions are “How did your team organize and use your research?” “What resources would you need to develop your solution?” and “How did you share your project?”    Refer to the Judge Prep pack for a helpful list of sample questions. Consider making a list of standard questions you’ll ask every team, but also be ready to ask each team the right questions to help you complete the rubric. |
| Slide 10 |  | The *FIRST* LEGO League Project rubric represents a set of criteria on which to evaluate teams’ projects.    The rubric is divided into 3 skill areas:  Research;  Innovative Solution; and  Presentation.    Each team should be judged on the information that they provide in the Judging room, rather than information from another source. |
| Slide 11 |  | Research includes Problem Identification, Sources of Information, Problem Analysis, and Review of Existing Solutions.    In Problem Identification, look for a well-defined problem statement.  When evaluating a team’s Sources of Information, look for quality, variety and number of sources.  Under Problem Analysis, look for teams performing their own analysis to form their own conclusions.  For Review of Existing Solutions, teams should demonstrate a good faith effort to confirm that their solution is original. |
| Slide 12 |  | Innovative Solution includes the team’s solution, Innovation, and implementation.  When evaluating a team’s solution, focus on the team’s way to solve the identified problem  Under Innovation, is the team’s solution something new (or new to the team) and something that improves existing options, applies existing ideas in a new way, or something entirely different?  For Implementation, teams should have considered the cost, east of manufacturing, and any new inventions that would be needed to implement their solution. Prototypes are examples at the exemplary level. |
| Slide 13 |  | Presentation includes the presentation’s effectiveness, creativity, and sharing.  In order for a Presentation to be effective, it should be well organized and clearly delivered.  For Creativity, was the presentation engaging? Did it make you want to hear more about the topic?  Under Sharing, did team share their solution with those who might benefit? Did they go beyond their comfort zone to share with people they don’t know? Keep in mind that those who will benefit will be different each season. |
| Slide 14 |  | The rubric is divided into the three Project sub areas. |
| Slide 15 |  | As a judge, you’ll evaluate team performance in each rubric criteria. From beginning to exemplary, each rubric area specifies the team behavior you should see at that level. You can mark “ND” for “Not Demonstrated” if the team doesn’t provide any information to help you assess what they did.  In FLL, we’d like every team to strive for the “Accomplished” level. One approach to evaluating a team is to start by assuming they are accomplished, then adjust their evaluation based on the team’s performance. |
| Slide 16 |  | Please provide as much written feedback as possible in the comments section of the rubric. Be sure to write a comment for each sub-area.    Teams will be very thankful for any positive comments or well phrased “constructive” criticism that helps them improve. |
| Slide 17 |  | When taking notes, discussing teams, and completing rubrics, be specific and share examples or evidence that supports why the team achieved a particular evaluation. Specific comments are more helpful to teams than general impressions. |
| Slide 18 |  | When writing feedback for teams, recognize that teams work hard and treat them with respect.  Compliment the children’s achievements with vocabulary appropriate for the subject matter. Make sure you positively communicate opportunities to improve. Keep all your comments constructive.  When you first meet in your judging pair, determine a system to keep detailed notes, complete rubrics, and make comments in between teams so that you’ll stay on time while giving quality feedback. |
| Slide 19 |  | Here are a few good examples of comments that cite evidence for a team at the “Accomplished” level:   * *Good use of sources - journal articles, university professors, and field trips.* * *Good consideration of cost and materials, would have liked to see more about durability of the device.* * *We appreciated that you shared with the firefighters who might benefit from quicker communications.*     Since time is short, don’t worry too much about writing full sentences, but focus on positively conveying why you placed the team at that level. |
| Slide 20 |  | At the bottom of the rubric, circle one or more areas of strength for the team. This acknowledges the team’s efforts and lets them know that the judges recognized their strengths.    During initial deliberations, these strength areas may help you select teams for award nominations. |
| Slide 21 |  | In addition to the requirements stated in the Project document, in order to be eligible for Project awards, teams must give a live presentation. Audio visuals, including videos, may be used as enhancement only – teams may not “plug and play” for their presentation.  As always, teams must demonstrate FLL Core Values. Teams receive instructions that team members should do all the set up for their presentation. When adults help with set up, while not ideal, there is often a good reason, like the props are large or heavy. Any adult behavior that seems like it might be part of a larger concern about adult intervention should be reported to the Judge Advisor. |
| Slide 22 |  | So, how will you know which teams to consider for awards?    The teams who win awards will stand out from other teams. You’ll see that they often:  Collaborate extensively with adult professionals in fields related to their project  Research alternative solutions to their problem and explain why their solution is better  Collect their own data through surveys or experiments to support or test their problem or solution  Explain all three parts of the project, including sharing, in their presentation    Sometimes it’s easy to nominate the team for an award because they were memorable for their large research notebook, or having an energetic or cute presentation. While teams who win awards might have those qualities too, look beyond their initial appeal to determine whether they had quality and variety among their sources and were outstanding in other Project sub-areas.    Keep in mind that sometimes a great candidate for an award will be a team whose solution doesn’t include any technology.    Now, what does a team at the “accomplished” level look like? Refer to your Judge Prep Pack for a detailed example of an accomplished team. |
| Slide 23 |  | You have many tools available to you as you prepare to be a Project judge and make awards decisions at the tournament.    After completing this training, be sure to review the Project Judging Prep Pack, which includes the Project Judging Primer. The Prep Pack contains a more in depth discussion of each rubric criteria and provides additional tips for judges. You’ll want to review the rubric carefully and have a copy available as you answer the Project Certification questions.  The Project Judging Prep Pack includes the Challenge document for each season. It’s also available on the *FIRST* LEGO League website. Be sure to check the FLL Project Updates on the website before attending your tournament.  If you have any questions about the Project challenge, you’re welcome to email fllprojects@usfirst.org  With all of these tools and guidance from the Head Judge and Judge Advisor, you’ll be well prepared to select the best teams to receive Project awards at your tournament. |
| Slide 24 |  | Now is a great time for a little practice. Begin by reviewing the Project Rubric, available as part of the Project Prep Pack or the FIRST LEGO League website.    Next, find a video of a team at a Project Judging session at a past tournament. You might search YouTube or other video sharing sites or use a video provided by your FLL Partner or Judge Advisor. While you watch the video, think about what questions you would ask the team. Then, complete a practice rubric for the team based on what you saw.    If possible, ask another person to review the video with you. Then pretend you’re part of a judging pair with that person, compare notes and complete one rubric together as you would at a tournament. |
| Slide 25 |  | Thank you for completing Project Judge Training! Be sure to answer the Certification questions in order to complete Project Judge Certification. You’ll need to receive at least 80% to pass, but you can try again if you need to do so.    You should now be prepared to serve as a Project Judge at an official *FIRST* LEGO League event. We hope you have a great time and consider volunteering for another *FIRST* event in the future. |
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