

Probing Questions

1. What is the problem and how does your invention solve this problem? (**Identifying and understanding / Invention Effectiveness**)
2. How did you come up with this problem? (**Identifying and understanding**)
3. What steps did you take to get this solution? How did you come up with this solution? [*Looking for logical progression*] (**Engineering Cycle**)
4. What types of research did you do to determine if your invention is original? (**Identifying and understanding**)
5. If there was something already existing that was similar to your solution, what did you do to make yours different/ better? [*Looking for uniqueness or creatively making something unique*] (**Identifying and understanding / Invention Effectiveness**)
6. Tell us more about the design of your solution. Did your first idea work? If not, what did you do to change it? (**Engineering Cycle**)
7. How did you want the invention to work? And why did you choose the materials you did for building the invention? (**Engineering Cycle / Invention Effectiveness**)
8. Can you take us through your process of designing, building and testing your solution? Other questions in this category include, what materials did you choose, why did you choose them, did you have any problems, how did you solve them? How did the testing go? Did you want to give up along the way? (**Engineering Cycle**)
9. Can you show us how the solution works? If it is a prototype, describe how it works. [*Looking for how well the invention solves the problem*] (**Invention Effectiveness / Communication**)
10. Who can use this solution? [*Looking for understanding of benefits of solution*] (**Invention Effectiveness**)
11. How practical is the invention [*not a question for the child – look at materials used, ability for anyone to actually use the solution*] (**Invention Effectiveness**)
12. If you had to do it over, would you have done anything differently? [*This shows understanding of the entire process*]
13. What did you learn from this invention process? [*Understanding the process*]