

**TRY ENGINEERING PORTAL YOUTH OUTCOMES “ITEM BANK”**

*[Guidance for programs to select items that match their intentions]*

*[Guidance for youth completing the questions]*

**Pedagogical and Quality outcome goals and measures**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Really Disagree** | **Disagree** | **Agree** | **Really Agree** |
| **Pedagogical approach** | | | | |
| In this program, I chose what I would learn and how to do it | O | O | O | O |
| I got to use things I already know about, but in a new way | O | O | O | O |
| **Engineering Habits of Mind**  (i.e., improving, systems thinking, adapting, visualizing, creative problem solving, problem finding) | | | | |
| In this program, I tried new things to solve problems | O | O | O | O |
| In this program, I made picture in my mind about what I wanted to do | O | O | O | O |
| In this program I thought about how different parts of things affect each other | O | O | O | O |
| In this program, I was creative when solving problems | O | O | O | O |
| **Learning Habits of Mind**  (i.e, curiosity, open-mindedness, resilience, resourcefulness, collaboration, reflection, ethical consideration) | | | | |
| In this program, I learned there can be more than one solution to a problem | O | O | O | O |
| In this program, I kept working even though it was hard | O | O | O | O |
| In this program I worked with others to solve problems | O | O | O | O |
| In this program, I had time to think about what I was learning | O | O | O | O |
| In this program I had to keep thinking even when I didn’t have the answer right away | O | O | O | O |
| **Engineering Design Process** | | | | |
| In this program I created something | O | O | O | O |
| In this program I tested something I created | O | O | O | O |
| In this program I improved something after testing it | O | O | O | O |
|  | | | | |

**Program targets and measures**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Really Disagree** | **Disagree** | **Agree** | **Really Agree** |
| **Understand what engineering is** | | | | |
| Because of this program, I learned more about how engineering is different from other jobs | O | O | O | O |
| Engineers make things to solve problems and keep working to find even better solutions | O | O | O | O |
| **Know how to become an engineer** | | | | |
| I learned about steps the people take to become an engineer | O | O | O | O |
| I know things I could do next if I wanted to be an engineer | O | O | O | O |
| I learned from an engineer how they became an engineer | O | O | O | O |
| **Know how to use engineering in future career** | | | | |
| I could use ideas we learned in this program as an adult | O | O | O | O |
| What I learned in this program could be part of what I do in a job as an adult | O | O | O | O |
| I understand how engineers use engineering ideas such as problem-solving | O | O | O | O |
| I see how problem-solving can be used in other jobs | O | O | O | O |
| **Know foundational skills for engineering (e.g., CAD)** | | | | |
| I now know more about how to do [e.g., CAD] | O | O | O | O |
| **Believe can be an engineer if wanted to** | | | | |
| I can see myself being an engineer in the future | O | O | O | O |
| People like me can be engineers | O | O | O | O |
| I can become an engineer if I want to | O | O | O | O |
| **Value the importance of engineering** | | | | |
| Engineers have important jobs | O | O | O | O |
| Engineers don’t have much impact in the world | O | O | O | O |
| Things I like to use are made by engineers | O | O | O | O |
| **Positive perception of engineering** | | | | |
| Engineering seems fun | O | O | O | O |
| I would be proud to be an engineer | O | O | O | O |
| Solving challenges in the real world would be interesting | O | O | O | O |