

## **Design Tool 14.5: Think Like an Engineer**

*Directions for teachers:* For evidence that the EDP is becoming a normal part of the way students think and plan, you can use a rating scale similar to this, or design a rubric:

To what degree can my STEM students		Never		Sometimes		Great!
1	Come up with several different possible solutions for a problem, including some that are innovative.	1	2	3	4	5
2	Combine materials and ideas in clever and imaginative ways to create a solution.	1	2	3	4	5
3	Consider environmental, ethical, and safety issues when deciding on a solution.	1	2	3	4	5
4	Understand how to make trade-offs when necessary.	1	2	3	4	5
5	Design a prototype and test it to see if this device solves the problem.	1	2	3	4	5
6	Successfully evaluate their testing results; then analyze and interpret their data.	1	2	3	4	5
7	Use data to recognize things they can do to improve the design of their prototype.	1	2	3	4	5
8	Communicate their ideas clearly in a variety of creative ways.	1	2	3	4	5
9	Other:	1	2	3	4	5

Copyright material from Anne Jolly (2025), STEM by Design, Second Edition, Routledge

From STEM by Design, Second Edition by Anne Jolly. Copyright © 2025 Taylor & Francis.