

APPENDIX C

Full STEAM Ahead

You may be familiar with the term STEM, which refers to occupations or learning approaches involving science, technology, engineering, or mathematics. While many people think of STEM in terms of technical skills, most jobs in the 21st century require innovation and leadership. The term STEAM—with an A for Art—highlights the importance of creativity, communication, leadership, and design skills in solving STEM problems. It incorporates all kinds of art, including applied arts, graphic arts, language arts, and visual arts.

The following STEAM skills developed by Project Learning Tree encompass a wide variety of skills that can help any job seeker, whether or not you are aiming for a STEM career.

Conduct a self-assessment by rating yourself on a scale of 1 to 10 (with 1 low and 10 high) for each STEAM skill listed.

Collaboration	LOW	HIGH
Cooperating with team members	1 2 3 4 5 6 7 8 9 10	
Finding points of agreement or consensus	1 2 3 4 5 6 7 8 9 10	
Taking responsibility for individual contributions	1 2 3 4 5 6 7 8 9 10	

Communication	
Exchanging ideas with project partners	1 2 3 4 5 6 7 8 9 10
Sharing project results	1 2 3 4 5 6 7 8 9 10
Using different media to enhance communication	1 2 3 4 5 6 7 8 9 10

Creativity	
Looking at a problem from different perspectives	1 2 3 4 5 6 7 8 9 10
Exploring new ideas	1 2 3 4 5 6 7 8 9 10
Learning from failures	1 2 3 4 5 6 7 8 9 10

Data Analysis	
Assessing the accuracy of data	1 2 3 4 5 6 7 8 9 10
Presenting data in a useful format	1 2 3 4 5 6 7 8 9 10
Identifying patterns in data	1 2 3 4 5 6 7 8 9 10

Investigation	
Posing a question to investigate	1 2 3 4 5 6 7 8 9 10
Planning and carrying out investigation of a question	1 2 3 4 5 6 7 8 9 10
Constructing an explanation based on findings	1 2 3 4 5 6 7 8 9 10

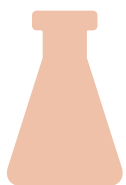
Leadership	LOW	HIGH
Leading projects or supporting a project team	1 2 3 4 5 6 7 8 9 10	
Developing a project plan and timeline	1 2 3 4 5 6 7 8 9 10	
Making decisions supported by data	1 2 3 4 5 6 7 8 9 10	

Nature-Based Design	LOW	HIGH
Finding inspiration in and from nature	1 2 3 4 5 6 7 8 9 10	
Recognizing nature's solutions to problems	1 2 3 4 5 6 7 8 9 10	
Incorporating ideas from nature into design	1 2 3 4 5 6 7 8 9 10	

Organization	LOW	HIGH
Precisely following instructions, protocols, or blueprints	1 2 3 4 5 6 7 8 9 10	
Recording data accurately	1 2 3 4 5 6 7 8 9 10	
Keeping track of lots of different information	1 2 3 4 5 6 7 8 9 10	

Problem Solving	LOW	HIGH
Defining a problem	1 2 3 4 5 6 7 8 9 10	
Using models to investigate a problem	1 2 3 4 5 6 7 8 9 10	
Designing solutions to a problem	1 2 3 4 5 6 7 8 9 10	

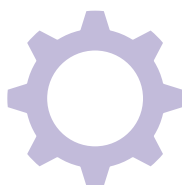
Technology Use	LOW	HIGH
Identifying appropriate technology for a given application	1 2 3 4 5 6 7 8 9 10	
Using technology tools effectively	1 2 3 4 5 6 7 8 9 10	
Troubleshooting technology problems	1 2 3 4 5 6 7 8 9 10	



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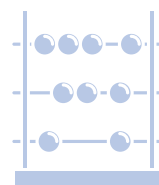
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