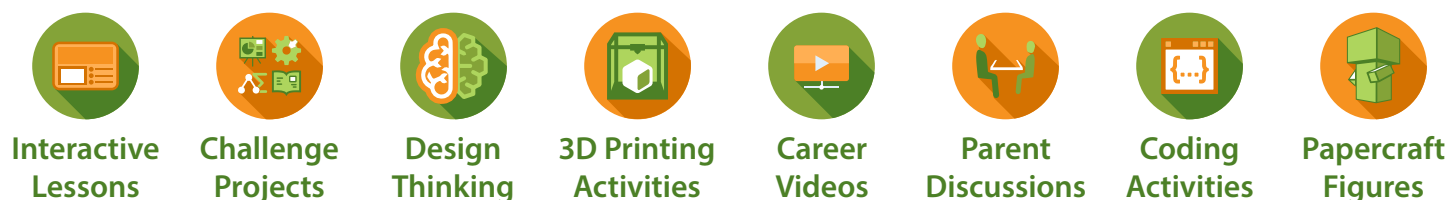




Interactive STEM Toolbox



Mission	Description	Career Clusters
Dolphin Rescue	Help rescue rehabilitate an injured dolphin, including creating an artificial prosthetic tail	Biomedicine, Marine Science, Telecommunications
Energy Sources	Evaluate alternative or upgraded energy sources for a city that currently has an old coal-fired power plant	Energy Production, Environmental Science
Entrepreneurship	Set up a new business with a focus on entrepreneurship	Finance, Business, Resource Management
Flu Outbreak	Learn how health and IT professionals use data and GIS and social media data analysis to predict flu outbreaks	Information Technology, Disease Management
Fresh Food	Consider methods to increase production of local foods in a community	Agricultural Science
Hack Attack	See how web development, apps and social media experts restore a school website and media after being hacked	Computer Science, Cybersecurity
Haiti Orphanage	Design and build an environmentally-sound orphanage for children left homeless by an earthquake in Haiti	Civil Engineering Sustainability
Heart Surgery	Understand heart surgery techniques and therapy used to treat a child's heart defect	Medicine, Healthcare
Intro to Computer Science	Learn about some of the most in-demand computer science careers and technologies	Computer Science, Information Technology
Lightweight Aircraft	Design a lightweight and easily maintained aircraft for multiple roles and mission distances	Aerospace, Recycling, Manufacturing
Manufacturing a Concept Car	Use modern manufacturing techniques to design and build a new concept car	Advanced Manufacturing, Industrial Engineering
Rescue Robots	Explore technology and techniques used in robotics design, such as sensors, circuits, industrial design and computers	Electronics, Computer Science
Transportation Congestion	Evaluate new transportation methods for a city with traffic congestion problem	Transportation, Mechanical Engineering

Our Expanding STEM Toolbox

Learning Blade is constantly adapting and expanding our STEM curriculum toolbox that allows educators to integrate STEM awareness and career readiness into their teaching needs.



Interactive Lessons

This collection of over 400 online lessons connects more than 100 STEM careers and technologies to the student's academic skills, demonstrating real-world problem solving.



Design Thinking

Students use Design Thinking methodology to solve complex problems through brainstorming, collaboration, and the creative exploration of new possibilities.



Challenge Projects

These simple, hands-on activities emphasize problem solving, critical thinking, teamwork and communication using readily-available materials.



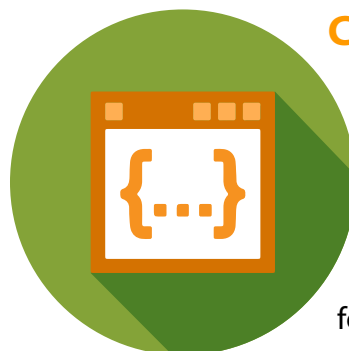
3D Printing Activities

These 3D printed experiments and projects demonstrate STEM principles and provide students experience turning 3D objects into physical items.



Career Videos

Each STEM career addressed in our online lessons also includes a career introduction video presenting the career and its education pathway.



Coding Activities

These fun, interactive coding lessons introduce students to computer science, and the development of problem-solving skills, logic, and creativity needed for success in career paths.



Parent Discussions

These parent-ready handouts stimulate STEM conversations at home, help fill ESSA requirements for parental involvement, and encourage research and simple at-home experiments.



Papercraft Figures

Each STEM career and technology is accompanied by a 3D papercraft figure students can assemble, helping internalize a knowledge of 3D shapes and offer a tangible reminder of these careers and technologies.

