

Free Engineering Resources and Activities

Resource	Audience	Ages	Languages
Engineering Adventures Museum of Science, Boston Three space-themed curriculum units, in which children use the Engineering Design Process to create and improve aerospace technologies.	Educators	8 to 11	English Spanish
Engineering Everywhere Museum of Science, Boston Two space-themed curriculum units, in which children use the Engineering Design Process to create and improve water reuse and remote sensing technologies.	Educators	11 to 14	English Spanish
Boston Children's Museum Extensive guides for in- and out-of-school STEM learning.	Educators Families	All Ages	English
Community Resources for Science Activities and planning resources for classes and STEM events.	Educators	All Ages	English
DiscoverE Resources to help people understand engineering, including design challenges, engineering competitions, and information about engineering careers.	Children Educators Families	All Ages	English
EngineerGirl National Academy of Engineering Resources for girls and women interested in engineering, including interviews, articles, design challenges, college prep information, and an annual writing contest.	Children Families	All Ages	English
Joan Ganz Cooney Center Information about children's learning and digital media, including reports and blog posts.	Educators	All Ages	English
National Geographic A variety of classroom resources, including engineering lesson plans, articles, and videos.	Educators	All Ages	English

<p>National Science Teaching Association</p> <p>Resources for science education, including articles, position papers, and competitions.</p>	<p>Educators Families</p>	<p>All Ages</p>	<p>English</p>
<p>NOVA</p> <p>PBS</p> <p>Episodes on a variety of STEM topics, including archaeology, astronomy, biology, earth science, engineering, mathematics, and physics.</p>	<p>Children Educators Families</p>	<p>All Ages</p>	<p>English</p>
<p>Pathways to Science</p> <p>Institute for Broadening Participation</p> <p>A guide to tuition-free or scholarship-based STEM programs, internships, and fellowships.</p>	<p>Children Families</p>	<p>All Ages</p>	<p>English</p>
<p>PBS Learning Media</p> <p>PBS</p> <p>Resources on a variety of subjects, including videos, interactives, and lesson plans.</p>	<p>Children Educators</p>	<p>All Ages</p>	<p>English</p>
<p>STEM + Families</p> <p>National PTA</p> <p>Advice on how to get families involved in STEM education.</p>	<p>Educators Families</p>	<p>All Ages</p>	<p>English</p>
<p>Stem Next Opportunity Fund</p> <p>Information about family engagement and STEM in out-of-school settings, including articles, blog posts, and white papers.</p>	<p>Educators</p>	<p>All Ages</p>	<p>English</p>
<p>Learning Resources</p> <p>Museum of Science and Industry, Chicago</p> <p>A variety of STEM activities and videos for kids and webinars for teachers.</p>	<p>Children Educators Families</p>	<p>All Ages</p>	<p>English Spanish</p>
<p>STEMI²E² Center</p> <p>A community forum to discuss and share resources about STEM for young children with disabilities.</p>	<p>Families</p>	<p>0 to 5</p>	<p>English</p>
<p>STEM from the START</p> <p>PBS</p> <p>Video-guided activities to engage young children in STEM subjects.</p>	<p>Children Educators Families</p>	<p>0 to 8</p>	<p>English</p>

<p>Technovation Families</p> <p>Resources for children to explore Artificial Intelligence, including online challenges and a family competition.</p>	Children Educators Families	0 to 16	Arabic English Portuguese Spanish Turkish
<p>Becoming a Math Family</p> <p>University of Chicago</p> <p>Math activities for families to do together, as well as information about how children learn math best.</p>	Families	3 to 6	English
<p>Bedtime Math</p> <p>Fun math problems for families, available as both an app and a daily email.</p>	Families	3 to 9	English Spanish
<p>Try Engineering</p> <p>IEEE</p> <p>Resources to promote student engineering, including games, background information, a college directory, and lesson plans.</p>	Children Educators	4 to 18	English
<p>eGFI</p> <p>American Society for Engineering Education</p> <p>Engineering resources for teachers and students, including lesson plans, activities, information about engineering careers, and a weekly newsletter.</p>	Children Educators	5 to 18	English
<p>OK Go Sandbox</p> <p>OK Go and Playful Learning Lab</p> <p>A collection of STEM music videos and associated lessons for the classroom.</p>	Educators	5 to 18	English
<p>Scientific American</p> <p>Resources for science learning, including articles, podcasts, videos, hands-on activities, and citizen science opportunities.</p>	Educators Families	6 to 12	English
<p>You for Youth</p> <p>NASA</p> <p>Space-related engineering activities for the classroom.</p>	Educators	8 to 14	English Spanish
<p>Design Squad Global</p> <p>PBS Kids</p> <p>Engineering resources, including videos, design challenges, games, lesson plans, and facilitation guides.</p>	Children Educators Families	9 to 13	English Spanish