



STEM Activities

It's great to try a wide range of activities and explore potential new passions in any subject area. Whether you're seeking simple science activities using inexpensive materials, projects that are more technologically challenging, or citizen science projects where you collect data for an Australian researcher, you're likely to find something of interest below.

[Citizen Science: Australian Museum Centre of Citizen Science](#)

Australian Museum in Sydney NSW aims to engage the public with science in a practical way

[Citizen Science: Atlas of Living Australia](#)

Resources and tools for Australia's biodiversity projects

[Citizen Science: ABC Citizen Science Projects](#)

List of Citizen Science Projects organised by the ABC for National Science Week

[Coding: MIT Scratch](#)

A free online program from the Massachusetts Institute of Technology in Boston, USA which allows children to create simple animation using simple coding languages

[Coding: CodeClub Australia](#)

A network of coding clubs for Aussie kids aged 9-11

[Coding: Computer Science Unplugged](#)

A fantastic range of free resources for teaching computer science without a computer

[Maths: Math on the Move](#)

Blog posts by an educator and author who teaches mathematics through percussive dance

[Maths: CSIRO Maths Activities and Experiments](#)

Resources suitable for primary and lower secondary students in mathematics

[Maths: Museum of Mathematics \(MoM\) Maths Activities](#)

Maths activities developed by the Museum of Mathematics in New York, USA

[Maths: Wolfram Alpha Maths Activities](#)

Mathematics lesson plans developed by US-based Wolfram Alpha

[Science: National Science Week](#)

A national program of events celebrating science during August each year





[Science: CSIRO DIY Science](#)

A broad range of hands-on science activities for primary and secondary students

[Science: Science Buddies](#)

A US-based, non-profit group supporting K-12 hands-on science and STEM exploration

[Science: How to Smile](#)

US-based website listing hands-on STEM activities that can be searched by topic

[Science: RAFT \(Resource Area for Teaching\)](#)

US-based website listing hands-on STEM activities by topic or search

[Science: ABC Splash STEM page](#)

A broad range of STEM-based resources including videos and activities

[Science: ABC Surfing Scientist](#)

Australian science communicator Ruben Meerman shares a range of hands-on science experiments using simple materials

[Science: ASTA's ScienceASSIST](#)

Science ASSIST is a national online service for school science educators and technicians, developed by The Australian Science Teachers Association

[STEM: NSW Department of Education](#)

More than 20 NSW schools have uploaded their cross-curricular STEM units for Year 7 to 10

[STEM: Mapping Australia's STEM Education programs](#)

A database of science education activities, events and workshops hosted in cities and regions around Australia

[STEM: Exploratorium Afterschool Activities](#)

Broad range of hands-on science and maths activities using simple materials

[STEM: Exploratorium activities](#)

A large archive of hands-on science and maths activities organised by topic

[STEM: Toys from Trash](#)

Indian educator Arvind Gupta creates science activities and toys using recycled materials that would otherwise be considered rubbish

[Technology: The Tech Museum of Innovation](#)

Design Challenge Learning activities developed by the Tech Museum of Innovation in San Jose, California USA





[Technology: Popular Mechanics](#)

DIY projects for the home using consumer electronics and hardware

[Technology: Make Magazine Projects](#)

Technology-based projects that are slightly more advanced, but accessible for people wanting to build whimsical contraptions

[Technology: Exploratorium Tinkering Studio Projects](#)

Descriptions of hands-on activities delivered in The Exploratorium's public *Tinkering Studio* in San Francisco, California USA

[Technology: Exploratorium Sketchpad blog](#)

A behind-the-scenes look at activities being undertaken in The Exploratorium's Tinkering Studio in San Francisco, California USA

[Technology: Instructables](#)

Online community of projects with instructions, photos and advice on a range of low tech and high tech 'how to' projects

[Technology: Thingiverse](#)

Online community which shares high-tech projects and instructions using digital technology such as 3D printers

[Technology: Northwest Invention Center](#)

Hands-on activities focusing on invention and creativity

MOOCs

Massive Online Open Courses (MOOCs) allow you to participate in a short course online without leaving home. Most MOOCs are free of charge, but all require internet access and some require you to purchase materials to undertake the hands-on activities. MOOCs typically run for a few hours each week over 4 to 8 weeks and are delivered by various universities or online hosts in certain timeframes.

[MOOC by The Exploratorium](#)

Tinkering Fundamentals: A Constructivist Approach to STEM Learning

[MOOCs by Coursera](#)

Coursera hosts hundreds of MOOCs including subject areas such as computer science, data science, life sciences, math and logic, physical science and engineering

