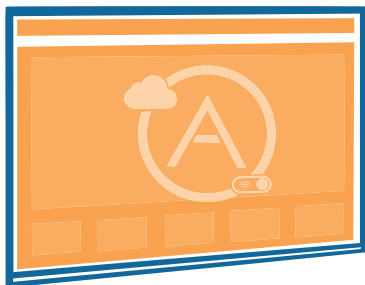# Promethean®

The Guide to
Designing
a STEM Classroom

Promethean's
Introduction
to STEM

Promethean® has taken the guesswork out of designing an immersive STEM learning experience for your classroom.

Our professional development team, with over 140 years of combined teaching experience, has researched and tested the best STEM products to use with Promethean products. Our goal is to help educators effectively implement immersive technologies that transform learning environments and support student achievement.
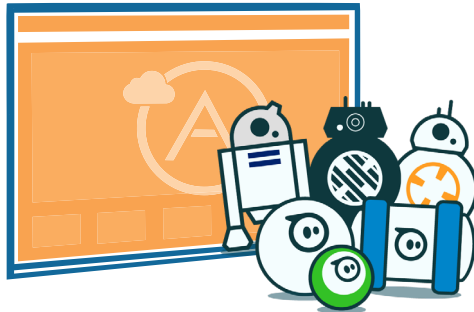
140
YEARS

At the core of our STEM solution is an all-in-one interactive display called ActivPanel that seamlessly connects devices and content, making engagement easy for both teachers and students. We have brought together a suite of authentic tools that challenge today's learners to craft solutions for real-world problems, encourage critical thinking, and transform student engagement to create relevant learning connections.

At Promethean, we understand the importance of integrating STEM disciplines into today's classroom and support an environment that will inspire students to invent across all grade levels.

The ActivPanel will **bring STEM lessons to life** *for the* **entire classroom.**

ActivPanel®
and STEM

Sphero®

Sphero Edu provides a toolset that is unbounded in its potential. While coding and 21st century skills are necessary, Sphero's program also goes beyond code by incorporating robotics and technology with collaborative STEAM activities, nurturing students' imaginations in ways no other education program can.

How it works with the ActivPanel

Sphero has multiple apps that can be added to the ActivConnect that is included with the ActivPanel. The device connects through Bluetooth® and can be coded and controlled from the ActivPanel. Students can connect Sphero to their device and mirror their coding up to the ActivPanel.
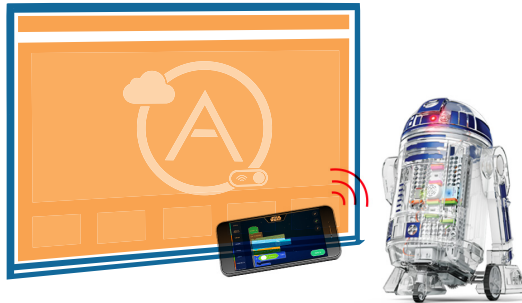
See it in Action

Recommended Bundle
ActivPanel, ActivConnect, Sphero App, and Sphero Edu App

ActivPanel® and STEM

littleBits™ Droid Inventor Kit

Kids can create their own Droid and bring it to life using littleBits electronic blocks! With the Droid Inventor app, they can control their Droid, give it new abilities with easy block-based coding, and take it on 22+ missions.

How it works with the ActivPanel

This version of littleBits can sync directly to ActivConnect that comes with the ActivPanel. This is currently the only littleBits product that works with both of Promethean's ActivConnect devices, and it is because the Droid Inventor app is available for both Android and Windows devices in the Google Play Store. Students can work with the app to code and control R2-D2 from the ActivPanel. Students can connect R2-D2 to their device and mirror their coding to the ActivPanel.

See it in Action

Recommended Bundle

ActivPanel, ActivConnect, and littleBits Droid Inventor App

ActivPanel®
and STEM

Virtuali-Tee®

The Virtuali-Tee is an augmented reality t-shirt that brings learning to life. Point your phone at the t-shirt and open a portal to another reality – the world under your skin! View it through the free Virtuali-Tee app on your phone or tablet to unlock the portal into the body. Jump into the pumping heart of an anatomical adventure that brings learning to life using augmented reality technology. Pop your phone into a pair of virtual reality goggles and immerse yourself entirely in this new kind of anatomical adventure.

How it works with the ActivPanel

The Virtuali-Tee app is available in the Google Play Store on the ActivConnect device that comes with the ActivPanel. In conjunction with the app, a USB, plug-and-play webcam is used to enter the augmented reality world of the human body. Students are able to navigate through various body systems with simple taps on the ActivPanel. It creates an exciting experience for students.
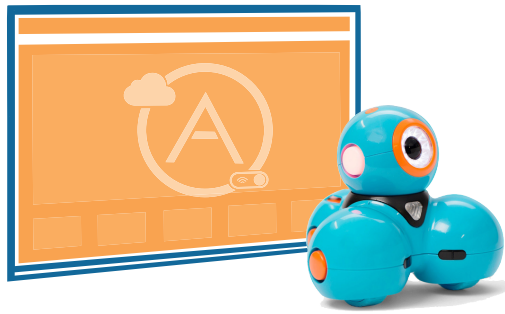
See it in Action

Recommended Bundle
ActivPanel, ActivConnect, Virtuali-Tee, and Virtuali-Tee App

ActivPanel® and STEM

Dash™

Dash is a real robot, charged and ready to play out of the box. Responding to voice, navigating objects, dancing, and singing, Dash is the robot you always dreamed of having. Use Wonder™, Blockly™, and other apps to create new behaviors for Dash — doing more with robotics than ever possible. No books or camps needed!
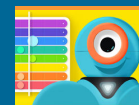
How it works with the ActivPanel

Dash can sync directly to the ActivConnect that comes with the ActivPanel via Bluetooth. There are several apps available for both ActivConnect devices in the Google Play Store for Dash, including Wonder, Blockly, and Go™. Dash is designed for student ages 6+. Students can work with Blockly to design code and control from the ActivPanel. Students can connect Dash to their device and mirror their coding to the ActivPanel.
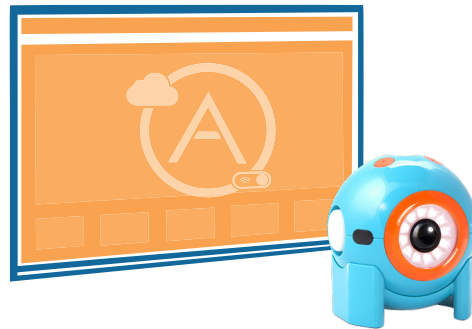
See it in Action

Recommended Bundle

ActivPanel, ActivConnect, Dash, Wonder App, Blockly App, Go App, Path App, and Xylo App

ActivPanel® and STEM

Dot™

Dot is a clever little robot with multiple sensors and a quirky personality that powers the Do-It-Yourself projects in the new Dot Creativity Kit. Kids will learn about robotics and develop fundamental coding and problem-solving skills while having fun. Dot's projects range from crafting and active play to storytelling and construction.
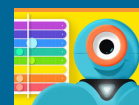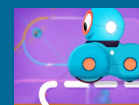
How it works with the ActivPanel

Dot can sync directly to the ActivConnect that comes with the ActivPanel via Bluetooth. Similar to Dash, there are several apps available for both ActivConnect devices in the Google Play Store for Dash, including Wonder, Blockly, and Go™. Dot is designed for student ages 6+. Students can work with Blockly to design code and control from the ActivPanel. Students can also connect Dot to their device and mirror their coding to the ActivPanel.
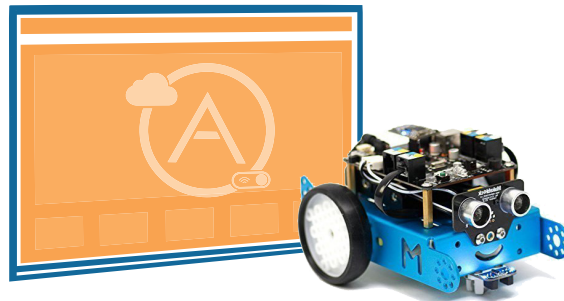
See it in Action

Recommended Bundle

ActivPanel, ActivConnect, Dot, Wonder App, Blockly App, Go App, Path App, and Xylo App

ActivPanel® and STEM

MakeBlock mBot

MakeBlock mBot is a programmable mechanical robot kit that has pre-set control modes that let children turn more complex ideas into reality. Makeblock's block-based programming software enables beginners to simply drag and drop command blocks to program their mBot without need for coding experience. Children can not only use the preset controls for their robot, but write code for their robot and see it instantly respond to their instructions.

How it works with the ActivPanel

mBot, the Bluetooth version, can sync to the ActivConnect that comes with the ActivPanel via Bluetooth. The apps available to code the mBot are mBlock and MakeBlock, both available in the Google Play Store. Students can work with the app on the ActivPanel to code and control the mBot or work on their device and mirror their coding to the ActivPanel.

See it in Action

Recommended Bundle

ActivPanel, ActivConnect, MakeBlock mBot, mBlock App, and Makeblock app

ActivPanel® and **STEM**

Temperature Sensor by Pasco

This durable, wireless, HD sensor features a stainless-steel temperature probe for the most demanding of applications. It can be used in a wide array of experiments and activities as it measures small but significant temperature changes produced by chemical reactions, convection currents, and even skin temperatures.

How it works with the ActivPanel

The device is easy to connect and use with the ActivPanel. Students can test the temperature in the classroom using Bluetooth technology to connect the sensor to the ActivConnect device that comes with the ActivPanel.

See it in Action

Recommended Bundle

ActivPanel, ActivConnect, Temperature Sensor by Pasco, and SparkVue App

ActivPanel®
and STEM

Dremel® 3D40 Idea Builder Printer

The Dremel 3D40 Idea Builder Printer is easy to use with all the resources you need to get 3D printing integrated into classroom learning right out of the box.

How it works with the ActivPanel

The Dremel Printer can be accessed when hooked to a computer using the HDMI In on the ActivConnect device that comes with the ActivPanel. Using the Dremel 3D Chrome App, you can connect to the web interface and control the printer from anywhere. Students can upload their work to the cloud and print it from any location.

See it in Action

Recommended Bundle
ActivPanel, ActivConnect, Dremel 3D40 Idea Builder Printer, and Dremel 3D App
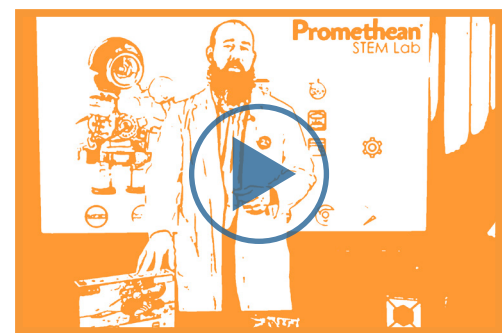
ActivPanel® and STEM

Gizmos & Gadgets by littleBits™

littleBits makes a platform of easy-to-use electronic building blocks empowering everyone to create inventions, large and small.
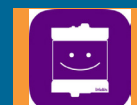
How it works with the ActivPanel

Students can build many different inventions using Gizmos & Gadgets. They can then use the littleBits App on the ActivConnect device that comes with the ActivPanel to connect and control their inventions.

See it in Action

Recommended Bundle

ActivPanel, ActivConnect, Gizmos & Gadgets, and littleBits App

STEM Apps

Anatomy Learning - 3D Atlas
Ages 8-18

Educational Virtual Reality 3D includes spinning models of human anatomy, showing different systems, and body parts.

Astronomy for Kids
Ages 5-8

With Astronomy for Kids your students will learn about the Sun, the Earth, the Moon and all other planets that make up the Solar System. It even includes assessments.

Bedtime Math
Ages 6-8

This app makes math a fun part of kids' everyday lives, as beloved as the bedtime story. Choose the Math Problem of the Day, or explore over 1600 additional math problems.

Blokify
Ages 6-8

Blokify lets builders create blok based models free-form or through a guided building experience. Once the model is complete it can be 3D printed.

Brain It On! - Physics Puzzles
Ages 10+

Deceptively challenging physics puzzles for your brain! Draw shapes to solve challenging physics puzzles. They're not as easy as they look.
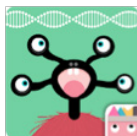
Code Carbon
All Ages

Take control of your own planet! Balance energy with emissions in the face of a growing population and worsening climate change in this simulation strategy game.

Cosmic Watch: Time & Space
Ages MS, HS

The Cosmic Watch 2.0 is a high-quality 3D planetarium and time-piece. This powerful educational tool renders stunning graphics of the earth and sky in real-time.
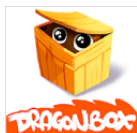
DNA Play
Ages 6-8

Create your own incredible monsters and transform them in real-time with DNA Play! Over 200 billion unique life forms at your fingertips!

DragonBox 12+
Ages 12+

DragonBox Algebra 12+ is a must-have tool for students so they can earn better grades and gain confidence in algebra and mathematics.
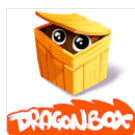
DragonBox 5+
Ages 5-11

DragonBox Algebra 5+ is perfect for giving young children a head start in mathematics and algebra. Children as young as five can easily begin to grasp the basics.

STEM Apps

Dragonbox Elements
Ages 6-12

Discover the fundamentals of geometry with students! Watch your kids learn geometry in a matter of hours, without them even noticing they're learning!
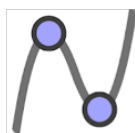
Earth-Now
All Ages

NASA's Earth Now is an application that visualizes recent global climate data from Earth Science satellites, including surface air temperature, carbon dioxide, and more.

Euclidea
HS

Euclidea is a fun and challenging way to create Euclidian Constructions! New levels are unlocked as you solve the previous ones.

GeoGebra
HS

Easily graph functions, solve equations, find special points of functions, save and share your results. Millions of people around the world use GeoGebra to learn math and science.

Global Change
All Ages

The Global Change app is an interactive teaching tool for engaging students with the interrelationships between the global carbon and water cycles.

GLOBE Observer
All Ages

GLOBE Observer allows students to make regular observations of the Earth's cloud cover and compare it to NASA satellite observations.

Hello Mars
All Ages

Hello Mars provides a beautiful experience as you search the stars, travel to distant orbits and reach Mars with real-time weather data.

Inventioneers
Ages 2-8

A great tool for learning about real-time physics and the science behind different features like air, fire, magnetism, and jumping bunnies.

ISS Detector Satellite Tracker
All Ages

Find out when the International Space Station will be visible from your roof or backyard, then set an alarm to make sure you can see it. The built-in compass will help your spotting.

ISS HD Live App
All Ages

This app makes you feel a part of the International Space Station, with virtual 3D tours and live stream of data.
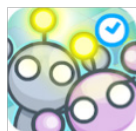
STEM Apps

K'NEX 3D
All Ages

This engineering app allows kids to build ingenious creations using virtual blocks, rods, and connectors. It gives detailed 3D help for building with real building sets.
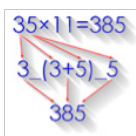
Lightbot: Code Hour
K-12

Lightbot is a programming puzzle game where students gain a practical understanding of basic concepts like instruction sequencing, procedures and loops, by guiding a robot.
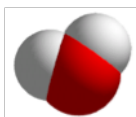
Math Bakery
K-2

Math Bakery helps young children learn addition and subtraction skills in an entertaining manner. The graphics are colorful and unique.
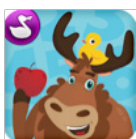
Math Tricks
All Ages

This program helps students solve part of the mathematical problems and tasks much faster than classical. It's helpful to those who want to hone basics such as the multiplication table.
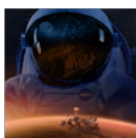
Molecular Constructor
MS, HS

Molecular Constructor is a free 3D modeling software for building molecules. Using this application students can design a molecule and optimize its geometry at the same time.

Moose Math
Early

Moose Math engages kids in a mathematical adventure and teaches counting, addition, subtraction, sorting, geometry, and more.

NASA Be a Martian
All Ages

This app lets you experience Mars as if you were there yourself! Take part in discovery on the Red Planet, view the latest images and videos, and get up-to-the-minute news.

NASA Visualization Explorer
Ages 7+

A direct connection to NASA's extraordinary fleet of research spacecraft, this app presents cutting-edge research stories in an engaging and exciting format.

Periodic Table (Royal Society of Chemists)
All Ages

Beautiful interactive periodic table includes settings for beginner, intermediate, and advanced to control the type of information available.
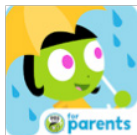
Periodic Table 2018
All Ages

Chemistry falls into a number of the most important sciences and is one of the main school objects. This Periodic Table displays the entire periodic table including 10 other categories.

STEM Apps

Play and Learn Science
Ages 0-5

With Play and Learn Science, kids have science and problem-solving games at their fingertips anywhere they go! Play shadow games, control the weather, and more.

Rocket Science 101
All Ages

Select your favorite NASA mission and build a rocket to send the spacecraft into orbit. As you take the RS101 challenge, you can learn more about the thrilling missions.
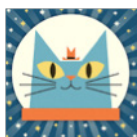
Science Journal
All Ages

Science Journal is the free digital science notebook brought to you by Google. The app allows you to keep your notes, photos, and observations in an all-in-one convenient place.

SimCity BuildIt
Ages 10+

Be the hero of your very own city as you design and create a beautiful, bustling metropolis. Every decision is yours as your city gets larger and more intricate.

Solar System with Astro Cat
Ages 6-12

Blast off into space and learn about the wonders of the Universe with Professor Astro Cat and his trusty friend, Astro Mouse!

Solar Walk
Ages 8+

Solar Walk provides an impressive wealth of information about our solar system, planets and stars presented as an amazing 3D model that can be rotated and zoomed easily.
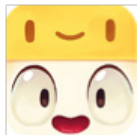
Space365
All Ages

When did Neil Armstrong land on the moon? What space events happened on my birthday? Space365 lets you see what NASA events and trivia facts happened each day of the year.

Species Finder
All Ages

This app allows you to find species listed under the Federal Endangered Species Act where you are located or anywhere else in the United States.

SpriteBox
Ages 6-8

SpriteBox is a unique puzzle-platformer; a mix of exploration and learning to code. You'll learn to sequence commands, change parameters, debug faulty logic, and more.
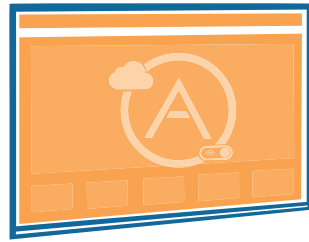
World of Goo
Ages 8+

Drag and drop living, squirming, talking, globs of goo to build structures, bridges, cannonballs, zeppelins, and giant tongues.

ZapZap Math
Ages K-12

ZapZap Math is a standards-aligned, game-based learning platform that spans over 150 games covering over 180 math subtopics and includes an analytical reporting system.

Promethean®

ActivPanel®
Brings STEM to Life
for the Entire Classroom

www.PrometheanWorld.com/STEM

To learn more about Promethean's STEM bundles,
contact **888-652-2848**, **option 2**.