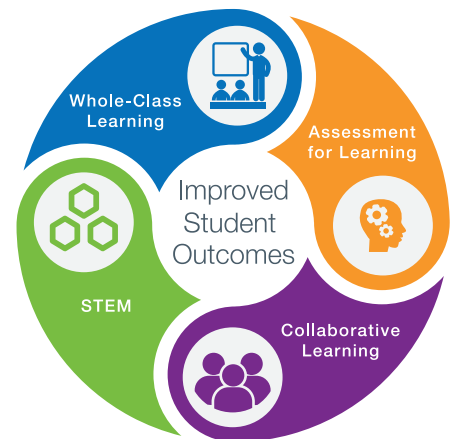


# What STEM Can Be.

The key to students' success is not only to learn science, technology, engineering, and math, but also to understand how those disciplines apply to the world around them. Students need to develop the critical skills that will prepare them for beyond the classroom, enabling them to be tomorrow's engineers and innovators.

Boxlight STEM solutions open the door to inquiry-based learning in a variety of science fields, including biology, chemistry, physics, environmental science, and geography. With our portable science lab, you can take the science classroom anywhere. And our document camera allows you to see HD images and video of nature and science up close – from anywhere in the classroom. Our STEM products help students connect and engage with science from wherever they are.



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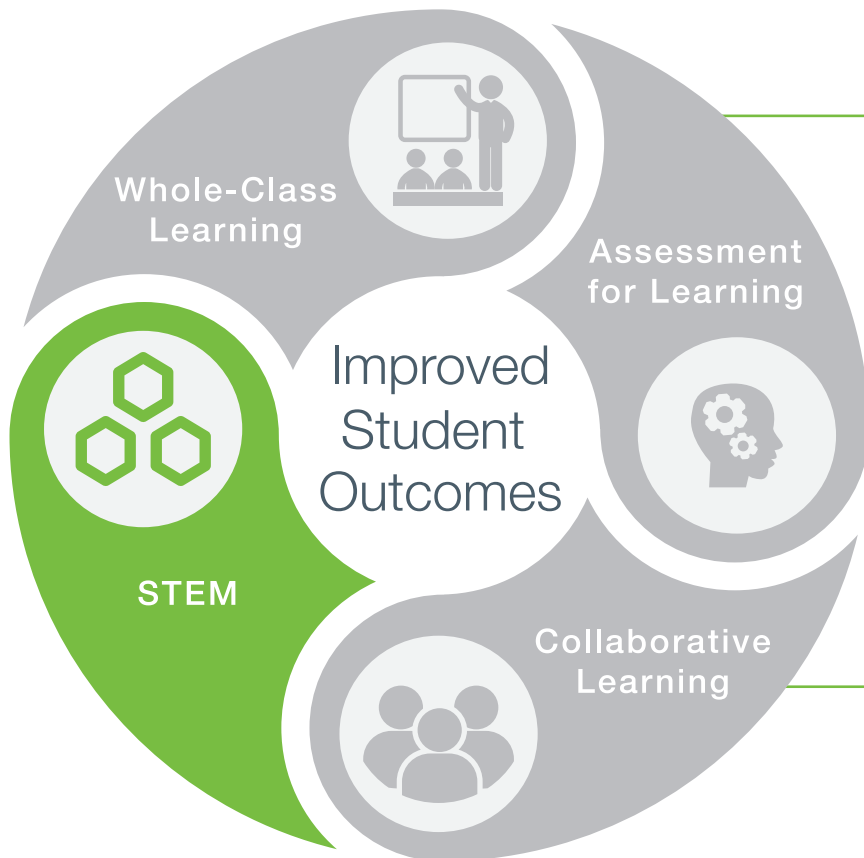
# STEM

## STEM

STEM is of critical importance to students – it enables them to build the essential skills they need to be successful. Students learn most effectively when teaching reflects the real world. Using science to solve everyday challenges helps students gain a deeper understanding. With the Labdisc™ portable lab, it's easy to incorporate inquiry-based science in daily learning. The Labdisc portable lab is integrated with our hardware and software to provide an extraordinarily rich STEM teaching environment. STEM becomes both fun and effective.

Take all the wonder of interactive lessons and activities, and launch it even farther by adding high definition (HD) pictures or live HD video with the MimioView™ document camera. Detailed images of the intricacies of a flower or math manipulatives are all easily seen by the entire class on the front-of-the-room display. Lessons and learning come to life.

- The wireless, compact Labdisc data logger for every science domain, with up to 15 built-in sensors. Fits in the palm of a student's hand.
- The MimioView document camera captures both dimensional objects and flat documents.



### STEM FACTS

- During the next decade, the United States demand for scientists and engineers is expected to increase at four times the rate of all other occupations.
- The United States ranks 20th among all nations in the proportion of 24-year-olds who earn degrees in natural science or engineering.

## Why STEM Matters

STEM encompasses some of the most dynamic and interesting subjects in schools. STEM-based learning will also help create tomorrow's educators and innovators and keep us all competitive in a global economy. Below are more of the critical benefits of STEM learning:

### 1. Create Problem Solvers

STEM activities should be roll-up-your-sleeves learning. They should be about doing. Ideally, students will collaborate and solve the problems together, and gain a more involved and deeper understanding. Karen Worth, a senior researcher and longtime science educator at Education Development Center (EDC), points out that hands-on learning is not “simply manipulating things.” Rather, it is “engaging in in-depth investigations with objects, materials, phenomena, and ideas, and drawing meaning and understanding from those experiences.”

### 2. The True Value of Technology

Use it or create it! Using technology means more than just presenting a lesson on an IWB or using a document camera. It means bringing the technology into the lesson in a way that adds value and takes the activity to a new level. The Labdisc portable lab allows students to measure their world, analyze real-time data samples, and develop a skilled scientific response. This particular technology enables students to gather data and information at a pace that would otherwise be impossible.

### 3. Real-World Learning

STEM lessons hinge around real-world problems so that students can come up with real-world solutions. STEM is about going beyond the classroom to look at the broader picture. How could the data you collect reveal something about the environment? What engineering breakthrough could improve the quality of someone's life? STEM makes students ask big questions and they get big learning in return.

### 4. Teamwork

The engineering design process is a stepped process that helps teams solve problems. The process is cyclical, meaning that it is repeated as needed to reach the desired solution. The key aspects for students to grasp from this process are the importance of teamwork, the need to be creative, and the open-ended nature of the work.



High-definition (HD) pictures and live video can really engage students and drive home a lesson. And your teachers can do it with plug-and-play simplicity.

**“The MimioView has such amazing quality and offers endless possibilities for integration in the classroom.... I love that the teacher or students can mark up a LIVE picture at the whiteboard, as well as the fact that it can connect to a microscope.”**

*Cameron Nichols, Teacher, Wilmington, NC*

# Which STEM Tools Are Right for Your Schools?



## Labdisc Portable STEM Lab

A portable STEM solution for K-12 science with up to 15 wireless sensors built into a single compact device – revolutionizing science in terms of convenience, cost, and ease of use.

<b>Supported Platforms</b>	Standalone, PC, Mac, iPad, Linux, Android, and Chromebooks
<b>Science Parameters</b>	Biology & Chemistry, Environment, General Science, and Physics
<b>Sensors</b>	Up to 15 built-in sensors
<b>GPS Data Logging</b>	Yes
<b>Remote Data Logging</b>	Yes
<b>Sampling Resolution</b>	12-bit
<b>Int. Measurement Storage</b>	128,000 samples
<b>Int. Rechargeable Battery</b>	LiPO 7.2 V
<b>Battery Life</b>	> 150 hours
<b>Display</b>	Graphical LCD
<b>USB Communication</b>	USB 2.0
<b>Wireless Communication</b>	Bluetooth V2.0
<b>Automatic Sensor Testing</b>	Yes
<b>Auto Sensor Calibration</b>	Yes
<b>Size</b>	Diameter = 132 mm (5.2 in.) Height = 45 mm (1.8 in.)
<b>Weight</b>	300 gr. (10.6 oz)
<b>Temperature Range</b>	-10 to 50° C (14 to 122° F)

## MimioView Document Camera

The most user-friendly document camera available for capturing high-resolution pictures and live video for display and annotation.

<b>Minimum Software Requirements</b>	MimioStudio 11.41
<b>Output Resolution</b>	High-definition 1920x1080
<b>Sensor Pixels</b>	3.2 megapixels
<b>Connection</b>	Single USB cable
<b>Zoom</b>	8x mechanical zoom, 16x digital zoom
<b>Lighting</b>	Two independently adjustable LED lights
<b>Shooting Area</b>	420 mm x 315 mm (16.5 in. x 12.4 in.) when height is 360 mm (14.2 in.)
<b>User Input</b>	4 Buttons: View, Auto-Tune, Rotate, and Freeze
<b>Microscope Adapter</b>	Included
<b>Focus</b>	Automatic
<b>Color Balance</b>	Automatic
<b>Video and Images</b>	Save to MimioStudio Gallery
<b>Content Alignment</b>	Straightedge incorporated on base
<b>Camera Adjustment</b>	Flexible gooseneck for camera