

SWIFT OPTICAL INSTRUMENTS, INC.

Microscopes • Digital Imaging Products

(877) 967-9438 • www.swiftoptical.com



Our Commitment to STEM

In this changing classroom environment, we understand that teachers need more than products, they need resources and solutions. Here are a few ways in which we offer that support to you and your students.

SCIENCE

- Our full line of microscopes for elementary through college level education, give teachers the tools to teach life science at the micro level.
- Specialty microscopes with unique micro-macro design which can be used as field microscopes, and a comparison microscope, ideal for Forensics and Applied Sciences.
- Product support: Customer service, where customer questions and problems are addressed by trained technicians; Website support, where, in addition to product specifications, resource materials, such as microscope care instructions are provided.
- Teacher Development Resources:
 - Workshops, that make STEM connections and provide teachers with strategies for creating digital STEM programs.
 - Professional Development
 - Published support material developed in conjunction with experts. (TERC)
 - SET: a select group of teachers willing to share their stories.
 - Conferences: Swift is an exhibitor at National, State, and Regional science educator conferences where teachers can experience products, learn new applications and ask questions of microscope specialists.

TECHNOLOGY

- Our digital microscopes and cameras use next generation technology to bring the micro-world to high-definition video monitors, projectors, and computers.
- Motic imaging software provides the tools to capture microscope images and to label, annotate, do measurements, incorporate them into a report, and make assessments.
- Additional Motic software allows images to be compared and manipulated for forensic teaching.
- MoticNet software connects up to 48 microscopy stations with a teacher's station that puts the teacher in control.
- Video tutorials, available on websites and YouTube, provide training on how to use the hardware and software.
- On-line support provides individualized customer training.
- Equipment compatibility: Our digital products and software are for PC & MAC, Direct Show, and TWAIN.
- Motic Imaging Software is SmartBoard certified.
- Swift/National are part of the Motic Group, a world leader in digital microscopy.

ENGINEERING

- Our products can provide another level to engineering problem solving and practice. Through the use of our microscopes and imaging software, students can learn life skills, such as quality control, examination of product components for consistency, damage or corrosion.
- Motic software images can be used to evaluate the amount of binding material or glue residue left behind by adhesive notes, cellophane tape, and glues that were removed from a surface.
- Swift products allow for the examination of fiber consistency in paper products, ink uniformity on printer lettering, smoothness of small gears or ball bearings, and soldering of circuit boards.
- Motic software images can be used to examine the effects of temperature, ultraviolet light, and chemicals on small samples of plastics used in containers.

MATH

- Our products allow for comparisons and calculations. For example, compare glass fragments with our comparison microscope, and students can then determine cosine and sine.
- Our imaging software makes time lapse studies a snap and sequencing fun.
- Swift microscopes and the accompanying Motic software permit students to mathematically compare and contrast the relative sizes and dimensions of cells to build databases on eukaryotic and prokaryotic specimens, normal and pathology tissue samples, and different animal fur or hair specimens,
- And we make it possible to calculate the volume of small glass beads or ball bearings by accurately measuring the diameter. The variation in volume of a collection of beads or bearings can also be presented graphically or statistically.

**Smart Teachers Expect More
... and they get it with Swift!**

Let us help you to discover how Swift Microscopes and Digital Products may be used in your STEM classroom.