

Ignite 21st Century Science Education



Ignite 21st Century Science Education



introducing the **spark** Science Learning System

"The world looks so different after learning science.

For example, trees are made of air, primarily. When they are burned, they go back to air, and in the flaming heat is released the flaming heat of the sun which was bound in to convert the air into tree. And in the ash is the small remnant of the part which did not come from air, that came from the solid earth, instead.

These are beautiful things, and the content of science is wonderfully full of them. They are very inspiring, and they can be used to inspire others."

Richard Feynman



10101 Foothills Blvd.
Roseville, CA 95747

www.pasco.com

introducing the **spark** Science Learning System



Available Fall 2008

PS-2008
Includes Voltage & Temperature sensors,
AC power supply and pre-installed starter
activities with teacher background material



In a world filled with the products of scientific inquiry, scientific literacy has become a necessity for everyone.

National Science Education Standards, 1996

Traditional schools & their science curricula are more suited to the needs of the industrial age than those of the information age.

Yelland, 2007

Children cannot be effective in tomorrow's world if they are trained in yesterday's skills.

Department for Education and Employment 1997

Civilization is on the brink of a new industrial order. The big winners in the increasingly fierce global scramble for supremacy will not be those who simply make commodities faster and cheaper than the competition. They will be those who develop talent, techniques and tools so advanced that there is no competition.

The President's Council of Advisors on Science and Technology, 2004

Science educators have learned that if we want to improve students' understandings about the nature of science, then we should teach it explicitly through investigative activities and reflective discussions.

Schwartz & Lederman, 2002

We live in a data drenched society full of data smog. We need to provide students with the skills necessary to construct new knowledge from existing knowledge.

Grant, 2007

The real promise of technology in education lies in its potential to facilitate fundamental, qualitative changes in the nature of teaching and learning.

Report to the U.S. President, 1997

A new technology does not add or subtract something. It changes everything.

Postman, 1993

spark

Break with tradition and progress to a technology that becomes invisible, a disruptive technology that focuses on simplicity, pride of ownership, joy of use: the result of a human-centered design philosophy.

Don Norman, 1998

Display - Easy viewing, alone or in groups, indoors or out. Full-color 5.7" (15 cm) display.

Touch-Screen - Just use a finger, no stylus to lose!

Buttons - make measurements easily with just one hand.

Weight - Student friendly 21 oz (595 grams).

USB - use the USB ports to share data through a printer or flash drive.

Built-in Temperature and Voltage Sensors - included with the system, make measurements right out of the box with no additional sensors.

Ports - two sensor ports provide connection to the full PASPORT line of sensors—no need to buy new sensors.

Handles - rubberized handles built into the body make the system rugged, easy to pick up, move around, and share with other students.



Introducing the SPARK Science Learning System™

To prepare science learners today for the demands of tomorrow, PASCO introduces the SPARK Science Learning System, designed from the ground up to put 21st century science in students' hands. Ignite student interest in science quickly, easily, and affordably.

- A lightweight, rugged, all-in-one, discovery learning environment designed to make modern scientific exploration accessible to every student, everywhere.
- Provides a rich, visual connection with scientific phenomena through an intuitive icon-based, touch screen user interface.
- Preloaded with teacher-designed, standards-based content that fully integrates data collection, analysis, and student response.
- Makes real-time interactive visualization more accessible than ever before; it is easy to use the first time, and easy to remember every time your students pick it up.



Available Fall 2008
PS-2008
Includes Voltage & Temperature sensors, AC power supply and pre-installed starter activities with teacher background material
Pre-order NOW

Science Solutions

The SPARK Science Learning System

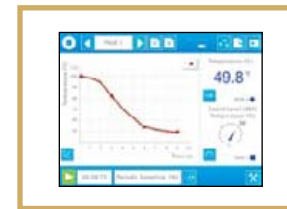
is more than just hardware and software,
it's an integrated science solution!



- Over 60 preinstalled activities covering the most essential topics across the sciences. Written by teachers, for teachers, and included in the SPARK Science Learning System.



- The Spark system combines powerful measurement with portable visualization. Take your measurements wherever the science leads you.



- The core of the SPARK system is an all-new touch screen user interface that delivers an approachable, memorable experience. Spend more time learning.



- The included temperature and voltage sensors deliver meaningful measurements right out of the box. Or add any sensor from the extensive PASPort line for even more discovery.



- Our flexible professional development options help you get the most out of your time in the classroom. Let us show you how fun and easy it is to teach the science you love with the SPARK Science Learning System.



- When you have questions, we're here for you. Our teacher support representatives are available online and on the phone if you ever have a problem.

The SPARK Science Learning System is built to last, with a 5-year limited warranty.



Keep the focus on learning

SPARK Science Learning System is a light-weight, durable, all-in-one discovery learning environment that puts 21st century science within your grasp.

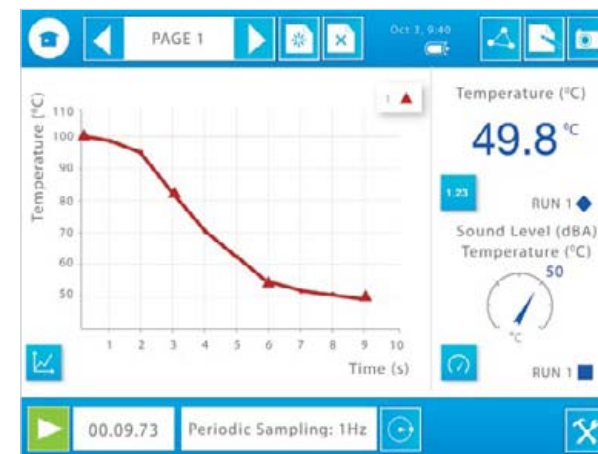
- Rugged design to survive typical school environment.
- Student friendly size and weight.
 - Light weight 21 oz (595 grams)
 - Designed for portability, integrated hand straps provide comfortable, secure handheld use. 6.7" x 5.5" x 1.7" (17 cm x 14 cm x 4.5 cm)
- Full-color display with large screen (for better data visualization—even in groups. 5.7" (15 cm) diagonal display, 640 x 480 resolution.
- Two sensors included—measure temperature and voltage right out of the box.
- Connect up to 4 sensors simultaneously.
 - Connect any of more than 60 PASPORT all-digital sensors, many with multi-measure capability.
- More than 60 guided-inquiry SPARKlabs™ available right onboard.
- Two USB ports for connection to a computer, printer or USB flash drive.
- Rechargeable battery for all day use in the classroom, lab, or field.



SPARK Equals Learning

SPARK Science Learning System provides a rich visual connection with scientific phenomena.

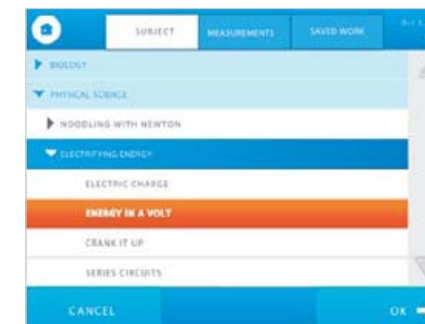
- Keep the focus on learning through a finger-touch, user interface (no stylus required).
- Reduce time and effort between setup and data visualization through the SPARK system's simplified user interface.
- Display data in multiple simultaneous representations (e.g., graphs, tables, digital "read outs," analog meters) on the SPARK system's large, high resolution screen.
- Promote real-time analysis with the SPARK system's direct manipulation analysis tools (e.g., curve fitting, descriptive statistics, data transformations).
- Energize student reflection and discussion with built-in annotation tools, snapshot tools, and journaling tools.
- Print student created journals and evaluate portfolios of their learning progress.
- Enable guided inquiry right out of the box with pre-installed SPARKlabs™ for many standard topics in a range of disciplines.



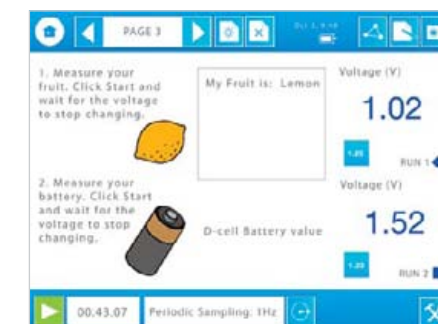
View multiple representations of data simultaneously



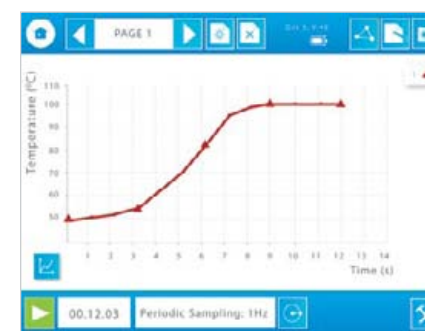
Instantly view live data



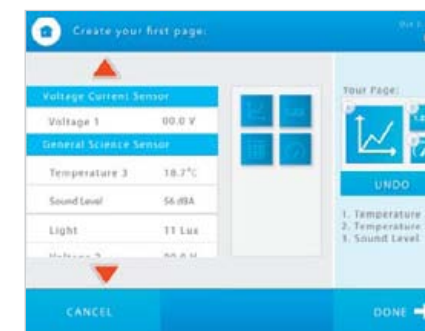
Browse installed activities by subject



SPARKlabs integrate data with text and images



Quickly view large displays of data

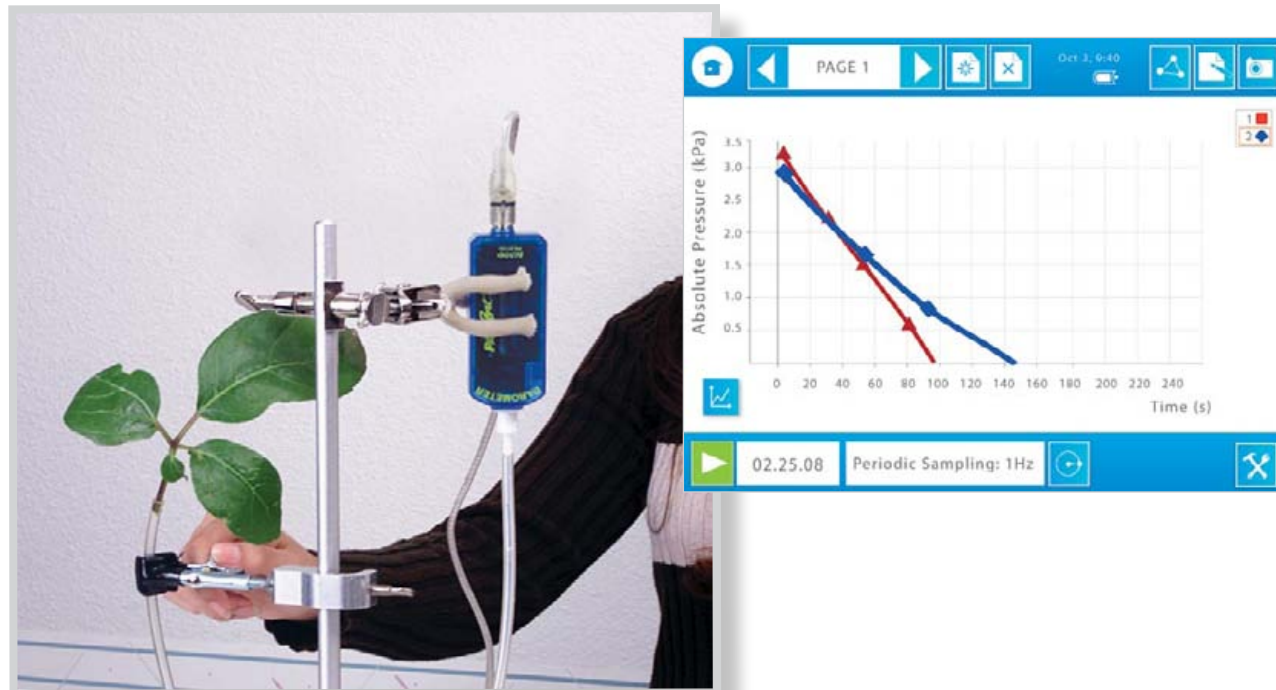


Create custom pages visually



Use analysis tools to explore data

Biology



Transpiration – Lab #10

Make biogeochemical cycles quantitative, not just qualitative.

- ✓ Observe how changing environmental conditions affect the transpiration rate of plants.
- ✓ See changes in the data as environmental conditions change.
- ✓ Collect reliable and repeatable data. No more, “what you should have seen is...”



SPARK Biology Starter Kit

Get started with pre-installed Biology SPARKlabs™ and sensor set. Facilitate investigations with relevant, standards-based science curriculum that is motivating and easily integrated into your classroom. Supplemental instructions for teachers are provided.



Kit Includes CO₂, Gas Sensor, O₂ Gas Sensor, Barometer & pH Sensor. SPARK Science Learning System sold separately.

Pre-installed Experiments:

1. Organisms and pH
2. Osmosis
3. Membrane Permeability
4. Catalase Enzyme Activity
5. The Role of Buffers
6. Cellular Respiration
7. Plant Respiration and Photosynthesis
8. Exploring Microclimates
9. Acid Rain

10. Transpiration

SPARK Biology Starter Kit

CO ₂ Gas Sensor	PS-2110
O ₂ Gas Sensor	PS-2126
Barometer	PS-2113A
pH Sensor	PS-2102

Conduct Biology experiments immediately with preloaded student labs. Other labware may be required.

Order Information

SPARK Biology Starter Kit	PS-2920
SPARK Science Learning System	PS-2008

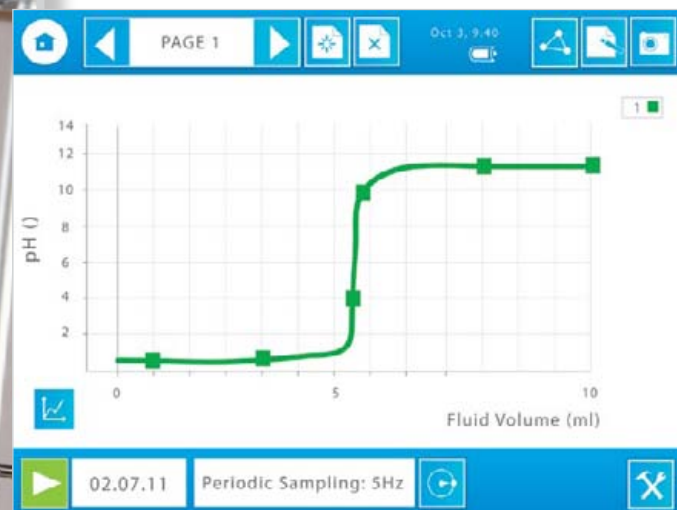
Available Fall 2008. Pre-order NOW.

Biology through Inquiry

Upgrade from the pre-installed Biology SPARKlabs to the full *Biology through Inquiry* content. The manual includes over 20 teacher-designed, standards-based lab activities covering Cell Biology, Ecology, and Physiology. Conduct inquiry-based investigations and evaluate student learning with standards-based assessments.

Sign up for email notification on curriculum and sensor bundle details at: www.pasco.com/spark

Chemistry



Acid-Base Titration – Lab #8

Create titration curves in minutes instead of hours!

- ✓ Graph pH and volume in real-time.
- ✓ Read the buret just twice for drop size calibration.
- ✓ Determine equivalence points immediately.



SPARK Chemistry Starter Kit

Get started with pre-installed Chemistry SPARKlabs™ and a sensor set. Facilitate investigations with relevant, standards-based science curriculum that is motivating and easily integrated into your classroom. Supplemental instructions for teachers are provided.



Kit Includes Chemistry MultiMeasure Sensor with Temperature, pH, Absolute Pressure & Voltage probes (not shown in photo), Drop Counter, and Colorimeter. SPARK Science Learning System sold separately.

Pre-installed Experiments:

1. Introduction to Electrochemistry, Fruit Battery
2. Vapor Pressure and Intermolecular Forces, Evaporation
3. Exothermic versus Endothermic
4. Partial Pressure, Rusting Steel Wool
5. Beer's Law
6. Charles' Law/Absolute Zero
7. Boyle's Law
- 8. Acid-Base Titration**
9. Diprotic Acid Titration
10. Evidence of reaction, Fruit Juice & Seltzer

SPARK Chemistry Starter Kit

Chemistry Sensor	PS-2170
Drop Counter	PS-2117
Colorimeter	PS-2121

Conduct Chemistry experiments immediately with preloaded student labs. Other labware is required.

Order Information

SPARK Chemistry Starter Kit	PS-2921
SPARK Science Learning System	PS-2008

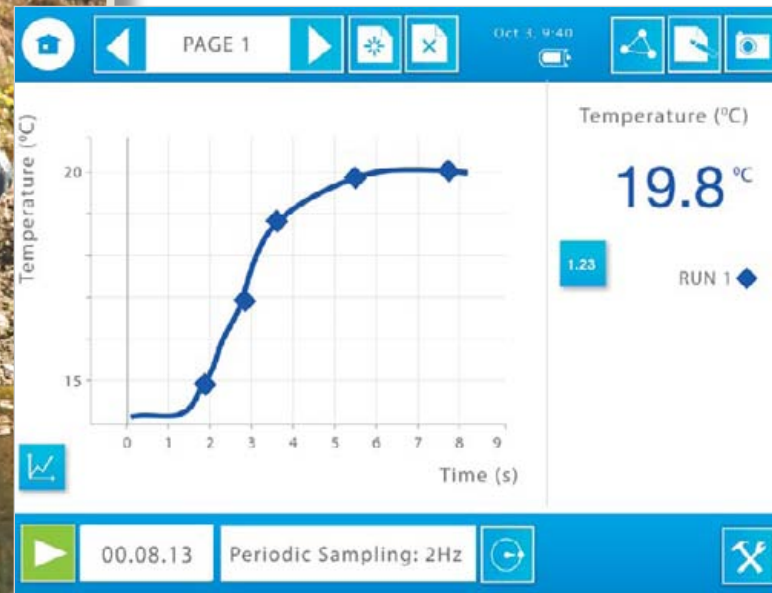
Available Fall 2008. Pre-order NOW.

Chemistry through Inquiry

Upgrade from the pre-installed Chemistry SPARKlabs to the full *Chemistry through Inquiry* content. The manual includes over 20 teacher-designed, standards-based lab activities covering topics such as States of Matter, Chemical Thermodynamics, and Reactions and Solutions. Conduct inquiry-based investigations and evaluate student learning with standards-based assessments.

Sign up for email notification on curriculum and sensor bundle details at:
www.pasco.com/spark

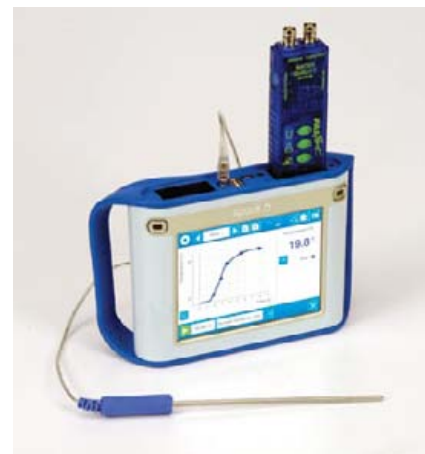
Earth Science



Properties of Water – Lab #1

Don't just talk about the heating curve for water—construct it.

- ✓ Observe small changes in temperature as ice melts and connect the phenomenon to the graph.
- ✓ Use generated data to discuss important topics like heat of fusion and specific heat.
- ✓ Connect melting and evaporation to natural systems and help students understand global heat budget.



SPARK Earth Science Starter Kit

Get started with pre-installed Earth Science SPARKlabs™ and sensor set. Facilitate investigations with relevant standards-based science curriculum that is motivating and easily integrated into your classroom. Supplemental instructions for teachers are provided.



Kit Includes Water Quality MultiMeasure Sensor with Temperature, pH, Dissolved Oxygen & Conductivity probes (pH probe not shown in photo), Drop Counter, and Colorimeter. SPARK Science Learning System sold separately.

Pre-installed Experiments:

1. **Water's Unique Properties, Hydrogen Bonding**
2. Differential Heating and Cooling of Land Surfaces
3. Water Quality Field Investigation
4. Water Treatment, Measuring Water Quality
5. Testing Soil Salinity
6. Testing Soil pH
7. Heat Capacity of Sand, Specific Heat
8. Heating at the Equator and Poles, Insolation
9. Energy Transfer, Radiation

SPARK Earth Science Starter Kit

Water Quality Sensor	PS-2169
----------------------	---------

Conduct Earth Science experiments immediately with preloaded student labs. Other labware may be required.

Order Information

SPARK Earth Science Starter Kit	PS-2922
SPARK Science Learning System	PS-2008

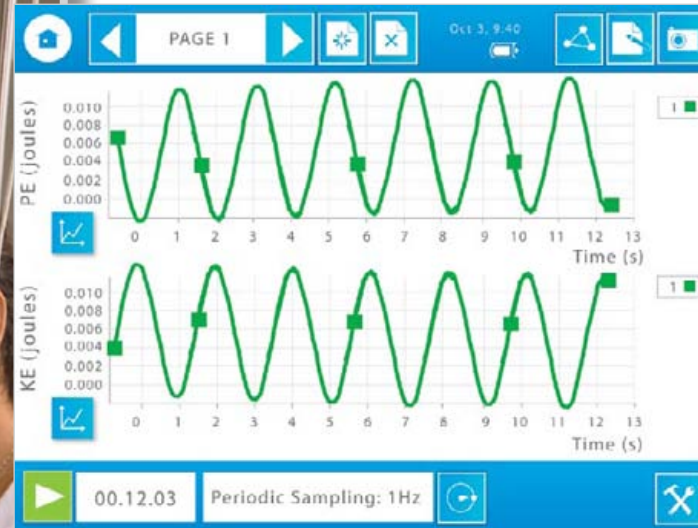
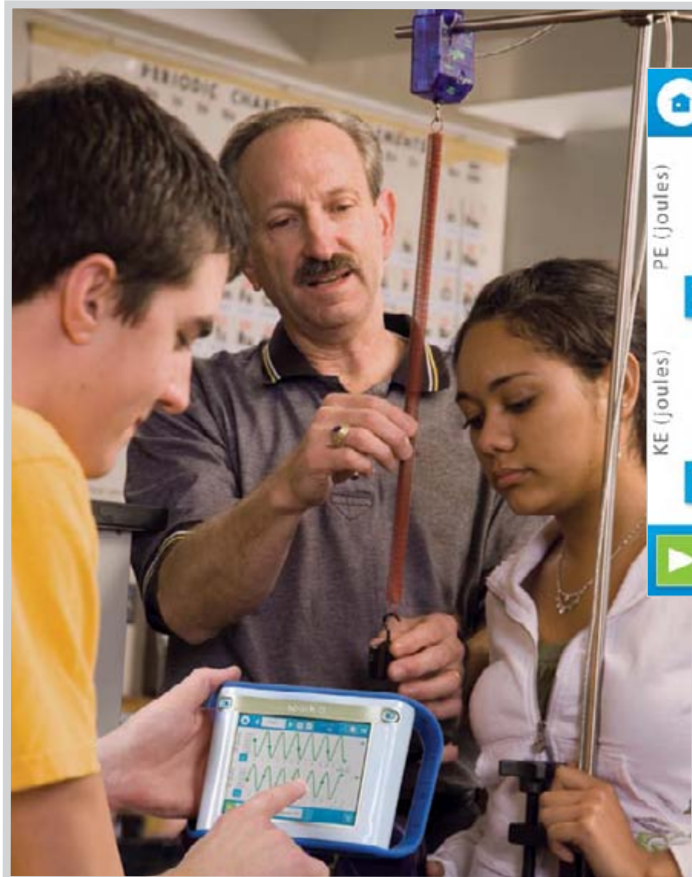
Available Fall 2008. Pre-order NOW.

Earth Science through Inquiry

Upgrade from the pre-installed Earth Science SPARKlabs to the full *Earth Science through Inquiry* content. The manual includes over 20 teacher-designed, standards-based lab activities covering topics such as weather cycles, water quality and soil properties. Conduct inquiry-based investigations and evaluate student learning with standards-based assessments.

Sign up for email notification on curriculum and sensor bundle details at: www.pasco.com/spark

Physics



Conservation of Energy – Lab #7

Visualize the relationship between kinetic and potential energy.

- ✓ Observe directly the phase relationship between potential energy and kinetic energy.
- ✓ Reduce the cognitive leap students have to make to connect these concepts by visualizing data in real-time.
- ✓ Construct your own calculations of total energy to show that energy is conserved.



SPARK Physics Starter Kit

Get started with pre-installed Physics SPARKlabs™ and sensor set. Facilitate investigations with relevant, standards-based science curriculum that is motivating and easily integrated into your classroom. Supplemental instructions for teachers are provided.



Kit includes Motion Sensor, Force Sensor, Voltage Current and Magnetic Field Sensor. SPARK Science Learning System sold separately.

Pre-installed Experiments:

1. Introduction to Motion, Match Graph
2. Speed and Velocity
3. Acceleration
4. Introduction to Force
5. Newton's First Law
6. Newton's Second Law
- 7. Conservation of Energy**
8. Ohm's Law
9. Introduction to Magnetic Fields
10. Archimedes' Principle
11. Introduction to Voltage, Fruit Battery/Generator
12. Faraday's Law, Induction
13. Introduction to Thermodynamics, Phase Change

SPARK Physics Starter Kit

Motion Sensor	PS-2103A
Force Sensor	PS-2104
Voltage/Current	PS-2115
Magnetic Field	PS-2112

Conduct Physics experiments immediately with preloaded student labs. Other labware may be required.

Order Information

SPARK Physics Starter Kit	PS-2923
SPARK Science Learning System	PS-2008

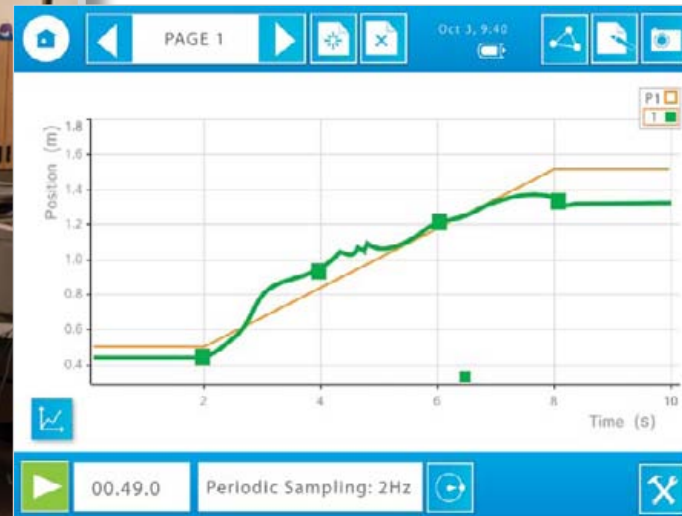
Available Fall 2008. Pre-order NOW.

Physics through Inquiry

Upgrade from the pre-installed Physics SPARKlabs to the full *Physics through Inquiry* content. The manual includes over 20 teacher-designed, standards-based lab activities covering topics such as Force and Motion, Electricity and Magnetism, and Thermodynamics. Conduct inquiry-based investigations and evaluate student learning with standards-based assessments.

Sign up for email notification on curriculum and sensor bundle details at: www.pasco.com/spark

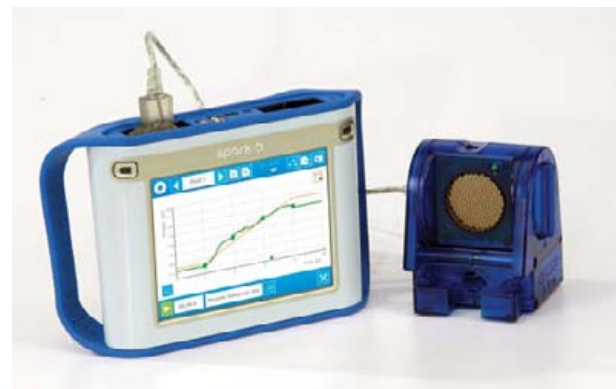
Middle School Science



Match Graph – Lab #3

Give students a kinesthetic sense of physical science by making them the object in motion.

- ✓ Understand basic motion principles.
- ✓ Explore position and frame of reference.
- ✓ Differentiate between position, distance and distance traveled.
- ✓ Directly sense and perceive rate of change.



SPARK Middle School Starter Kit

Get started with pre-installed Middle School Science SPARKlabs™ and sensor set. Facilitate investigations with relevant, standards-based science curriculum that is motivating and easily integrated into your classroom. Supplemental instructions for teachers are provided.



Kit includes Light Sensor, Motion Sensor, pH Sensor (not shown in photo), Conductivity Sensor and Heart Rate Sensor. SPARK Science Learning System sold separately.

Pre-installed Experiments:

1. Bright Lights
2. Varying Lights
- 3. Position Match Graph**
4. Speed and Velocity
5. Conductivity of Solutions
6. pH of Common Substances
7. Neutralizing an Acid
8. Varying Reaction Rates
9. Solid-Liquid Transition
10. Body Thermoregulation
11. Recovery Pulse Rate
12. Acid Rain and the Ecosystem
13. Exploring Microclimates
14. Soil pH
15. Heat Island Effect
16. Ocean Floor Mapping

SPARK Middle School Science Starter Kit

Light Sensor	PS-2106A
Motion Sensor	PS-2103A
pH Sensor	PS-2102
Conductivity Sensor	PS-2116A
Heart Rate Sensor	PS-2105

Conduct Earth Science, Life Science, and Physical Science experiments immediately with preloaded student labs. Other labware may be required.

Order Information

SPARK Middle School Science Starter Kit	PS-2924
SPARK Science Learning System	PS-2008

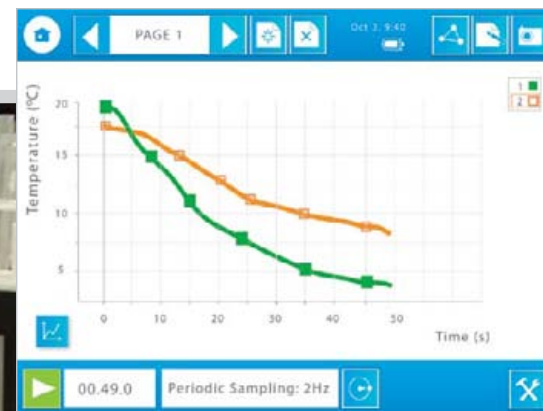
Available Fall 2008. Pre-order NOW.

Middle School Science through Inquiry

Upgrade from the pre-installed Middle School Science SPARKlabs to the full *Middle School Science through Inquiry* content. The manual includes over 30 teacher-designed, standards-based lab activities covering topics such as Energy, Light, Force and Motion, Water Quality, and States of Matter. Conduct inquiry-based investigations and evaluate student learning with standards-based assessments.

Sign up for email notification on curriculum and sensor bundle details at: www.pasco.com/spark

Elementary School Science



Keeping Warm – Lab #3

Explore how different types of insulation slow heat conduction.

- ✓ Observe the effect of different insulators on conduction.
- ✓ See cooling trends as they occur in real-time.
- ✓ Design and conduct a scientific experiment.



SPARK Elementary School Science Starter Kit

Get started with pre-installed Elementary School Science SPARKlabs™ and sensor set. Facilitate investigations with relevant, standards-based science curriculum that is motivating and easily integrated into your classroom. Supplemental instructions for teachers are provided.



Pre-installed Experiments:

1. Feeling and Measuring Temperature
2. Mixing Water
- 3. Keeping Warm - Insulators**
4. Temperature of Chemical Reactions
5. Freezing to Boiling
6. Exploring Environmental Temperatures
7. Measuring Voltage
8. Comparing Batteries
9. Combining Batteries
10. Running Down

SPARK Elementary Science Starter Kit

Uses the included temperature and voltage sensors. No additional sensors required.

Conduct Elementary School Science experiments immediately with preloaded student labs. Other standard classroom equipment may be required.

SPARK Science Learning System PS-2008

Available Fall 2008. Pre-order NOW.

Elementary School Science through Inquiry

Upgrade from the pre-installed Elementary School Science SPARKlabs to the full *Elementary School Science through Inquiry* content. The manual includes over 20 teacher-designed, standards-based lab activities covering topics such as Light, Sound, Electricity, Temperature and Force and Motion. Conduct inquiry-based investigations and evaluate student learning with standards-based assessments.

Sign up for email notification on curriculum and sensor bundle details at: www.pasco.com/spark



The Complete Solution for Science Learning



Learning Activities

PASCO offers hundreds of standards-based science investigations across all disciplines and grade levels.

Our probeware-based labs are designed around the core topics you already teach and, in some cases, are written specifically for your textbook.

Our middle and high school lab manuals have probeware kits with all the teacher support and student materials required for successful inquiry-based labs.



Data Collection, Tools & Systems

Our PASPORT™ line of sensor interfaces offer the most flexible and affordable system for teaching science with technology. From computer-based to computer-free, from basic data collection to powerful onboard graphing and analysis, PASCO has a sensor interface that meets your needs.

Now PASCO introduces a first in education technology: the SPARK Science Learning System, an all-in-one discovery learning environment. With its brilliant 5.7" (15 cm) touchscreen, 60+ preloaded science activities, and amazingly intuitive user interface, you and your students will be up and running as soon as you open the box.



Sensors & Probes

PASCO can engineer sensors like no one else. Each sensor is really a computing device with the brainpower of a digital chip onboard, tuned specifically for the measurements you need.

With over 60 sensors available, your students can measure just about anything. With our exclusive MultiMeasure™ Sensors, you get multiple measurements in the convenience of a single sensor module. Just plug it in and go!



Applications & Embedded Content

PASCO's electronic workbooks and new SPARKlabs™ combine state-of-the-art digital measurement, instruction, and student response. They offer multiple display types, robust graphing, extensive analysis tools, and are highly customizable for your students and your curriculum.

Only PASCO integrates all this functionality together in one place. No more switching back and forth between lab instructions, measurements, and analysis tools. And no more fumbling with wasteful paper printouts!

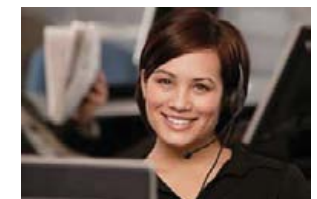


Professional Development

No matter what level of professional development you need, we have an answer for you. PASCO's professional development brings together educators from around the world. We show you how our educational solutions can help you make the most out of your valuable time in the classroom.

Our professional development team includes over 100 current and former teachers enthusiastic about science teaching. Our programs are developed in cooperation with education technology experts, researchers, and educators.

We offer online training, group summer courses, and even custom on-site training for you, your department, your school, or your district.



Teacher Support

When you have a question about a PASCO product, our teacher support group is there for you. Available on the phone or online, they can help you get your labs working perfectly, every time.

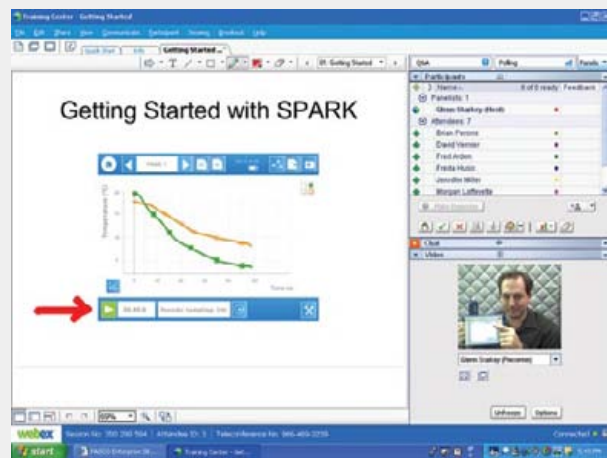
Staffed by current and former teachers, they know exactly what you're dealing with day-to-day, and how to keep your labs ticking along like clockwork.

Our teacher support group is in-house, on call, and ready to help!

support@pasco.com

Professional Development and Training

Online



"I'd like to learn at my own pace."

Free Online Tutorials

- ◆ Find help when you need it, 24/7.
- ◆ Follow along with each tutorial provided as a series of QuickTime videos.
- ◆ Develop skills as you complete short lab investigations.
- ◆ Sample each tutorial as needed or go through the entire series at once.

"I want someone to just help me quickly get started..."

Free Online Training

- ◆ Join our trainers live online for a 1-hour session to get you started.
- ◆ Participate via teleconferencing, text chat, and web video.
- ◆ Walk through a lab activity with an experienced PASCO facilitator and collect data.
- ◆ Apply your new skills to your own investigation with a trainer standing by to answer your questions.

www.pasco.com/pd

In-Person



"We want PASCO to come train our science teachers on our campus."

At Your School

- ◆ Work with an experienced PASCO facilitator in your science lab using your probeware.
- ◆ Learn through an effective mix of demonstrations and hands-on activities.
- ◆ Develop skills to create labs or convert your existing labs to take advantage of probeware technology.
- ◆ Conduct classroom-ready experiments.

"I would like to attend a comprehensive training."

PASCO Summer Institutes

Go beyond the essentials with 2-day to 5-day programs. Select from general or science-specific Summer Institutes.

- ◆ Learn from an effective mix of demonstrations and hands-on activities.
- ◆ Develop essential and advanced skills to take full advantage of teaching science with probeware.
- ◆ Bring your favorite traditional labs and convert them to probeware-based labs.
- ◆ PASCO provides lunch and all necessary computers and equipment.
- ◆ Continuing Education Units are available.

Order Information • Terms and Conditions

The PASCO Promise of Learning (90-day Satisfaction Guarantee)

We are confident that PASCO solutions will help your students achieve more in science. At the end of 90 days, if you are not satisfied that your students are more engaged and learning more effectively, return your purchase for a full refund. (We are sorry but we must exclude non-PASCO software that has been opened.) See instructions for Returns below.

Products Built to Last PASCO 5-Year Limited Warranty for Education

PASCO products are built to survive. PASCO-manufactured products are covered by a limited warranty for a period of 5 years from delivery date against defects in material and workmanship. Products manufactured by anyone other than PASCO are subject to the conditions of the warranty supplied by the manufacturer. The PASCO warranty does not extend to any product which has been subject to abuse, neglect, accident, improper installation or application, any use other than education, or products which have been repaired or altered outside of our factory. Consumables and limited-life products (such as pH probes, membranes, fast response temperature probes, batteries, etc.) are excluded. Additional warranty information is available upon request.

Free Teacher and Technical Support

We want teachers to be successful with PASCO solutions. Please contact our support team with any questions via phone or e-mail. We are here to help. See inside back cover for more information or call +1 916-786-3800.

PASCO Software Licenses

DataStudio® and WAVEPORT® software may be purchased as a Single License for use with one computer, as a Classroom License for use on all computers in a single classroom on a K-12 campus or a single mobile lab cart, or as a Site License for use on all computers on a K-12 campus or in a college/university department. Core upgrades for DataStudio and WAVEPORT are always free to license holders via web download from www.pasco.com

Shipping

PASCO ships internationally using DHL, FedEx, UPS and many freight forwarders. Please inform your local PASCO distributor of any special shipping requirements you may have.

Returns

Please contact your local PASCO distributor regarding any item to be returned. Returns for credit or exchange must be in new condition and packed in original shipping cartons. At its option, PASCO may accept returns outside of 90 days (subject to a 20% restocking fee).

Trademarks:

PASCO, PASCO scientific, DataStudio, ezSample, ImagiWorks, ImagiProbe, ImagiLab, ImagiMath, ImagiCalc, ImagiGraph, ImagiSolve, MultiMeasure Sensors, PASPORT, PureDigital Probeware, ScienceWorkshop, SensorScience, Splish, Splash, WAVEPORT, Xplorer, and Xplorer GLX are trademarks or registered trademarks of PASCO scientific, in the United States and/or in other countries. All other brands, products, or service names are or may be trademarks or service marks of, and are used to identify, products or services of, their respective owners. Splish and Splash water drop characters © PASCO scientific, 2001. For more complete information visit www.pasco.com/legal

More Product Information

Designed for education. PASCO products are designed for education; they are not intended for use in graduate research and industry, and should not be used in any apparatus involved with life support, patient diagnosis, or industrial control.

PASCO reserves the right to change the specifications of any product without prior notice.

Electrical. Unless otherwise requested, all equipment is shipped in 115 V, 60 Hz configurations. Please request a different voltage if required.

CE. All our products carry CE marking where appropriate. This almost exclusively applies to products which are designed for connection to the AC power main(s) supply. Our AC power main(s) connected products are built to comply with IEC 1010-1 and conform to EEC directive 93/68/EEC.

EMC. Our AC power main(s) products comply with the Electromagnetic Compatibility Directive (89/336/EEC) for use in the classroom, laboratory, or study area.

Local Regulations May Apply

Local and national regulations may restrict the purchase, storage, use or disposal of certain products such as chemicals, radioactive sources, and wireless transmission devices. Please consult your local regulations to ensure compliance.

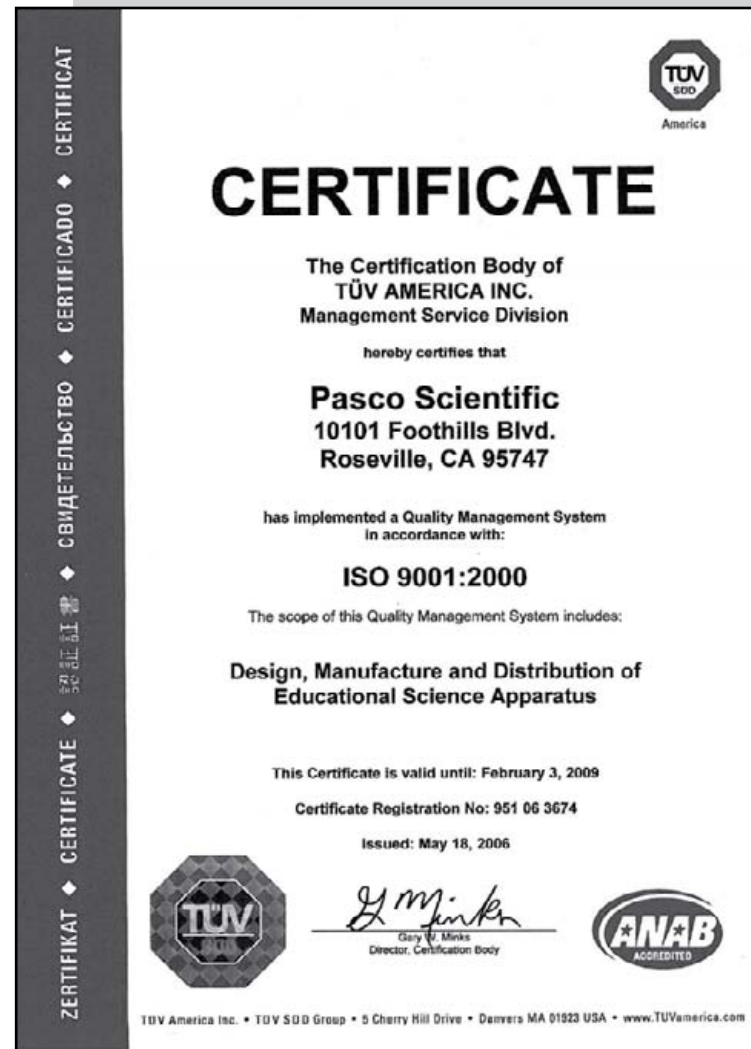
The PASCO logo, featuring the word "PASCO" in a bold, stylized, black font with a white outline.

ISO 9001:2000 Certified

PASCO[®]
scientific
Since 1964

Committed to
Science Education

Committed to
Quality



PASPort[®]

PureDigital Probeware for 21st Century Learning

PASCO is the first - *and still the only* - education company to engineer an entire line of probeware to fully use the capabilities of USB and digital technologies. What does that mean for you?

With PureDigital Probeware, you get:

- ✓ Real plug-and-learn simplicity
- ✓ Best-in-class sensor measurements
- ✓ MultiMeasure Sensors
 - More measurements*
 - Less money*
 - One convenient package*

MultiMeasure[™]
sensors

With our exclusive MultiMeasure Sensors, you get multiple measurements in the convenience of a single module. Just plug in the module and press start.

Over 60 Sensors & Growing

Description	Part #	MultiMeasure sensors
Accelerometer (2-axis)	PS-2118	✓
Accelerometer (3-axis)	PS-2119	✓
Accelerometer (3-axis) Altimeter	PS-2136	✓
Accelerometer (Visual)	PS-2128	
Barometer/Low Pressure	PS-2113A	
Breath Rate	PS-2187	
Charge	PS-2132	
Chemistry	PS-2170	✓
Carbon Dioxide Gas	PS-2110	
Colorimeter	PS-2121	✓
Conductivity	PS-2116A	
Digital Adapter	PS-2159	
Dissolved Oxygen	PS-2108	
Drop Counter (High Accuracy)	PS-2117	
EKG	PS-2111	
Flow Rate/Temperature	PS-2130	✓
Force	PS-2104	
Force Platform	PS-2141	
Force Platform (2-Axis)	PS-2142	✓
Freefall Timer	ME-9207B	
Galvanometer	PS-2160	
General Science	PS-2168	✓
Goniometer	PS-2137	
GPS Position Sensor	PS-2175	
Heart Rate	PS-2105	
Heart Rate (Exercise)	PS-2129	
Humidity/Temp/Dew Point	PS-2124	✓
Laser Switch	ME-9259A	
Light	PS-2106A	
Light (High Sensitivity)	PS-2176	
Light (Infrared)	PS-2148	
Light (UVA)	PS-2149	
Magnetic Field	PS-2112	
Magnetic Field (2-axis)	PS-2162	
Mass (OHAUS)	SE-8790	
Motion	PS-2103A	
Oxygen Gas	PS-2126	
Oxygen Reduction Potential	CI-6716	
pH	PS-2102	
pH Flat Electrode	PS-2182	
Photogate	ME-9498A	
High Precision pH/Temp with ISE/ORP Amplifier	PS-2147	✓
Pressure (Absolute)	PS-2107	
Pressure (Absolute/Temperature)	PS-2146	
Pressure (Quad)	PS-2164	
Pressure (Relative)	PS-2114	
Respiration Rate	PS-2133	
Rotary Motion	PS-2120	
Sound Level	PS-2109	
Spirometer	PS-2152	
Temperature	PS-2125	✓
Temperature (Array)	PS-2157	
Temperature (Fast Response)	PS-2135	✓
Temperature (Quad)	PS-2143	
Temperature (Skin/Surface)	PS-2131	
Temperature (Stainless Steel)	PS-2153	
Temperature (Type K)	PS-2134	✓
Temperature/Sound Level/Light	PS-2140	
Thermal Hammer	ET-8779	✓
Thermocline	PS-2151	
Time-of-Flight	ME-6810	
Turbidity	PS-2122	✓
Voltage/Current	PS-2115	✓
Water Quality	PS-2169	
Water Quality Colorimeter	PS-2179	✓
Weather	PS-2154	✓
Weather/Anemometer	PS-2174	