SMART CLASS SOLUTIONS

Highlights for Schools and Colleges

PHYWE

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New Ideas for your Classroom

Science education connects schools around the world. Across countries, cultures, and educational systems, teachers share a common goal: inspiring students to explore science, technology, and the skills needed for the future.

For many years, PHYWE has been working with schools and educational institutions worldwide. Our solutions are used in numerous countries, available in more than 15 languages, and built on extensive experience across all key subject areas: Physics, Biology, Chemistry, as well as interdisciplinary STEM and digital learning concepts.

This brochure highlights our internationally proven solutions for school education: From hands-on experimentation and digital data acquisition to modern, cross-curricular STEM approaches.
All concepts are designed to be practical, curriculum-aligned, and adaptable to diverse educational frameworks.

With PHYWE, science education becomes accessible, engaging, and future-ready — wherever learning takes place.

Designing Learning Spaces for the Future

A Modern Laboratory is More than a Classroom ...

... it is an investment in education, human potential and long-term impact. PHYWE provides more than simple teaching equipment: we create environments that enable **understanding, inspiration and confidence in science.**

Our laboratory solutions are designed to support those key moments when knowledge turns into insight — when students experience true aha-moments and begin to understand how science explains the world around them. By empowering teachers with reliable, well-designed tools and systems, we help students at every level discover their own potential and apply scientific thinking responsibly.

PHYWE creates **future-ready learning environments** that combine high-quality laboratory equipment, digital solutions and pedagogical expertise into one coherent system. From the teacher's desk to the student workstations, every element is designed to support effective teaching, safe experimentation and meaningful learning.

By providing **complete laboratory solutions from a single source,** PHYWE significantly reduces coordination effort for decision makers while ensuring seamless compatibility across all components. At the same time, our modern laboratories reflect the current state of science and education — preparing students not only for examinations, but for **academic studies, professional careers and responsible participation in society.**

Modern, well-equipped laboratories also strengthen the **reputation and attractiveness of educational institutions.** They signal innovation, quality and future orientation — key factors for international recognition, rankings and access to funding programs.

Why Decision-Makers Choose PHYWE Laboratories

Your integrated science education partner
From laboratory equipment and digital tools to curriculum alignment, safety concepts, and teacher training – all from a single source.

Support that empowers
Comprehensive training and ongoing support help schools and institutions implement science education with confidence.

Future-ready science learning
Connected measurement systems and hybrid teaching solutions prepare your students for higher education and modern careers.

Built for long-term value
Modular, durable systems enable easy upgrades, long service life, and sustainable investment planning.

Globally aligned
Designed to support international curricula and laboratory safety requirements worldwide.

TESS Sets for Student Experiments

Inspiring Science Education from Primary School to College

With PHYWE's TESS sets, science lessons become engaging, structured, and future-oriented. Designed for primary schools, secondary schools and colleges, TESS enables hands-on experiments in Physics, Biology, Chemistry, and interdisciplinary STEM education — reliable, scalable, and ready for everyday teaching. Each set delivers a complete experimental experience: from intuitive setup and safe execution to clear evaluation and discussion of results.

This empowers students to think scientifically, work independently, and build lasting understanding of complex concepts.

Training and Experimental Systems for Students

Why Schools and Colleges Choose TESS

Ready for the classroom
Complete experiment sets enable efficient setup and structured hands-on learning.

Learning by doing
Students develop scientific understanding, analytical thinking, and essential lab skills through experimentation.

Flexible by design
Suitable for different curricula, teaching formats, and educational levels.

Built for daily use
Robust components and clear organization ensure reliable performance in demanding classroom environments.

Structured experimentation
Clearly organized experiment systems support efficient teaching and independent student work.

One System — all Education Levels

TESS beginner

Introduction to science, nature, and technology
Primary/lower secondary education

TESS advanced

Subject-specific and interdisciplinary experiments
Lower/upper secondary education

TESS expert

Advanced experiments and laboratory methods
Higher education

DEMO:
Demonstration Systems for Teaching

Powerful Demonstrations that Capture Attention

With PHYWE DEMO systems, complex scientific concepts become clear, visible, and memorable, even in large classrooms and lecture halls.

Designed for secondary schools and colleges, DEMO systems support impactful teacher-led demonstrations in Physics, Chemistry, Biology, and interdisciplinary STEM education.

Large-format components, clear structures, close alignment with hands-on student experiments, and consistently reliable results ensure that every student can easily follow the experiment from the front row to the back of the room.

DEMO turns explanation into experience and theory into understanding.

Increased scale supports clearly visible experiments throughout the classroom

Clear focus on core concepts makes scientific principles easy to understand

Efficient teaching saves valuable lesson time through fast setup and clear results

Perfectly aligned with student experiments, connects demos with hands-on learning

Digital Learning and Teaching

Measure Intuitively, Analyze Instantly

Digitalization in schools is no longer a vision of the future — it is the foundation of relevant, meaningful education today. As the world becomes increasingly interconnected and technology-driven, students who grow up with digital tools don't just learn about the modern world — they learn to actively shape it.

From interactive lessons that spark curiosity to collaborative platforms that break down classroom walls, digital learning opens doors that traditional methods simply cannot. Equipping young people with digital skills today means empowering the innovators, problem-solvers, and creators of tomorrow.

This is how Digital Teaching Works Today!

At the heart of PHYWE's digital portfolio is a simple idea: digital science teaching should not replace real experimentation, but make it clearer, more connected, and easier to evaluate.

Students still work hands-on with real phenomena, while digital tools support the process around the experiment. Sets, sensors, software, and learning content form a coherent workflow: teachers prepare curriculum-oriented lessons, students record reliable data, and results can be discussed while observations are still fresh.

Because the system is modular, schools can build their digital science environment step by step. Existing equipment can be complemented, topics added, and lessons can grow from single measurements into complete learning scenarios.

Learn more:
www.phywe.com/digital-education

Digital Experiment Sets

Designed for use with included SMARTsense digital sensors, enabling real-time measurement, visualization, and data analysis in student experiments.

SMARTlink WLAN

Our robust tablet for displaying measurements and collecting data in digital science lessons.

Cobra SMARTsense

Broad array of specialized digital sensors, enabling students to record real measurement values wirelessly.

See page 8

measureAPP, measureLAB, and LABsense

Apps for connecting devices and digital sensors, supporting intuitive measurement, visualization, analysis, and evaluation.

PHYWE Augmented Reality

Adds virtual visualizations directly to real experiments, making invisible scientific phenomena visible and easier to understand.

See page 10

curricuLAB®

PHYWE's digital learning platform provides experiment instructions, interactive tasks, and curriculum-oriented teaching materials for structured science lessons.

See page 11

Cobra SMARTsense

One System, Endless Possibilities

Learn more:
www.phywe.com/sensors-software/cobra-smartsense

Digital data acquisition becomes accessible for modern science teaching, as your students record real measurement data, visualize it instantly, and turn observations into clear results.

With one consistent sensor system and easy to use software, Cobra SMARTsense supports demonstrations, guided experiments, hands-on investigations, and project work.

This enables active, data-based learning and helps students understand scientific relationships through their own measurements.

Digital measurement becomes easier than ever:

- Wide selection of over 40 different sensors for a broad range of physical quantities
- Quick connection and data transfer via Bluetooth or USB with all iOS, Windows, Linux, and Android devices
- Up to 50 science lessons on a single charge

Phy

	Absolute Pressure 12905-01	Current 12902-02	Force & Acceleration 12943-00	3-Axis Magnetic Field 12947-00	Voltage 12901-02
Measures:	Gas pressure	Electrical current	Force, motion	Magnetic flux density	Potential difference
Range:	20 ... 400 kPa	±1 A (overvoltage protection)	±50 N / ±16 g	130 mT / 5 mT	±30 V
Resolution:	0.1 kPa	0.5 mA	30 mN / 0.01 g	0.1 mT / 0.001 mT	0.02 V

Che

	Colorimeter 12924-01	Conductivity 12922-01	Dropcounter 12923-00	pH 12921-00	Thermocouple 12938-01
Measures:	Light transmission	Electrical conductivity	Drop count and pH	Acidity/alkalinity	High temperatures
Range:	0 ... 100 %, 0 ... 3 abs, 0 ... 400 NTU	0 ... 20000 µS/cm 0 ... 60 °C	0 ... ∞ Imp, 0 ... 14	0 ... 14 pH	-200 ... 1200 °C
Resolution:	0.1 %, 0.01 abs	0.1 µS/cm, 0.1 °C	30 Imp/s, 0.01	0.01 pH	0.4 °C

Bio

	CO_2	EKG	Oxygen	Soil Moisture	Weatherstation
	12932-01	12934-01	12933-01	12954-00	12946-00
Measures:	Carbon dioxide in air	Cardiac electrical activity	Oxygen in air and aqueous solutions	Water content in soil	Wind speed, humidity, air temperature
Range:	0 ... 100 000 ppm	0 ... 4.5 mV	0 ... 20 mg/l 0 ... 100 %	0 ... 60 % (VWC)	2 ... 50 km/h
Resolution:	2 ppm	4.5 µV	0.01 mg/l, 0.1 %	0.1 %	0.01 km/h

STEM

	Energy	Light	Relative Humidity	Temperature	Code
	12919-01	12906-01	12931-01	12903-00	12953-00
Measures:	Electrical current, voltage and energy	Illuminance	Air humidity	General temperature	**Ready to automate your digital measurements?** Discover Cobra SMARTsense Code!
Range:	±5 V; ±15 V ±100 mA; ±1 A; ±5 A	1 ... 128 klx	0 ... 100 % rH	-40 ... 120 °C	See page 29
Resolution:	1 mV; 15 mV 5 µA; 50 µA; 0.2 mA	1 lx	0.1 % rH	0.01 °C	

PHYWE Augmented Reality

Real Experiments with Virtual Depth

Augmented Reality
Free download

PHYWE Augmented Reality enhances the experiments from TESS and DEMO sets with digital content that makes previously invisible processes immediately understandable.
Our PHYWE AR app overlays these effects directly onto the real experimental setup on a tablet:

Electric currents, chemical reactions, biological processes, and many other phenomena suddenly become visible. Your students can see exactly what is happening in the experiment: abstract concepts become tangible and physical understanding grows.

Thanks to the integration of Cobra SMARTsense sensors, the AR app displays real-time measurements such as force, voltage, and CO_2 concentration. Whether in class with a real setup, as a digital twin, or as a simulation at home — learn whenever and wherever you want!

Award-Winning Concept

PHYWE Augmented Reality was recognized with the **delina Innovation Award for Digital Education 2025** (1st place) as a didactically well-designed and visually compelling solution for teaching scientific concepts.

Invisible becomes visible

Abstract becomes understandable

Dangerous becomes harmless

Learn more:
www.phywe.com/ar

Discover curricuLAB®

Direct access to digital experiment guides and interactive content for modern science teaching!

www.curriculab.com

curricuLAB®

The Awarded Teaching and Learning Platform for Natural Sciences

curricuLAB®
Free trial

Designed for experiment-based science teaching, curricuLAB® provides thousands of curriculum-aligned, pedagogically sound, and interactive experiment guides that help teachers prepare, conduct, and enrich practical lessons.

Interactive elements such as quizzes, simulations, and drag-and-drop activities boost student motivation and support active learning.

The platform is easy to use and enables a fast entry into digital science teaching with no extensive technical knowledge required.

Teachers can adapt existing content, create their own experiments, and share them with colleagues. Available in multiple languages and independent of devices or platforms, curricuLAB® fits easily into international science teaching and common digital learning environments.

Available Languages

All curricuLAB® contents are available in many different languages, including:

PHYWE Physics Highlights

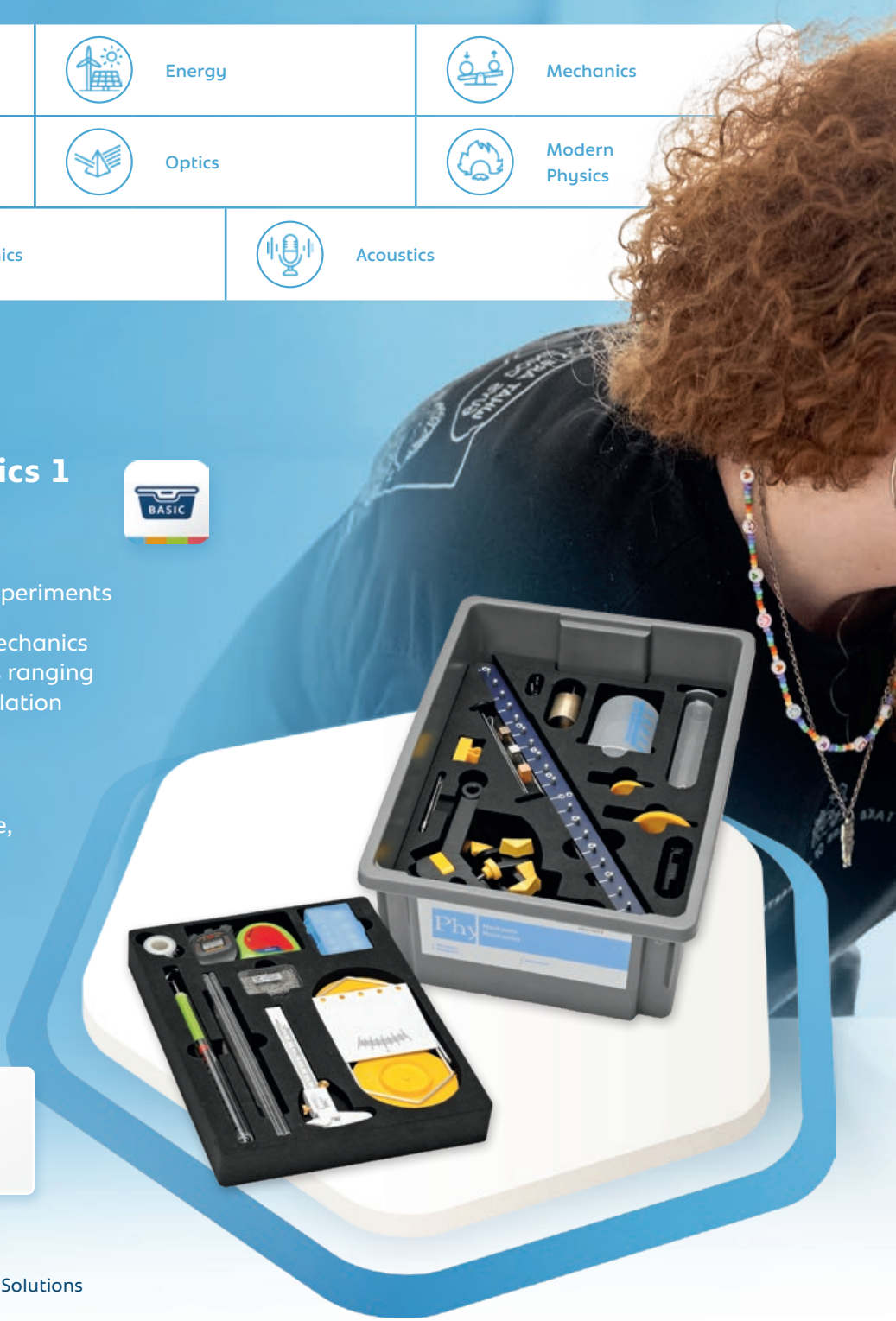
Where the Laws of the Universe Come Alive

PHYWE turns physics into hands-on learning — clear, digital, and classroom-ready. We develop robust, intuitive experiment systems for electricity, mechanics, optics, and more, from single measurement setups to complete lab collections.

With Cobra SMARTsense, the measureAPP, PHYWE Augmented Reality, and curricuLAB®, experiments become interactive: measure, visualize, and analyze results instantly. Clear instructions save prep time and help students understand physics concepts faster.

Covered Topics:

Electricity and Magnetism	Energy	Mechanics
Dynamics and Linear Movement	Optics	Modern Physics
Heat and Thermodynamics	Acoustics	



Student Set Mechanics 1

BASIC

TESS advanced Physics

Art. No. 25271-88 30+ Experiments

Explore the fundamentals of mechanics through a series of experiments ranging from Hooke's law to forced oscillation and resonance.

- The modular supporting materials are flexible to use, durable, and stable.
- The color coding of the moving parts makes it easier to follow mechanical processes in the experiment.

Learn more:
www.phywe.com/physics/mechanics


Augmented Reality
content is available
for many TESS sets!
ar

Student Set Electricity 1 with Building Blocks

TESS advanced Physics

Art. No. 25264-88 25+ Experiments

Explore the fundamentals of electricity through a series of experiments ranging from Ohm's law to electrolysis.

- High-quality components with printed electrical symbols and a transparent back
- Secure contact setup thanks to puzzle-like connectable components with corrosion-resistant contacts
- Low voltage for maximum safety

Learn more:
www.phywe.com/physics/electricity-magnetism

Learn more:
www.phywe.com/sensors-software/cobra-digicart-system

Cobra DigiCart

DEMO Expert Physics

Art. No. 12940-88 10+ Experiments

DigiCart Expert Set is a digital experimentation system for mechanics. Two carts with integrated sensors record precise data on relative position, speed and force. Wireless transmission via app enables direct analysis in the classroom.

- High-quality, low-friction, and extremely robust 1.2-meter roller track
- Durable, smooth-running carts for precise motion data collection
- Integrated sensors for wireless data acquisition and analysis in LABsense app.

LABsense
App support

Cobra DigiMotion

DEMO Expert Physics

Art. No. 12975-88 9 Experiments

Cobra DigiMotion is a comprehensive system for investigating two-dimensional motion. It was designed specifically for middle and high school physics and enables clear study of mechanical processes. It covers core curriculum topics such as dynamics, kinematics, oscillations, and energy.

Electromagnetic induction continuously and precisely captures the motion of a signal source (MotionDot) on the board (MotionBoard) and displays it in real time.

- Ideal for student experiments on core topics in mechanics
- Quick setup and straightforward experiment execution
- Integrated sensors enable precise digital measurements
- Real-time results in LABsense app

2D Motion Experiments with Cobra DigiMotion and LABsense

Flexible experimental setups; precise measurement results: Cobra DigiMotion sets offer a wide range of different experimental setups. All motion sequences in the experiments can be visualized and analyzed in real time in PHYWE LABsense app.

LABsense
App support

Oscillatory Motion

Basic and Expert Sets

Gravitational acceleration
(Experiment No. P6210000)

Damped oscillation
(Experiment No. P6211000)

Projectile Motion

Basic and Expert Sets

Horizontal projectile motion
(Experiment No. P6212000)

Oblique projectile motion
(Experiment No. P6213000)

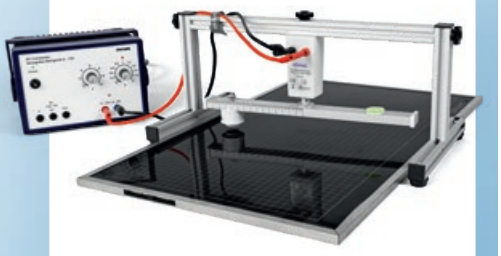
Free Fall

Basic and Expert Sets

Free fall
(Experiment No. P6214000)

Energy conservation
(Experiment No. P6215000)

Learn more:
www.phywe.com/sensors-software/cobra-digimotion



Rotational Motion

Expert Set

Investigate rotational motion with a motor-driven rotating arm

(☰ Experiment No. P6216000)

Centrifugal Motion

Expert Set

Verify Newton's second law using centrifugal motion

(☰ Experiment No. P6217000)

Superposition of Motions

Expert Set

Resolution into horizontal and vertical components

(☰ Experiment No. P6218000)

PHYWE Chemistry Highlights

Every Reaction Tells a Story

Chemical phenomena shape many of our everyday experiences, often without us consciously noticing them. Why is salt spread on the roads in winter? Why does water boil at temperatures below 100 °C on Mount Everest? And how does chemistry define the batteries and materials inside the devices we use every day?

Answers to these everyday questions deepen our understanding of the world around us, from particles to the global scale, and empower us to develop today's solutions for the challenges of tomorrow.

PHYWE turns chemistry into hands-on learning — clear, digital, and classroom-ready. We develop robust, intuitive experiment systems for inorganic, organic, electrochemistry, and more, from single measurement setups to complete lab collections.

Covered Topics:

- Atomic and Molecular Chemistry
- General Chemistry
- Inorganic Chemistry
- Organic Chemistry
- Physical Chemistry
- Analytical Chemistry
- Industrial Chemistry

Student Set General Chemistry

TESS advanced Chemistry

Art. No. 25300-88 20+ Experiments

Explore general chemistry through a series of experiments ranging from substance identification to chromatography.

- Understand the chemical foundation for many everyday phenomena
- Chemistry from every angle: characterization, reactivity and separation in one set
- Data logging with the Cobra SMARTsense Temperature sensor opens new ways of learning

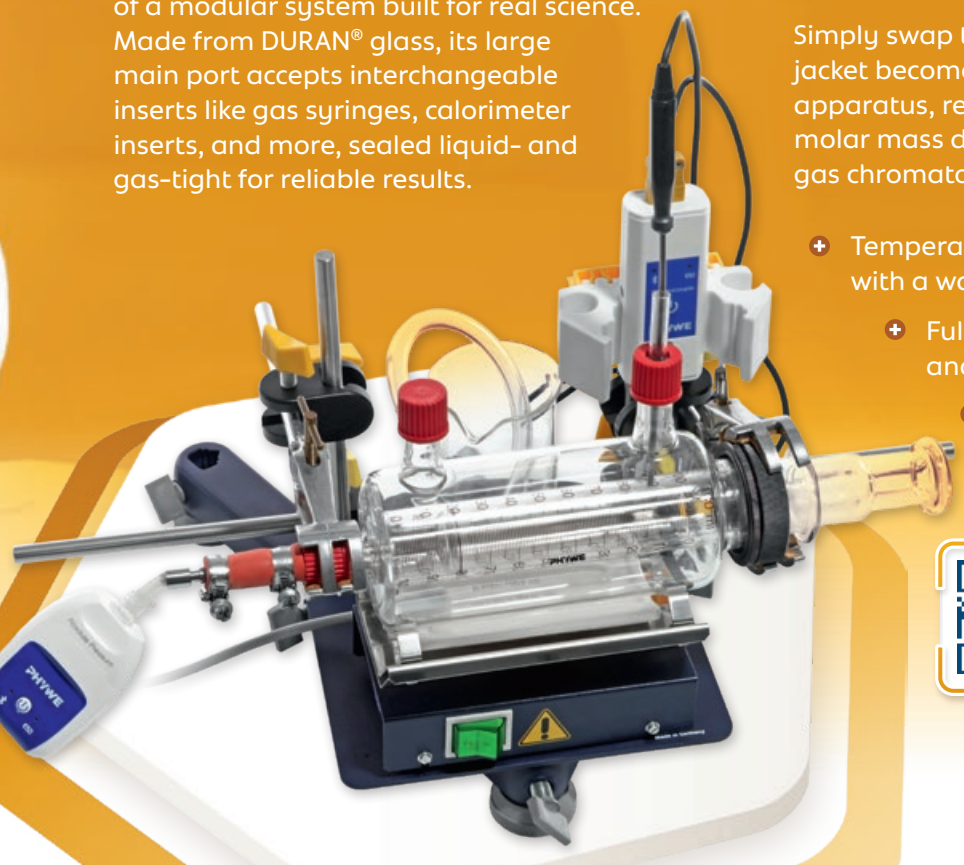
Learn more:
www.phywe.com/chemistry/general-chemistry

Glass Jacket System

Laboratory Glassware

Art. No. 43022-00 8+ Experiments

PHYWE's glass jacket is the centerpiece of a modular system built for real science. Made from DURAN® glass, its large main port accepts interchangeable inserts like gas syringes, calorimeter inserts, and more, sealed liquid- and gas-tight for reliable results.



Two upper ports fit thermometers, sensors, or glass tubes and serve as filling inlets. A hose connector ensures safe overflow drainage.

Simply swap the insert and the glass jacket becomes a completely different apparatus, ready for gas law measurements, molar mass determination, calorimetry, gas chromatography, or steam distillation.

- Temperature control of the insert with a water bath
- Fully digital through Cobra SMARTsense and PHYWE's free measureAPP
- Can be extended with many additional inserts for performing various experiments

Learn more:
www.phywe.com/equipment-accessories/laboratory-material-glass

Student Set Electrochemistry

BASIC

TESS advanced Chemistry

Art. No. 25307-88

20+ Experiments

Explore the fundamentals of electrochemistry through a series of experiments ranging from the potato battery to Faraday's laws.

- Electrochemistry combines experiments from physical chemistry with material science
- Digital data logging with Cobra SMARTsense Voltage and Current opens new ways of learning
- Invisible molecules and ions become visible with PHYWE Augmented Reality!

Learn more:

www.phywe.com/chemistry/physical-chemistry

Chemistry Demo Experiments

Basic Set

Art. No. 45560-00 10+ Experiments

PHYWE's Chemistry Demo Experiments system transforms your demonstrations into clearly visible, structured front-of-class experiments. Designed specifically for teacher-led demonstrations, the magnetic experiment board allows apparatus to be securely arranged, pre-assembled, and exchanged within seconds — making complex experimental setups faster to prepare, easier to present, and more reliable during lessons.

- Secure fixation of components with magnetic and clamp-based mounting.
- Clear visibility thanks to the stable board design with reduced backlight interference.
- Enables both demonstration of chemical phenomena and quantitative experiment analysis.

Learn more:

www.phywe.com/equipment-accessories/support-material-magnetic-boards/system-chemistry-on-the-board

PHYWE Biology Highlights

Discovering the Blueprints of Life

Biology, as a core school subject, imparts fundamental knowledge about the body, nature and the environment. It helps students understand biological processes such as the immune system, digestion and reproduction. This enables them to make informed decisions about health and disease prevention.

The subject raises awareness of ecology, climate change and biodiversity.

Students learn how human actions affect nature and develop a sense of responsibility for preserving the foundations of life. Biology trains scientific thinking, experimentation and problem solving. It prepares students for future issues such as health, nutrition and climate protection and strengthens rational decision-making.

Covered Topics:

- Human Physiology
- Ecology and Environment
- Biochemistry and Plant Physiology
- Microbiology and Genetics
- Microscopy and Cell Biology
- Animal Physiology
- Neurobiology
- Imaging Techniques

Student Set The Eye

TESS advanced Biology

Art. No. 25270-88 20+ Experiments

Discover the basics of vision together with your school class – from how the human eye works to visual impairments, clinical pictures and phenomenological experiments.

- Combine your own observations with insights from the model
- Demonstrate optical phenomena such as image formation, refraction and accommodation in an understandable way
- Extra-large eye hemispheres for a clear experimental setup
- Promote interdisciplinary learning: ideal for both physics and biology lessons

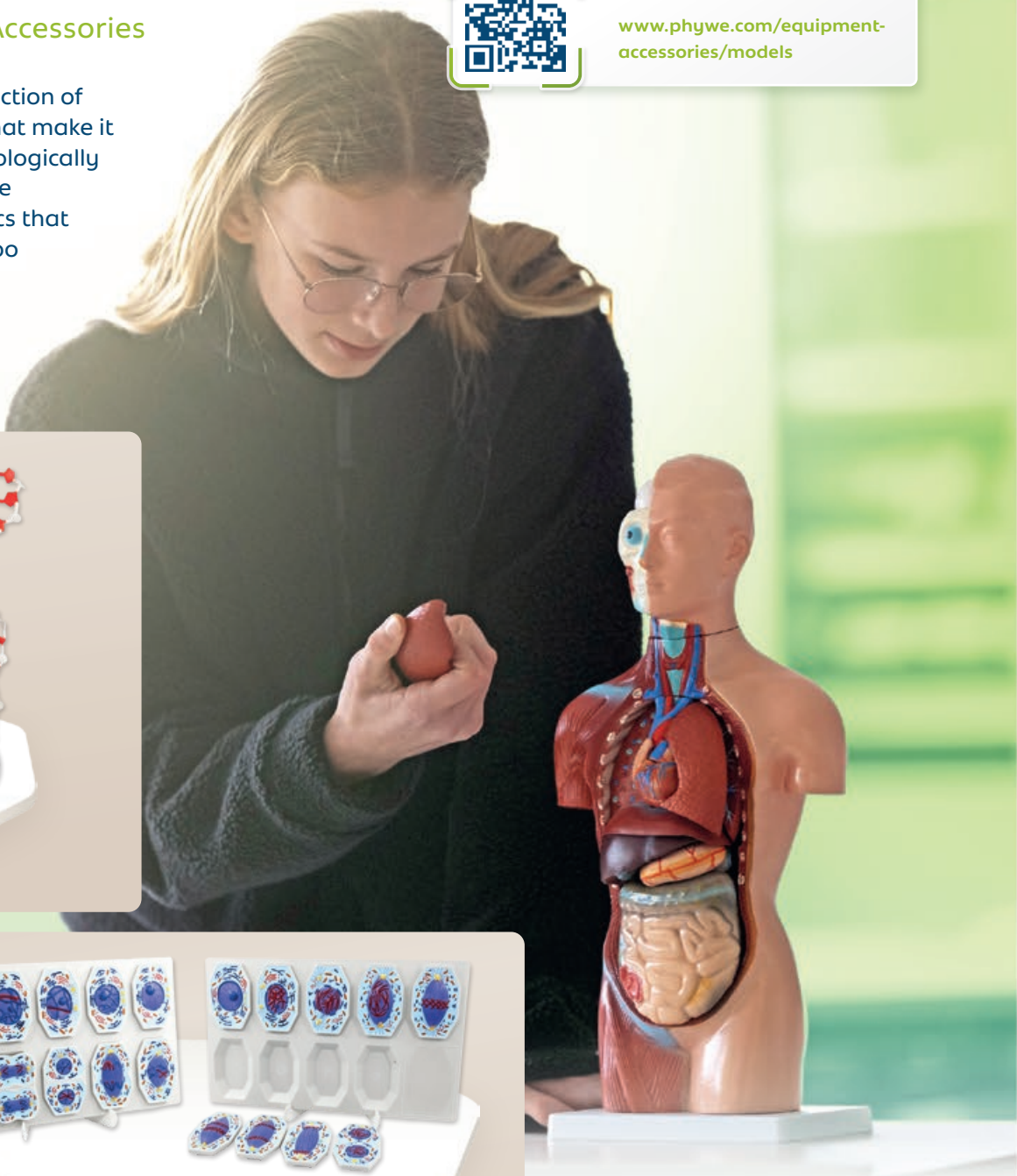
Learn more:
www.phywe.com/biology/human-physiology

Biology Models

Equipment and Accessories

Discover our wide selection of anatomical models that make it possible to explore biologically relevant topics in three dimensions — for topics that would otherwise be too small or inaccessible.

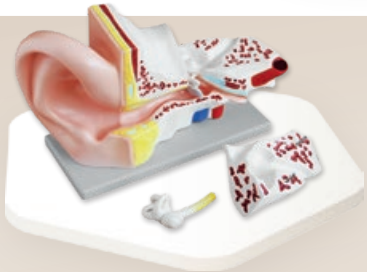
Learn more:
www.phywe.com/equipment-accessories/models



DNA
Art. No. 39853-00

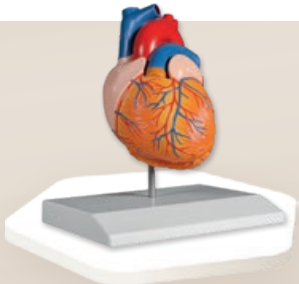
Mitosis and Meiosis
Art. No. MOD-GENETICS

Mini-Torso
Art. No. MOD-MINITORSO



Human Ear
Art. No. MOD-EAR

Human Eye
Art. No. MOD-EYE



Human Heart
Art. No. MOD-HEART

OPTIKA® Demo Microscopes

Digital Screen Microscopes

- Large 7-inch LCD monitor
- Image and video capture functions
- Full-HD sensor resolution for details
- Onboard software with intuitive menu

Learn more:
www.phywe.com/equipment-accessories/microscopes

Student Set Microscopy

TESS advanced Biology

Art. No. 15290-88 50+ Experiments

Perform a wide range of microscopy exercises — from basic work techniques to the examination of plant, animal and microbial structures. The extensive selection of specimens and materials enables varied student experiments without gathering additional equipment.

- Ready-made specimens from botany, zoology, anatomy and genetics
- Extensive tools and materials for making your own specimens

PHYWE STEM Highlights

Applied Sciences — Imagination Becomes Reality

STEM education connects science, technology, engineering, and mathematics to real-world questions and helps students turn curiosity into practical solutions. Whether it's programming a simple system, building automated processes, or investigating environmental phenomena: STEM makes learning active, creative, and future-oriented. Students develop key skills like problem solving, critical thinking, collaboration, and digital literacy. Competencies that matter far beyond the classroom.

PHYWE supports STEM teaching with hands-on, classroom-ready solutions that are robust, intuitive, and easy to integrate. From coding and automation to renewable energy and environmental analysis, our systems help students explore complex topics through clear and engaging projects.

Covered Topics:

- Exploring Science and Technology
- Coding and Maker
- Environment and Sustainability
- Applied Technology
- Applied Science

PHYWE CubiCode Expert Set

TESS advanced Applied Sciences

BASIC

Art. No. 14800-88 15+ Experiments

PHYWE CubiCode guides students and makers through their first steps in programming. Using sensors, actuators, and Blockly, they can quickly create their own programs and explore real-world applications in a playful way — from traffic light control to parking assistants or even simple smart-home solutions.

PHYWE CubiCode Expert Set comes with 11 sensors and 9 actuators that magnetically connect via CubiLink modules, and wirelessly with the control center.

- Coding with Blockly is suitable for students from primary school onward — no programming knowledge required
- Compatible with many construction bricks for creative makers
- Interactive control through Bluetooth via mobile or desktop app (Android, iOS, Windows) and the programmable control center
- Expandable with even more sensors, actuators, and CubiLinks

Learn more:
www.phywe.com/sensors-software/cubicode

Student Set Renewable Energy 1

TESS advanced Applied Sciences

Art. No. 25287-88 15+ Experiments

The basic set introduces your students specifically to the thermally driven aspects of renewable energy. Among other things, solar thermal energy, the Peltier/Seebeck effect, and the greenhouse effect are examined — using clearly measurable quantities such as temperature differences, heat flow, and efficiency.

- Solar collector with flow indicator: heat transport becomes visible
- Peltier thermogenerator and 12 V / 20 W lamp for quantitative thermo- and electro-experiments
- Two thermometers and black/metallic beakers: direct absorber and ΔT comparisons

Learn more:
www.phywe.com/equipment-accessories/stem/renewable-energies

Cobra SMARTsense Code

Entry-Level Programming Actuator

Art. No. 12953-00 15+ Experiments

Add the one component that changes everything to your Cobra SMARTsense family. Until now, your sensors have measured and recorded. With Cobra SMARTsense Code, students don't just observe, they take control for the first time.

Readings no longer just appear on screen; they trigger real responses. Switchable relays, LEDs, a speaker, and a color display turn every measurement into genuine control — all programmed effortlessly with Blockly.

That's how coding comes to life in any science subject.

Built with Blockly

Learn more:
www.phywe.com/sensors-software/cobra-smartsense/cobra-smartsense-code

Student Set Environment and Outdoors Digital

TESS advanced Biology

Art. No. 15+ Experiments

Conduct versatile environmental analyses outdoors together with your students. The weather station and GPS function open up new possibilities for addressing ecological issues directly on site.

- Ideal for class excursions
- Record weather data and locations in the field
- Uses Cobra SMARTlink tablet as a measurement display
- With measurement sensors for air, water, and soil temperature, air pressure and humidity, pH value, conductivity and salinity of water and soil samples, soil moisture, water turbidity, and weather parameters

Learn more:
www.phywe.com/biology/ecology-and-environment

SMARTfloor Puzzle

Playful Learning through Movement

Learn more:
www.smartfloor.io/puzzle

Art. No. 12820-99

SMARTfloor turns movement into an interactive digital learning experience. It detects actions such as jumping, hopping, or tapping and translates them into control signals for digital applications. This makes SMARTfloor an ideal playful introduction to programming with SCRATCH.

Students can create their own learning games, test them directly through movement, and develop them further together — making it a natural fit for STEM education.

- Scalable versions with 2, 4, or 16 sensor fields
- Quick and easy to set up, store, and transport
- Instant feedback through playable, movement-based testing on SMARTfloor
- Compatible with screens, projectors, TVs, tablets, and smartphones

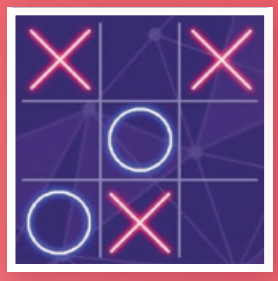
Apps and Games

SMARTfloor comes with a selection of pre-installed games that are ready to play, but also serve as illustrative examples for programming your own custom apps.

Simon Says

Memory game

Simon presents sequences of numbers to be entered via the SMARTfloor device — the faster you react, the more points can be earned!



Tic Tac Toe

Movement game

Multiplayer game

Circle or cross — who completes a row first? A classic game now playable on SMARTfloor!

Further Topics

For your Hands-on Science Lessons

Our TESS experiment sets cover a wide range of science topics for your lessons. They help connect theoretical foundations with hands-on experience and open up a variety of further fascinating fields of natural science:

TESS Physics	Art. No.
Mechanics 1	25271-88
Mechanics 2	15272-88
Linear Motion (with Timer 2-1)	15283-88
Acoustics 1	25289-88
Acoustics 2	15321-88
Heat 1	25274-88
Heat 2	15275-88
Optics 1 (with Light Box)	25276-88
Optics 1 (with LED-/Laser Light Source)	25278-88
Optics 2	25277-88
Optics 3	25280-88
Optics/Atomic Physics	15350-88
Wave Optics	25280-88D
Electrostatics	15240-88
Magnetism	25230-88
Equipotential Lines and Electric Fields	15250-88
Electric Motor/Generator	15221-88
Electricity 1 (with Building Blocks)	25264-88
Electricity/Electronics 2 (with Building Blocks)	25266-88
Electricity/Electronics 3 (with Building Blocks)	25267-88
Electromagnetism	25269-88D
Radioactivity	25261-88

TESS Chemistry	Art. No.
General Chemistry	25300-88
Inorganic Chemistry	25301-88
Acids, Bases, Salts	25302-88
Titration and Analytical Chemistry	25303-88
Organic Chemistry	25304-88
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