
LJ CREATE™
Learning for life

# Innovative Learning Spaces

## Introducing our range of Career Pathways Labs

# Career Pathways Labs

We pride ourselves on the innovative learning spaces that we produce for a wide range of STEM education and occupational disciplines. We customize these spaces to meet every customer's specific needs.

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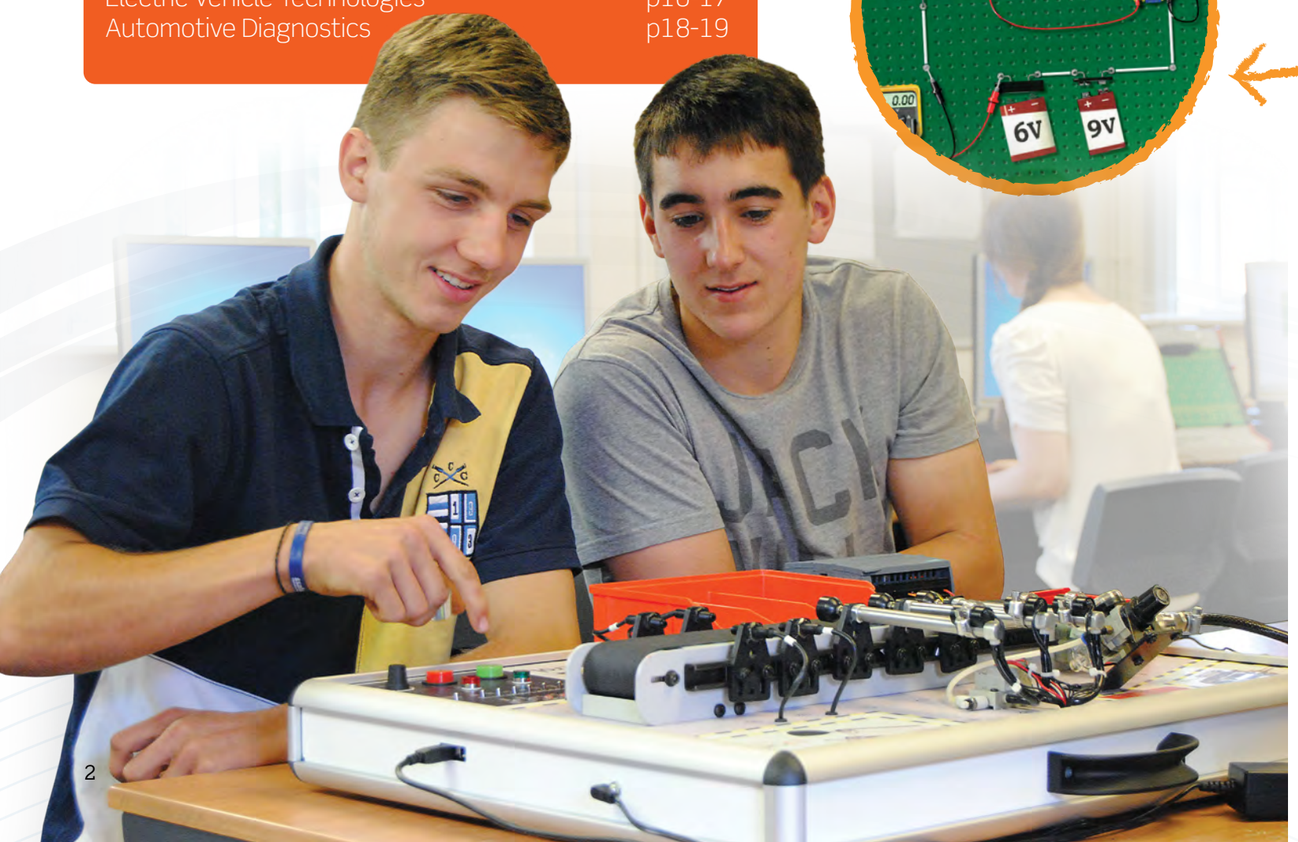
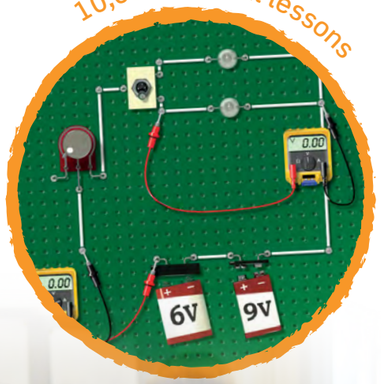






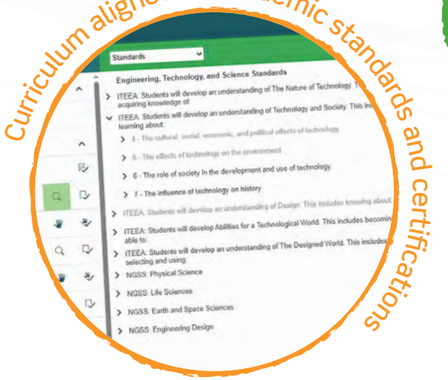


INNOVATIVE HARDWARE

EVERY LAB INCLUDES:

ONLINE LMS AND LESSON LIBRARIES

CONTINUING PROFESSIONAL DEVELOPMENT (CPD)





# Career Pathways Labs

Our Career Pathways Labs motivate students through engaging, hands-on activities that connect learning to real-world applications. With relevant content, constructive feedback, and personalized pathway options, students gain the skills and confidence to succeed.

## BUILDING SKILLS FOR SUCCESS

- Active learning lessons and projects build both cognitive and practical skills.
- Student-centered learning fosters responsibility and lifelong learning habits.
- Our extensive lesson library integrates science, math, language, career, and technical learning for a complete educational experience.

COMPUTATIONAL THINKING

COMMUNICATION

CREATIVITY

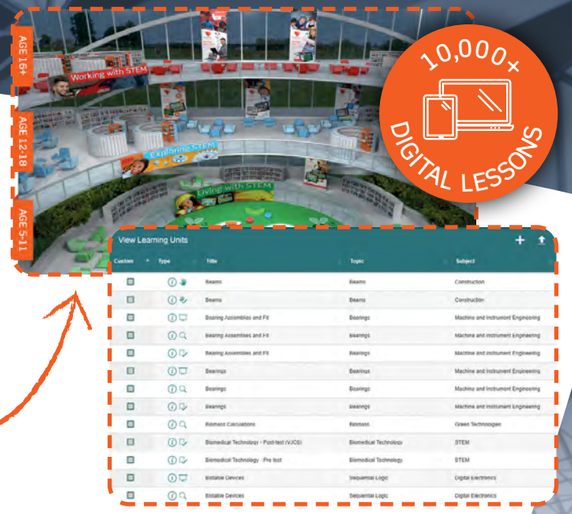
TEAMWORK

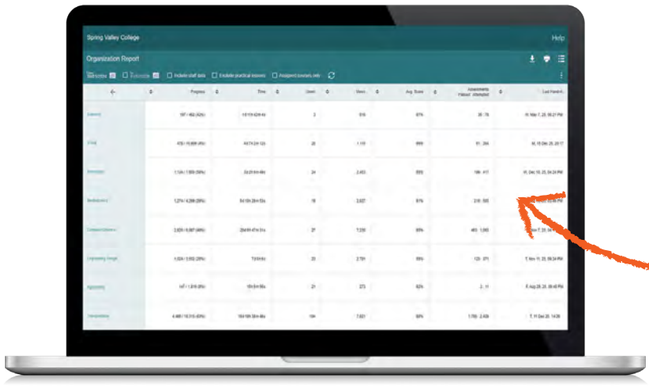
## ENGAGING STUDENTS, EMPOWERING EDUCATORS

- Students thrive in active learning sessions - gaining knowledge and skills through investigations, experiments, and projects.
- They take ownership of their learning, collaborating and working at their own pace.
- Teachers gain flexibility, spending less time on daily prep and more on guiding individual success.
- Instant LMS feedback motivates both students and staff, while the high-tech lab environment inspires pride across the school community.

## CONSISTENCY AND FLEXIBILITY

- A vast library of high-quality lessons gives teachers options for every class.
- Consistent lesson design supports smooth movement of students between courses and multi-year programs.
- Even when there are teacher transitions or a non-specialist covers a class, activities continue seamlessly, ensuring uninterrupted learning.



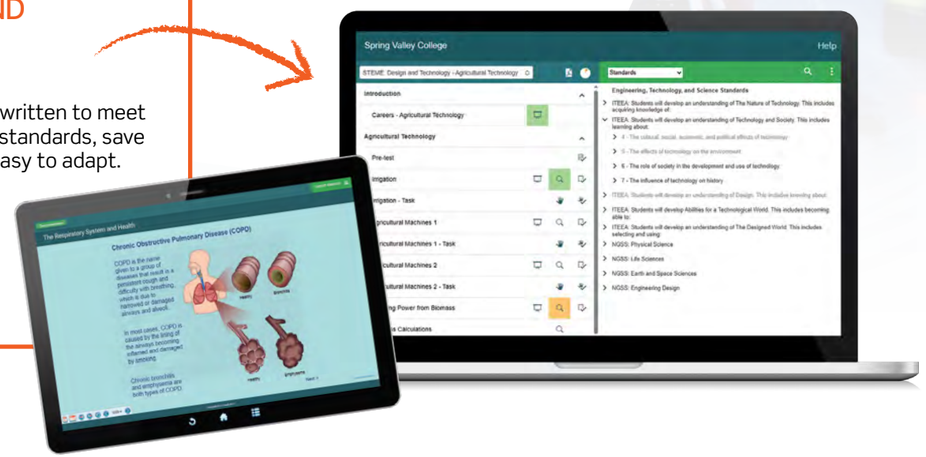




## FOCUSED ON RESULTS

- Our labs are built to improve learning outcomes at every level.
- Lessons are aligned with objectives and standards, with pre- and post-assessments to measure growth.
- The LMS tracks progress, giving educators the data needed for timely support.
- Integrated academic tasks reinforce math, science, and language skills through in-context, just-in-time learning.

## STREAMLINED AND SUPPORTIVE FOR TEACHERS

- Preconfigured lessons, written to meet industry and academic standards, save planning time and are easy to adapt.
- With most students self-directed, teachers can focus on those who need extra help or advanced challenges.



Innovative learning spaces for:

# Elementary Career Exploration

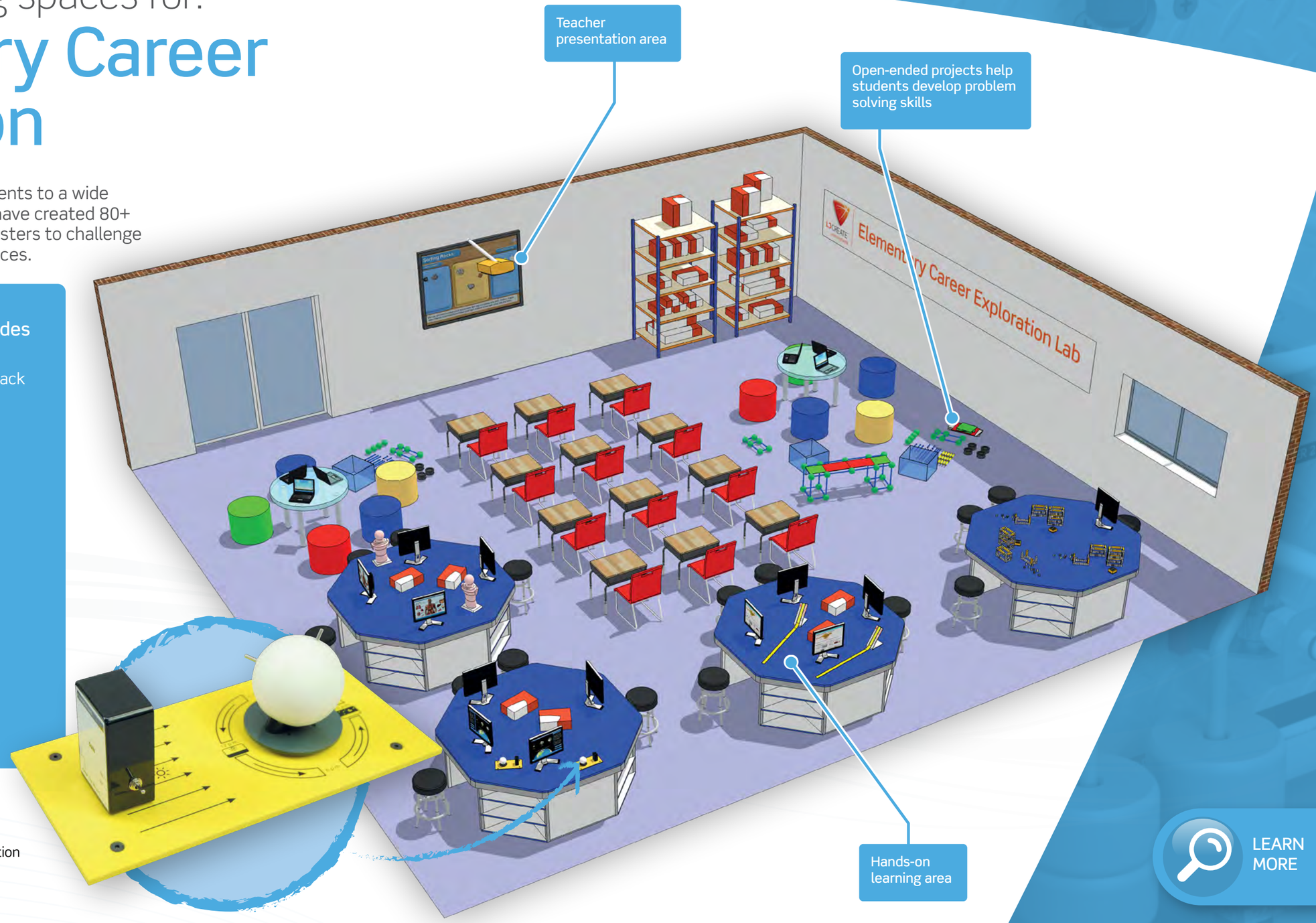
Designed to introduce Elementary students to a wide range of STEM career experiences, we have created 80+ hands-on activities in 8 STEM career clusters to challenge students and introduce career experiences.

### A typical Elementary Career Exploration Lab configuration includes the following resources:

- Elementary Engineering Construction Pack
- Robot Programming Device
- Data logging Kit
- Electrical Circuits Kit
- Energy of the Wind Pack
- Handheld Microscope
- Apparatus Kit
- Problem Solving Kit
- Human Torso Kit
- Human Biology Kit
- Sound and Light Kit
- Properties of Materials Kit
- Motion Kit
- Forces Kit
- Energy and Speed Kit
- Pollination Class Activity Pack
- Optics Class Activity Pack
- Teacher Math Kit

## IN FOCUS:
## PLANETARIUM KIT (500-12)

The Planetarium Kit is used to explore the interaction and relationships between the Sun and Earth. The equipment enables hands-on investigations into night and day, as well as the seasons.

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Innovative learning spaces for:

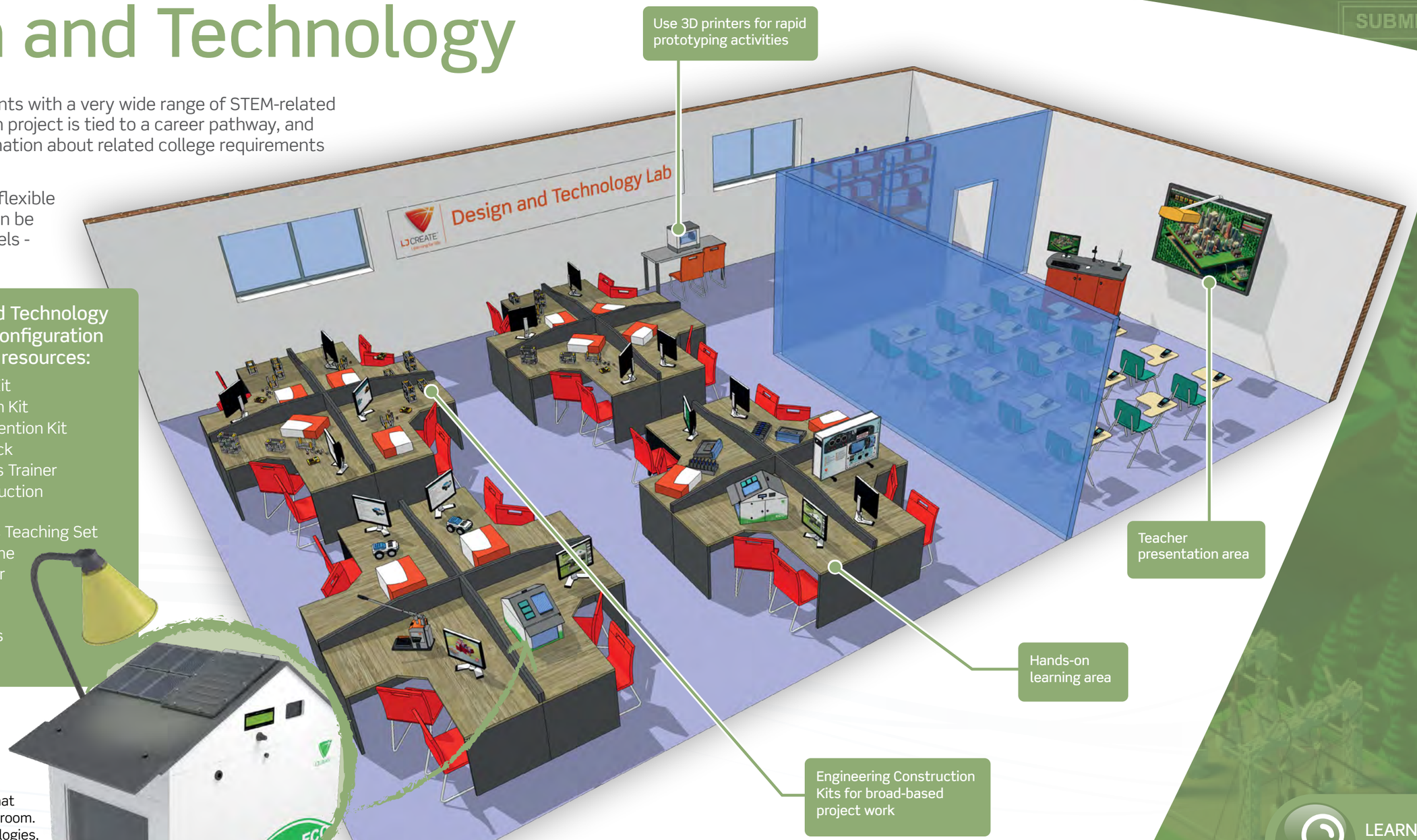
# Design and Technology

This space provides students with a very wide range of STEM-related projects to complete. Each project is tied to a career pathway, and instruction includes information about related college requirements and all levels of careers.

The program is extremely flexible for implementation and can be used across five grade levels - six through ten.

## This typical Design and Technology Career Pathways Lab configuration includes the following resources:

- Biomedical Technology Kit
- Engineering Construction Kit
- Educational Robotics Invention Kit
- Fluid Power Resource Pack
- Green Energy in Buildings Trainer
- Sustainable Energy Production Student Resource Pack
- Structures and Materials Teaching Set
- Rapid Prototyping Machine
- Electronic Circuits Trainer Teaching Set
- Injection Molding Trainer
- Displays and Accessories Panel Trainer




## IN FOCUS: GREEN ENERGY IN BUILDINGS TRAINER (122-01)

This package offers a resource that puts a model home into the classroom. Users investigate lighting technologies, insulation properties, and glazing, in addition to green energy production and related topics.

Innovative learning spaces for:

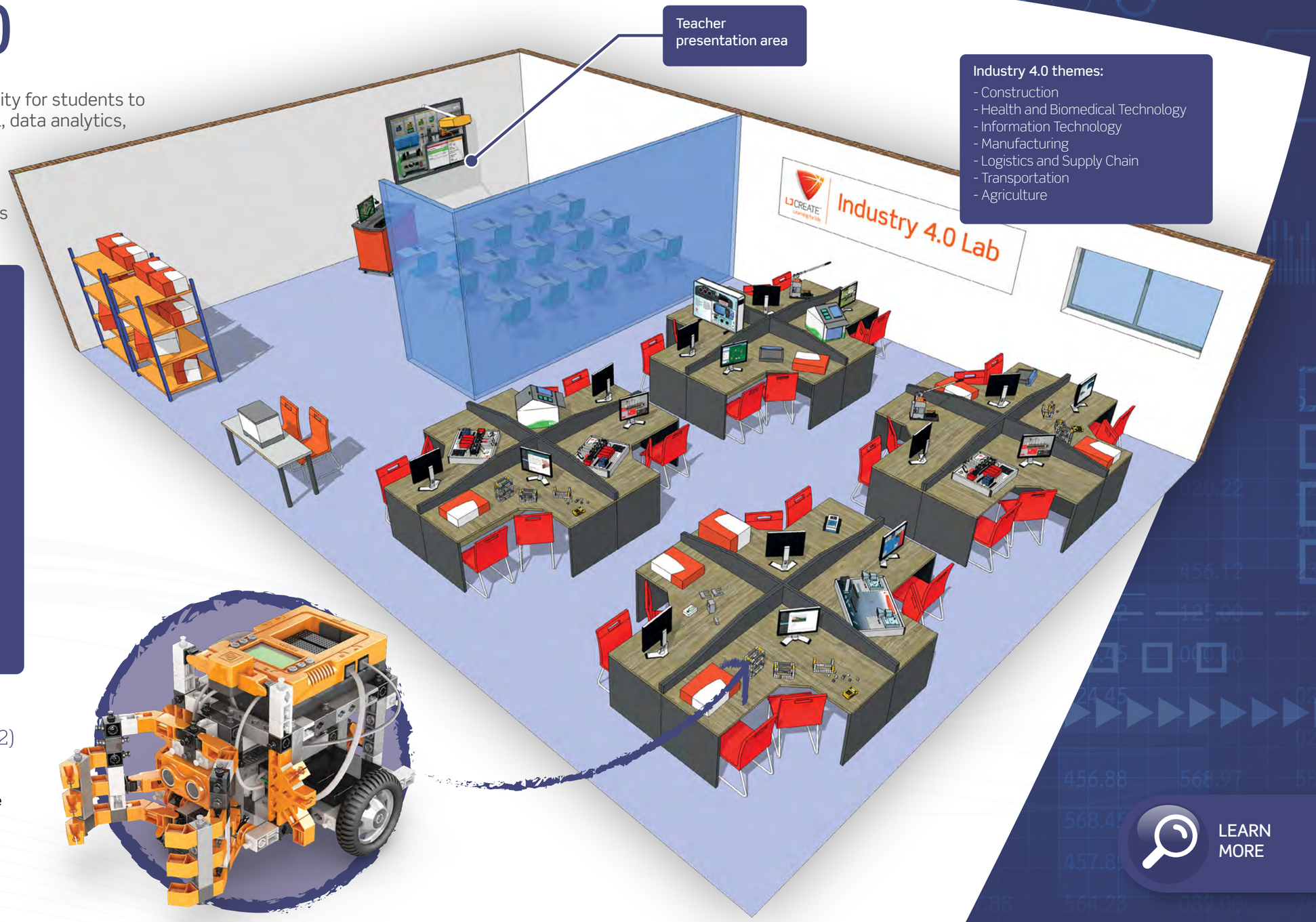
# Industry 4.0

The Industry 4.0 Lab will provide the opportunity for students to explore concepts such as sensors and control, data analytics, and the efficient utilization of resources.

The program is designed to provide students with the skills and expertise they need to succeed in high school, college, industrial skills programs, and industry certification courses.

## A typical Industry 4.0 Lab configuration includes the following resources:

- Biomedical Technology Kit
- Engineering Construction Kit
- Basic Electricity Trainer
- Educational Robotics Invention Kit
- Green Energy in Buildings Trainer
- Sustainable Energy Production Student Resource Pack
- Electronic Circuits Trainer Teaching Set
- Structures and Materials Teaching Set
- Industrial Control Trainer
- Machine Tools Class pack
- Wireless Smart Sensors
- Displays and Accessories Systems Trainer
- Injection Molding Trainer
- Electronic Communications Trainer






## IN FOCUS:
### ENGINEERING CONSTRUCTION KIT (220-02)

The Engineering Construction Kit is a classroom-based resource for investigating designing, building and programming robotic and automated machinery in a range of areas of technology.

These areas include engineering design, agricultural technology, medical technology, mechatronics, industrial robotics, mobile robotics and transportation technology.

LEARN MORE

Innovative learning spaces for:

# Electronics

Students learn the necessary cognitive and practical skills for many technical occupations involving electrical or electronic systems.

These include: Medical Equipment Technician, IT Support, Manufacturing Maintenance and Audio Support Technician. Includes courses aligned to the ETA Student Electronics Technician certification standards.

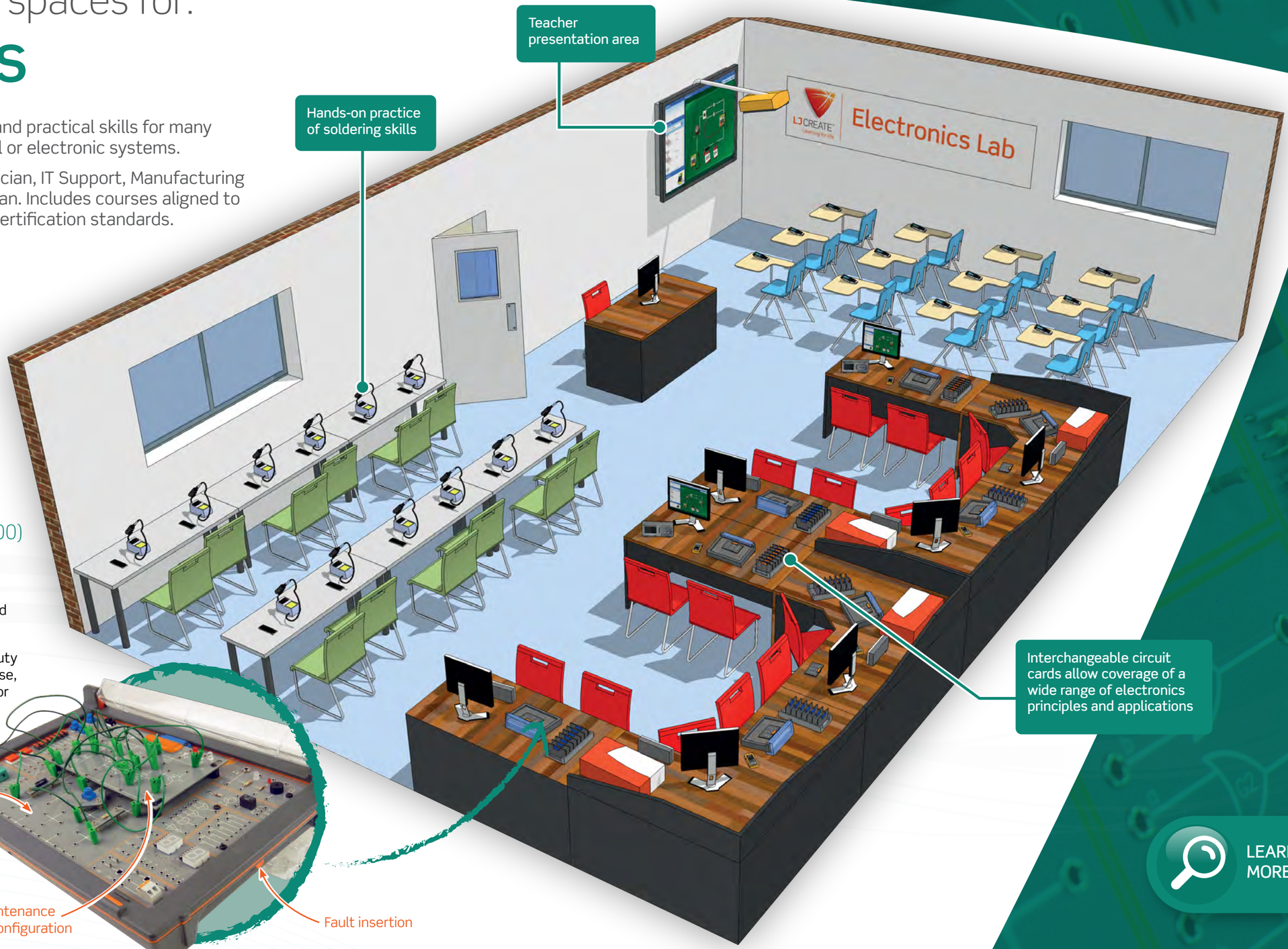
## This typical Electronics Lab configuration includes the following resources:

- Electronics Study Trainer
- Instrumentation Pack
- Circuit Card Set
- Electronic Circuits Consumable Pack
- Circuit Soldering Station and Tools

## IN FOCUS:
### ELECTRONICS STUDY TRAINER (320-00)

This trainer is part of the core electronics series. It allows the practical study of a wide range of electronics subjects, including DC and AC circuits, electrical networks, semiconductors, logic gates and fault-finding techniques.

The unique design of the trainer includes a heavy-duty casing with transparent protective cover. When in use, the cover folds back to provide an angled support for the unit. With the cover closed, trainers become stackable for easy storage.

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Innovative learning spaces for:

# Mechatronics

Students study Mechanical Systems, Control Systems, Fluid Power, and Electronics. Computer and device programming is included in many different forms for a diverse and rounded engineering experience.

Curriculum aligns with standards for Mechatronics and the requisite skills for apprenticeships.

**This typical Mechatronics Lab configuration includes the following resources:**

- Electronics Study Trainer
- Circuit Card Set
- Educational Robotics Invention Kit
- Hydraulics Trainer
- Mechanisms Trainer
- Pneumatics Trainer
- Industrial Control Trainer
- PLC Trainer
- Transducer and Instrumentation Trainer
- Motor Controls and Data Acquisition Teaching Set


## IN FOCUS:
### INDUSTRIAL CONTROL TRAINER (290-01)

The Industrial Control Trainer offers a classroom-based resource for practical investigation of automated control systems. Users can select from a range of prepared demonstration programs to explore how step-based ladder logic programs are used in automated systems.

Alternatively students can create their own programs and see them in action on the trainer using the included simulation package.


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Innovative learning spaces for:

# Electric Vehicle Technologies

Students learn the necessary skills and knowledge required to develop, integrate, maintain, and repair Electric and Hybrid Vehicle Technologies. A combination of hands-on trainers and comprehensive EV lessons combine to create a diverse learning experience.

**This typical Electric Vehicle Technologies Lab configuration includes the following:**

- Electric Vehicle Electronics Workstation
- Hybrid Vehicle Systems Panel Trainer
- Electric Vehicle Systems Panel Trainer
- EV Batteries and Charging Panel Trainer
- EV Motors and Generators Panel Trainer
- Electric Vehicle Charging Stations Panel Trainer
- Modern Auto Lighting Circuits Trainer
- Modern Starting and Charging Systems Trainer
- Modern Auxiliary Systems Trainer


## IN FOCUS:
### ELECTRIC VEHICLE SYSTEMS PANEL TRAINER (740-01)

This trainer provides students and instructors with the opportunity to demonstrate, investigate, and fault-find a simulation of the electrical system of a typical electric vehicle.

A power flow mimic allows students to investigate the effects of regenerative braking, and on-board diagnostics can be explored via the intelligent display panel.




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Innovative learning spaces for:

# Automotive Diagnostics

Modern vehicle systems are linked together by a series of computers, which run everything at high speed.

The use of diagnosis tools and subsequent troubleshooting is the most required skill in the current automotive industry.

**This typical Automotive Diagnostics Lab configuration includes the following:**

- Auto Electronics Trainer
- Modern Starting and Charging Systems Trainer
- Modern Auto Lighting Circuits Trainer
- Modern Auxiliary Systems Trainer
- Engine Trainer with Fault Insertion
- Distributorless Ignition System Trainer
- Hybrid Vehicle Systems Panel Trainer


## IN FOCUS:
### MODERN STARTING AND CHARGING SYSTEMS TRAINER (720-02)

The board is focused on the starting and charging systems of a modern vehicle. Students are set tasks that encourage them to explore CAN Data Bus systems practically and also improve their knowledge of components, circuits, signals and systems. Students will also be directed to work through a number of fault-finding activities (8 in all), encouraging fault-diagnosis skills.

**Typical Activities Include:**

- Investigate high speed CAN Data Bus
- Perform CAN Bus conventional and advanced starting and charging system measurements
- Perform CAN Bus consumers measurements
- Diagnose 8 different CAN Bus starting and charging faults



Unique connection system represents the connectors on an actual vehicle, enabling realistic troubleshooting in the lab

LEARN MORE


For more information on our range of learning resources, please contact:

LJ Create

6900 Tavistock Lakes Blvd,
Suite 400
Orlando, FL 32827

**T:** 1-800-237-3482
**E:** info@ljcreate.com

ljcreate.com

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