ClassAct II Libraries

CLOUD-BASED LESSONS FOR: STEM, ELECTRONICS, ENGINEERING, VEHICLE REPAIR...AND MORE

LJ CREATE™
Learning for life

- Easy to use
- Integrated Learning Management System
- Unlimited users per site license
- Import student groups or have them self-register
- Thousands of interactive lessons
- STEM/Engineering/Electronics/Automotive...and more
- Courses aligned to industry standards
- Presentations for front-of-class or self-paced learning
- Applied investigations
- Student assessments

Student learning experience is based around 100+ interactive simulators

Mobile devices can be used to watch presentations, view investigations, and complete assessments
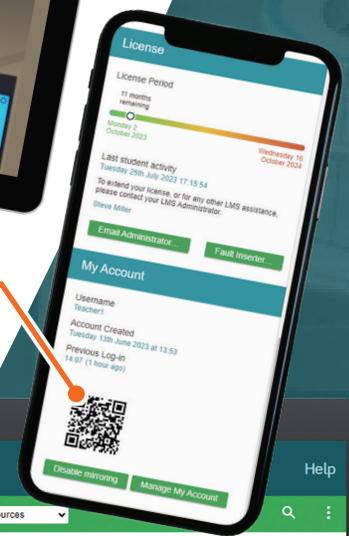
Courses Aligned to Industry Standards

Teacher Resources Available

Customizable Reports

Create Custom Courses and Lessons

Thousands of Lessons
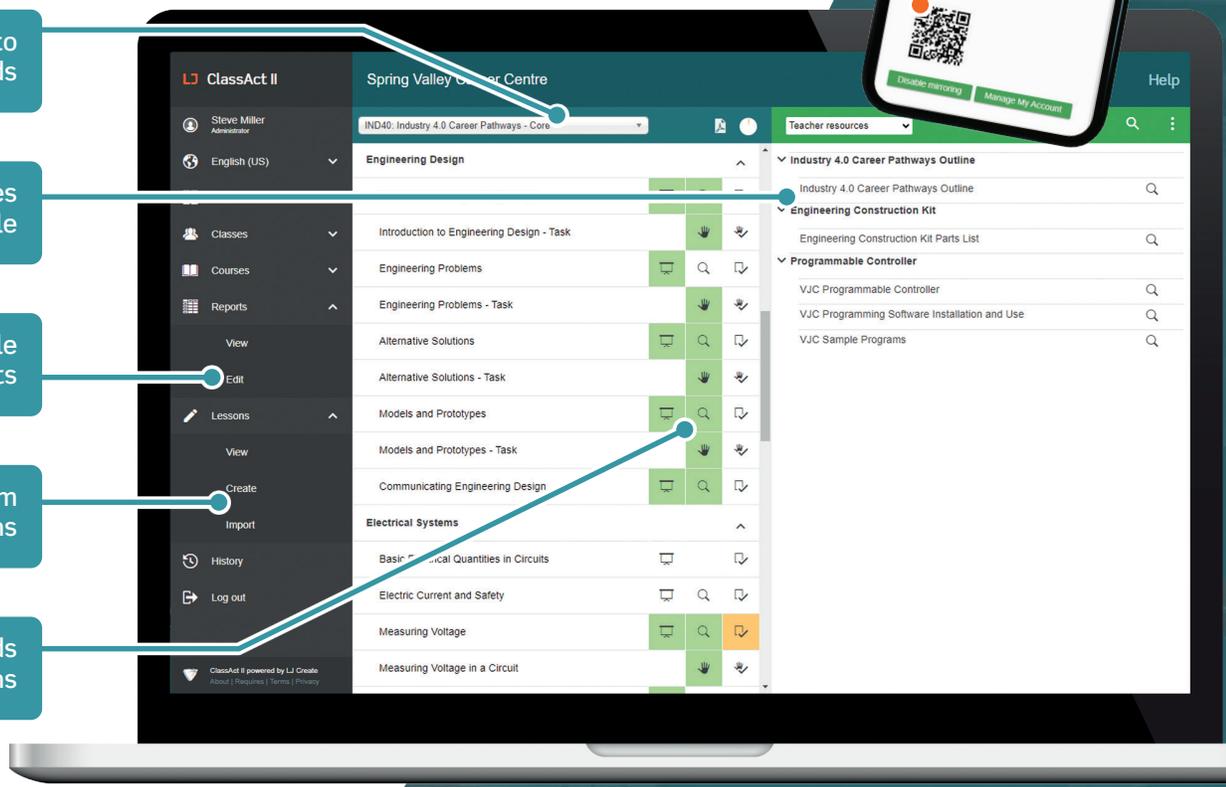
Automotive Repair Technology (6,000+ Lessons)

Topics:

- Automotive Workshop and Safety
- Engine Repair
- Fuel and Emissions
- Auto Electrical Fundamentals
- Automotive Lighting
- Automotive Starting and Charging
- Ignition Systems
- Hybrid Vehicle Technology
- EV Systems Technology
- EV Battery Operation
- EV Traction Motors
- EV Charging Systems
- Networked Systems
- CAN Bus Auxiliary Systems
- Brake Systems
- Steering and Suspension
- Manual Drive Trains and Axles
- Automatic Transmission and Transaxle
- Heating and Air Conditioning
- Passenger Safety Systems
- Engine Management and Control
- Land Cruiser Complete Vehicle Systems
- Heavy Vehicle Systems
- Dynamometers

COURSES ALIGNED TO **ASE EDUCATION FOUNDATION** STANDARDS
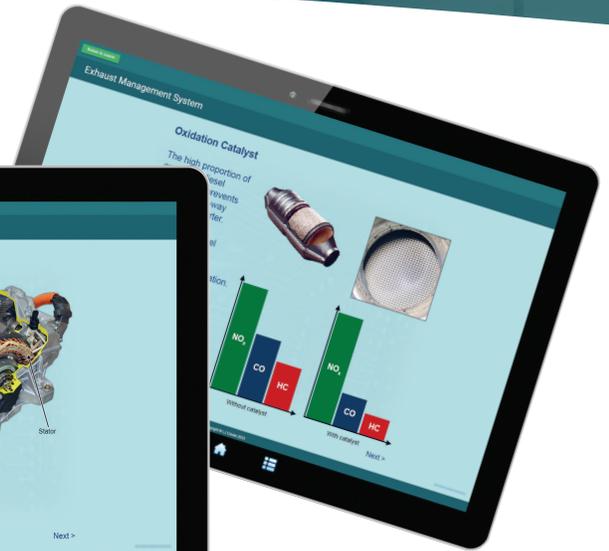
Realistic on-screen troubleshooting

Contains many automotive applications, including:
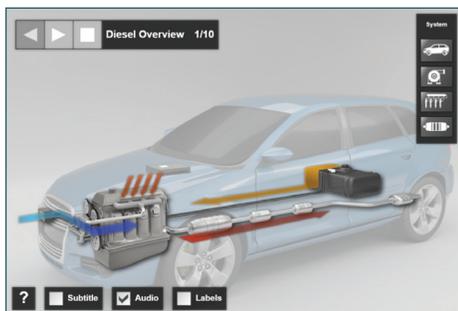
- Diesel engine explorer
- Virtual automotive electrics trainer
- Inverter conversion circuits application
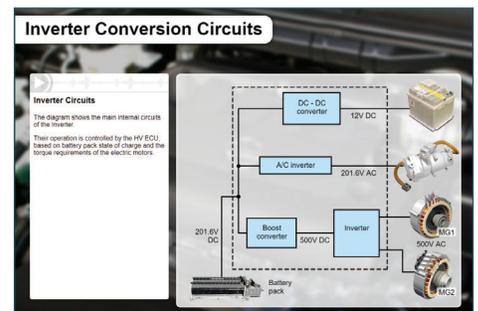
# Engineering Library (5,800+ Lessons)

Topics:

- Safety and Tools
- Engineering Design
- Mechanical Systems
- Fluid Power
- Materials Engineering
- Engineering Drawing
- Green Technologies
- Manufacturing Engineering
- Machine and Instrument Engineering
- Inspection, Maintenance and Quality Management
- Control Systems
- Industrial Control - Programmable Control Systems
- Electrical Engineering
- Electronic Systems
- Circuit Construction and Testing
- DC Circuits
- Electrical Networks
- AC Circuits
- Magnetism and Electromagnetism
- Semiconductors
- Linear Electronics
- Power Electronics
- Digital Electronics
- Telecommunications
- Microprocessors
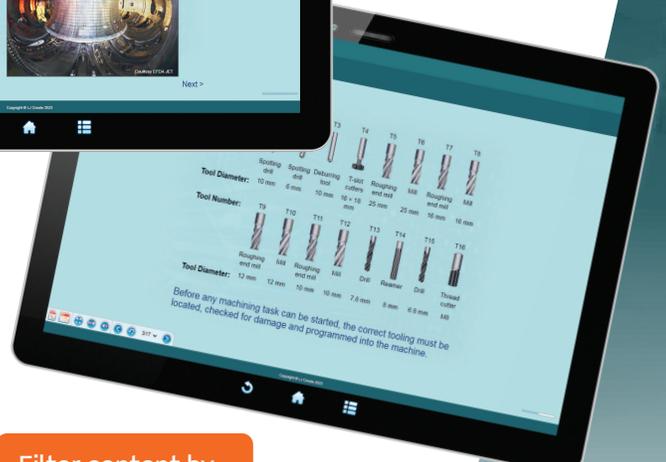
COURSES ALIGNED TO INDUSTRY STANDARDS

Filter content by specific standard
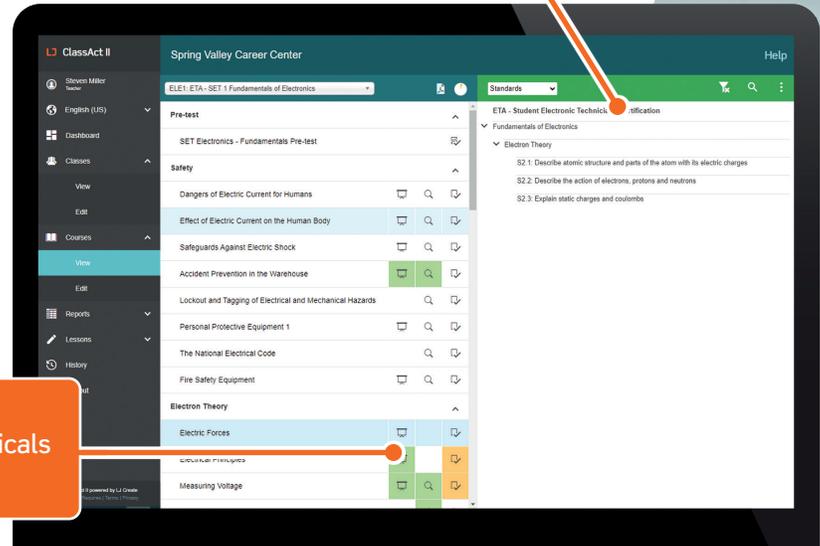
Presentations, Investigations, Practicals and Assessments

Contains many engineering applications, including:
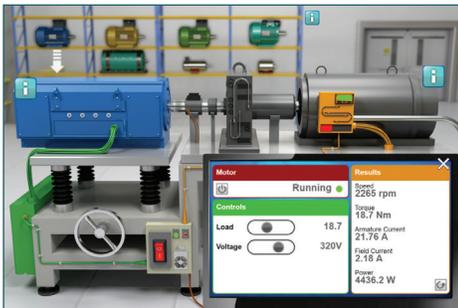
Motor explorer application
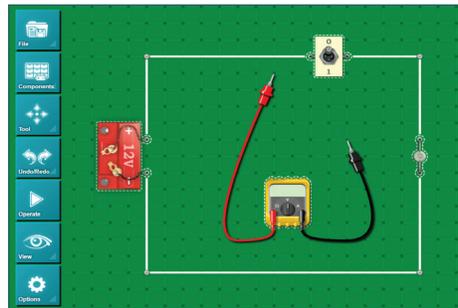
Virtual electrical circuits trainer
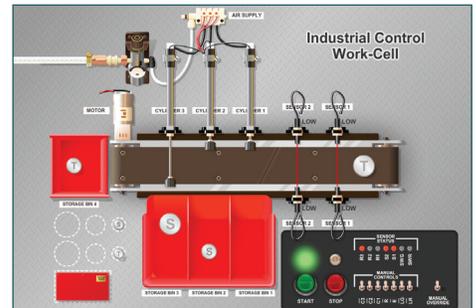
Industrial control trainer

Electrical/Electronics Library (5,800+ Lessons)

Interaction of Magnetic Fields

Topics:

- Electronic Systems
  - Alarm Systems
  - Signal Processing
- DC Circuits
  - Capacitor Circuits
  - Voltage and Current
- Electrical Networks
  - Internal Resistance
  - Series and Parallel Resistors
- AC Circuits
  - Capacitor Circuits
  - RLC Circuits
- Magnetism & Electromagnetism
  - Fault Finding Electromagnetic Devices
- Electrical Engineering
  - Electrical Connections in Buildings
  - Equipment Protection
- Linear Electronics
  - Operational Amplifier Circuits
- Semiconductors
  - Display Devices
  - Transistor Amplifiers
- Power Electronics
  - Frequency Converters
  - Three-phase AC
- Digital Electronics
  - Combinational Logic
  - Sequential Logic
- Telecommunications
  - Digital Data Transmission
  - Fiber Optics
- Microprocessors
 - Developing PIC Programs
  - Program Development

COURSES ALIGNED TO **ETA CERTIFICATION** STANDARDS
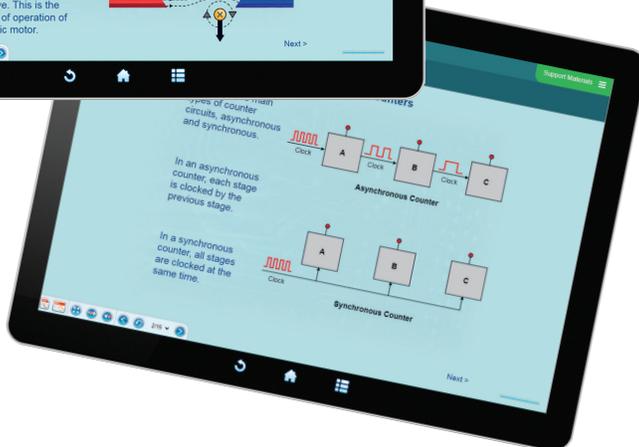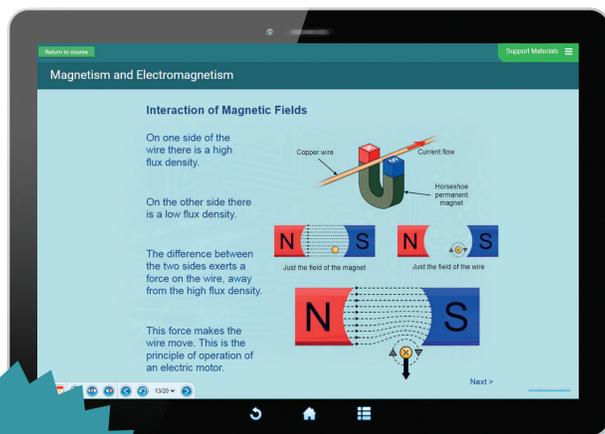
Design, build and test your own electronic circuits
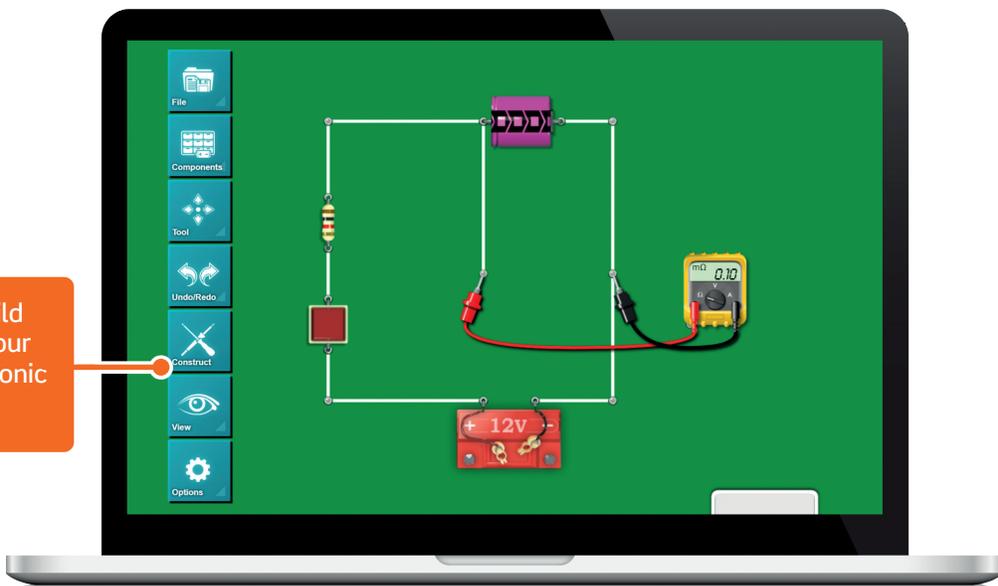
Contains many electronics applications, including:
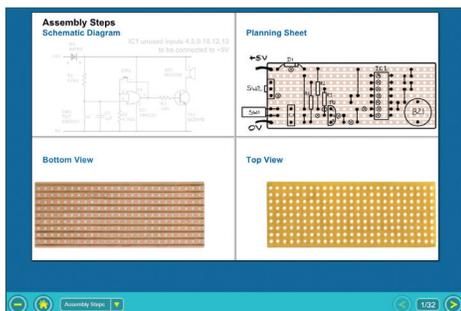
- Stripboard builder application
- Virtual electro-pneumatics trainer
- Diode and transistor application
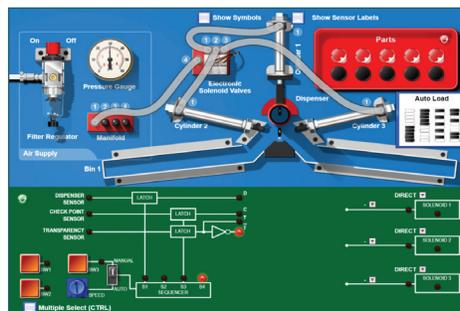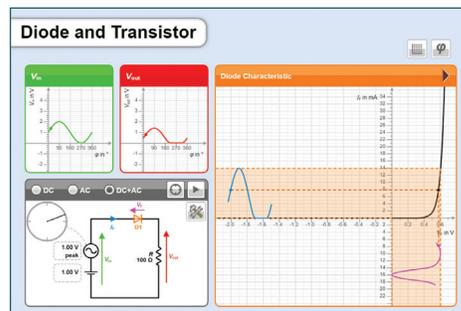
# Working with STEM Library (8,000+ Lessons)

Automotive Topics Include:

- Automotive Workshop and Safety
- Engine Repair
- Fuel and Emissions
- Auto Electrical Fundamentals
- Automotive Starting and Charging
- Ignition Systems
- Hybrid Vehicle Systems Technology
- EV Systems Technology
- EV Battery Operation
- EV Traction Motors
- EV Charging Systems
- Networked Systems
- Brake Systems... and much more!
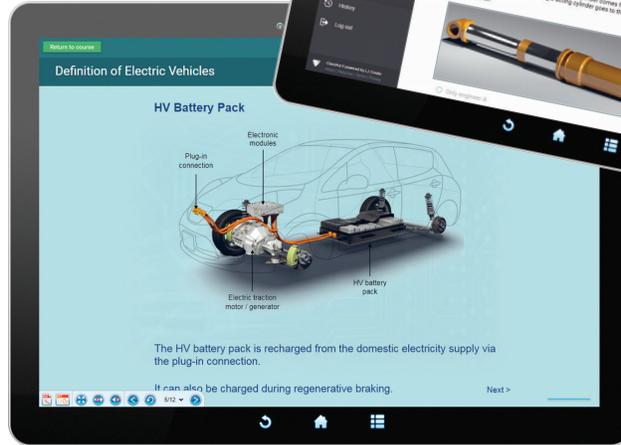
Engineering Topics Include:

- Electrical/Electronic Engineering
- Engineering Design
- Mechanical Systems
- Manufacturing Engineering
- Machine and Instrument Engineering
- Industrial Control - Programmable Control Systems
- Materials Engineering
- Fluid Power
- Green Technologies ...and much more!

Unique interactive simulators accompany our hardware trainers

Contains many vocational applications, including:
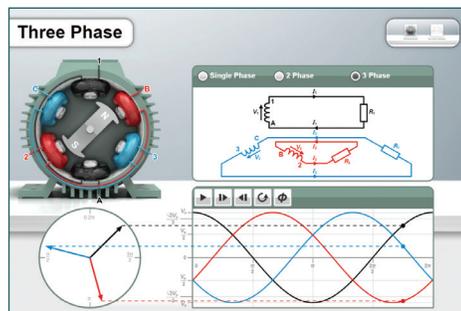
- Three-phase application
- Types of fuels application
- Warehouse organization application
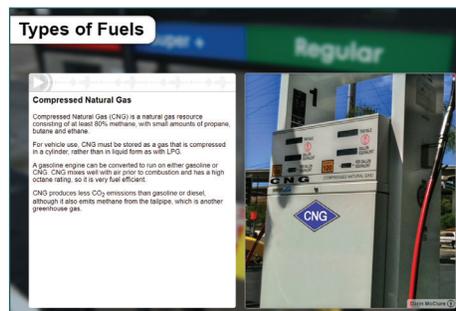
Exploring STEM Library (5,000+ Lessons)

Topics:

- Engineering Design
- Green Technologies
- Mechanical Systems
- Electronics
- Fluid Power
- Construction
- Telecommunications
- Manufacturing
- Transportation
- Agriculture
- Biomedical Technology
- Robotics
- Scientific Investigation and Reasoning
- Electricity and Magnetism
- Waves
- Nuclear Physics
- Chemical Structure and Bonding
- Chemical Reactions
- Anatomy
- Evolution and Genetics
- Biochemistry and Cell Biology
- The Living World
- Earth and Space Sciences
- Physical Science
- Life Science
- Scientific Processes
- Earth Systems
- Matter
- Forces and Motion
- Energy

COURSES ALIGNED TO INDUSTRY 4.0 SKILLS

License contains many STEM applications and simulators
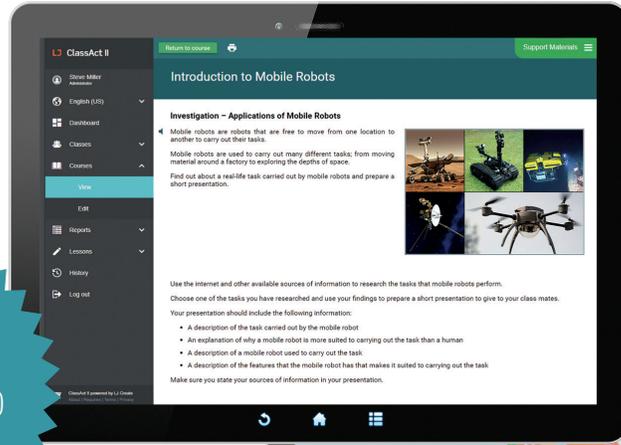
Contains many STEM applications, including:
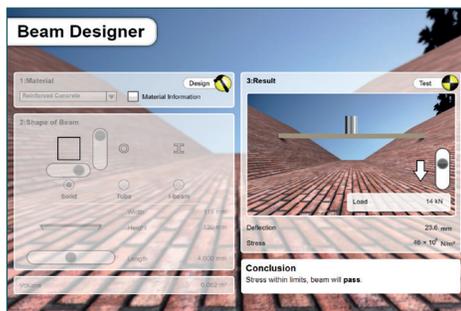
- Beam designer application
- Energy in buildings application
- Hydropower application
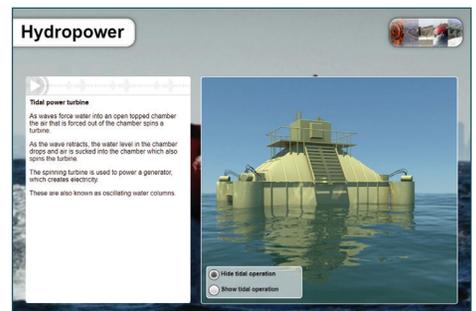
Living with STEM Library (1,000+ Lessons)

Topics:

- **STEM Career Exploration**
  - 70+ Career Pathway Challenges
- **Science Practice**
  - Science and Society
  - Safety
- **Earth Science**
  - Earth Resources
  - Natural Hazards
- **Weather Systems**
  - Weather and Climate
  - Understanding the Earth
- **Space Science**
  - Observing Space
  - Earth and Space
- **Force, Motion and Energy**
  - Movement and Position
  - Electricity and Magnetism
- **Matter**
  - States of Matter
  - Mixtures and Solutions
- **Organisms and Environment**
  - Humans and Animals
  - Cycles in Nature
- **Technology and Engineering**
  - Engineering and Design
 - Communication
- **English Language**
- **Mathematics**

> Designed around the idea that students learn best when they are active participants in their learning
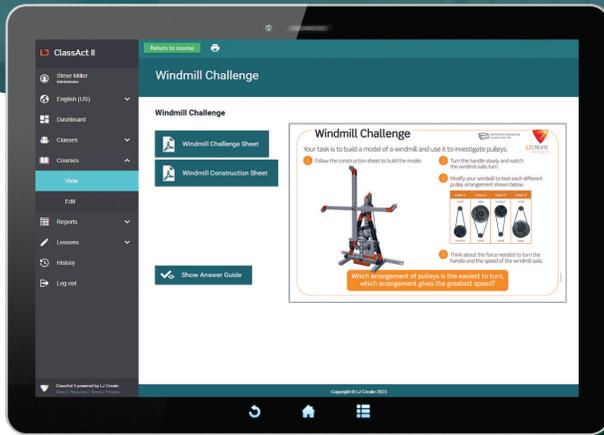
HANDS-ON STEM AND SCIENCE PROJECTS

Contains many STEM applications, including:
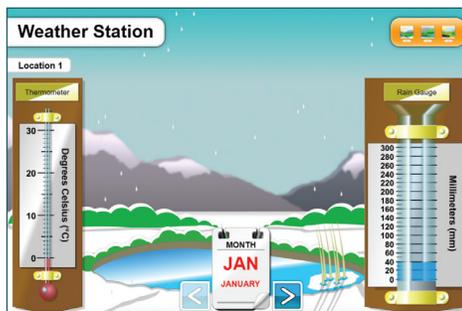
- Weather station explorer
- Animal life cycles explorer
- Robot programming device software
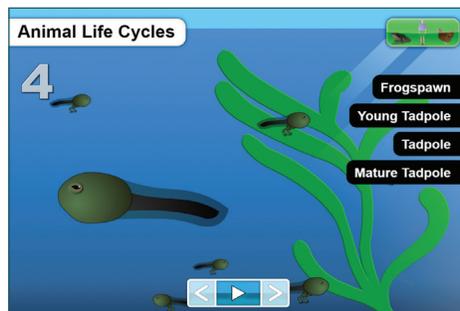
Science and Academic Support Included

Topics:

- Engineering Mathematics
- English Language Skills
- Workplace Problem Solving
- Information Technology
- Business Skills
- Freight Logistics
- Properties of Matter
- Forces and Motion
- Energy
- Electricity and Magnetism
- Waves and Vibration
- Nuclear Physics
- Chemical Structure and Bonding
- Chemical Reactions
- Life Science
- The Living World
- Anatomy
- Evolution and Genetics
- Biochemistry and Cell Biology
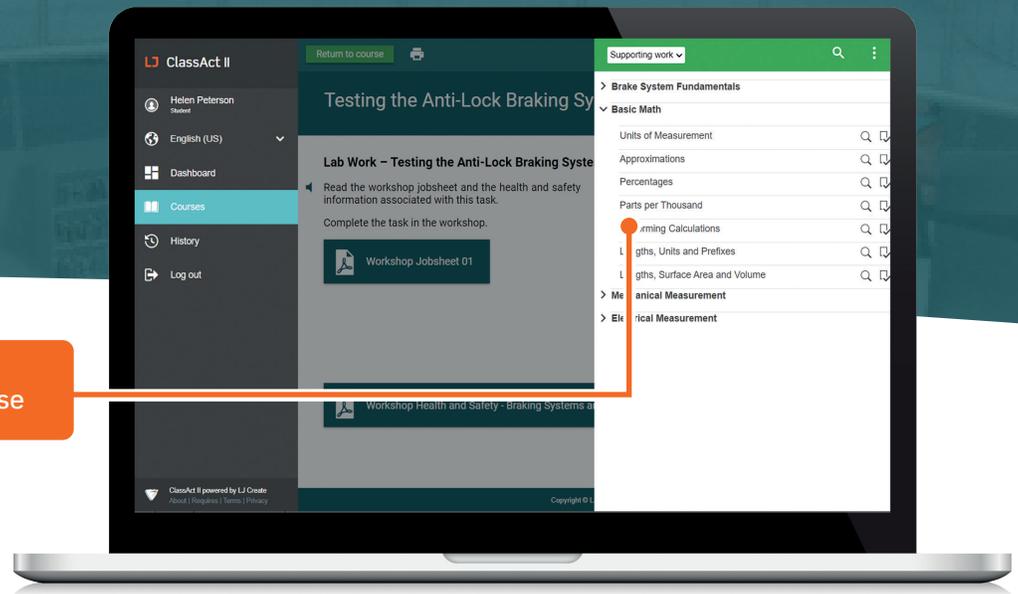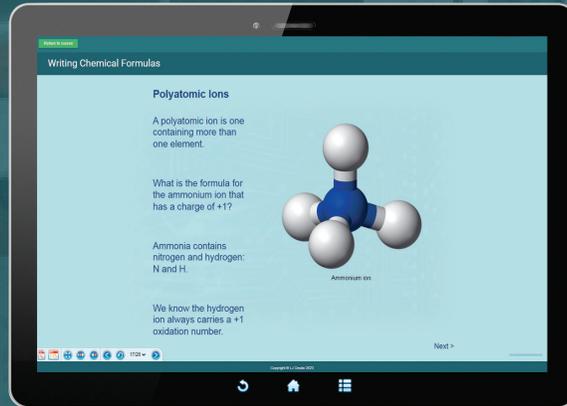
Instructional support available at point-of-use

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

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