Lt is a cloud-based learning platform that engages chemistry students in active learning through interactive lessons.

Our **Understand Your Chemistry Collection** is an online, active-learning resource. Support your students to build their understanding of key chemical concepts with **40+ lessons, 1400+ questions, and 650+ diagrams**!

These lessons address principles and concepts in introductory physical and inorganic chemistry through interactive questions and rich imagery.

- Complete lessons in 60 minutes or fewer
- Rigorous questions and instant feedback build student understanding
- Embedded calculation practice promotes problem-solving skills
- Seamlessly integrate lessons into blended or distance-learning courses
- Students can learn online: anywhere, anytime
- No additional materials, plug-ins, or extra hardware required

**Professionally-developed lessons**

*Understand Your Chemistry* has been developed by Professor Tony Macknight, co-founder of ADInstruments. This active-learning resource has been designed to support how people best learn and remember. Scaffolded questions build on prior knowledge, and provide instant feedback. Calculation practice supports students to build their mathematical skills and provides a strong foundation for success in chemistry.

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“**Understand Your Chemistry does a thorough and smooth job of guiding students through the components of many important concepts in chemistry.**”

- **Jack Randall,**
  Director of College Outreach,
  Vernier® Science Education
Interactive Questions and Diagrams

Understand Your Chemistry has been designed for effective learning. Students actively engage with a range of question types, including label image, drag-and-drop, multiple-choice, table, annotate, and text questions. Learners are encouraged to dive into answering these questions and to reinforce or revise their understanding using instant feedback.

Complementing this scaffolded framework, professionally-designed images and diagrams further explain individual concepts. Extensive calculations are embedded throughout the content, developing strong mathematical skills for future scientific careers.

Flexible Online Learning Resource

Understand Your Chemistry is flexibly designed and can be seamlessly integrated into your course. With thousands of questions, lessons can be assigned before a lab or lecture to eliminate misconceptions; after a lab or lecture for revision of key concepts; used as a reference during labs or tutorials; as a textbook substitute to ensure students are developing breadth and depth of understanding; or as a revision tool for exams.

Authoring within Lt is so simple and straightforward that you can easily modify lessons in Understand Your Chemistry to exactly complement your curriculum.
Understand Your Chemistry Collection Overview

The collection is organized into 10 modules. The lessons in each module are listed below:

**Introduction**
01 Units of measurement
02 How we name chemicals
03 Calculations in chemistry
04 Graphs in chemistry

**Part A: Atomic structure**
A1 Atomic models
A2 Quantum mechanics: Fundamentals
A3 Electron configurations
A4 Periodic table
A5 Lewis structures
A6 VSEPR and molecular shape
A7 Hybridization and bonding

**Part B: Chemical equilibria**
B1 Mass, moles, and molar mass
B2 Stoichiometry
B3 Equilibrium in chemistry
B4 Equilibrium responses to change

**Part C: States of matter**
C1 Intermolecular forces
C2 Properties of gases
C3 The gas laws
C4 Liquids
C5 Water
C6 Aqueous solutions
C7 Solubility and solubility product
C8 Solids

**Part D: Acids and bases**
D1 Acids and bases
D2 Weak acids and bases
D3 Buffer solutions
D4 Acid–base titrations

**Part E: Thermodynamics**
E1 Forms of energy
E2 Enthalpy
E3 Entropy
E4 Gibbs energy
E5 Phase transitions
E6 Life and thermodynamics

**Part F: Kinetics**
F1 Introduction to kinetics
F2 Factors affecting rate
F3 Rate law
F4 Determination of rate law
F5 Integrated rate law
F6 Temperature and rate
F7 Reaction mechanisms
F8 Catalysts and enzymes

**Part G: Redox reactions**
G1 Redox principles
G2 Electrochemical cells
G3 Redox in non-standard conditions

**Part H: Transition elements**
H1 Transition metals
H2 Transition metal complexes

“Understand Your Chemistry increases chemistry students’ engagement with challenging subject material through scaffolded problem solving and content that is relevant to their everyday lives.”

**Kaitlynn Arnholt,**
Business Development Manager for Chemistry Education, ADInstruments,
7 years of teaching experience
**How can Lt help?**

**Educators**
**Authoring and customization**
Easily edit, share and update our content or create your own in real-time, wherever and whenever you need. Drag-and-drop a range of content types including video, audio, images, quizzes and text directly into your lessons.

**Collaborative**
Share content and workload with your fellow educators and teaching assistants. Set varying levels of access to allow others to review content, add content, or publish revisions online.

**Flexible grading**
Automatically grade quizzes while keeping the flexibility to add feedback and positive reinforcement, and manually grade written assessments.

**Students**
**Learn anywhere, anytime**
Lt’s cloud-based platform means students can learn on almost any device that connects to the internet. Whether they use iOS or Android, tablet, mobile, or laptop, lessons will be resized and optimized to look great.

**PowerLab and Lt Sensor integration**
In the lab, students can record and view their own physiological signals live on screen with PowerLab or Lt Sensors. Sampling panels in Lt can record Pulse, ECG, Respiratory Rate, Blood Pressure, and more.

**Learn from real patients**
For future health professionals, our patient cases allow students to follow a real patient from initial presentation to diagnosis and management. Expert healthcare professionals provide their views throughout the journey and students can practice note-taking and reflection.

**Administration**
**Simple setup**
Lt needs only an internet browser to allow course administration, authoring, and publishing. Our data acquisition app, used for sampling, installs in 30 seconds.

**Analytics**
Our analytics allow you to view class progress in each lesson and section in your course, and provide valuable insights about where and how students are interacting with course material.

**Secure and scalable**
Totally secure, Lt is hosted on Amazon Web Service’s encrypted servers with guaranteed 99% uptime and the ability to maintain speed as more students login to Lt.

**Future-proof**
Lt is automatically updated with new features by our team of engineers, developers, and education specialists.

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90-DAY FREE TRIAL
Sign up now: adi.to/try_lt

Visit adinstruments.com or contact your local ADInstruments representative for more information