adaptive curriculum™

www.adaptivecurriculum.com

High School Science

Biology • Chemistry • Physics

An Interactive, Online Environment

That Supports 21st Century Learning Skills

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Physics

Science Activity Object Types Include:

Concept Development
Teaches difficult-to-understand scientific concepts through clear and concise engagements, interactions and conclusions.

Experiment
Improves learners' scientific-inquiry skills by allowing them to perform virtual experiments in a safe environment using virtual equipment in a realistically rendered setting.

Dynamic Modeling
Simulates interactions between parameters to help the learner freely examine relationships (body parts, etc.) or structure (operation of devices).

Interactive 3D Model
Using an interactive 3D model, the learner can rotate, view from different angles, and examine cross-sections of scientific structures.

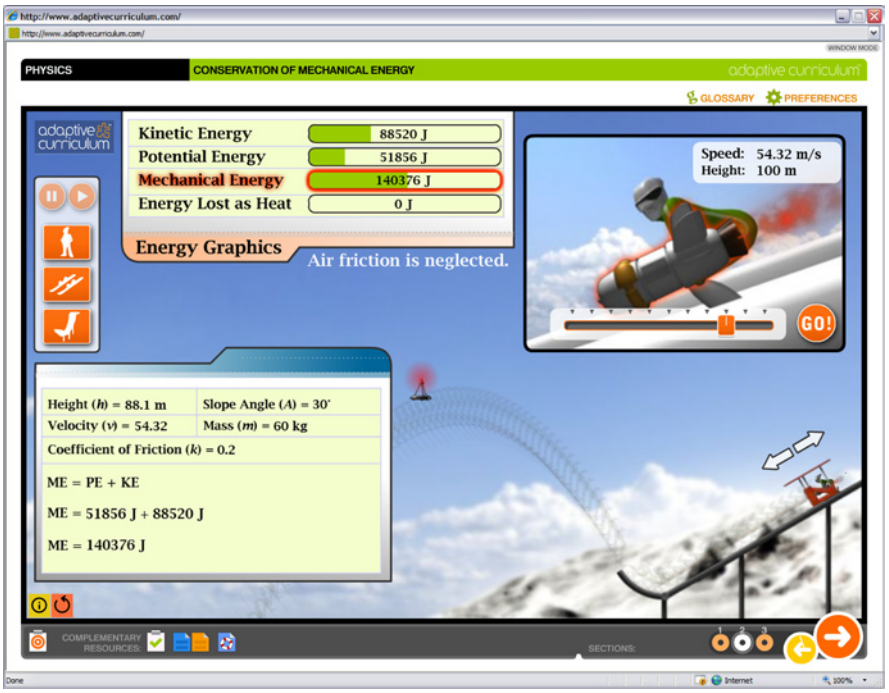
Math in Science
Focuses on practicing mathematical concepts used in science through explanation and exercise sections with Independent Practice Sheets available.

Problem Solving
Guides learners on how to solve problems by identifying givens/unknowns and developing and implementing the strategy for solution.

Ready SMART Board interactive whiteboard

PROMETHEAN ACTIVBOARD ENABLED WWW.PROMETHEANWORLD.COM

Conservation of Mechanical Energy



Through the use of a sporting analogy, students race with different skiers. Each skier is a different weight, on different tracks with differing slope angles, and using different skis with varying coefficients of friction.

Learners determine the initial height and velocity of each racer and observe the changes in the racer's kinetic and potential energies. Upon completion the conservation of mechanical energy is explained.

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Chemistry

Factors Affecting the Solubility of Gases

In the experiment, students make observations as to the solubility of gases by changing the temperature and pressure. Once all goals are achieved, an animation summarizes the findings and the observations and conclusions are displayed in the printable experiment report.

"Adaptive Curriculum enables our teachers to implement virtual labs in their instruction, thereby engaging students via 21st Century Skills and encouraging them to embrace math and science - areas of critical need for American students."

- Cara Herkamp, Director of Secondary Curriculum and Instruction • Cave Creek Unified School District • Cave Creek, Arizona

What makes Adaptive Curriculum Unique?

- Interactive lessons allow for high levels of student engagement. When students are engaged, learning takes place.
- High School Science Activity Objects support multiple intelligences with learning objects that engage all types of learners. Visual, auditory, and kinesthetic learners benefit from using Adaptive Curriculum!
- Student assessment reports make preparation a snap. Adaptive Curriculum's reporting system identifies areas of students' mastery and areas for further practice.
- Whether the subject is Physics or Biology, students see how high school science is used in real-world, familiar contexts. High-quality 3D graphics and animations bring science alive!
- Conceptual learning is built-in. Students don't just work in online experiments – they deepen and extend conceptual learning through critical thinking and interactive, hands-on work.
- Easy to implement and monitor, Adaptive Curriculum makes it easy for busy teachers to plan, assign and monitor progress of Activity Objects through MyAdaptiveSpace.
- Quality assurance process for accuracy: A highly qualified team of specialists in education and science participate in rigorous quality review of each Activity Object. This process assures teachers that all Activity Objects have a solid pedagogical approach and are error-free.

Features:

- 3D Simulations
- Gaming Visualizations
- Hundreds of Lessons
- Standards Alignment
- Guided Inquiry
- Embedded Assessments
- Visual Learning Approach
- Glossary and Help Tools
- Animated Worked Examples
- Teacher Guides
- Student Activity Sheets

Photo locations courtesy of:
Cactus Shadows High School
Cave Creek U.S.D.
Cave Creek, AZ

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Biology

Domains and Kingdoms

Through the scenario presented in this Activity Object, students explore the distinguishing characteristics of domains and kingdoms at cellular level.

Students playing the role of an agent in a top secret government biology lab conduct specific tests on newly discovered cells. They then identify whether the cells belong to the domain and kingdoms on Earth or have extraterrestrial origins. They will apply iodine tests on the cells, observe their respiration types and examine them under an online microscope.

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High School Science

Why Adaptive Curriculum for High School Science?

Adaptive Curriculum is the first of its kind, Interactive Online Environment for teaching high school science. Adaptive Curriculum's online lessons, called Activity Objects, provide the most comprehensive set of web-based learning objects on the market for high school science courses such as Biology, Chemistry, and Physics.

Supporting conceptual and mastery-based learning, Adaptive Curriculum has created an environment where students of all levels can explore real-world science through inquiry-based lessons, problem-solving scenarios and experiments in virtual science labs.

All Activity Objects:

- are designed to supplement any state or local curriculum, textbooks series or teacher lesson plans;
- can be used on interactive whiteboards in an instructor-led classroom;
- may be assigned to individual or groups of students for use on laptops or desktop computers;
- support high school science;
- provide multiple scenarios, specific methodologies, and feedback structures.

Each Activity Object includes a 10-question multiple-choice assessment directly aligned to learner outcomes. Assessment scores are immediately reported to the student and teacher for easy tracking of progress towards mastery. A variety of detailed assessment reports are available for print. No other online high school science program matches Adaptive Curriculum's compelling learning environment for students. Call today to see how Adaptive Curriculum can help your high school students succeed in science.

Adaptive Curriculum High School Science Meets Federal Funding Criteria

Adaptive Curriculum is affordable and eligible for many current education program funding sources including:

- Title I-A: Improving Basic Programs Operated by LEAs
- Title II-A: Improving Teacher Quality
- Title II-D: Enhancing Education through Technology (EETT)
- ARRA: American Recovery and Reinvestment Act (Stimulus)
- Other local, state and national math and science grants

Providing high-quality curriculum aligned to National Science Education Standards (NSES) and state standards. Adaptive Curriculum enables educators to deliver effective, engaging on-line content to their students. A built-in assessment and reporting system supports the learning process every step of the way. All assessments are aligned to the Learner outcomes and are immediately available. This allows the teacher to address student needs instantly.

Adaptive Curriculum's Activity Objects are an excellent tool for teachers needing help in closing the achievement gap between high- and low-performing learners. Online lessons can be used to challenge high-performing students and provide remedial instruction for those students needing additional practice. As a research-based product, Adaptive Curriculum is suitable for various categories of education funding. Please call or visit our website for more funding information.

Adaptive Curriculum is also the ideal choice for technology integration in the classroom. Affordable licensing and professional development packages make teaching and learning science with technology a perfect complement to existing basal curriculum.

Adaptive Curriculum Professional Development

Adaptive Curriculum offers several professional development options and tools for teachers and administrators:

- Free Online Tutorials – available 24/7
- Free 1-hour WebEx demonstrations of Best Practices scheduled at various times
- Fee-based half-day Professional Development Workshops for high school science and STEM
- Fee-based 3-hour custom WebEx training specific to your school/district

Call for more information on Professional Development services and custom options, including train-the-trainer.

Implementation of Adaptive Curriculum Workshop

Half-day • Onsite • Instructor-led

Designed for schools/districts that have licensed Adaptive Curriculum High School Math and Science

$2,500 per workshop

Custom WebEx Presentation for your School or District

Customized content to meet your school or district's criteria

$100 per one-hour session

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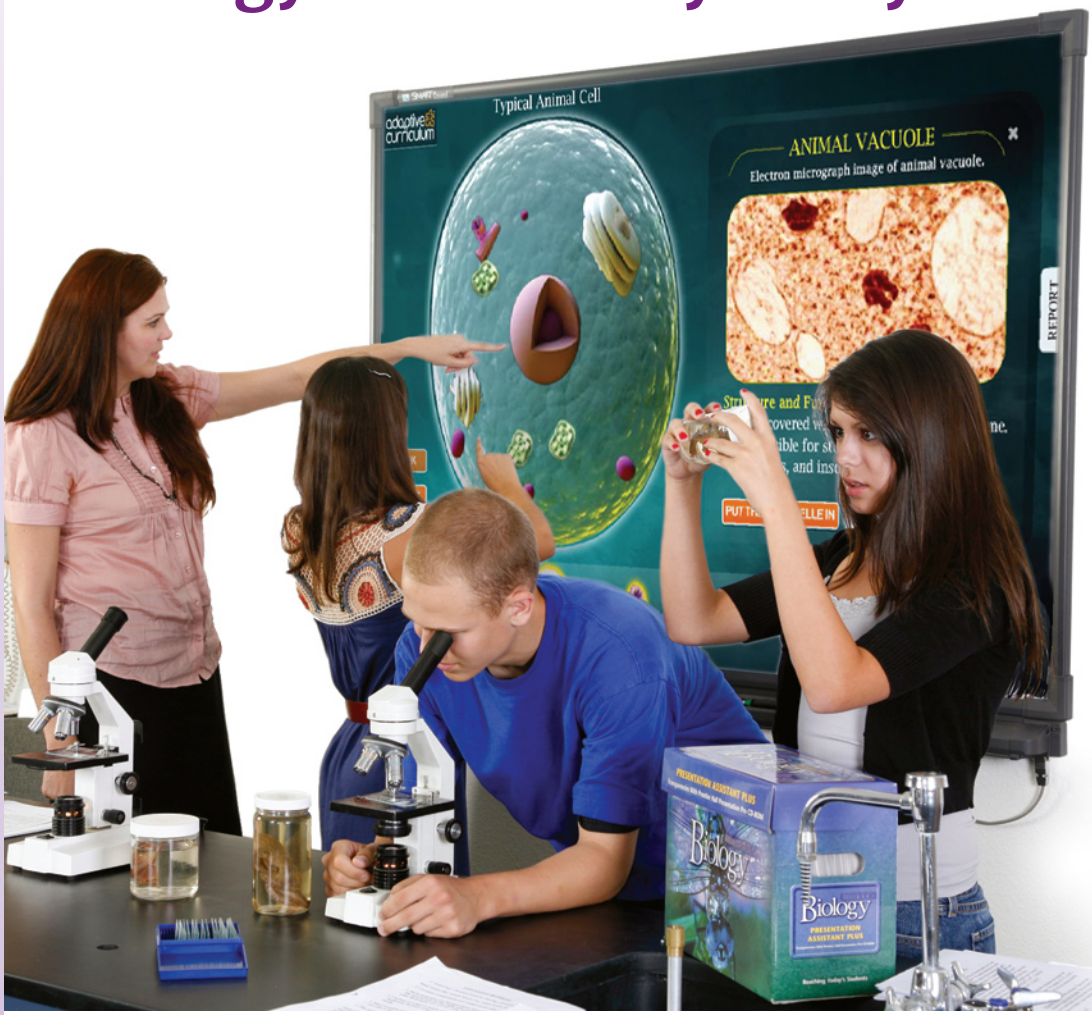

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FREE TRIAL
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Recommended System Requirements

Internet Connection:
- Broadband (DSL, Cable, T1+) connection highly recommended
- Caching and/or proxy server highly recommended

Officially Supported Web Browser:
- Internet Explorer 6.0 or later (Windows)
- Apple Safari 3.0 or later (Mac OS X)
- Mozilla Firefox 2.0 or later (All systems)
- JavaScript and cookies must be enabled in browser
- Browser updates are highly recommended

Hardware Requirements (minimum):
- 1 GHz 32-bit processor
- 512 MB of system memory
- 64 MB of graphics memory

Operating System:
- Windows 2000, Windows XP, Windows Vista
- Windows 98 (minimum)
- Mac OS X or later
- Service Pack and other updates are highly recommended

Required Plug-ins:
- Macromedia Flash™ plug-in, version 8.0 or later

Multimedia Requirements:
- Display unit at 800x600 resolution (minimum), 1024x768 screen resolution is recommended
- Speakers or headphones (required for Activity Objects)
- Printer (required for printing Experiment Reports and Activity Sheets)

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