adaptive curriculum™ | Texas

# ac / TEKS science

Dynamic, Interactive Learning


**100%**
**COVERAGE**
OF NEW TEKS STANDARDS

# Adaptive Curriculum Texas™ 2014 is an award-winning instructional solution that builds middle and high school science mastery through dynamic, interactive learning. Our real-world active learning approach motivates learners to explore, make hypotheses, manipulate items, and see the impact of their decisions. Adaptive Curriculum Texas™ has more than 700 Activity and Animation Objects that are Texas Essential Knowledge and Skills (TEKS) aligned. These combined lessons and activities address more than 1,500 TEKS Breakouts. Its easy and flexible delivery allows it to be used for whole or small group or individual instruction. With Adaptive Curriculum Texas™ 2014, students acquire core mastery through active participation in an immersive, differentiated and exciting learning environment that provides real-time feedback and assessment.

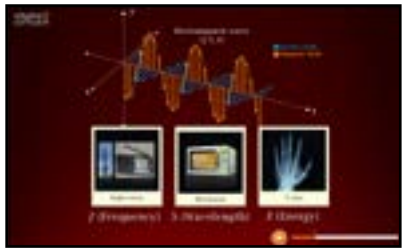
## Adaptive Curriculum Texas™ 2014 is an Award-winning Instructional Solution

Our program builds middle and high school science mastery through dynamic, interactive learning. Unlike other programs developed from print, Adaptive Curriculum Texas™ 2014 was developed as a digital solution to take full advantage of the online environment and cutting-edge instructional tools, such as interactive white boards.

## Active Learning & Engagement

Adaptive Curriculum Texas™ 2014 engages students to explore concepts, create and test hypotheses and manipulate items through an immersive learning environment. In addition, it offers:

- Differentiated instruction
- Real-time feedback
- Multimedia and multi-sensory delivery for different learning styles



## Science Mastery through Dynamic, Interactive Learning

Adaptive Curriculum Texas™ 2014 Activity and Animation Objects are built utilizing the most recent research and proven instructional strategies and pedagogy. Incorporating rich multimedia and real-world scenarios, Activity and Animation Objects are intentionally created to engage today's digital-age learners and promote active learning. This guided discovery approach builds deep concept mastery and lasting understanding.

## Dynamic & Flexible

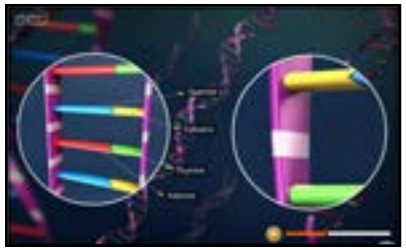
Adaptive Curriculum Texas™ 2014 is web based and portable (accessible anywhere, anytime), providing teachers tremendous flexibility for application. Easy integration with white boards leverages school technology investments and provides opportunities for group learning, problem solving and discussion.

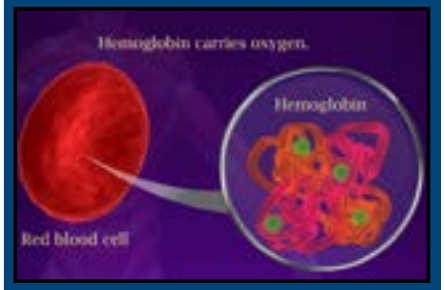
## TEKS Alignment

Activity and Animation Objects are created to build deep concept mastery of science, aligned to the Texas Essential Knowledge and Skills (TEKS) standards. Through *My Adaptive Space*, the Adaptive Curriculum Texas™ 2014 product portal, teachers in Texas will be able to search for Activity and Animation Objects by topic, by textbook or by conducting a keyword search to create customized lesson plans by grouping different objects together and assigning them to students.

Activity and Animation Objects are designed to:

- Accelerate learning
- Create active engagement for real-time feedback
- Provide access to online teacher guides and lesson assignment tools

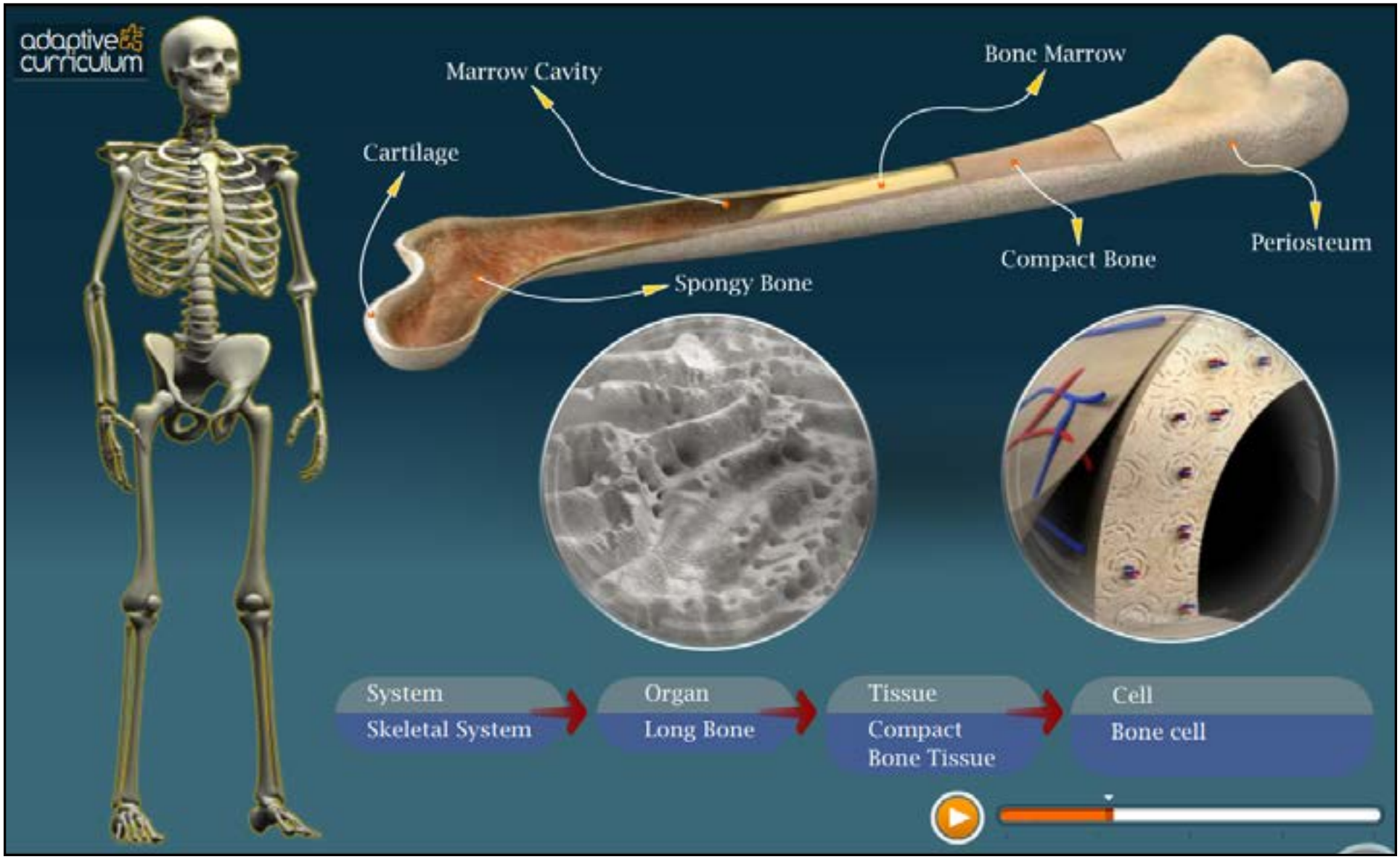





*"Now when students get to the test, they have an image in their minds—something they can remember and relate the question to, and that is reflected in our test scores. Over the last two years, our science scores have gone up six or seven points a year."*

Alma Cardenas-Rubio
Principal
Bestiero Middle School
Brownsville, TX

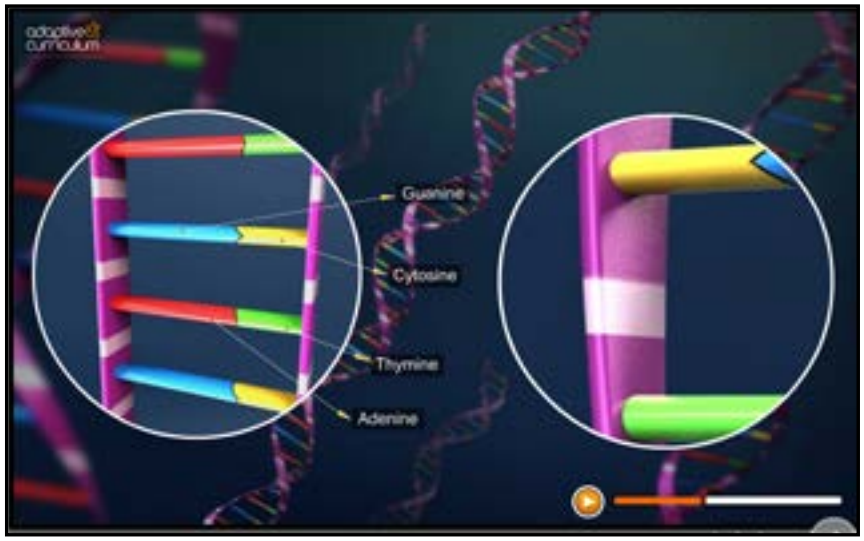
# Science Activity Objects




**Interactive 3D Model:** *These Activity Objects allow learners to explore scientific structures using interactive 3D models.*

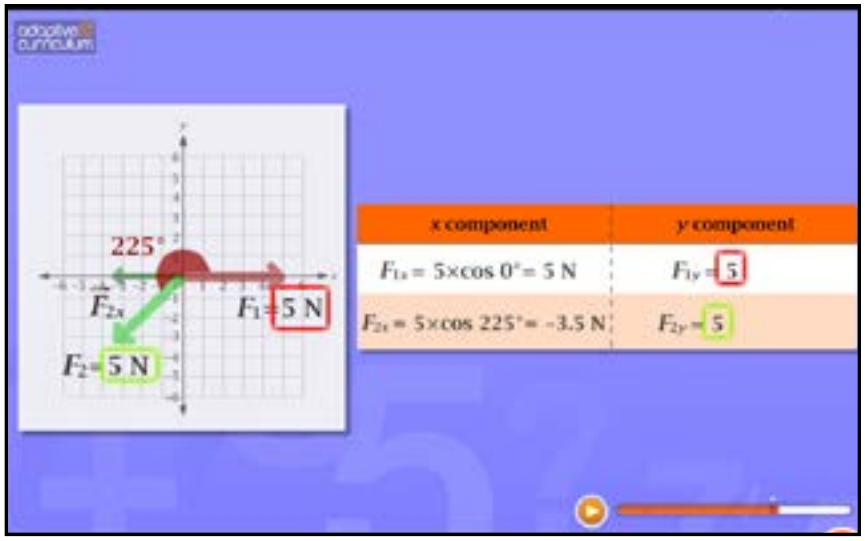
Structure of Bones 3D Model

**Concept Development:** *These Activity Objects introduce difficult concepts using real-world scenarios.*



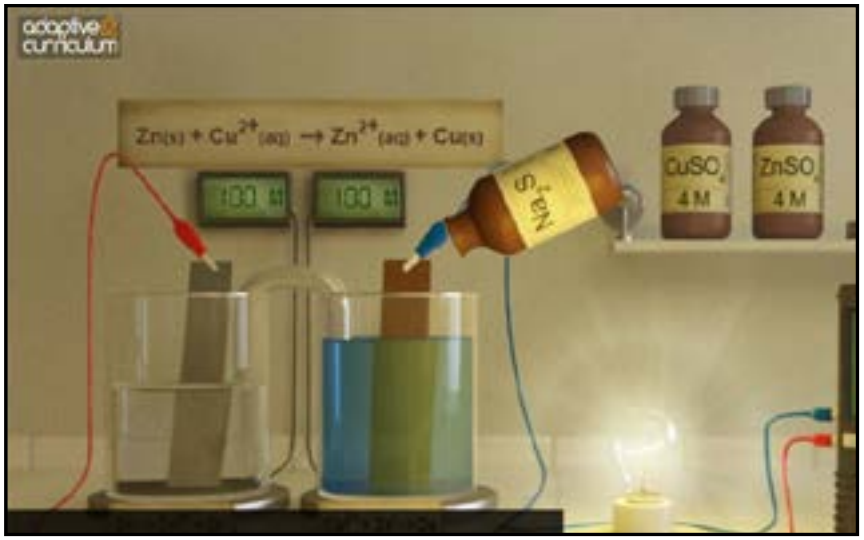

**DNA Structure**

**Skills Application:** *These Activity Objects help learners apply rules and procedures to strengthen computational skills.*



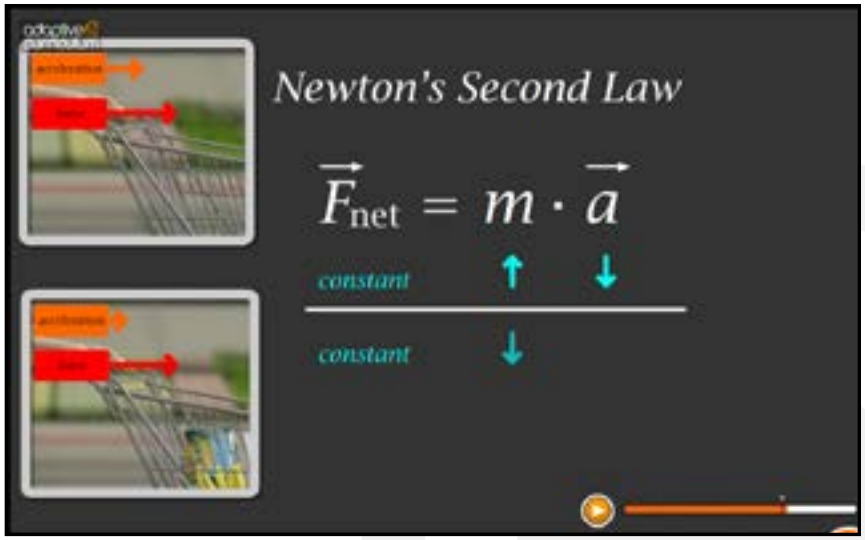

Combining Non-Perpendicular Forces

**Experiment:** *These Activity Objects engage learners in a virtual lab environment to develop inquiry skills.*



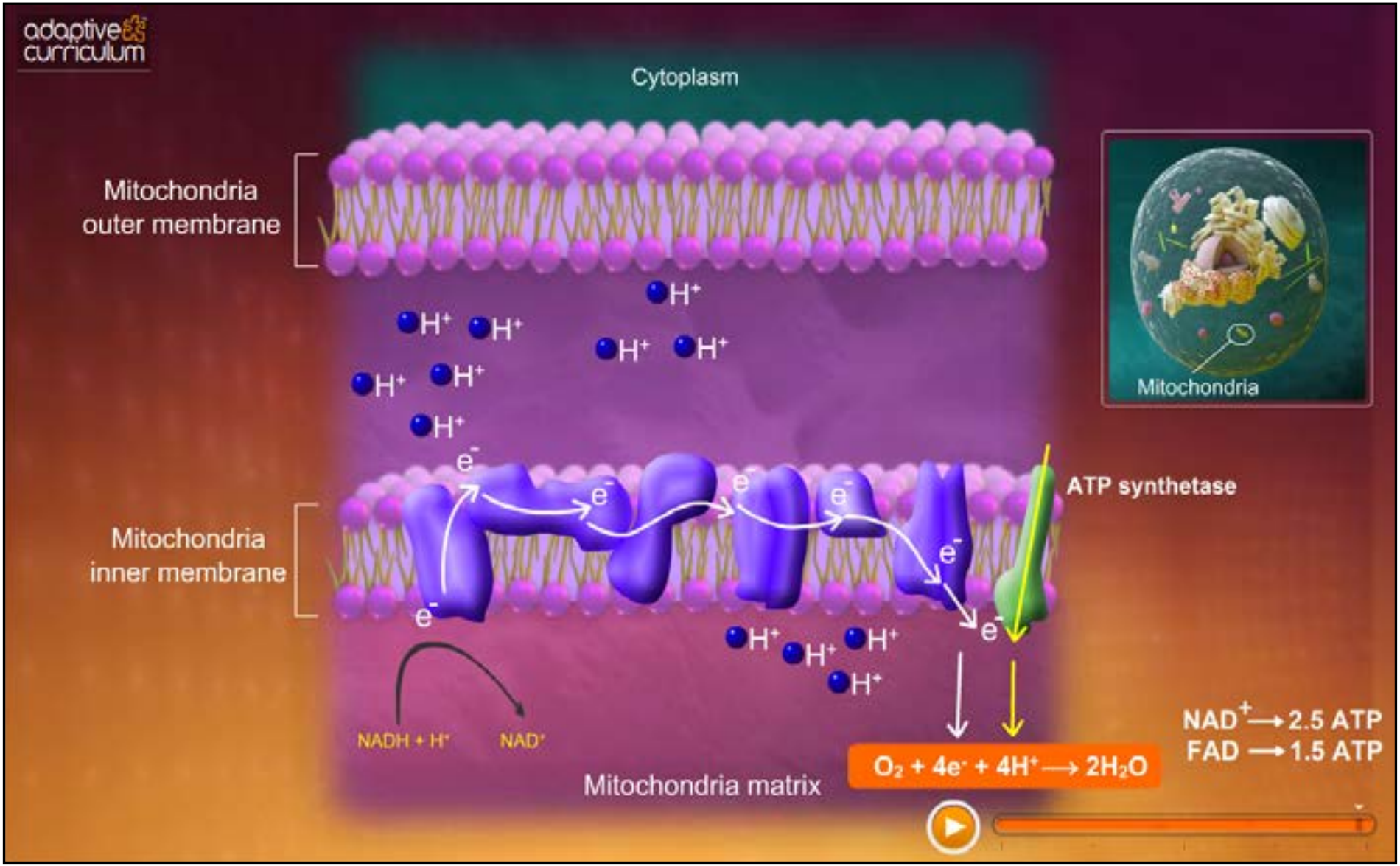

Batteries, Chemicals and Potential Difference

**Problem Solving:** *These Activity Objects engage learners in problem-solving scenarios.*




Solving Problems with Newton's Second Law

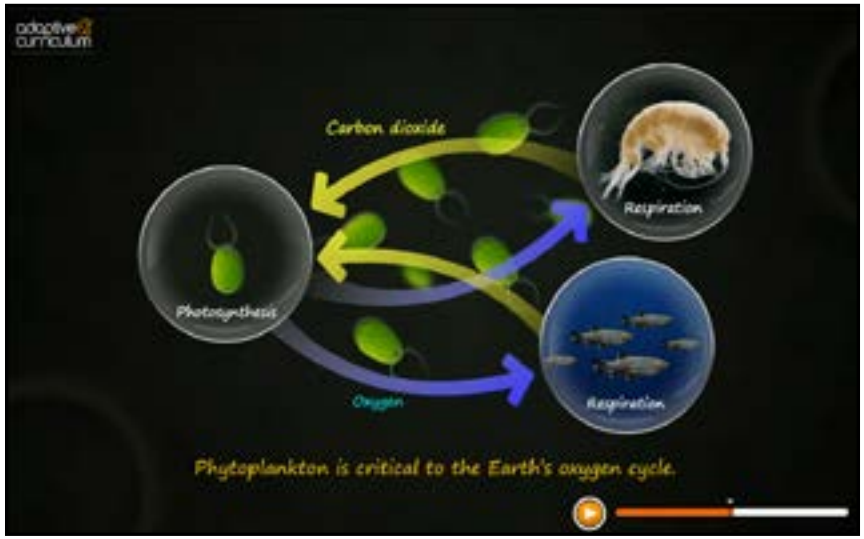
# Science Animation Objects




**Animation Objects:** *Short, focused animation sequences that last approximately 2 to 3 minutes. They include a pre and post question answer sheet allowing students to think about and reflect on the content contained within the animation.*

Electron Transport Chain

## Biology

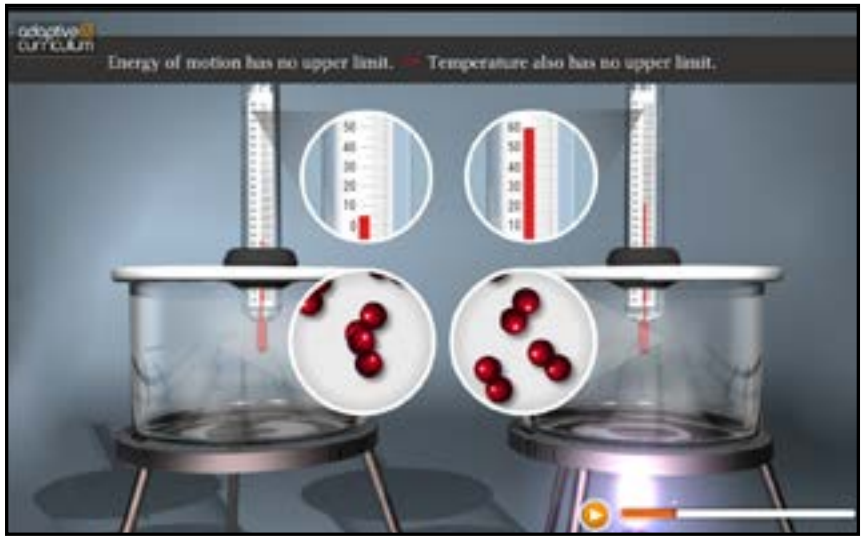



Importance of Protista

## Physics


Instantaneous Velocity and Acceleration

## Chemistry




Temperature Measurements

## Integrated Physics and Chemistry


Uniform Circular Motion

## Utilizing the 5E Instructional Model

Activity and Animation Objects are built on a design of structured instruction consisting of a carefully crafted sequence of activities to promote conceptual learning utilizing the 5E Instructional Model (BSCS, 2006; SCIS, 1973).
The five-step process of the model includes:

**1. Engage**
This phase initiates the learning task and picques the interest of students.

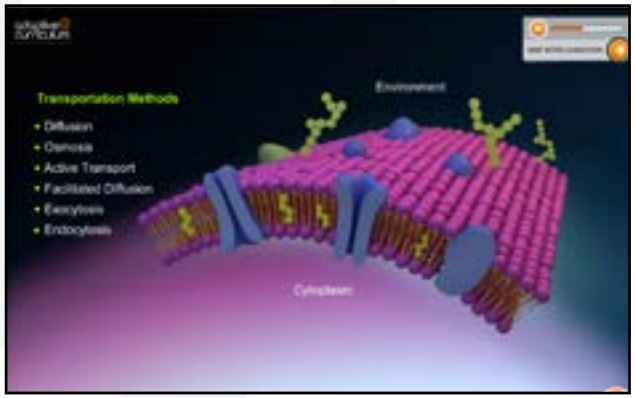
**2. Explore**
This phase provides students with experiences designed to develop current concepts, processes and skills.

**3. Explanation**
This phase focuses students' attention on a particular aspect of their engagement and/or exploration experiences and provides a definition for a concept, process, skill, or behavior.

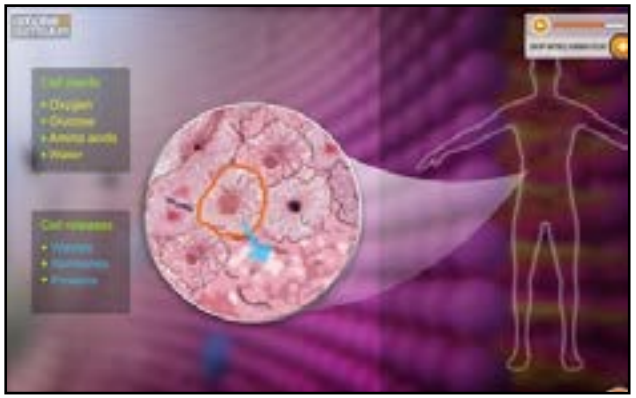
**4. Elaboration**
This phase challenges and extends students' conceptual understanding and allows further opportunity for students to practice desired skills and behaviors.

**5. Evaluation**
This phase assesses students' understanding and their ability to achieve proficiency toward the Learner Outcomes.

## Anatomy of an Activity Object: Structure and Function of a Cell Membrane

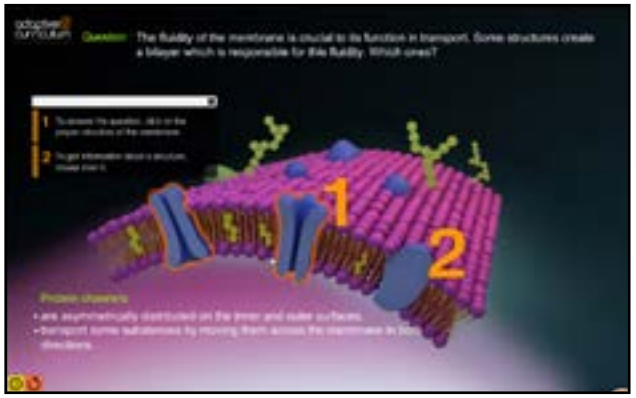



**1. Engage:** *The concept and function of a cell structure and each of its components is explained in detail using realistic visuals and animation and presented in a real world context.*



**2. Explore & 3. Explain:** *Students explore cell structures more deeply and interact with cell processes. Further explanation is provided on core concepts.*


**4. Elaborate:** *Core Concepts are elaborated upon, leading to deeper understanding. Increasingly challenging assessment is layered with elaboration to provide richer learning opportunities.*




**5. Evaluate:** *Knowledge of a cell structure and its functionality is tested through a series of assessment questions.*

### Whole Group

## Dynamic and Flexible

Adaptive Curriculum Texas™ 2014 TEKS standards-based approach and modular structure adapt to any curriculum, offering teachers a powerful and flexible instructional solution.  In addition, Adaptive Curriculum Texas™ 2014 can be used anytime, anywhere and in a variety of settings, providing teachers with a wide array of application possibilities.

### Small Group

### Individual

## Professional Development

Adaptive Curriculum Texas™ 2014 is complemented by outstanding online and onsite professional development. Our professional development team works directly with schools and districts to ensure successful program implementation, including providing strategies to compliment existing curriculums to fully leverage and integrate Adaptive Curriculum Texas™ 2014.

Adaptive Curriculum Texas™ 2014 offers:

- Tiered Professional Development Options
- Onsite Professional Development
- Webcasts
- Robust Web support including video tutorials and product walkthroughs

## Supplementary Tools

Teachers and students are also provided with a rich array of supplemental support materials.

### Assessment Component

Assessments track student progress providing immediate results and feedback to both teachers and students.

### Activity Sheet & Enrichment Sheets

Activity Sheets are designed as student handouts and/or formative assessments, as well as for school/home communication. All Activity Sheets have Teachers' Editions for quick reference.

### Teacher Guide

The Teacher Guide is essentially a comprehensive lesson plan. It is designed to provide detailed information on each Activity Object.

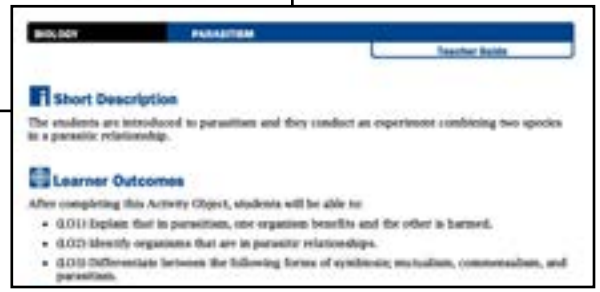
The information provided in the Teacher Guide includes:

- Background information on Activity Object content
- Strategies for engaging learners
- Strategies for overcoming learner misconceptions
- Real-world connections
- Aligning assessments with outcomes

**Assessment**

**Activity Q&A Sheet**


**Teacher Guide**



# My Adaptive Space: The Adaptive Curriculum Texas™ 2014 Teacher Portal

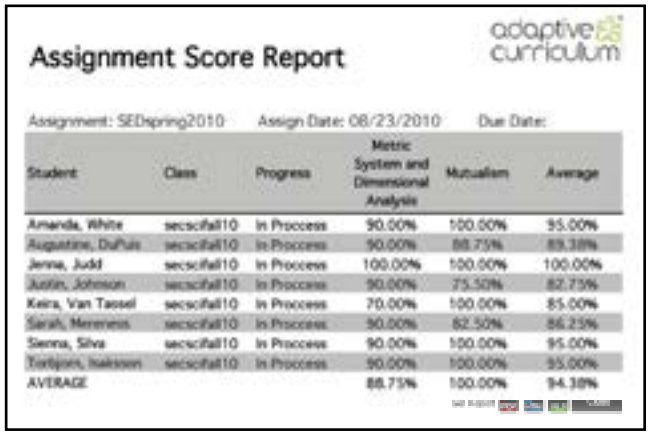
### Student Management and Reporting


*Simple navigation and student and class management.*

### Standards and Textbook Alignment

*Adaptive Curriculum Activity and Animation Objects can be used to complement any curriculum. Alignment to TEKS, as well as a number of textbooks, makes planning with Adaptive Curriculum easy.*

### Reporting




*Clear and intuitive assessment reports.*

*"What I liked from the start were the real life scenarios. Often when we teach something in class, students have nothing to relate it to in the real world. So they forget it. I could see that Adaptive Curriculum would help them remember concepts because it connects to real applications."*

Alma Cardenas-Rubio
Principal
Bestiero Middle School
Brownsville, TX

## Awards

**Distinguished Achievement Award**
2008
*The Association of Educational Publishers*

**Best Science Instructional Solution**
2009 CODiE Award Finalist
*Software & Information Industry Association*

**Education Newcomer of the Year**
2008 CODiE Award
*Software & Information Industry Association*

**Best Online Instructional Solution**
2009 CODiE Award
*Software & Information Industry Association*

**Teachers' Choice Award**
2009
Learning *Magazine*

**Best Middle School Math and Science Website**
2009 BESSIE Award
*ComputED Learning Center*

**Rookie of the Year**
2008 EdNET Award
*The Heller Reports and Quality Education Data*

**Best Middle School Math and Science Website**
2008 EDDIE Award
*ComputED Learning Center*

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Adaptive Curriculum's math and science solutions are used by millions of students in the United States, Europe and Asia and are available in multiple languages. World-wide experts in math, science and online learning theory contribute to the content and design of the interactive activities for both Adaptive Curriculum and its parent company, Sebit Inc.

In the United States, Adaptive Curriculum has partnered with Arizona State University's Technology Based Learning Research Center, which provides pedagogical research, multi-disciplinary expertise and content collaboration. The company headquarters is located in the ASU SkySong Center for Innovation, Technology and Imagination.


## Adaptive Curriculum

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## More Information

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