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Features and Benefits Brochure

Benefits & Features

Achieve
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Content to Enhance Your Teaching

Each Achieve course comes with a BFW e-book uniquely developed for the course it serves. These e-books include highlighting, note-taking, and search functionality and can be accessed online or downloaded for to multiple devices. Our e-books also prioritize accessibility, offering a read aloud feature, open dyslexic font, and translation into multiple languages if supported on the device.

Adaptive Quizzing for Personalized Learning

Some Achieve courses include LearningCurve, our adaptive quizzing engine with personalized question sets and clear feedback based on each student's correct and incorrect answers. LearningCurve offers an easy way for students to prepare for class by reviewing the e-book and then assessing their understanding of the key concepts.

Targeted Feedback to Build Understanding

The Achieve STEM courses include homework assessments that target specific misconceptions or misunderstandings. These formative assessments offer real-time, answer-specific feedback to help students build understanding of complex concepts.

Resources at Your Virtual Fingertips

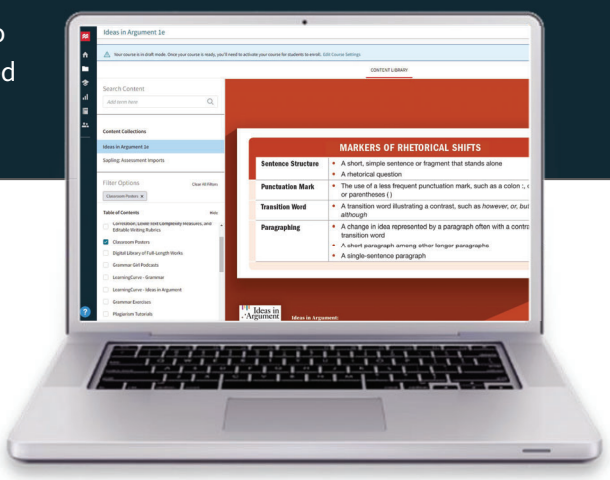
A robust repository of teacher and student resources are easily accessible and assignable. Your resources include the TE-book, pacing guides, handouts, graphic organizers, PD videos, and more. Your students will benefit from the flashcards, simulations, videos, and tutorials.

Analytics Reveal Insights on Student Performance

Achieve's Insights and Reporting feature provides powerful but user-friendly analytics at the individual student or whole class level. This elegant dashboard gives you and your administrators a window into student progress so lessons can be specifically tailored to students' needs.

Integration with Your LMS or Rostering System

Our great content and resources + your LMS and rostering systems = a match made in…integration. Achieve integrates with most of the common systems.



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Free with Order Brochure

BFW Achieve
Teacher Resources

Free With Purchase of 25 Student Editions

Teacher's Edition

The wrap-around Teacher's Edition is an invaluable resource for new and experienced instructors. In true BFW style, this TE is written by long-time instructors and includes thoughtful instruction for planning, pacing, and differentiating your course, as well as strategies for developing skills and teaching course content.

Teacher's Resource Materials

The Teacher's Resource Materials are designed to help you structure and navigate your course. Materials are referenced at point-of-use in the TE and include:

- Pacing Guides
- Lecture Slides
- Worksheets/Handouts
- Answer Keys/Suggested Responses
- Overview Videos
- Animations
- + More

Macmillan Learning Test Bank

The Macmillan Learning Test Bank is an online assessment system that allows you to create and deliver tests through a secure online test center.

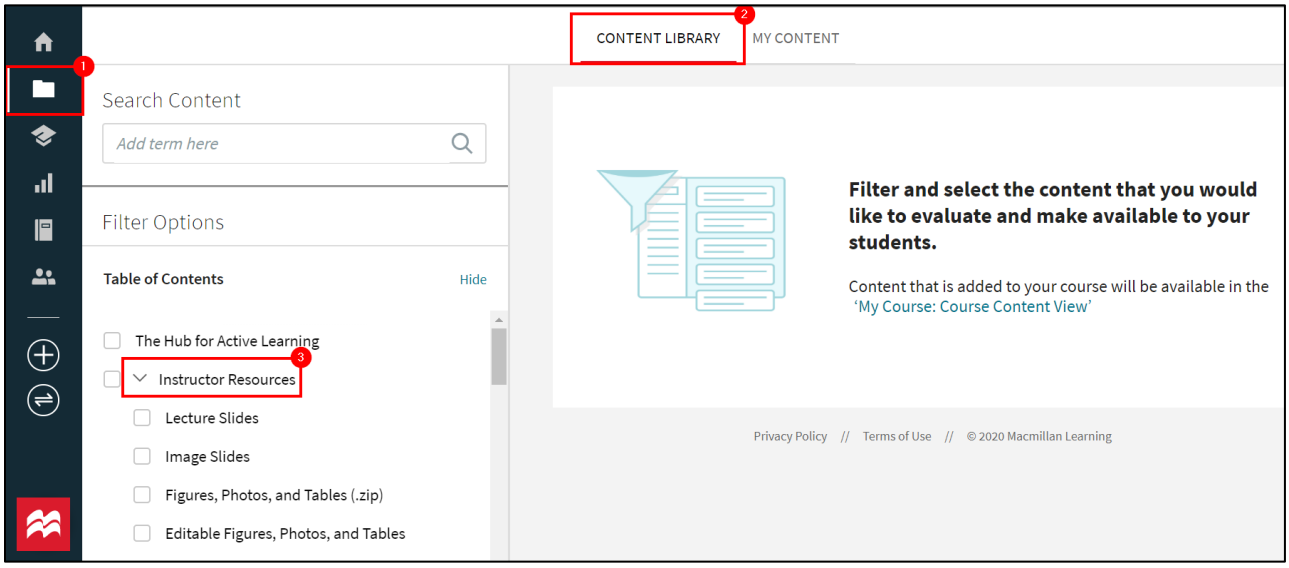
You can:

- Create paper or online tests that you can export to your LMS using your web browser
- Drag and drop questions to create tests
- Create and edit your own questions and edit publisher-created question sets

Some key features include:

- Support for many questions types including true/false, multiple choice, multiple response, matching, numeric response, completion, multi-blank, drag-and-drop, bin sort, short answer, ordering, essay, and Likert scale
- Rich word processing features including support for equations, images, and tables
- Algorithm engine to create dynamic questions
- Support for a wide variety of question metadata including local, state, and national standards
- Support for many standard import and export methods including IMS QTI and XML

Content Collections



Publisher-Provided Content

Use the provided course collection if you want to add publisher-provided content to your course. This collection allows you to search for resources by title, as well as filter by:

- Table of Contents
- Resource Type
- Recommended Use

My Custom Content
Use the My Custom Content Collection if you want to create your own resources and add them to your course. Any time you create a new resource, it will be available here to add into any of your courses, as long as that course uses that type of resource. For example, Writing can currently only be added to English courses.

Here are the types of content you can create. Remember, not all of these are available in all courses:

- Files
- Links (URLs)
- Assessments
- Writing Assignments
- GoReact Video Assignments

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Curriculum Scope and Sequence

Living By Chemistry

Mississippi CCRSS Standard	Location in Text	Suggested Pacing (Standard Schedule)*days	Suggested Pacing (Block Schedule)*days
CHE. 1	Chs. 1-24; Math Spotlights Appendix A	Problems to be solved as a part of every class session.	Problems to be solved as a part of every class session.
CHE.1.1	Engineering Projects, Featured Labs, Featured Activities, Demo, Projects		
CHE.1.2			
CHE.1.3			

Mississippi CCRSS Standard	Location in Text	Suggested Pacing (Standard Schedule)*days	Suggested Pacing (Block Schedule)*days
CHE. 2			
CHE.2.1	Chapter 3 A World of Particles	5	3
CHE.2.2	Chapter 4 Moving Electrons/Chapter 9 Molecules in the Body	8	4
CHE.2.3	Chapter 22 Radiating Energy	4	2
CHE.2.4			

Mississippi CCRSS Standard	Location in Text	Suggested Pacing (Standard Schedule)*days	Suggested Pacing (Block Schedule)*days
CHE. 3			
CHE.3.1	Chapter 2 Basic Building Materials	6	3
CHE.3.2	Chapter 8 Molecules in Action	5	3
CHE.3.3	Chapter 6 Speaking of Molecules	8	4

Mississippi CCRSS Standard	Location in Text	Suggested Pacing (Standard Schedule)*days	Suggested Pacing (Block Schedule)*days
CHE.4			
CHE.4.1	Chapter 6 Speaking of Molecules	8	4
CHE.4.2			
CHE.4.3	Chapter 8 Molecules in Action	5	3
CHE.4.4	Chapter 21 Controlling Energy	5	3
CHE.4.5			
CHE.4.6			
CHE.4.7			
CHE.4.8			

Mississippi CCRSS Standard	Location in Text	Suggested Pacing (Standard Schedule)*days	Suggested Pacing (Block Schedule)*days
CHE.5	Chapter 4 Moving Electrons	9	5
CHE.5.1			
CHE.5.2	Chapter 5 Building with Matter	3	1.5
CHE.5.3			

Mississippi CCRSS Standard	Location in Text	Suggested Pacing (Standard Schedule)*days	Suggested Pacing (Block Schedule)*days
CHE.6	Chapter 13 Toxic Changes	6	4
CHE.6.1	Chapter 20 Understanding Energy	5	3
CHE.6.2			
CHE.6.3			
CHE.6.4			
CHE.6.5			
CHE.6.6	Chapter 17 Toxic Cleanup	4	2
CHE.6.7			

Mississippi CCRSS Standard	Location in Text	Suggested Pacing (Standard Schedule)*days	Suggested Pacing (Block Schedule)*days
CHE.7			
CHE.7.1	Chapter 13 Toxic Changes	7	4
CHE.7.2	Chapter 20 Understanding Energy	4	2
CHE.7.3	Chapter 24 Protecting Earth	6	3
CHE.7.4			
CHE.7.5			
CHE.7.6	Chapter 17 Toxic Cleanup	4	2
CHE.7.7			
CHE.7.8			

Mississippi CCRSS Standard	Location in Text	Suggested Pacing (Standard Schedule)*days	Suggested Pacing (Block Schedule)*days
CHE.8	Chapter 13 Toxic Changes	6	3
CHE.8.1	Chapter 15 Toxins in Solutions	4	2
CHE.8.2	Chapter 23 Managing Chemical Change	6	3
CHE.8.3			
CHE.8.4			
CHE.8.5			
CHE.8.6			
CHE.8.7			
CHE.8.8			

Mississippi CCRSS Standard	Location in Text	Suggested Pacing (Standard Schedule)*days	Suggested Pacing (Block Schedule)*days
CHE.9	Chapter 16 Acidic Toxins	6	3.5
CHE.9.1			
CHE.9.2			
CHE.9.3			
CHE.9.4			
CHE.9.5	Chapter 23 Managing Chemical Change	7	3.25
CHE.9.6	Chapter 24 Protecting Earth	7	3.75

Mississippi CCRSS Standard	Location in Text	Suggested Pacing (Standard Schedule)*days	Suggested Pacing (Block Schedule)*days
CHE.10	Chapter 18 Observing Energy	6	3
CHE.10.1	Chapter 19 Measuring Energy	5	3
CHE.10.2	Chapter 20 Understanding Energy	5	3
CHE.10.3			
CHE.10.4			

Mississippi CCRSS Standard	Location in Text	Suggested Pacing (Standard Schedule)*days	Suggested Pacing (Block Schedule)*days
CHE.11	Chapter 23 Managing Chemical Change	7	3.25
CHE.11.1			
CHE.11.2			
CHE.11.3			

Mississippi CCRSS Standard	Location in Text	Suggested Pacing (Standard Schedule)*days	Suggested Pacing (Block Schedule)*days
CHE.12	Chapter 6 Speaking of Molecules	8	4
CHE.12.1	Chapter 7 Building Molecules	7	3.5
CHE.12.2			
CHE.12.3			

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MCCRS and AP Standards Correlations

Living By Chemistry 3e correlated to Mississippi College- and Career-Readiness Standards for Science

CHE.1 Mathematical and Computational Analysis: Conceptual Understanding: Mathematical and computational analysis is a key component of scientific investigation and prediction of outcomes. These components create a more student-centered classroom.	
CHE.1 *Students will use mathematical and computational analysis to evaluate problems.*	
CHE.1.1 Use dimensional analysis (factor/label) and significant figures to convert units and solve problems.	**Problems following every lesson Chapters 1-24, Appendix A Math Spotlights (A-0-A-18)**
CHE.1.2 Design and conduct experiments using appropriate measurements, significant figures, graphical analysis to analyze data.	**Engineering Projects**: 24, 55, 90, 128, 148, 192, 223, 251, 263, 303, 337, 363, 396, 423, 444, 472, 494, 529, 547, 570, 596, 620, 656, 693 **Featured Labs:** 92, 130, 141, 313, 331, 425, 462, 478, 512, 534, 588 **Featured Activities**: 39, 77, 110, 168, 199,296, 402, 550 **Featured Demo**: 7 **Projects:** 54, 90, 191, 222, 251, 263,302, 337, 396, 423, 444, 472, 494, 529, 570, 596, 620, 656
CHE.1.3 Enrichment: Research information from multiple appropriate sources and assess the credibility, accuracy, possible bias, and conclusions of each publication.	8
CHE.2 Atomic Theory: Conceptual Understanding: Atomic theory is the foundation of modern chemistry concepts. Students must be presented with a solid foundation of the atom and its components. These concepts lead to an understanding of the interactions of these components to explain macro-observations of the world.	
CHE.2 *Students will demonstrate an understanding of the atomic structure and the historical developments leading to modern atomic theory*	
CHE.2.1 Investigate the historical progression leading to the modern atomic theory, including, but not limited to, work done by Dalton, Rutherford's gold foil experiment, Thomson's cathode ray experiment, Millikan's oil drop experiment, and Bohr's interpretation of bright line spectra.	57-58, 59, 64
CHE.2.2 Construct models (e.g., ball and stick, online simulations, mathematical computations) of atomic nuclei to explain the abundance weighted average (relative mass) of elements and isotopes on the published mass of elements.	68-69, 193-197, 200, 203
CHE.2.3 Investigate absorption and emission spectra to interpret explanations of electrons at discrete energy levels using tools such as online simulations, spectrometers, prisms, flame tests, and discharge tubes. Explore both laboratory experiments and real-world examples	91-95, 599-600, 615-616, **Project: Wavelength and Energy** 621
CHE.2.4 Research appropriate sources to evaluate the way absorption and emission spectra are used to study astronomy and the formation of the universe.	94, 409
CHE.3 Periodic Table: Conceptual Understanding: Modern chemistry is based on the predictability of atomic behavior. Periodic patterns in elements led to the development of the periodic table. Electron configuration is a direct result of this periodic behavior. The predictable behavior of electrons has led to the discovery of new compounds, elements, and atomic interactions. Predictability of atom behavior is a key to understanding ionic and covalent bonding and production of compounds or molecules.	

***CHE.3** Students will demonstrate an understanding of the periodic table as a systematic representation to predict properties of elements.*	
CHE.3.1 Explore and communicate the organization of the periodic table, including history, groups, families, family names, metals, nonmetals, metalloids, and transition metals.	42-51
CHE.3.2 Analyze properties of atoms and ions (e.g., metal/nonmetal/metalloid behavior, electrical/heat conductivity, electronegativity and electron affinity, ionization energy, and atomic/ionic radii) using periodic trends of elements based on the periodic table.	46, 49-50, 237-239
CHE.3.3 Analyze the periodic table to identify quantum numbers (e.g., valence shell electrons, energy level, orbitals, sublevels, and oxidation numbers).	170, 573
CHE.4 Bonding: Conceptual Understanding: A firm understanding of bonding is necessary to further development of the basic chemical concepts of compounds and chemical interactions.	
***CHE.4** Students will demonstrate an understanding of the types of bonds and resulting atomic structures for the classification of chemical compounds.*	
CHE.4.1 Develop and use models (e.g., Lewis dot, 3-D ball-stick, 3-D printing, or simulation programs such as PhET) to predict the type of bonding between atoms and the shape of simple compounds	129, 170-175, 193-197, 203, 551
CHE.4.2 Use models such as Lewis structures and ball and stick models to depict the valence electrons and their role in the formation of ionic and covalent bonds.	170-171, 195
CHE.4.3 Predict the ionic or covalent nature of different atoms based on electronegativity trends and/or position on the periodic table	229-232, 235-236, 237-241
CHE.4.4 Use models and oxidation numbers to predict the type of bond, shape of the compound, and the polarity of the compound.	572-586
CHE.4.5 Use models of simple hydrocarbons to exemplify structural isomerism.	201
CHE.4.6 Use mathematical and computational analysis to determine the empirical formula and the percent composition of compounds.	27-28, 41
CHE.4.7 Use scientific investigation to determine the percentage of composition for a substance (e.g.sugar in gum, water and/or unpopped kernels in popcorn, percent water in a hydrate). Compare results to justify conclusions based on experimental evidence.	29
CHE.4.8 Plan and conduct controlled scientific investigations to produce mathematical evidence of the empirical composition of a compound.	29, 33, 34-36, 38, 52,
CHE.5 Naming Compounds: Conceptual Understanding: Polyatomic ions (radicals) and oxidation numbers are used to predict how metallic ions, nonmetals, and transition metals are used in naming compounds.	
***CHE.5** Students will investigate and understand the accepted nomenclature used to identify the name and chemical formulas of compounds.*	
CHE.5.1 Use the periodic table and a list of common polyatomic ions as a model to derive chemical compound formulas from compound names and compound names from chemical formulas.	47, 114-116
CHE.5.2 Generate formulas of ionic and covalent compounds from compound names. Discuss compounds in everyday life and compile lists and uses of these chemicals.	105-109, 135-137, 245
CHE.5.3 Generate names of ionic and covalent compounds from their formulas. Name binary compounds, binary acids, stock compounds, ternary compounds, and ternary acids.	105-109, 135-137, 245
CHE.6 Chemical Reactions: Conceptual Understanding: Understanding chemical reactions and predicting products of these reactions is essential to student success.	
***CHE.6** Students will demonstrate an understanding of the types, causes, and effects of chemical reactions.*	

CHE.6.1 Develop and use models to predict the products of chemical reactions (e.g., synthesis reactions; single replacement; double displacement; and decomposition, including exceptions such as decomposition of hydroxides, chlorates, carbonates, and acids). Discuss and/or compile lists of reactions used in everyday life.	184, 374-375, 391-392, 556, 561, 576-577, 670-674
CHE.6.2 Plan, conduct, and communicate the results of investigations to demonstrate different types of simple chemical reactions.	390-392
CHE.6.3 Use mathematics and computational analysis to represent the ratio of reactants and products in terms of masses, molecules, and moles (stoichiometry).	485
CHE.6.4 Use mathematics and computational analysis to support the claim that atoms, and therefore mass, are conserved during a chemical reaction. Give real-world examples (e.g., burning wood).	382-383, pg 385 **Reason and Apply problems 3-7**
CHE.6.5 Plan and conduct a controlled scientific investigation to produce mathematical evidence that mass is conserved. Use percent error to analyze the accuracy of results.	405
CHE.6.6 Use mathematics and computational analysis to support the concept of percent yield and limiting reagent.	481, 488-489, 490-491
CHE.6.7 Plan and conduct a controlled scientific investigation to produce mathematical evidence to predict and confirm the limiting reagent and percent yield in the reaction. Analyze quantitative data, draw conclusions, and communicate findings. Compare and analyze class data for validity.	pg 481 **Example 2 Precipitation of Calcium Phosphate**, pg 482 **Reason and Apply problem 3**
CHE.7 Gas Laws: Conceptual Understanding: The comparison and development of the molecular states of matter are an integral part of understanding matter. Pressure, volume, and temperature are imperative to understanding the states of matter.	
CHE.7 *Students will demonstrate an understanding of the structure and behavior of gases.*	
CHE.7.1 Analyze the behavior of ideal and real gases in terms of pressure, volume, temperature, and number of particles.	11, 12, 289, 291-294, 305, 309, 315-316, 328
CHE.7.2 Enrichment: Use an engineering design process to develop models (e.g., online simulations or student interactive activities) to explain and predict the behavior of each state of matter using the movement of particles and intermolecular forces to explain the behavior of matter.*	**Engineering Project: Smell Machine** Step 1 pg 192, Step 2 pg 223, Step 3 pg 251, Step 4 pg 263; **Engineering Project: Steam Engine** Step 1 pg 303, Step 2 337, Step 3 pg 363
CHE.7.3 Analyze and interpret heating curve graphs to explain the energy relationship between states of matter (e.g., thermochemistry-water heating from -20oC to 120oC).	523
CHE.7.4 Use mathematical computations to describe the relationships comparing pressure, temperature, volume, and number of particles, including Boyle's law, Charles's law, Dalton's law, combined gas laws, and ideal gas laws	291-294, 314-317, 321, 327-329, 347-350, 671
CHE.7.5 Enrichment: Use an engineering design process and online simulations or lab investigations to design and model the results of controlled scientific investigations to produce mathematical evidence that confirms the gas-laws relationships.*	**Engineering Project: Steam Engine** Step 1 pg 303, Step 2 337, Step 3 pg 363
CHE.7.6 Use the ideal gas law to support the prediction of volume, mass, and number of particles produced in chemical reactions (i.e., gas stoichiometry).	347-350, 671
CHE.7.7 Plan and conduct controlled scientific investigations to produce mathematical evidence that confirms that reactions involving gases conform to the law of conservation of mass	383
CHE.7.8 Enrichment: Using gas stoichiometry, calculate the volume of carbon dioxide needed to inflate a balloon to occupy a specific volume. Use an engineering design process to design, construct, evaluate, and improve a simulated air bag.*	483-486

CHE. 8 Solutions: Conceptual Understanding: Solutions exist as solids, liquids, or gases. Solution concentration is expressed by specifying relative amounts of solute to solvent.	
CHE.8 *Students will demonstrate an understanding of the nature of properties of various types of chemical solutions.*	
CHE.8.1 Use mathematical and computational analysis to quantitatively express the concentration of solutions using the concepts such as molarity, percent by mass, and dilution.	424-428
CHE.8.2 Develop and use models (e.g., online simulations, games, or video representations) to explain the dissolving process in solvents on the molecular level.	379-380, 633
CHE.8.3 Analyze and interpret data to predict the effect of temperature and pressure on solids and gases dissolved in water.	289,294, 629-630
CHE.8.4 Design, conduct, and communicate the results of experiments to test the conductivity of common ionic and covalent compounds in solution.	132-133
CHE.8.5 Use mathematical and computational analysis to analyze molarity, molality, dilution, and percentage dilution problems	431-432
CHE.8.6 Design, conduct, and communicate the results of experiments to produce a specified volume of a solution of a specific molarity, and dilute a solution of a known molarity.	426-428
CHE.8.7 Use mathematical and computational analysis to predict the results of reactions using the concentration of solutions (i.e., solution stoichiometry).	483-486
CHE.8.8 Enrichment: Investigate parts per million and/or parts per billion as it applies to environmental concerns in your geographic region, and reference laws that govern these factors.	436, 440, 441
CHE.9 Acids and Bases (Enrichment)	
CHE.9 *Enrichment: Students will understand the nature and properties of acids, bases, and salt solutions.*	
CHE.9.1 Enrichment: Analyze and interpret data to describe the properties of acids, bases, and salts.	111, 412, 446-447, 449-450, 451-452
CHE.9.2 Enrichment: Analyze and interpret data to identify differences between strong and weak acids and bases (i.e., dissociation).	451-452
CHE.9.3 Enrichment: Plan and conduct investigations using the pH scale to classify acid and base solutions.	447, 453-457
CHE.9.4 Enrichment: Analyze and evaluate the Arrhenius, Bronsted-Lowry, and Lewis acid-base definitions.	450-451
CHE.9.5 Enrichment: Use mathematical and computational thinking to calculate pH from the hydrogen ion concentration.	453-457,645
CHE.9.6 Enrichment: Obtain, evaluate, and communicate information about how buffers stabilize pH in acid-base reactions.	666
CHE.10 Thermochemistry (Enrichment)	
CHE.10 *Enrichment: Students will understand that energy is exchanged or transformed in all chemical reactions.*	
CHE.10.1 Enrichment: Construct explanations to explain how temperature and heat flow in terms of the motion of molecules (or atoms).	524
CHE.10.2 Enrichment: Classify chemical reactions and phase changes as exothermic or endothermic based on enthalpy values. Use a graphical representation to illustrate the energy changes involved.	501-502, 504-506
CHE.10.3 Enrichment: Analyze and interpret data from energy diagrams and investigations to support claims that the amount of energy released or absorbed during a chemical reaction depends on changes in total bond energy	551-553
CHE.10.4 Enrichment: Use mathematical and computational thinking to solve problems involving heat flow and temperature changes, using known values of specific heat and latent heat of phase change	518-521, 524-525
CHE.11 Equilibrium (Enrichment)	

***CHE.11** Enrichment: Students will understand that chemical equilibrium is a dynamic process at the molecular level.*	
CHE.11.1 Enrichment: Construct explanations to explain how to use Le Chatelier's principle to predict the effect of changes in concentration, temperature, and pressure	648-653
CHE.11.2 Enrichment: Predict when equilibrium is established in a chemical reaction.	637-640
CHE.11.3 Enrichment: Use mathematical and computational thinking to calculate an equilibrium constant expression for a reaction.	642-648
CHE.12 Organic Nomenclature (Enrichment)	
***CHE.12** Enrichment: Students will understand that the bonding characteristics of carbon allow the formation of many different organic molecules with various sizes, shapes, and chemical properties.*	
CHE.12.1 Enrichment: Construct explanations to explain the bonding characteristics of carbon that result in the formation of basic organic molecules.	137, 170-171, 247
CHE.12.2 Enrichment: Obtain information to communicate the system used for naming the basic linear hydrocarbons and isomers that contain single bonds, simple hydrocarbons with double and triple bonds, and simple molecules that contain a benzene ring.	160-161, 164-166, 174-175, 201, 206-207
CHE.12.3 Enrichment: Develop and use models to identify the functional groups that form the basis of alcohols, ketones, ethers, amines, esters, aldehydes, and organic acids.	179-180, 186, 188, 194, 213, 258, 284, 426
Overarching (start to finish) SEPs for Inquiry Extension of Labs *Ask questions to generate hypotheses for scientific investigations based on empirical evidence and observations and/or ask questions to clarify or refine models, explanations, or designs.* *Plan and conduct controlled scientific investigations to produce data to answer questions, test hypotheses and predictions, and develop explanations or evaluate design solutions, which require the following:* *o Identify dependent and independent variables and appropriate controls.* *o Select and use appropriate tools or instruments to collect data, and represent data in an appropriate form.* *o Analyze and interpret various types of data sets, using appropriate mathematics, in order to verify or refute the hypothesis or determine an optimal design solution.* *o Construct an explanation of observed relationships between variables.* *o Communicate scientific and/or technical information in various formats.*	**Featured Labs:** 92, 130, 141, 313, 331, 425, 462, 478, 512, 534, 588

Technology Supporting Document

Technology Supporting Document

1.1. i. Thin Common Cartridge 1.3 – IEDTECH Global Standards

We are not certified for Thin Common Cartridge (TCC) 1.3, as it is not an ideal delivery mechanism for our course materials. Users do not access content via Thin Common Cartridge. Instead, we deploy content via APIs and are certified for LTI 1.3 (Advantage), which includes content deployment and deep linking via IMS LTI standards.

1.2. ii. School rostering

We provide automated rostering for schools through multiple methods, including auto-provisioned user accounts and courses via Learning Tools Interoperability (LTI) connection with Learning Object Repository (LOR) and/or Learning Management System (LMS), automated import using OneRoster CSV and Secure FTP, as well as integration with Clever and ClassLink. We are certified for OneRoster.CSV and LTI Advantage Complete, and support rostering for students and teachers through OneRoster CSV, Clever, and ClassLink. Integration is also available with Google Classroom, Canvas, Schoology, D2L, Blackboard, and Moodle. Roster data is required for system operation.

1.3. iii. PDF and/or ePUB format

Our materials are available in both PDF and EPUB formats. PDF versions are accessible and can be provided at no additional cost, while e-books are produced in EPUB3 format with comprehensive accessibility features. All eBooks are certified by NIMAC.

1.4. iv. Alternative text (image), captions and subtitles (videos), read-alouds, and other accessibility functions

We provide alternative text for all images in our e-books, slides, and other resources, with both short and long descriptions depending on image complexity. All videos include closed captioning and, since 2019, audio descriptions. Subtitles are also available. Our eBooks feature a read-aloud (text-to-speech) function, and students can personalize background color, font size, and type. Accessibility features include compatibility with assistive technologies such as screen readers, keyboard navigation, and navigation methods like page and heading navigation. Transcripts for videos are available upon request.

1.5. v. 508 compliant platform

Yes, our platform is 508-compliant to the extent indicated in our Voluntary Product Accessibility Templates (VPATs), which we are happy to provide upon request. Accessibility is measured using guidelines set forth by Section 508 and the World Wide Web Consortium (W3C). We have mapped our solutions to the WCAG 2.1 standard at Level AA compliance and are regularly audited by third-party accessibility experts. We are committed to continually improving accessibility to meet user needs and expectations.

1.6. vi. Privacy-data security specifications

We comply with SOC 2 Type II and base our Information Security program on ISO/IEC 27001/02, ISO 27017, and NIST 800-37 frameworks. Our environment is cloud-based, and we implement security best practices, including a DMZ and Web Application Firewalls. We maintain strong administrative, technical, and physical safeguards to protect systems and data, including personally identifiable information, against unlawful or unauthorized destruction, loss, alteration, access, disclosure, or use. Data transferred to us, including registration information, quiz results, grades, and assessments, is encrypted in transit using TLS encryption. Sensitive data stored locally or at rest is encrypted using AES-256 encryption. We enforce a policy of 'Least Privilege' for staff access to customer personal and sensitive data, with access granted only to the minimum number of individuals required to support and maintain system functionality, and access is revoked upon termination. We routinely run vulnerability scans covering OWASP Top 10 and SANS Top 25 and integrate these into our development process.

For more information, please see our Privacy Notice:
https://www.bfwpub.com/high-school/us/legal/privacy-notice

1.7. vii. Browser and OS support

We support the following browsers and operating systems:

Browsers

- Chrome: 126.0.6478.126 plus two previous versions
- Firefox: 127.0.2 plus two previous versions
- Safari: 17.5 plus two previous versions
- Edge: 126.0.2592.87 plus two previous versions

Operating Systems

- Compatible with ChromeOS, Windows (including Windows 11), and MacOS
- The platform is device agnostic and may be used on PC, Mac, Chromebook, and mobile devices using supported browsers

No plugins are required, and the platform supports HTML5 web standards across all browsers.

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Implementation Guide

Implementation Training plan

At Bedford, Freeman and Worth, we have built our reputation on producing the highest quality materials for AP® courses and a variety of electives, and are proud to offer resources for a range of high school courses. With BFW, you will find what you need for class today including classroom tools that work; extensive resources for teachers; media that adds value to your classes; and the support that you need – when you need it. Our groundbreaking digital content (and books) are based on changes in education, in student populations and on accepted best practices for the classroom.

Our mission is to support the people teaching in the increasingly complex environment of high school education. We aspire to be a community that connects teachers with other teachers, scholars, authors, and editors, as well as with a library of resources for teaching and learning. Our online High School Teaching Community provides free access to premium content including course tours, professional development, webinars on demand, valuable teaching resources, and curriculum and state-focused sub-communities.

We follow a critical path method (CPM) of project management for the length of the contract term with all implementation and maintenance steps well-documented and reviewed prior to completion. All milestones receive a sign-off and are communicated to all project owners promptly. Our goal is to thoroughly transfer knowledge through a well-tested and standardized onboarding model designed specifically for the high school market. Implementation and ongoing support are managed by a dedicated team that includes product, sales, finance and client support team members. We use a combination of Salesforce, Desk, Service Cloud, and Google Suite to manage our projects.

Our BFW High School support portal provides 24/7 help to teachers, parents and students via a Knowledge Base (searchable by role, products, topic and features) as well as real-time email and phone support options. These support options are included at no additional cost for the length of your commitment.

Through our professional development series, we offer a variety of professional development opportunities for teachers to increase classroom success, be fully prepared, and have the training needed to increase their teaching effectiveness. Upon award, we would create a custom professional development plan based on your district and teachers' needs that covers our entire resource program for your classroom, onboarding and implementation training, and professional development workshops as needed.

Upon receipt of purchase order, we guarantee to ship within five business days and to deliver within ten business days upon receipt of purchase order for in-stock print items. Shipping is calculated at 5% of the total purchase order.

For more information, please visit
https://go.bfwpub.com/BFW-Achieve-Implementation-Site.html.

We have also provided a sample implementation timeline with this submission.
Please see the following page for details.

BFW Implementation Plan for Spring 2025

This implementation plan is based on an anticipated vendor selection in May 2025 for a Fall 2025 implementation. Dates are approximate and will be adjusted based on selection/ purchase date. BFW will also work to customize any implementation period or tasks required. All implementation costs are included in the adoption fee so there would be no additional associated costs (excepting some PD courses; please refer to our PD brochure for further details).

✔	Activity / Task / Milestone	District	BFW	Start Date	Additional Information	Scope
Initial Rollout		**Deadline: Spring/Summer 2025**				
	Vendor selection/purchase order issuance.	District	BFW Contract & Sales Teams	May 2025	TBD by District.	1 occurrence
	BFW will set up an initial onboarding meeting to ascertain project needs including training and integration; and finalize timeline and corresponding plan.	District	Account Manager	May 2025	Remote meeting anticipated (1 hour).	1 occurrence
	BFW will work on Achieve integration.	District	BFW Customer Experience Team	June 2025	Approximate total hours required (8 hours).	1 week
	Training for District central office (as required).	District Staff	BFW Customer Experience Team	June 2025	Remote meeting anticipated (1 hour).	1 occurrence
	Delivery of materials	N/A	BFW Warehouse	June 2025	For teachers and students.	1 occurrence
	Begin BFW Courseware Training and BFW Course Tours (gratis, self-scheduled by teachers/staff); and synchronous BFW Implementation Training (as required).	District Teachers/Staff	BFW Customer Experience Team	June 2025 - August 2025	Our implementation training and onboarding provides teachers with an overview of how to use and implement digital technology in the classroom as well as an overview of teacher and student resources. It does not include any in-depth discipline content coverage. Please refer to the provided PD brochure for further information. Hours required - TBD based on number of teachers.	3 months
Post Rollout		**Deadline: Ongoing**				
	Assessment meeting to determine areas of success and improvement prior to Spring term start.	District	Account Manager	November 2025	Remote meeting anticipated (1 hour).	1 occurrence
	BFW will schedule any further professional development or follow-up training.	District Teachers/Staff	BFW Customer Experience Team	January 2026	Hours required - TBD based on number of teachers.	1 month

	BFW will monitor progress throughout Year 2-6 implementation.	District	Account Manager & BFW Customer Experience Team	Ongoing	Remote meeting anticipated (1 hour).	Ongoing
	BFW will schedule annual meetings with stakeholders to review progress to date, share product updates, and plan implementation for the subsequent years.	District	Account Manager	Ongoing	Spring and Fall Terms - Remote meeting anticipated (1 hour).	Ongoing

Video Presentation

Video Presentation

You can find a full video presentation overview of our AP and on-level Science texts at the following link:

***Biology for the AP® Course* (1e)**
Copyright 2022
Print edition ISBN: 9781319113315

***College Physics for the AP® Physics 1 & 2 Courses* (3e)**
Copyright 2023
Print edition ISBN: 9781319486211

***Environmental Science for the AP® Course* (4e)**
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***Living by Chemistry* (3e)**
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https://go.screenpal.com/watch/cTjFqsn2Zwa