

Bioscience Online Resource Guide

Resource Title	Resource Description	Resource Title	Resource Description
UFEL BACE - Practice Exam Course	The Biotechnician Assistant Credentialing Exam (BACE) Practice Exam Course was designed to help BACE Candidates prepare both for the exam and for a career in the biotechnology industry. Educational institutions may gain access to this resource by registering for the BACE through our website: https://biotility.research.ufl.edu/bace/	Science Primer: Serial Dilutions	The widget follows the relationship between volume of solvent, number of molecules of solute, and concentration of solution over a set of four dilutions. Practice problems are also available.
BioRad Life Science Tutorial Videos	These basic technique videos provide training for many core biotechnology skills. Categories include Laboratory Skills, Microbiology & Cell Culture, DNA Structure & Analysis, PCR, Protein Structure & Analysis, and Immunological Applications.	Biotech Careers	Biotech Careers is an in-depth database of information about the industry, organized around Careers, Job Areas, Internships, Stories & Blogs, Work Experiences, and Biotech Companies.
Khan Academy: Biotechnology Unit	Khan Academy's Biotechnology unit offers an introduction to modern biotechnology and its uses in research, focusing on DNA structure/analysis and techniques such as PCR, cloning and DNA sequencing.	Google Slides	Google Slides is a cloud-based presentation program, which allows students to collaborate with one another virtually.
Omni Significant Figures Calculator	The significant figures calculator performs operations on significant figures and shows a step-by-step solution! Also provides a refresher on significant figures and the rules to be used in calculations.	Nearpod	Nearpod allows teachers and students to upload presentations and add interactive elements that supports live participation and formative assessment.
HHMI Biointeractive	These sources are designed to connect students to big ideas in biology, promote engagement with science practices, and instill awe and wonder about the living world. The website provides educators with planning tools to build resource playlists and storylines, and professional learning materials and opportunities to deepen their scientific and pedagogical expertise.	MS Whiteboard	MS Whiteboard is a virtual whiteboard application that can be used not only for virtual lessons, but can be used as a way to brainstorm virtually.
PBS Collections- Biotechnology	This PBS Learning Media Collection includes resources for common biotechnology laboratory techniques and concepts. It also includes biotechnology career profiles to show the wide-range of job opportunities available in this industry.	Labster	Labster has a catalog of over 200 virtual lab simulations. Not only does it include bioscience simulations, but it also includes chemistry and physics simulations.
PBS Resources- Genetics and Heredity	PBS Learning Media has a wide variety of genetic and heredity resources including, but not limited to, the following concepts: DNA, RNA, protein, genetic disorders, and genetic mutations.	National Center for Case Study Teaching in Science	The National Center for Case Study Teaching in Science includes a collection of peer-reviewed case studies in science. The case studies are intended to support critical thinking skills centered on contemporary, real-world science scenarios.
Teach Genetics Learn Genetics	The Genetic Science Learning Center is home to a number of resources on genetics and cell biology, as well as an excellent series of virtual labs including PCR, gel electrophoresis, microarrays, etc.	The Bumbling Biochemist	The Bumbling Biochemist covers a variety of biochemistry concepts and vocabulary through unique and artistic graphics. The mission of the resource is to make biochemistry accessible to all.
National Center for Biotechnology Information	NCBI advances science and health by providing access to biomedical and genomic information, and is home to popular bioinformatics tools (e.g. BLAST), and literature resources (e.g. PubMed).	Virtual Interactive Bacteriology Laboratory	The Virtual Interactive Bacteriology Laboratory is a virtual lab resource that includes modules on gram-staining, streaking a plate, differential media and various biochemical tests.

Northwest Association for Biomedical Research	<p>NWABR has an extensive lesson archive including full plans, rubrics, and guidelines, and also provides a variety of professional development programs to promote understanding of biomedical research.</p>	CTE Online	<p>CTE Online Curriculum tools help programs and educators collaboratively create and share models of effective instruction. Topics include Health Science and Medical Terminology, as well as Manufacturing and Product Development.</p>
Digital World Bio	<p>A repository of resources for teaching modern biology, including Apps (e.g. Molecule World), Books and Worksheets, Cards and Games, Courses and Tutorials. Digital World Bio supports the Biotech Careers and InnovATEBIO websites.</p>	Amgen: The Science of Biotechnology	<p>One of the world's leading biotechnology companies, Amgen provides an excellent introduction to the field of biotechnology, along with information about discovering new medicines and the future of biotech.</p>
NYT: What's going on in this graph?	<p>Each week an engaging NYT graph is selected and paired with a simple set of questions, asking students what they notice and wonder. Live moderation is provided by statistics teachers on Wednesdays.</p>	Science Journal for Kids and Teens	<p>Open access, peer-reviewed research papers rewritten in age-appropriate language. Each paper is accompanied by assessment questions, videos, meta information (reading level, curriculum alignment), and additional educator resources (slides, labs, quizzes, recommended websites, etc).</p>