

Type of Resource	Subject	Website
Due to the great influx of people using this document, it was necessary to change the settings to allow people to view We welcome contributions and additions by all (simulations/virtual labs, case studies, data sets, other media - videos/p https://forms.gle/Zz9mncCoRtQ1kcFV9		
Please note that this is not an endorsement for any of these resources, it is just a gathering of resources. Please vet a please share with anyone you think might benefit :)		
Simulation / Virtual Lab	Anatomy and Physiology	Whitman College Virtual Fetal Pig Dissection
Simulation / Virtual Lab	Astronomy	Nebraska Astronomy Applet Project
Simulation / Virtual Lab	Astronomy	Astro Simulations, from the Columbia University Center for
Simulation / Virtual Lab	Astronomy	Foothill College AstroSims
Simulation / Virtual Lab	Neuroscience	UCLA
Simulation / Virtual Lab	Biology	Learn Genetics
Simulation / Virtual Lab	Biology	Virtual Laboratory
Simulation / Virtual Lab	Biology	Whole Frog
Simulation / Virtual Lab	Biology	Phet Interactive Simulations
Simulation / Virtual Lab	Biology	Gizmos
Simulation / Virtual Lab	Biology	Molecular Workbench
Simulation / Virtual Lab	Biology	Labster
Simulation / Virtual Lab	Biology	Praxilabs
Simulation / Virtual Lab	Biology	Judith Nuno's AP Biology
Simulation / Virtual Lab	Biology	Biologica - the concord consortium
Simulation / Virtual Lab	Biology	Teaching Genetics with Dragons
Simulation / Virtual Lab	Biology	EduWebLabs
Simulation / Virtual Lab	Biology	Genetics Web Lab Directory
Simulation / Virtual Lab	Biology	BiolInteractive - HHMI
Simulation / Virtual Lab	Biology	McGraw-Hill Biology Virtual Laboratory Exercise
Simulation / Virtual Lab	Biology	General Biology Lab 101
Simulation / Virtual Lab	Biology	Interactive Media - Virtual Labs Stanford
Simulation / Virtual Lab	Biology	Microscopy Laboratory
Simulation / Virtual Lab	Biology	Virtual Scanning Electron Microscope
Simulation / Virtual Lab	Biology	Virtual Biology Labs
Simulation / Virtual Lab	Biology	Virtual Interactive Bacteriology Laboratory
Simulation / Virtual Lab	Biology	Microbiology Virtual Lab
Simulation / Virtual Lab	Biology	LabXchange
Simulation / Virtual Lab	Biology	SimBio/ Simulated Biology
Simulation / Virtual Lab	Biology	NOVA interactives
Simulation / Virtual Lab	Biology	DataNuggets
Simulation / Virtual Lab	Biology	Evo-Ed
Simulation / Virtual Lab	Biology	NOVA interactives
Simulation / Virtual Lab	Biology	Wiley Plus

Website URL	Description
and comment on this document.	
(podcasts/images/photos) - please do so by clicking on the link below.	
and discuss with others at your institution as to the viability/safety of what you intend to use.	
https://www.whitman.edu/academics/departm	supplement to laboratory dissections exploring introductory mammalian anatomy and physi
https://astro.unl.edu/naap/	Simulations of a wide range of astronomical phenomena, organized into units of related sim
https://ccnmtl.github.io/astro-simulations/	HTML5 implementation of several of the NAAP simulations.
https://foothill.edu/astronomy/astrosims/	HTML5 Astronomy simulations (currently planetary configurations and dark matter. Soon: P
https://mdcune.psych.ucla.edu/modules	digital modules for undergraduate neuroscience course
https://learn.genetics.utah.edu/	Interactive techniques labs, online lessons in genetics, cell biology, evolution, human health
http://virtuallaboratory.colorado.edu/virtuallab	videos, descriptions, simulations throughout lessons (Water properties, Ecoli, Growth, Muta
https://froggy.lbl.gov/	interactive frog dissection, images, 3D rotatable images, stories, and games
https://phet.colorado.edu/ m/	simulations + faculty resources: activites, questions to ask students
https://www.explorelarning.com/index.cfm?n	online simulations with instructor guides, prompts for students
http://mw.concord.org/modeler/	simulations + lesson guides for students
https://www.labster.com/simulations/	simulations + short lesson/learning objectives
https://praxilabs.com/en/virtual-labs	simulations with prompts embedded to walk students through lab
http://www.jdenuno.com/APBiology/APBIO.ht	simulations, activities, lab protocols + for a few simulations
http://biologica.concord.org/webtest1/web_lat	web labs and 3D cell renderings to each genetics
https://concord.org/teaching-genetics/dragons	genetics game with instructor guides, resources
http://eduweblabs.com/	online laboratory - guides for students beside simulator (labs, exercises, drills, tutorials)
http://www2.edc.org/weblabs/WebLabDirecto	click through simulations with embedded cotent (instructions, teacher notes and student isn
https://www.biointeractive.org/classroom-reso	virtual laboratories with workshops, handouts and teacher materials
https://www.mhhe.com/biosci/genbio/virtual_l	laboratory exercises with instructions, quizzes and report options
http://bio.rutgers.edu/~qb101/virtuallabs_101	online instruction with walkthroughs and videos
http://virtuallabs.stanford.edu/	online interactive media
http://www1.udel.edu/biology/ketcham/micros	virtual microscope
https://micro.magnet.fsu.edu/primer/java/elec	interactive microscope with different samples and ability to chagne focus, contrast, brightnes
http://www.classzone.com/books/hs/ca/sc/bio	virtual labs that allow students to save predictions, data, calucations and conclusions from l
http://learn.chm.msu.edu/vibl/	virtual labs with pre-lab walk through (descriptions, steps, starts)
https://vlab.amrita.edu/?sub=3&brch=73	animations, lessons, simulators, assignments
https://www.labxchange.org/library/items/lb:L2	Experimental design - identify SNPs
https://simbio.com/	experimentation using realistic simulations of biological systems
https://www.pbs.org/wgbh/nova/topic/evolutio	interactive modules for many subjects (and videos)
http://datanuggets.org/	Activities to develop quantitative skills. Undergrad. = Content Level 4
http://www.evo-ed.org/index.htm	Integrative Evolution Case Studies/Modules/Games
https://www.pbs.org/wgbh/nova/topic/evolutio	interactive modules for many subjects (and videos)
https://www.wileyplus.com	has interactive materials for many subjects including LMS integration

Access (open, limited, at cost)	Registration required	additional notes		
free	no			
free	no	Written in Flash, however, Windows and Mac installable versions available at ht		
free	no			
free	no	HTML5 (works on modern browsers), mix of re-implementations of NAAP simul		
free	no	Virtual Labs only: https://learn.genetics.utah.edu/content/labs/		
free	no	Adobe Flash Player required		
free	no			
free	no	Adobe Flash Player, Java or others (depending on simulation)		
free	yes			
free	no	Java		
Free for K12, Discounted for higher ex	yes	accessed through BB		
free	yes			
free	no	adobe for most		
free	no	shockwave		
free	yes			
free	no	adobe flash player		
free	no	adobe flash player		
free	no	ipad apps		
free	no	Adobe Flash Player		
free	no	quicktime		
free	no	adobe flash player		
free	no	Flash 6 plugin required		
free	no	Jave for interactive tutorials		
free	no	adobe flash		
free	no	some make students do all or some steps		
free	yes			
free	no			
For Spring 2020 they are allowing gre	yes			
free	no			
free	no	Digital specifc data nuggets: http://datanuggets.org/digital-data-nuggets/?fbclid=		
free	no			
free	no			
free if used due to coronavirus interr	yes	must register here: https://secure.wiley.com/COVID19OpenWPAccess?elq_mid		

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Simulation / Virtual Lab	Biology	QUBES
Simulation / Virtual Lab	Biology	GelBox
Simulation / Virtual Lab	Biology	Virtual Microscope
Simulation / Virtual Lab	Biology	Gel Scramble
Simulation / Virtual Lab	Biology	StarGenetics
Simulation / Virtual Lab	Biotech	LabXchange/Amgen Biotech/Harvard
Simulation / Virtual Lab	Cell Bio/Genetics	UCLA
Simulation / Virtual Lab	Chemistry	Resources by Prof Gary L Bertrand - Simulated Experiments
Simulation / Virtual Lab	Chemistry	Gen Chem online Simulations (from J Wiley and Sons)
Simulation / Virtual Lab	Chemistry	Gen Chem Interactive Simulations
Simulation / Virtual Lab	Chemistry	Virtual Chemistry Experiments
Simulation / Virtual Lab	Chemistry	ChemReaX (LibreTexts)
Simulation / Virtual Lab	Chemistry	goREACT Museum of Science+Industry, Chicago
Simulation / Virtual Lab	Chemistry	Royal Society of Education
Simulation / Virtual Lab	Chemistry	ChemCollective - CMU
Simulation / Virtual Lab	Chemistry	Chem Doodle
Simulation / Virtual Lab	Chemistry	ChemCollective CMU
Simulation / Virtual Lab	Chemistry	Phet Interactive Simulations
Simulation / Virtual Lab	Chemistry	ChemSims
Simulation / Virtual Lab	Chemistry	Gizmos
Simulation / Virtual Lab	Chemistry	Molecular Workbench
Simulation / Virtual Lab	Chemistry	Labster
Simulation / Virtual Lab	Chemistry	Praxilabs
Simulation / Virtual Lab	Chemistry	EduWebLabs
Simulation / Virtual Lab	Chemistry	Learn Genetics
Simulation / Virtual Lab	Chemistry	Ck-12 Exploration Series
Simulation / Virtual Lab	Chemistry	EduMedia
Simulation / Virtual Lab	Chemistry	Wiley Plus
Simulation / Virtual Lab	Chemistry	MIT OpenCourseWare Digital Lab Techniques Manual
Simulation / Virtual Lab	Chemistry	ChemMixLab
Simulation / Virtual Lab	Chemistry	AACT (American Association of Chemistry Teachers)
Simulation / Virtual Lab	Chemistry	Labflow by Catalyst (COVID -19 Contingency Lab Course)
Simulation / Virtual Lab	Chemistry, Bio, Other - medicine	Labster
Simulation / Virtual Lab	Chemistry, Math	Nanome (Nano Me)
Simulation / Virtual Lab	Chemistry (organic)	NC State Undergraduate Organic Chemistry Teaching Lab
Simulation / Virtual Lab	Chemistry (organic)	List of free resources compiled by Stacey Lowry Bretz
Simulation / Virtual Lab	Civics	iCivics
Simulation / Virtual Lab	Comparative neuroanatomy	UCLA
Simulation / Virtual Lab	Computer Science, Engineering	Zybooks
Simulation / Virtual Lab	Environmental Science	Wiley Plus

https://qubeshub.org/qubesresources	Biology/Math platform with open source simulations, activities etc
http://douglaslab.org/gelbox/	Open Inquiry Simulation of DNA gel electrophoresis (only DNA currently)
http://virtual.itg.uiuc.edu/	virtual microscopes, 90 samples of multi-dimensional, high-resolution image datasets. The
https://mdcune.psych.ucla.edu/modules/gel	Critical thinking in molecular biology
http://star.mit.edu/genetics/	Mendelian genetics cross simulator developed at MIT by biology faculty, researched-trained
https://www.labxchange.org/library/clusters/at	fundamental concepts and lab techniques essential to the field of biotechnology
https://mdcune.psych.ucla.edu/modules/gel	
http://web.mst.edu/~gbert/links.html	List of simulated experiments, self-tests and tutorials
https://antoine.frostburg.edu/chem/senese/10	Electrolyte Solution Simulation
http://employees.oneonta.edu/viningwj/sims/	Simulations by textchapters
https://www.chm.davidson.edu/vce/index.htm	Effect of Temp; Joule Experiment; molecular and atomic structure
https://chem.libretexts.org/Bookshelves/Ancill	Web App for modeling and simulating chem reactions
https://edu.rsc.org/resources/titration-screen-	Mobile app to create own virtual chem reactions
http://www.rsc.org/learn-chemistry/resources/	Titration Screen Experiment
http://www.chemcollective.org/mr/index.php	Gather clues - Interview suspects - Analyze evidenceSolve a mysterious death
https://www.chemdoodle.com/	Chemical Drawing, Publishing and Informatics.
http://chemcollective.org/home	Virtual Labs and Simulations
https://phet.colorado.edu/_m/	simulations + faculty resources: activites, questions to ask students
http://chemsims.com/	Evidence based assignments to support several online simulations from PhET and Pearson
https://www.explorelearning.com/index.cfm?n	online simulations with instructor guides, prompts for students
http://mw.concord.org/modeler/	simulations + lesson guides for students
https://www.labster.com/simulations/	simulations + short lesson/learning objectives
https://praxilabs.com/en/virtual-labs	simulations with prompts embedded to walk students through lab
http://eduweblabs.com/	online laboratory - guides for students beside simulator (labs, exercises, drills, tutorials)
https://learn.genetics.utah.edu/	Interactive techniques labs, online lessons in genetics, cell biology, evolution, human health
https://interactives.ck12.org/simulations/physi	easy to use simulations and walkthroughs
https://www.edumedia-sciences.com/en/node	simulations by subject
https://www.wileyplus.com	has interactive materials for many subjects including LMS integration
https://ocw.mit.edu/resources/res-5-0001-digi	videos of common chemistry laboratory techniques
https://chemix.org/	
https://teachchemistry.org/news/unlocked-res	activities, animations, projects, simulations, and videos for middle school, high school, and
https://www.catalystedu.com/covid-response	Ready to implement guided Lab Simulations on select topics with questions and Lab reports
https://www.labster.com/simulations/	simulations + short lesson/learning objectives
https://nanome.ai/	VR Molecular Exploration & Design, VR calculus visualizations
https://www.youtube.com/channel/UCr1PT0J	Lab videos that demonstrate organic chemistry lab techniques. Resource also contains som
https://docs.google.com/document/d/1rvR8ph	Download a list of URLs to online animations, videos, simulations, & demos that many talen
https://www.icivics.org/	Simulations of different government positions, elections
https://mdcune.psych.ucla.edu/modules/cna	contains a few lab simulations w lesson plans, is a robust textbook with embedded movies
https://www.zybooks.com/	Interactive Textbook for CS and Electrical ENGR
https://www.wileyplus.com	has interactive materials for many subjects including LMS integration

Free	Yes	Download program, Mac only!		
open	no			
free	yes	Students are given protocols and then have to decide which gels fit AND what h		
free	no			
Free	Account required	Can also curate playlists		
Yes	no			
Yes	No	need Macromedia's free Flash Player		
yes	No	Adobe Flash Player		
Yes	No	Java-Based		
Yes	yes, also but includes sign-in			
yes	No	Drag and drop lab using Periodic Table; game format		
free	Reg required			
Free	No	game-like activity developed by the ChemCollective with students from the Depa		
free	no	online simulation of a chem lab; by concept and difficulty		
free	no	Adobe Flash Player, Java or others (depending on simulation)		
free	no			
free	yes			
free	no	Java		
Free for K12, Discounted for higher ex	yes	accessed through BB		
free	yes			
free	no	adobe flash player		
free	no	Virtual Labs only: https://learn.genetics.utah.edu/content/labs/		
free	sign in via google or ac			
free	no			
free if used due to coronavirus interr	yes	must register and state that you are using it due to coronavirus interruptions		
open free	no			
open through March 31	no			
free/open	yes			
Free for K12, Discounted for higher ex	yes	accessed through BB		
free	no			
free	no			
free	Yes			
free				
free if used due to coronavirus interr	yes	must register and state that you are using it due to coronavirus interruptions		

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Simulation / Virtual Lab	Environmental Science	The Habitable Planet - Annenberg Learner
Simulation / Virtual Lab	Epidemiology	linked through CDC Epi Info
Simulation / Virtual Lab	Geology	Phet Interactive Simulations
Simulation / Virtual Lab	Geology	Gizmos
Simulation / Virtual Lab	Geology	EduWebLabs
Simulation / Virtual Lab	Geology	Geology Online Labs
Simulation / Virtual Lab	Geology	Finding Lab Activities Online
Simulation / Virtual Lab	Geology	Jules Verne Voyager
Simulation / Virtual Lab	Geology	Geology Lab Study Materials
Simulation / Virtual Lab	Geology	Earthquake Simulator
Simulation / Virtual Lab	Geology	EduMedia
Simulation / Virtual Lab	Geology	NOVA interactives
Simulation / Virtual Lab	Geology and Earth Sciences	Virtual Microscope
Simulation / Virtual Lab	Math	Phet Interactive Simulations
Simulation / Virtual Lab	Math	Wiley Plus
Simulation / Virtual Lab	Math	MapleSoft MathApps
Simulation / Virtual Lab	Math?	Patterns in Nature
Simulation / Virtual Lab	Multi-Discip	Molecular Workbench
Simulation / Virtual Lab	Neuropsychology	UCLA
Simulation / Virtual Lab	Neuroscience	UC SanDiego
Simulation / Virtual Lab	Other - biotech + biotech	Molecular Workbench
Simulation / Virtual Lab	Physics	Phet Interactive Simulations
Simulation / Virtual Lab	Physics	
Simulation / Virtual Lab	Physics	Molecular Workbench
Simulation / Virtual Lab	Physics	Labster
Simulation / Virtual Lab	Physics	Praxilabs
Simulation / Virtual Lab	Physics	EduWebLabs
Simulation / Virtual Lab	Physics	physics simulations
Simulation / Virtual Lab	Physics	HTML5 Physics Simulations
Simulation / Virtual Lab	Physics	Ck-12 Explorations Series
Simulation / Virtual Lab	Physics	Physics Classroom
Simulation / Virtual Lab	Physics	EduMedia
Simulation / Virtual Lab	Physics	NOVA interactives
Simulation / Virtual Lab	Physics	Positive Physics
Simulation / Virtual Lab	Physics	Wiley Plus
Simulation / Virtual Lab	Physics	Open Source Physics
Simulation / Virtual Lab	Physics	Pivot Interactives
Simulation / Virtual Lab	Physics	The Physics Aviary
Simulation / Virtual Lab	Physiology	Fox Valley Tech College
Simulation / Virtual Lab	Physiology	PhysioEx

https://www.learner.org/series/the-habitable-planet/	a robust text plus lab simulations + lesson plans (pollution, C cycle, ecosystems), embedded
http://www.activepi.com/	lectures, videos, datasets, activities
https://phet.colorado.edu/m/	simulations + faculty resources: activities, questions to ask students
https://www.explorelearning.com/index.cfm?n	online simulations with instructor guides, prompts for students
http://eduweblabs.com/	online laboratory - guides for students beside simulator (labs, exercises, drills, tutorials)
https://www.sciencecourseware.org/GLOL/	curricula with virtual earthquake, dating and river
https://serc.carleton.edu/NAGTWorkshops/or	a list of online courses/laboratories to teach geology
http://jules.unavco.org/VoyagerJr/Earth	manipulate maps of the world to view different features
http://profharwood.x10host.com/GEOL101/St	A handful of virtual labs with fillable worksheets/lab reports
http://ds.iris.edu/edu/10.5/	Manipulate length, depth and slip, then predict magnitude and experiment
https://www.edumedia-sciences.com/en/node	simulations by subject
https://www.pbs.org/wgbh/nova/topic/evolutio	interactive modules for many subjects (and videos)
https://www.virtualmicroscope.org/collections	Our virtual microscope collections include a full range of rock types native to Earth and beyo
https://phet.colorado.edu/m/	simulations + faculty resources: activities, questions to ask students
https://www.wileyplus.com	has interactive materials for many subjects including LMS integration
https://www.maplesoft.com/products/Student/	Interactive Math apps
http://polymer.bu.edu/java/	short lessons + online simulators
http://mw.concord.org/modeler/	Hundreds of Simulations - Physics, chem, bio, biotech, nanotech
https://mdcune.psych.ucla.edu/modules/smr	
https://sites.google.com/ucsd.edu/neuroedu	
http://mw.concord.org/modeler/	simulations + lesson guides for students
https://phet.colorado.edu/m/	simulations + faculty resources: activities, questions to ask students
https://www.explorelearning.com/index.cfm?n	online simulations with instructor guides, prompts for students
http://mw.concord.org/modeler/	simulations + lesson guides for students
https://www.labster.com/simulations/	simulations + short lesson/learning objectives
https://praxilabs.com/en/virtual-labs	simulations with prompts embedded to walk students through lab
http://eduweblabs.com/	online laboratory - guides for students beside simulator (labs, exercises, drills, tutorials)
https://www.myphysicslab.com/	interactive physics labs (change values and experiment)
http://physics.bu.edu/~duffy/HTML5/index.htm	manipulate systems and experiment with climate change, motion, forces, gravity, momentu
https://interactives.ck12.org/simulations/physi	easy to use simulations and walkthroughs
https://www.physicsclassroom.com/	simulations, tutorials, concept builders, aimed at HS but usable for college
https://www.edumedia-sciences.com/en/node	simulations by subject
https://www.pbs.org/wgbh/nova/topic/evolutio	interactive modules for many subjects (and videos)
https://www.positivephysics.org/	physics questions and prep
https://www.wileyplus.com	has interactive materials for many subjects including LMS integration
https://www.compadre.org/osp/index.cfm	Lots of great tools—simulations, analysis programs.
https://www.vernier.com/product/pivot-interac	formerly "direct measurement videos", videos of lab trials with javascript tools for measurem
https://www.thephysicsaviary.com/Physics/Pr	lab simulations, some with built-in random error for better analysis
https://library.fvtc.edu/NursingAssistant/Virtua	List of virtual dissection programs
http://www2.scsc.k12.in.us/physioEX/bc_phys	Human physiology simulations with notes & handouts

free	no			
free	no			
free	no	Adobe Flash Player, Java or others (depending on simulation)		
free	yes			
free	no	adobe flash player		
free	no	java or flash		
free	no			
free	no			
free	no			
free	no	flash		
free	no			
free	no			
open	no			
free	no	Adobe Flash Player, Java or others (depending on simulation)		
free if used due to coronavirus interruption	yes	must register and state that you are using it due to coronavirus interruptions		
free	no	Java		
Yes	No	Java-Based		
free	no	Java		
free	no	Adobe Flash Player, Java or others (depending on simulation)		
free	yes			
free	no	Java		
Free for K12, Discounted for higher education	yes	accessed through BB		
free	yes			
free	no	adobe flash player		
free	no			
free	no			
free	sign in via google or account			
free	no	HTML5		
free	no			
free	no			
free	yes	email the founder for access		
free if used due to coronavirus interruption	yes	must register and state that you are using it due to coronavirus interruptions		
free	no			
at cost	yes	30-day free trial for educators		
free	no			
free	no	no		
free	no	old version		

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Simulation / Virtual Lab	Physiology	JustPhysiology Human Physiology Simulations
Simulation / Virtual Lab	Physiology/neurophysiology	UCLA
Simulation / Virtual Lab	Psychology	American Psychological Association
Simulation / Virtual Lab	STEM	NextGen Molecular Workbench
Demonstrations	STEM	WOLFRAM Demonstrations Project
Simulation / Virtual Lab		Friady Rat
Simulations / Virtual Labs	STEM	Virtual Labs (Indian Ministry of Human Resource Develop
Simulations / Virtual Labs	STEM	Labs Land
Simulations / Virtual Labs	STEM	Virtual Labs at Amrita Vishwa Vidyapeetham
Virtual Labs, Case Studies, Other	STEM	JoVE Science Education
Simulations / Virtual Labs	Sciences	Science Buddies- at home labs
Open Resources	ALL	openstax
Data Sets / Sources	Multi-Disciplinary	Finding Data Home: University of Bath
Data Sets / Sources	Multi-Disciplinary	Open Access Directory - Data Repositories
Data Sets / Sources	Public Health and Nursing	Kent State LibGuide
Data Sets / Sources	Multi-Disciplinary Web of Science	(through Kent State Library)
Data Sets / Sources	Multi-Disciplinary	Dryad
Data Sets / Sources	Environmental Science	DataONE (Data Observation Network for Earth)
Data Sets / Sources	STEM	University of Texas Libraries
Data Sets / Sources	Science Based	QUT (Queensland Univeristy of Technology) Library
Data Sets / Sources	Multi-topic	United States Census Bureau
Data Sets / Sources	Multi-Disciplinary	USGS (U.S. Geological Survey)
Data Sets / Sources	Health and Aging	National Health and Aging Trends Study
Data Sets / Sources	Science and Engineering (STEM E	NSF NCSES (National Center for Science and Engineerin
Data Sets / Sources	Business and Finance	U.S. Govt Open Data
Data Sets / Sources, Simulation / V	Astronomy	SDSS Skyserver projects
Case Studies	Multi-Disciplinary	Science, Health & Medicine, Engineering and Environment:
Case Studies	Multi-Disciplinary	National Center for Case Study Teaching in Science:
Case Studies	Multi-Disciplinary	Investigate Case Based Learning: BioQuest:
Case Studies	Biology	Case It Biology
Case Studies, Other Media (videos	Biology	Network of Conservation Educators and Practitioners: Bio
Case Studies	Multi-Disciplinary	Native case studies
Case Studies	Multi-Disciplinary	The Hallway: case studies
Other Media (videos/photos/image	Multi-Disciplinary	Discovery Education
Other Media (videos/photos/image	Multi-Disciplinary	Smithsonian Channel
Other Media (videos/photos/image	Multi-Disciplinary	National Geographic Video (youtube):
Other Media (videos/photos/image	Multi-Disciplinary	National Geographic Video
Other Media (videos/photos/image	Multi-Disciplinary	Flickr Space X Photos
Other Media (videos/photos/image	Multi-Disciplinary	NASA TV images
Other Media (videos/photos/image	Multi-Disciplinary	Old Book Illustrations

https://justphysiology.com/	Interactive, open, web-based human physiology based on HumMod.
https://mdcune.psych.ucla.edu/modules/swimmy	
https://opl.apa.org/	an Online Psychology Laboratory, in which you can have your students engage in experime
http://mw.concord.org/nextgen/	Similar to MW descriptions above, but improved web based interface
https://demonstrations.wolfram.com/topics.ph	Mostly math, physical science, and life science.
https://mdcune.psych.ucla.edu/modules/frat	computer simulated rat
http://vlab.co.in/	collection of science and engineering virtual labs from various institutions in India
https://labsland.com/en	remote access to real labs
http://vlab.amrita.edu/index.php	Realistic virtual lab animation
https://www.jove.com/science-education-libra	Video textbook that isolates and visually presents core concepts in Biology to improve learn
https://www.sciencebuddies.org/science-fair-	At home labs for K–12 students
https://openstax.org/blog/openstax-allies-offe	Open education resource
https://library.bath.ac.uk/research-data/finding-data/home	
http://oad.simmons.edu/oadwiki/Data_repositories	
https://libguides.library.kent.edu/nurs40020	
https://libguides.library.kent.edu/az.php?a=w	Once at site, go to (W) Web of Science database; type topic area; select "Associated Data"
https://datadryad.org/stash	Can filter by subject/discipline; requires a login
https://www.dataone.org/about	
https://guides.lib.utexas.edu/stemdata/source	Links to open or free STEM data sources
https://libguides.library.qut.edu.au/c.php?g=4	Science datasets and repositories
https://www.census.gov/	
https://www.usgs.gov/products/data-and-tools	Science datasets; search by topic
https://www.nhatsdata.org/	Public use data files, but must create login
https://www.nsf.gov/statistics/	
https://catalog.data.gov/dataset?groups=research9385#topic=research_navigation	
http://skyserver.sdss.org/dr16/en/proj/projhor	Activities to examine many topics in astronomy including H-R diagram, spectroscopy, galax
https://genderedinnovations.stanford.edu/fix-the-knowledge.html	
https://sciencecases.lib.buffalo.edu/	
http://bioquest.org/icbl/cases.php	
http://www.caseitproject.org/wp-content/uploads/2012/07/RM2017.html	
https://ncep.amnh.org	Over free 170 educational teaching modules (including case studies, data exercises, backg
http://nativecases.evergreen.edu/collection/discipline	
https://www.hallway.org/browse	
https://www.discoveryeducation.com/	
https://www.smithsonianchannel.com/	
https://www.youtube.com/user/NationalGeographic/videos	
https://video.nationalgeographic.com/	
https://www.flickr.com/photos/spacex	
https://www.nasa.gov/multimedia/imagegallery/index.html	
https://www.oldbookillustrations.com/advanced-search/?search_query=&tax_subject%5B%5D=science-technology&tax_obi_title=&tax_ar	

Free access to exercise case study. [No registration required Additional free case studies with physiology simulations are being added.					
free					
nts, or have them use available data for analysis					
free	no	Browser based			
Largely BY-NC-SA 3.0. See terms for "No. However, in order to view or edit downloaded Demonstrations, you need the appropriate Wolfram					
free	no	some are Flash-based			
temporary free subscription	yes	Biology, Chemistry, Physics, Technology			
free	yes	biotech, bioengineering, chemistry, physics, computer science, mechanical engi			
Available through June 15, 2020	no				
free	no				
	yes				
	yes				
free/open	no	Have students use actual data from Sloan Digital Sky Survey to engage in astro			
free	yes (teachers), no (stu	A great addition to any class that has topics of biodiversity, conservation, and ec			
tist=&tax_writer=&tax_date_published=&tax_post_tag=&orderby=title&order=ASC&wpas_id=obi-form&wpas_submit=1					

[illegible]

[illegible]

[illegible]

Other Media (videos/photos/image)	Multi-Disciplinary	KSU Usage Media for Online Classes - scroll down for vid
Other Media (videos/photos/image)	Biology	PEER - Partnership for environmental education and rura
Other Media (videos/photos/image)	Biology	VetGirl on the run
Online Textbook	Chemistry	Chem1 Virtual Textbook
	ALL	Zoom Support
	ALL	AltspaceVR
	ALL	Mozilla Hubs

https://www.kent.edu/onlineteaching/usablemedia	
https://peer.tamu.edu/VBB/VideoProcedures.asp	
https://vetgirlontherun.com/?s=&search_category=videos	
http://www.chem1.com/acad/webtext/virtualte	A resource for General Chemistry aimed mainly at the first-year university level.
https://support.zoom.us/hc/en-us	great videos, step-by-step how-to, and chat/phone support
https://altvr.com/	Owned by Microsoft. Desktop or VR meeting places. Hold meetings, classes, socials, office
https://hubs.mozilla.com/	Open source VR meeting spaces (there is also a desktop application). Hold meetings, class

free	no	The Chem1 Virtual Textbook is a resource for General Chemistry aimed mainly			
hours, etc. Contact Matthew Fuentes if you want to learn more. mfuentes@everttcc.edu					
es, socials, office hours, etc. Contact Matthew Fuentes if you want to learn more. mfuentes@everttcc.edu					

at the first-year university level. It offers a more comprehensive, organized, and measured approach than is found in most standard textbooks. It							

should also be accessible to advanced high-school courses, and helpful as review material for students in more advanced courses in chemistry, b							

biology, geology, and engineering.	