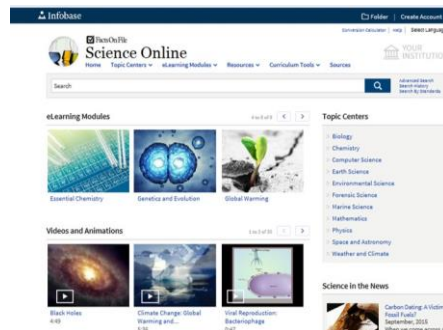


Science Online



Educator's Guide

Science Online is an award-winning resource that includes expansive reference coverage of the full range of scientific disciplines. Discipline-specific entries and articles, images, videos, timelines, tables, experiments, charts and diagrams provide thorough coverage in all core areas of science. Expertly researched and written content from a wealth of proprietary print titles provide valuable information and insight for students and educators. *Science Online* contains all of the essential information users need to research, study, and explore science.



Science Online is the essential resource for any Science curriculum. Comprehensive coverage from award-winning content and more than 75 years of expert scholarship and authorship are the backbone of this indispensable online resource. ***Science Online*** is a perfect complement to facilitating STEM research and learning, while providing an impressive visual presentation of scientific information. ***Science Online*** will help students to:

- ✓ find specific science related information quickly and efficiently
- ✓ learn a concept, understand a process or challenge a theory
- ✓ relate what they learn in the Science classroom to the world outside
- ✓ gather facts, create hypothesis and problem solve
- ✓ process information quickly
- ✓ utilize critical thinking skills in analyzing data, information or media
- ✓ support or challenge an argument with information, evidence, data and experiments
- ✓ gain a visual picture and understanding of a process
- ✓ recognize and acknowledge source of information (citations)

Content:

Science Online offers students, educators and researchers, a wealth of core science content 24/7 right at their fingertips. Articles, images, videos, timelines, data, experiments, charts, diagrams, and more! Exceptional content from award-winning proprietary print titles covering the most researched science disciplines. Expand learning and reinforce understanding with experiments, activities and interactives and video!

Highlights and features include:

- Unlimited, simultaneous access to all videos in collection 24/7
- Thousands of articles, comprehensive coverage and authoritative source list
- Full-length videos and clips- over 4,000, many which are new clips that have been recently added
- More than 1,300 experiments and activities, including New – Interactive Experiments, perfect for science fairs and the lab environment
- Diagrams, tables, charts with captions
- Biographies of leading scientists in all fields of study

Science Online



Educator's Guide

- Searchable standards by: National STEM, Next Generation Science Standards, Common Core, national, state, provincial, International Baccalaureate Organization, College Board AP and more
- In-depth overview essays on key science topics
- Suggested reading and suggested searches
- Topic Centers provide specially selected content on core science disciplines
- eLearning Modules provide focused, targeted coverage on core curriculum topics
- Captioning and cross-searchable transcripts
- Dynamic citations in MLA, CMS, and APA formats, featuring EasyBib integration for up-to-date citation creation and export
- Tablet/mobile friendly videos from the library, school, or off-site



Special Features:

Located on the home page, the following features help teachers, educators, and students access the information they need quickly.

- ✓ **Topic Centers** – located on the home page, the “Topic Centers” provide quick access to core science areas. Click into one of the Topic Centers and find great content in the discipline chosen on: Suggested Readings, Key Experiments, Key Videos and Animations, Suggested Searchers, Key Diagrams, Key Tables and Data
- ✓ **eLearning Modules** – located on the home page, the “eLearning Modules” are a great tool and provide lesson plans, (including objectives), activities and projects with printable handouts and support materials. Discussion questions, relevant images, assessment questions with answer keys, and videos make these hand-picked topics perfect for classroom instruction and material reinforcement
- ✓ **Videos and Animations** – located on the home page, “Video’s and Animations” offer visual engagement for students as they learn about different
- ✓ **Experiments and activities** – located on the Home page under the “Resources” tab, and filterable by topic, time span, grade range and more, the experiments and activities, (more than 1,280+), in Science Online are a great way to reinforce a lesson, while promoting critical thinking skills. These PDF’s include all the information needed for the experiment chosen.
- ✓ **Interactive Experiments** - The “Interactive Experiments”, located front and center on the Home page, work with the student as they conduct the experiment. An Introduction, materials and Instructions tab, help the student perform the task. These experiments offer a good visual experience for students explaining how an experiment is performed.

Don't miss....

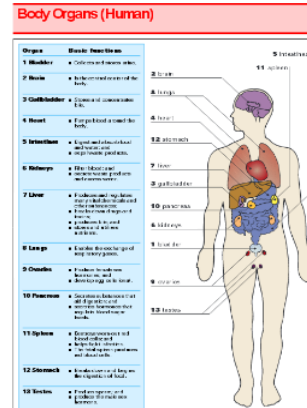
Valuable resources for teachers/educators and students are found in the “Resources” and “Curriculum Tools” sections located at the top of the “Home” screen page.

Resources Tab:



Educator's Guide

- [Video and Animations](#) -Provides quick access to more than 4,000 video resources, filterable by subject. These visual assets are a great visual learning experience for students
- [Experiments](#) – Look no further to find more than 1,200 Science related experiments, filterable by subject. Additional filters like: Time span, Participation level, Supervision and Grades help to fine-tune your search. This is the go-to section for Science Fair projects!
- [Diagrams](#) – More than 2,380 informative, colorful, detailed illustrations-- ready to print, help teachers to provide students with the ultimate study/information guide. Great visuals for better understanding and insight.
- [Tables and Data](#) – Filterable by subject area, the “Tables and Data” section is packed with essential information to assist in science research, evaluation and discussion. Perfect for statistics classes!
- [Timelines](#) - Filter by Era or Subject; Searchable “Timelines” help put discoveries and milestones in historical context.
- [Topics A – Z](#) – Quick access to hundreds of science topics, filterable by subject.



Curriculum Tools:

Tools for Students

- [Avoiding Plagiarism](#) – Tips and information for students on plagiarism and how to avoid it
- [Citing Sources](#) – Important information on how to write citations and bibliographies
- [Evaluation Online Sources](#) – Helpful document on finding reliable, factual sources
- [Research Topics](#) – Ideas for Science-related research topics
- [Science Fair Guide](#) – The ultimate guide to your Science Fair project—from choosing a topic to writing a conclusion.
- [Writing a Research Paper](#) – Step-by-step guide for students on writing that dreaded research paper

Tools for Educators

- [Conducting Experiments](#) – A guide to making sure your students get the most out of lab work with important preparation and safety information for educators
- [Preventing Plagiarism](#) – An educator’s checklist, and discussion starter on understanding plagiarism and its implications
- [The Importance of STEM Education in the 21st Century](#) – Information regarding STEM initiatives and integration into the curriculum

Projects and Ideas for Educators – Science Online

Science Online is an ideal resource for students and educators for projects, research papers, essays, experiments and Science Fair information. In addition to the more than 1,200 experiments found in

Science Online



Educator’s Guide

the database (under the “Resources” tab on the Home page), here are a few suggestions on how to use Science Online for projects both in and out of the classroom.

Crime Scene Investigation– With the number of crime scene shows on television recently, forensic science remains a very engaging Science topic for students. Studying about evidence, fingerprints, DNA, etc..., can help students understand the science behind solving crimes. Divide the class in groups and create a crime scene scenario. Provide an incident (stolen wallet or dog), present evidence, characters, etc.... Give the students clues – some good, some non-related, and see who can solve the crime. Use the “Topic Center – Forensic Science” in Science Online for information on how to solve the crime. This project will promote critical thinking skills and will help students work together as a team.

3-D Science – Some areas of study in Science will allow for a little more creativity as far as project assignments are concerned. A 3-D model can provide great insight and understanding in certain areas. For example – a 3-D model of the brain or heart can give students a different perspective and understanding than that of a photo. Using Science Online diagrams, videos, etc... have students create their own 3-D model using clay or a substance that is suitable to mold. Ask students to label specific areas.

Science Safety – It is necessary to make sure that students understand safety is very important prior to conducting experiments and labs. In the Science Online database, under “Curriculum Tools” on the Home page, the article on “Conducting Experiments” pulls together safety information for labs and experiments. Use this article, and create your own document that can be distributed to your students before using experiments or working on labs. Quiz the students on safety in your lab before conducting any experiments or activities to make sure that they know how to handle situations that may arise.

Create a Game for Test Review – Using content from Science Online and a PowerPoint game template, choose a subject area and create a game – making up questions from Science Online and link back to Science Online for the answers. Split the class in teams to encourage team work!

Biology	Notable People in Science	Forensic Science	Global Warming	Chemistry 101
<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>
<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>
<u>30</u>	<u>30</u>	<u>30</u>	<u>30</u>	<u>30</u>
<u>40</u>	<u>40</u>	<u>40</u>	<u>40</u>	<u>40</u>
<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>50</u>

Your Feedback ...Please!

Your feedback is important to us. Tell us how you like *Science Online* and share with us the ways you integrate this resource into your lessons. We love to hear your feedback—positive or negative.

Please email: onlinesales@infobaselearning.com and put “Science Online Feedback” on the “Subject” line.

Thank you for your support of our products!