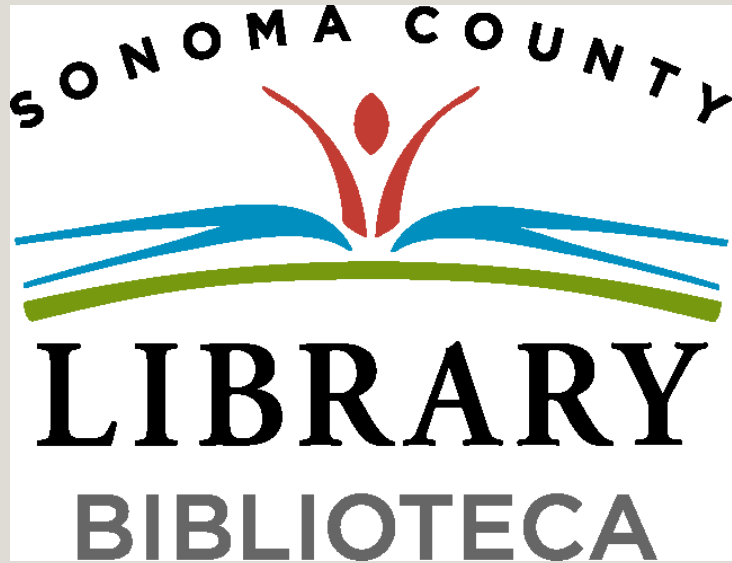


# Welcome to the Student Success Tutorials Series



Today we will access [Science Interactive](#) using your [Student OneCard](#) account.

If your school is not participating in the [Student OneCard](#) program yet, you can access these resources with a regular Library Card and PIN.



SONOMA COUNTY



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# Student Success

---

# Éxito estudiantil



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# Science: Interactive

 GALE INTERACTIVE

Science

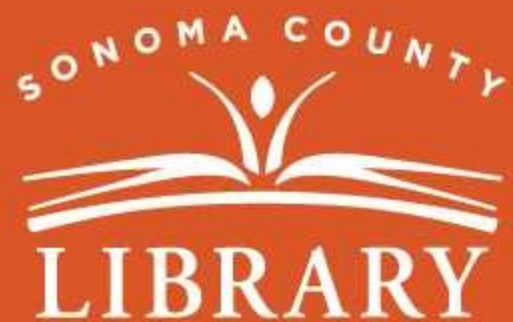




Get free access  
to library resources with  
your **Student OneCard**

---

*Obtenga acceso  
gratuito a los recursos  
de la biblioteca con  
tu **Student OneCard***



[sonomalibrary.org/studentonecard](https://sonomalibrary.org/studentonecard)

# Have your Student OneCard Ready

You will need to know your school district prefix and school issued student ID number.

Account number examples: SRCS123456 or RVUSD123456

Pin example: (Year of birth) 2006 or 2012

Call any Sonoma County Library location for help finding your [Student OneCard](#) number.

Visit <https://sonomalibrary.org/student-onecard> for more information





My Account Ask **Get a Library Card** Select Language

**SONOMA COUNTY LIBRARY** Sonoma County Library

Website Search Go  
Catalog Search Go

Advanced Search » My Account »

Books & More Programs/Virtual Events Services Online Resources Hours & Locations Teens Kids About Español

Roseland Regional Library is closed. Service will begin in our new location, 470 Sebastopol Road, on September 13  
La biblioteca regional de Roseland está cerrada. El servicio comenzará en nuestra nueva ubicación, 470 Sebastopol Road, el 13 de septiembre.

**NEW & Noteworthy NOVEDADES y otros títulos destacados**

**SONOMA COUNTY LIBRARY BIBLIOTECA**

**New At The Library**  
Some of our September 2021 favorites.

**Nuevo En La Biblioteca**  
Algunos de nuestros favoritos de septiembre 2021.  
*Learn more:*

**Your Library at Home**

**E-Card Registration**  
Don't have a library card?  
No problem.  
Sign up for immediate access to our 24/7 online library.

**Entertainment**  
Read, listen, watch and enjoy on any device.

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Enjoy storytimes, workshops, and many activities from home.

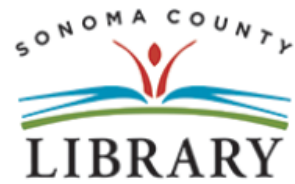
- Virtual Events
- Events Calendar
- YouTube

**Newspapers & Magazines**  
Thousands of current titles and back issues.

- OverDrive
- New York Times

# Get a Library Card!

If you don't have a Student OneCard, you'll need a Sonoma County Library account. If you don't already have one, sign-up for an e-card at [sonomalibrary.org](https://sonomalibrary.org)



## Online Registration / Registro en línea

First Name / Nombre \*

Last Name / Apellido \*

Birth Date / Fecha de nacimiento (mm/dd/yyyy) \*

Street Address / Dirección \*

City, State / Ciudad, Estado \*

Zip Code / Código postal \*

Verify Address and Continue / Verifique la dirección y continúe

## Online Registration

First, fill out this form.  
Be sure to note your  
**account number, and  
four digit pin.**

Then, when you're  
done...

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Books & More Programs/Virtual Events Services **Online Resources** Hours & Locations Teens Kids About Español

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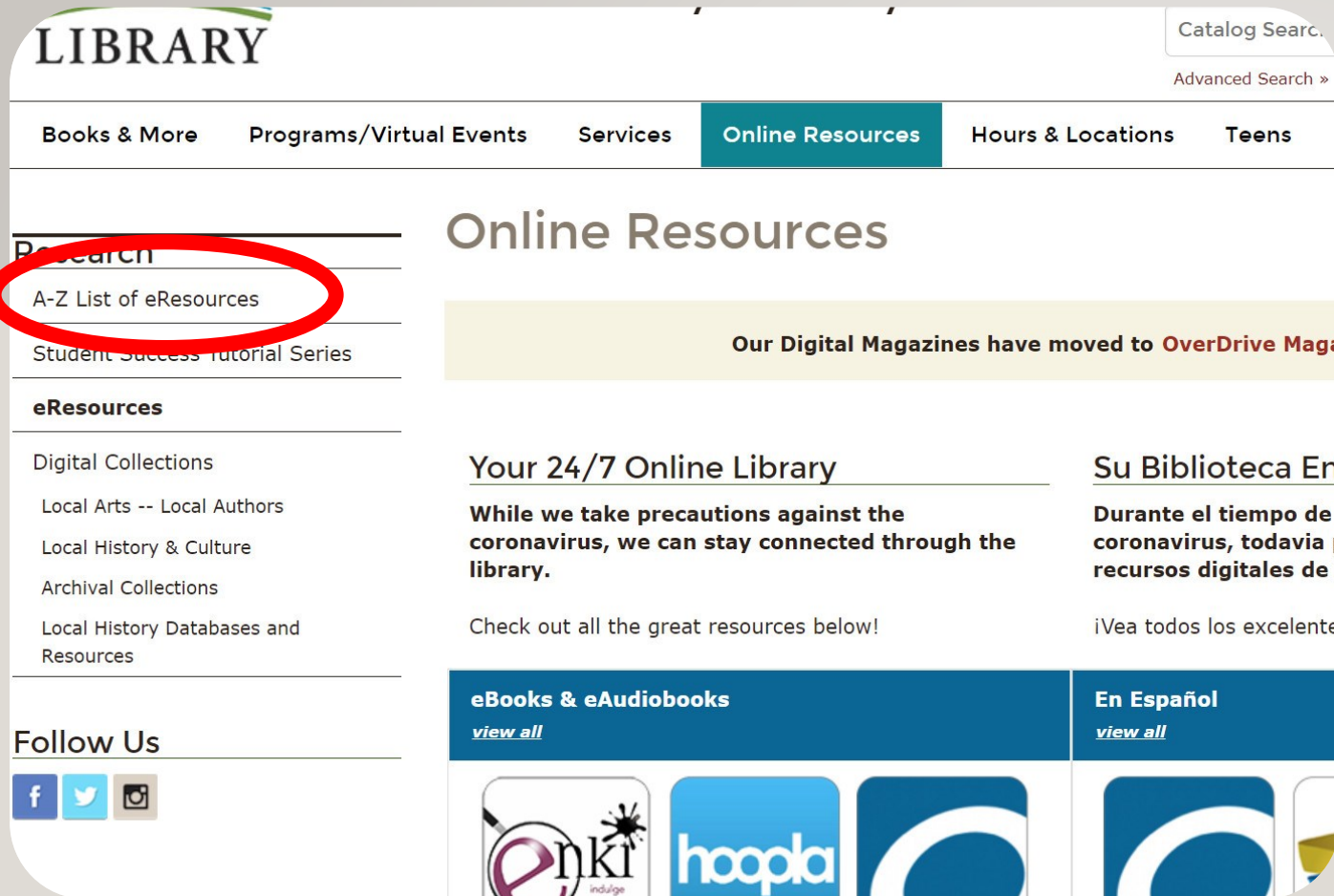
- OverDrive
- New York Times

# The Online Resources Tab

Access Science: Interactive 24 hours a day using the Online Resources tab

Visit sonomalibrary.org, your 24 hour a day Sonoma County Library branch





# A- Z List of eResources

The [A-Z List of eResources](#) is located in the left hand menu, under the heading Research

Research and analyze U.S. companies, industries, and consumers. Reference Solutions (formerly Reference USA) covers millions of businesses, from major corporations to small businesses and sole proprietorships. It is an excellent source for local business information. *Adults* --[More Info](#)

#### Salem Press Reference Shelf

Browse Salem Press reference books: *Earth Materials & Resources; Earth's Weather, Water, & Atmosphere; Earth's Surface & History; and Physics & Chemistry of the Earth* (also available in print at the Central Library). *Adults/Teens (12-17)* --[More Info](#)

#### San Francisco Chronicle 1865-1922

A great research resource for genealogists and local historians. Search through the full text of early issues, and see exact copies of the articles as printed on the original pages of the Chronicle. *Adults* --[More Info](#)

#### San Francisco Chronicle - via NewsBank

The San Francisco Chronicle is a newspaper serving primarily the San Francisco Bay Area of northern California. It was founded in 1865. *Adults* --[More Info](#)

#### ScienceFlix

ScienceFlix™ is an online resource that focuses on engaging science content for students spanning grades K-10. *School-Age Children (5-12), Teens (12-17)* --[More Info](#)

#### Science: Interactive

Helps students better visualize and understand concepts in biology, chemistry, earth and space science. Students and instructors can manipulate and explore 3D models paired with reference and periodical content for further understanding.

*Teens (12-17)/Adults* --[More Info](#)

#### SIRS Discoverer

A general reference database for upper elementary and middle school learners, researchers, and educators covering curriculum areas such as reading, language arts, science, social studies, history, health and technology. *School-Age Children (5-12)/Teens* --[More Info](#)

#### SIRS Issues Researcher

A resource for pro/con issues assignments offering background and analysis on 360+ leading issues. *School-Age Children (5-12)/Teens* --[More Info](#)

#### Skillshare

Skillshare is an online learning community with thousands of inspiring classes for creative and curious people. *Adults/Teens (12-17)* --[More Info](#)

#### Small Business Reference Center

Great starting point for researching topics from starting a company, operations management and sales to growing or

# A-Z List of eResources

Choose Science:  
Interactive from the  
options on the A-Z List  
of eResources



SONOMA COUNTY  
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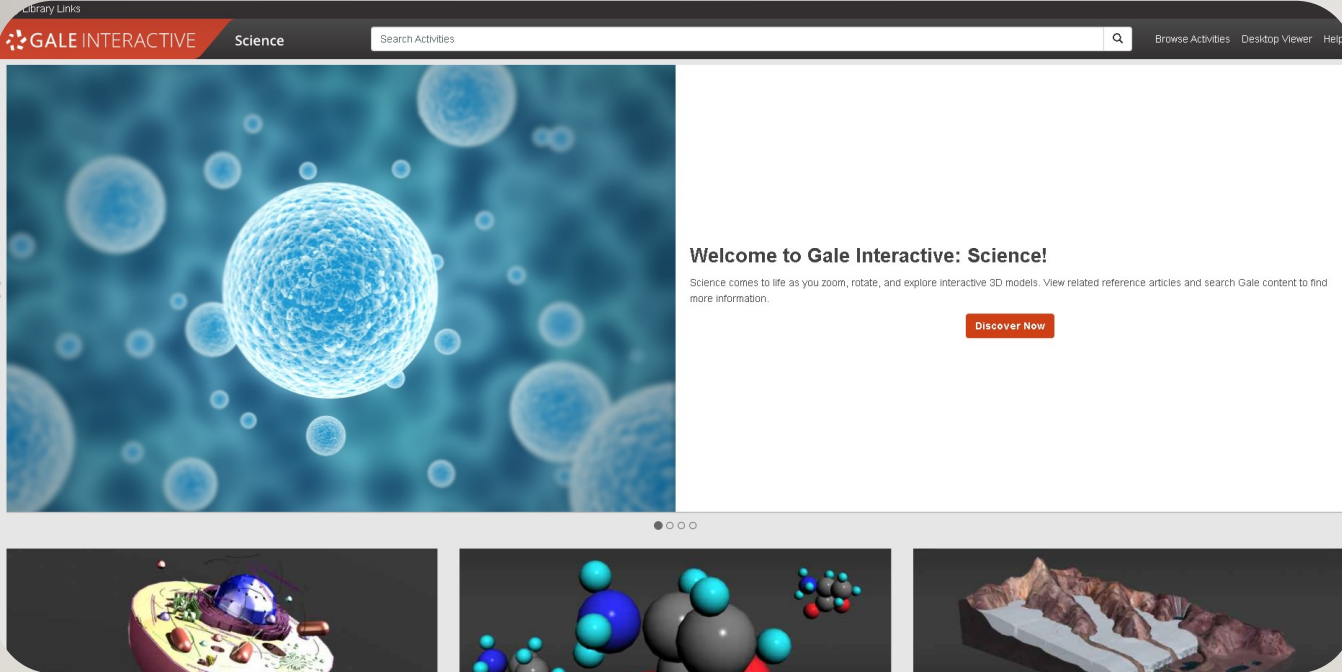
Your library card number (with no spaces) - El número de su carné de la biblioteca (sin espacios):

This resource is restricted to Sonoma County Library card holders, and to patrons in Sonoma County Library locations. - Este recurso está disponible únicamente para aquellas personas que cuentan con un carné de biblioteca de Sonoma County Library, y para los clientes de sus sucursales. [How to get a library card - Cómo obtener un carné de la biblioteca](#)

# Sign-In

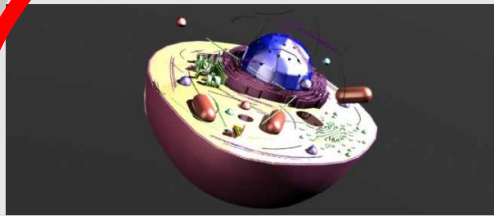
Enter your  
StudentOne Card  
number to access  
Science:  
Interactive





# Welcome to Science: Interactive

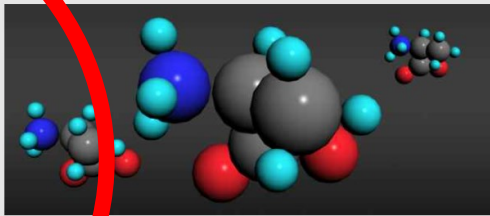
Your source for 3D  
Science Lessons and  
Virtual Experiments



### Biology

Explore cellular structures, virtually dissect a frog or fetal pig, and learn about chromosomes and DNA.

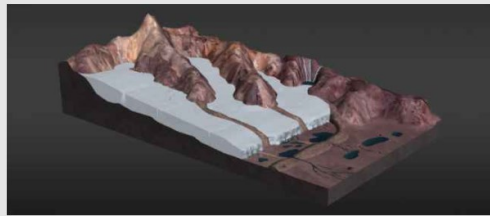
Refine by Category ^



### Chemistry

Investigate an interactive Periodic Table, balance chemical equations, and experiment with virtual chemical reactions.

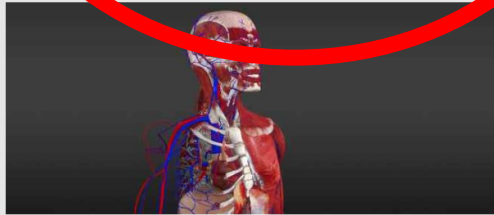
Refine by Category ^



### Earth Science

Dig deep into volcanoes, caves, and aquifers. Explore Mars, Jupiter, and the inner layers of Earth.

Refine by Category ^



### Human Anatomy

Explore the structures of the human body. Learn about body systems, sense organs, and cellular structures.



### 3D Printable Models

Unleash your 3D Printer with these downloadable, printable models.

[Browse STL Files](#)

# Choose a topic










# Explore content by Subject.

My Library Links

**GALE INTERACTIVE** Science Search Activities

- Biology** (91)
  - Cells (13)
  - Botany (14)
  - Ecosystems (4)
  - Microbiology (23)
  - Paleontology (8)
  - Zoology (31)
- Chemistry** (74)
  - Atoms (18)
  - Chemical Equations (10)
  - Chemical Reactions (15)
  - Molecules and Compounds (12)
  - Periodic Table (19)
- Earth Science** (23)
  - Astronomy (12)
  - Geology (11)
- Common Core State Standards** (213)
- Next Generation Science Standards** (154)
- Human Anatomy** (35)
  - Circulatory System (5)
  - Digestive System (4)
  - Musculoskeletal System (10)
  - Nervous System (5)
  - Reproductive System (6)
  - Respiratory System (2)
  - Urinary System (2)

91 SEARCH RESULTS

-  **Allosaurus**  
Allosaurus was a carnivorous dinosaur that lived about 150 million years ago, during the Jurassic period.  
NGSS-HS-LS4-1 Paleontology CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.7
-  **Amoeba**  
An amoeba is a single-celled organism that has no fixed shape.  
NGSS-HS-LS1-1 Microbiology CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.7
-  **Animal Cell**  
The cells of animals and plants are highly structured. Animal and plant cells share some of the same features, but not others.  
NGSS-HS-LS1-1 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.7 Cells
-  **Bacillus**  
Bacteria are generally classified into groups based on their shape. Rod-shaped bacteria are called bacillus...  
NGSS-HS-LS1-1 Microbiology CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.7
-  **Bean Seed**  
Seeds are the result of sexual reproduction, formed when pollen from the male part of a plant fertilizes the ovules of the female parts of a plant.  
Botany CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.7
-  **Beluga Whale**  
A beluga whale is a marine mammal in the order Cetacea, which includes whales and dolphins. It lives in the oceans of the Arctic.  
Zoology CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.7 NGSS-HS-LS1-2 CCSS.ELA-Literacy.RST.9-10.5
-  **Bird Flu Virus**  
The bird flu virus causes influenza, a disease that results in high fever, coughs, and aches and pains.  
Microbiology CCSS.ELA-Literacy.RST.11-12.2 CCSS.ELA-Literacy.RST.11-12.4
-  **Bordetella pertussis**  
Bordetella pertussis is a bacterium that causes the highly contagious disease pertussis, commonly known as whooping cough.  
Microbiology CCSS.ELA-Literacy.RST.11-12.4 CCSS.ELA-Literacy.RST.11-12.7
-  **Borrelia burgdorferi**  
Borrelia burgdorferi is the bacterium that causes Lyme disease. It is transmitted through tick bites.

# Biology

What is your favorite Dinosaur?




My Library Links

GALE INTERACTIVE Science Search Activities

Allosaurus

Allosaurus was a carnivorous dinosaur that lived about 150 million years ago, during the Jurassic period. The name "Allosaurus" comes from Greek words meaning "other lizard."



Mesozoic Era

The Mesozoic Era is the geological period that began about 252 million years ago and ended about 66 million years ago. It is the most recent of the three eras of the Phanerozoic Eon (541 million years ago to the present) which also includes the Paleozoic Era (541–252 million years ago) and the Cenozoic Era (66 million years ago to the present). Mesozoic is divided into three periods: the Triassic (252–201 million years ago), the Jurassic (201–145 million years ago), and the Cretaceous (145–66 million years ago). The Mesozoic Era is often referred to as the "Age of Dinosaurs" because of all species of dinosaurs that existed during this time. It ended with the Cretaceous–Paleogene extinction event, which is believed to have been caused by the impact of a large asteroid on Earth. This event led to the extinction of many species, including all non-avian dinosaurs. The Mesozoic was followed by the Cenozoic, which is characterized by the rise of mammals and the appearance of modern birds.

# Allosaurus

View Allosaurus in 3D, and find new ways to explore and interact with the past.

Allosaurus

Allosaurus was a carnivorous dinosaur that lived about 150 million years ago.

NGSS-HS-LS4-1 Paleontology CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.4

Share Link to Activity Link to Slide

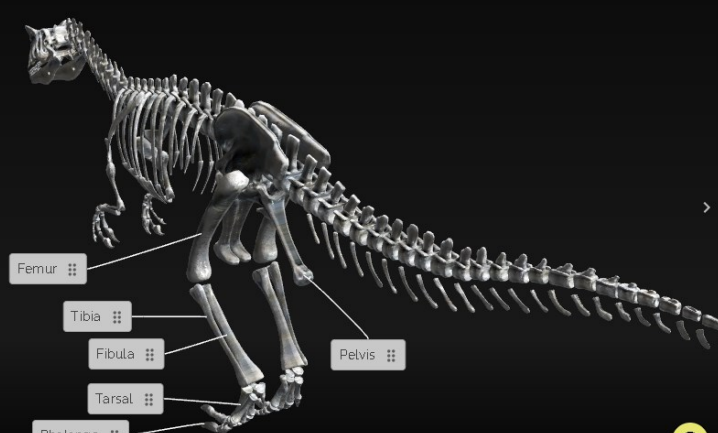
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GALE INTERACTIVE Science Search Activities

Lizard-Hipped

Like all theropods, Allosaurus was a saurischian, or lizard-hipped dinosaur. Birds are believed to have evolved from theropods.



Femur

Tibia

Fibula

Tarsal

Phalange


Pelvis


My Library Links


GALE INTERACTIVE Science Search Activities


3D PRINTABLE MODELS

Make your 3D learning world come alive with these 3D printable models. Simply download these STL files and import to our licensing terms.

 **Allosaurus Skull**  
Allosaurus Skull 3D Print Model - Created by VIVED Science  
[Download STL File](#)

 **Ammonite**  
Ammonite 3D Print Model - Created by VIVED Science  
[Download STL File](#)

 **Animal Cell**  
Animal Cell 3D Print Model - Created by VIVED Science  
[Download STL File](#)

 **Australopithecus Pelvis**

# 3D Print

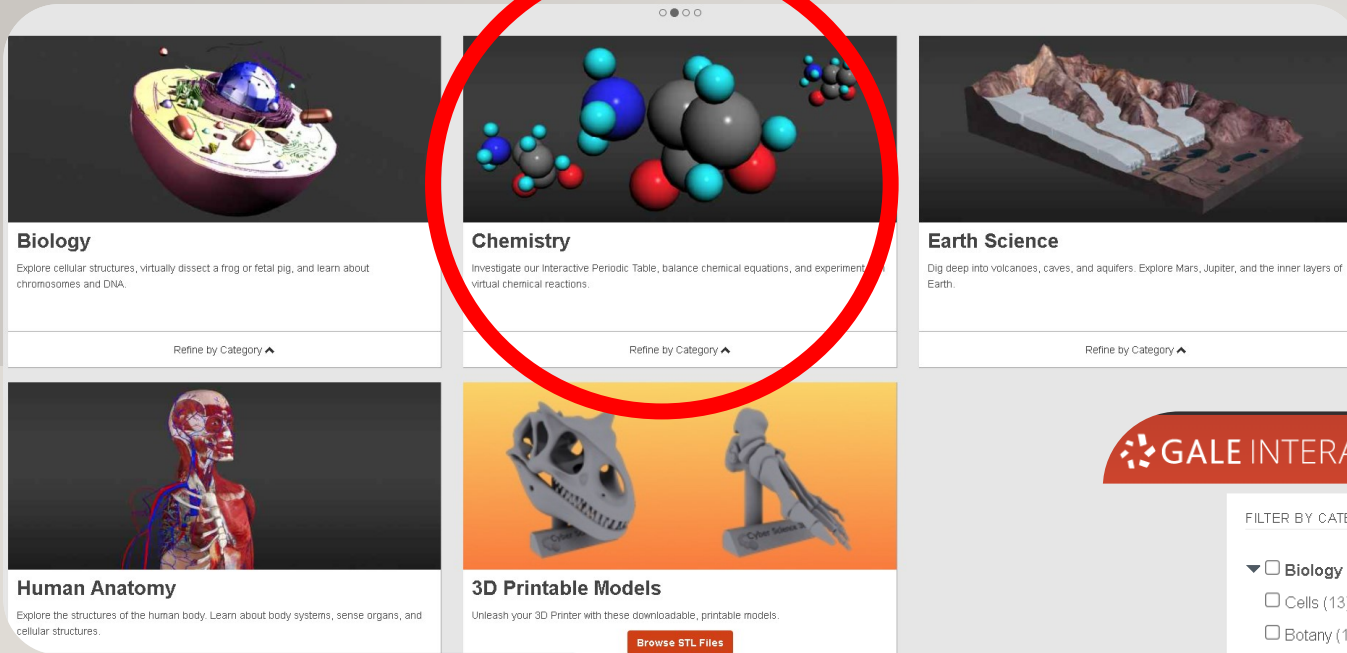
3D Print your own fossil by downloading the STL file to your 3D printer.

\*Many public libraries have 3D printers!



# Chemistry

Explore content by Subject.



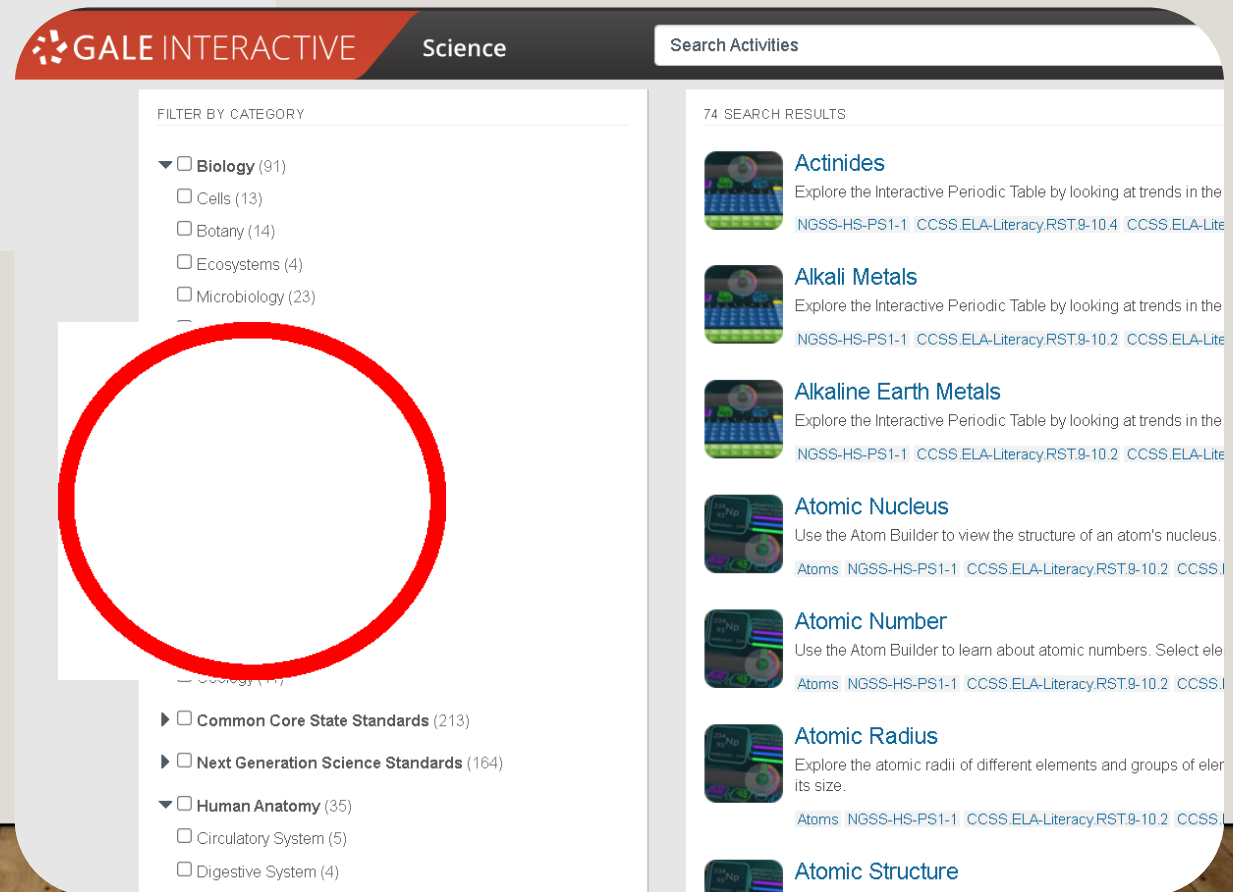
**Biology**  
Explore cellular structures, virtually dissect a frog or fetal pig, and learn about chromosomes and DNA.

**Chemistry**  
Investigate our Interactive Periodic Table, balance chemical equations, and experiment with virtual chemical reactions.

**Earth Science**  
Dig deep into volcanoes, caves, and aquifers. Explore Mars, Jupiter, and the inner layers of Earth.

**Human Anatomy**  
Explore the structures of the human body. Learn about body systems, sense organs, and cellular structures.

**3D Printable Models**  
Unleash your 3D Printer with these downloadable, printable models.  
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**GALE INTERACTIVE** Science Search Activities

**FILTER BY CATEGORY**

- Biology** (91)
  - Cells (13)
  - Botany (14)
  - Ecosystems (4)
  - Microbiology (23)
- Common Core State Standards** (213)
- Next Generation Science Standards** (164)
- Human Anatomy** (35)
  - Circulatory System (5)
  - Digestive System (4)

**74 SEARCH RESULTS**

- Actinides**  
Explore the Interactive Periodic Table by looking at trends in the...  
[NGSS-HS-PS1-1](#) [CCSS.ELA-Literacy.RST.9-10.4](#) [CCSS.ELA-Lite](#)
- Alkali Metals**  
Explore the Interactive Periodic Table by looking at trends in the...  
[NGSS-HS-PS1-1](#) [CCSS.ELA-Literacy.RST.9-10.2](#) [CCSS.ELA-Lite](#)
- Alkaline Earth Metals**  
Explore the Interactive Periodic Table by looking at trends in the...  
[NGSS-HS-PS1-1](#) [CCSS.ELA-Literacy.RST.9-10.2](#) [CCSS.ELA-Lite](#)
- Atomic Nucleus**  
Use the Atom Builder to view the structure of an atom's nucleus.  
[Atoms](#) [NGSS-HS-PS1-1](#) [CCSS.ELA-Literacy.RST.9-10.2](#) [CCSS.ELA-Lite](#)
- Atomic Number**  
Use the Atom Builder to learn about atomic numbers. Select ele...  
[Atoms](#) [NGSS-HS-PS1-1](#) [CCSS.ELA-Literacy.RST.9-10.2](#) [CCSS.ELA-Lite](#)
- Atomic Radius**  
Explore the atomic radii of different elements and groups of ele...  
its size.  
[Atoms](#) [NGSS-HS-PS1-1](#) [CCSS.ELA-Literacy.RST.9-10.2](#) [CCSS.ELA-Lite](#)
- Atomic Structure**



## Actinides

The actinides, or actinoids, are the chemical elements in Row 7 of the periodic table between Groups 3 and 4. They run from actinium (Ac, 89) through lawrencium (Lr, 103).

The actinide series is often displayed in a row of elements below the main body of the periodic table, just below the row of lanthanides, which include atomic numbers 57 through 71.

# Explore Chemistry

## Learn about the Periodic Table in 3D

89  
Ac  
actinium  
227

**Electron Diagram**

**Properties**

- Atomic Number: 89
- Atomic Radius: Unknown
- Atomic Weight: 227 g/mol
- Electron Affinity: Unknown
- Electronegativity: 1.1
- Ionization Energy: 655.5 kJ/mol
- Valence Electrons: 0
- Boiling Point: 3473.15 K
- Melting Point: 1323.15 K

**Blocks**

- s
- p
- d
- f

**Metals**

- Post-Transitional Metals
- Transition Metals
- Alkaline Earth Metals
- Alkali Metals
- Lanthanoids
- Actinoids

**Nonmetals**

- Other Nonmetals
- Halogens
- Noble Gases

**Electrons**

**Neutrons**

**Protons**

Reset

### Actinides

Explore the Interactive Periodic Table by looking at trends in the actinide series of elements.  
NGSS-HS-PS1-1 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.3 Periodic Table

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**RELATED ACTIVITIES**

- Metalloids**  
Explore the Interactive Periodic Table by looking at trends in the metalloid series of elements.  
NGSS-HS-PS1-1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.5 Periodic Table
- Lanthanides**  
Explore the Interactive Periodic Table by looking at trends in the lanthanide series of elements.  
NGSS-HS-PS1-1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.5 Periodic Table
- Alkaline Earth Metals**  
Explore the Interactive Periodic Table by looking at trends in the alkaline earth metal series of elements.  
NGSS-HS-PS1-1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.4 Periodic Table
- Alkali Metals**  
Explore the Interactive Periodic Table by looking at trends in the alkali metal series of elements.  
NGSS-HS-PS1-1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.4 CCSS.ELA-Literacy.RST.9-10.5 Periodic Table
- Nitrogen Family**  
Explore the Interactive Periodic Table by looking at trends in the nitrogen family of elements.  
NGSS-HS-PS1-1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.3 CCSS.ELA-Literacy.RST.9-10.4 Periodic Table
- Nonmetals**  
Explore the Interactive Periodic Table by looking at trends in the nonmetal elements.  
NGSS-HS-PS1-1 CCSS.ELA-Literacy.RST.9-10.2 CCSS.ELA-Literacy.RST.9-10.4 Periodic Table
- Noble Gases**  
Explore the Interactive Periodic Table by looking at trends in the noble gases group of elements.

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"Mesozoic Era." *UXL Encyclopedia of Science*, edited by Amy Hackney Blackwell and Elizabeth Manar, 3rd ed., UXL, 2015. *Interactive Science*, link.gale.com/apps/doc/79/ISSCI?u=sant95918&sid=bookmark-ISSCI&xid=9cd72ecd. Accessed 25 Feb. 2022.

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EXPLORE

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- [Mesozoic Era](#)

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