



# Element Research Gr. 8

January 2017

<http://northmiddlelib.weebly.com/>

This pathfinder will be useful in finding information about your element. After research is complete, you will write a paper, present a visual such as a “Wanted” poster from [PosterMyWall](#) or an icosahedron ball. **Keep a record of ALL resources you use--use NoodleTools to create a bibliography.** You might quickly copy the URL of a web site and paste it into a Word Document, at school save it in your TSF, email it to yourself, or save it to the cloud with Outlook.

## Research Questions:

- **Origin** of its name? **Atomic** structure? Bohr’s Model?
- What are the physical and chemical **properties** of your element?
- **Impact** on human body?
- **Who** uses the element, and how was it used **originally**?
- How has it **changed** today?
- **What** are real world uses?
- Where and **when** did your element first appear—who discovered it? **Who** investigated its chemical structure?

**Reference Background:** User ID if needed: 6039sxnms  
Password: Ask teacher or librarian

- Get a Dictionary definition of your element at [Dictionary.com](#) or [Merriam-Webster](#).
- World Book Encyclopedia in print only (short articles but reliable!)
- [Encyclopedia Britannica](#) (on the [Iowaonline](#) page.)
- [Columbia Electronic Encyclopedia](#) (In EBSCO’s Student Research Center. Access from the library web page. You can email these articles to yourself!)
- [Internet Public Library](#) (No longer updated, but there)
- [Factmonster](#)

**Resources:** (Make sure to check the web resources below before simply “Googling.” You might also try [www.sweetsearch.com](http://www.sweetsearch.com) or [www.search.yippy.com](http://www.search.yippy.com))

## Books

- See the carts in the library, or search in [Destiny](#). Also, look under the tab “Copy Categories.” Choose the list *Elements for Science/English*.
- Either photocopy the back (verso) page of the title page in the library or write down the 5 things you need so that you have all of the components to complete a bibliography of sources in NoodleTools (you can use Mrs. Sayavong’s form for this and for other sources!)

## Search Aids

### Search Terms

For computer or database searches, use “quotation marks” around two or more words, example:

- “potassium properties”
- “history of neon”

- Use [Destiny Online Catalog](#) for books and ebooks--choose Sioux City Schools to see all schools. Mrs. Jarman or Ms. Sweeney can request books from other school libraries in the district. Call Numbers (Dewey Decimal number on a book’s spine) vary but are mainly 500 numbers such as:  
530.4 Eva: *Properties of Matter*  
546 Bel: *The Carbon Elements: Carbon, Silicon, Germanium, Tin, Lead*  
546 Has: *Aluminum*

- Use [Destiny](#), choose North Middle and then on the left click Webpath Express and type in your element or object for websites!
- [Sioux City Public Library](#)

**Web Pages:** There are many sites on the [NMS Library Site](#), click on projects or databases. (Bring your earbuds for listening to videos.)

- [BrainPop](#): Login with user name siouxcity and password is (ask teacher or librarian, cannot put online).
- [Elemental Matter](#): (Slow loading, be patient) Scroll down to properties, example: Hydrogen properties: <http://www.elementalmatter.info/hydrogen-properties.htm>
- [Royal Society of Chemistry](#) – Tons of information here from the United Kingdom!
- [Jefferson Lab: It's Elemental](#)
- [Rader's Chem4Kids](#)
- [How Stuff Works](#): a video. Use the search box and then scroll down past the blue advertising Example: Search “magnesium fireworks” for this info:  
<http://www.howstuffworks.com/innovation/everyday-innovations/fireworks.htm>
- [e-Learning for Kids](#): Mr. Beaker
  - [United Kingdom's ChemGuide](#), or you can type a search exactly like this in Google: site:chemguide.co.uk carbon
  - [PBS People and Discoveries](#)  
[Chemspider.com](#) This is a part of the [www.rsc.org](http://www.rsc.org) (Royal Society of Chemistry) site.
- [NoodleTools](#) – use to create your bibliography. You login with your login to the computer and your password is your ID number. See Ms. Sweeney for questions and updates.

### Web Pages and Web Portals:

- Again, don't forget [Webpath Express in Destiny!](#) On the left, choose Webpath Express, type in your search term. You may use quotation marks around two words. You can limit results by grade level and domain (.org, .gov, etc.)

### \*\*\*Databases! – On the Library Weebly! (You can email articles to yourself!)

- [Rosen Digital Periodic Table](#) – click this link or go to databases in the library Weebly.
- [Biography in Context](#) – Look up a person associated with your element – a chemist or ?
- [EBSCO](#) – reference and magazine articles. Click EBSCO Explora Secondary or go to databases in the library Weebly. Use our login and password. Try a search like *iodine element* You may have to click **html full text** or **PDF full text** to see all the words in the article. Limit by FULL TEXT on the right side after searching, also sort list by either relevance or DATE (to see newest article) and you can choose more results under page options on the top right. See the next page for visual instructions.

### Multimedia Resources

- eBooks at <https://siouxcity.mackinvia.com>. Login with an s and your ID for user and password. Not many sources in here yet, but search iridium for info on that element.
- [Learn 360 on the Iowa AEA Database page](#): Login with our usual login info. Example: Search *Halogens*. If you don't see the video load, click switch to Flash or Quicktime and it should play.
- [Safari Montage](#): See the Internet Explorer favorites (the star icon) (at school) under “Video Resources” Choose North Middle, and login with your school computer login and password. Limit your search by grade level after you enter a search term. Example: *Copper* used on the Statue of Liberty:

<http://10.211.0.60/SAFARI/montage/play.php?keyindex=15334&location=local> video—you don't have to watch the whole movie, you can pick clips to watch.

- Science Discovery: <http://science.discovery.com>. Try some videos here.
- Periodic Table Videos: <http://www.periodicvideos.com/> Videos from the UK.
- [YouTube](#) videos about your object. (Email the link to yourself to save, use a flash drive, create a Google Doc or use Outlook) Example: Aluminum (UK videos from above are here.)  
<https://www.youtube.com/watch?v=4AhZ8503WPs>
- SchoolTube or [Teachertube](#) videos: Might need to create a free student account, or have a teacher sign in.
- Promotional videos or information from a commercial site.  
[http://www.aluminum.org/sites/default/files/Aluminum\\_The\\_Element\\_of\\_Sustainability.pdf](http://www.aluminum.org/sites/default/files/Aluminum_The_Element_of_Sustainability.pdf)
- [History.com](#) – Example: Search *Statue of Liberty* to find out about the copper skin.

~~~~~  
**More on EBSCO Explora Database: See the red arrows for an example search!**

**Nice science encyclopedia (Salem Press) article below – from EBSCO Explora!**

The screenshot shows the EBSCO Explora database interface. The search bar at the top contains the text "titanium element". The search results are displayed in a list format. The third result, "Titanium (Ti)", is circled in red. The left sidebar shows the "Refine Results" section with filters for "Current Search", "Limit To", and "Source Types". The "Source Types" filter is set to "Encyclopedias (4)". Two red arrows point to the search bar and the "Encyclopedias" filter.

You can copy the permalink to use in NoodleTools and also to get you back to this article in EBSCO.

**You will need to copy this link for NoodleTools!**

Permalink: <http://search.ebscohost.com/login.aspx?direct=true&db=t6o&AN=89474919>

Title: Titanium (Ti). By: Wasserman, William J., Salem Press Encyclopedia of Science, January, 2017

Database: Topic Overviews 6-12

**Titanium (Ti)**

Listen [icon] American Accent [icon]

Last reviewed: January 2017

Where Found

Titanium is the ninth most abundant element in Earth's crust and accounts for 0.63 percent of the planet's total mass. It is never found uncombined. It is usually found in igneous, metamorphic, and sedimentary rocks and is most frequently obtained from ilmenite or rutile deposits. Titanium also occurs in seawater in a concentration of  $4.8 \times 10^{-6}$  parts per million (about 1.5 metric tons per cubic kilometer). Commercially important producers of titanium and titanium dioxide include Australia, the United States (especially Florida), Canada, China, Argentina, Japan, Russia, Kazakhstan, Ukraine, and several African and European nations.

**U.S. End Uses of Titanium Dioxide**

Other 5%

How this source turned out before printing your bibliography in NoodleTools. We have an author, title of the article, name of the encyclopedia, name of the database EBSCO, and date accessed.

| Media Type                                                                                                                                 | Citation                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Reference Source<br>Article/Entry<br><a href="#">View live web page</a><br><a href="#">Archive &amp; annotate</a> | Wasserman, William J. "Titanium." <i>Salem Press Encyclopedia of Science</i> , EBSCO, 2017, search.ebscohost.com/login.aspx?direct=true&db=t6o&AN=89474919.<br>Accessed 29 Jan. 2017.<br>Created: 01/29/17 09:47PM |

**\*\*You can evaluate other resources using criteria at: [www.THEpathfinderproject.org/evaluate.html](http://www.THEpathfinderproject.org/evaluate.html)!\*\***

This pathfinder has been provided to you by THE Pathfinder Project and Ms. Sweeney.  
 Production funded in part by Library Services and Technology Act funds administered by the State Library of Iowa.

**THE Pathfinder Project → [www.THEpathfinderproject.org](http://www.THEpathfinderproject.org)**