

Worksheet 5-5— Lesson Plan

Format

(adapted with permission)

Subject: Science	Teacher: Thornton/Cyr/Blount
Lesson Name: Metals Project	Location: Moscow, Idaho
Class: Chemistry	Unit Context: Elemental Properties and Impacts
Date: March 31, 2009	Lesson 2

Activities	Big6™ Skills	Idaho Science Standards
1) Media Specialist, Penni Cyr instructs students in LiLI Database use and in interlibrary loan procedures.	1) ISS	9-10.B.1.6.3
2) Media Specialist, Penni Cyr instructs students in Parenthetical Documentation.	2) ISS	
3) Students explore LiLI for information and complete Works Cited worksheet	3) ISS	
4) Students turn in two citation worksheets with rating of cites	4) ISS	

Learning Context:

Student will use appropriate skills to explore possible sources for their projects and will be required to use LiLI databases – specifically Gale Virtual Reference Library, Science Journals and eLibrary Scholarly journals. Students will also be taught how to access books from other libraries through FirstSearch and to make interlibrary loan requests electronically through the media specialist for books about their metals.

Materials/Resources:

Pen, Citation Worksheets, Computer, Metal Name/ Media Specialist, Chemistry Teacher, LiLI databases, Bear Library webpage – Science classes, Metals

Evaluation:

Students will hand in Citation Worksheets, rating cites they visit.

Notes:

Worksheet 5-5— Lesson Plan Format

(adapted with permission)

Subject: Science	Teacher: Thornton/Cyr/Blount
Lesson Name: Metals Project	Location: Moscow, Idaho
Class: Chemistry	Unit Context: Elemental Properties and Impacts
Date: March 31, 2009	Lesson 2

<p>Activities</p> <ol style="list-style-type: none"> 1) Chemistry teacher will demonstrate metal internet sites located on Bear Library homepage under “Metals Project” tab. 2) Students will fill out Citation Worksheets rating the usefulness of the internet sites for their metal. 3) Media Specialist will show students how to access periodicals from LiLI databases, such as eLibrary Scholarly Journals. 4) Students will explore periodical sites and rate the usefulness of the journals they locate. 5) Students turn in citation worksheets from these periodical sites. 	<p>Big6™ Skills</p> <ol style="list-style-type: none"> 5) ISS 5) ISS 4) ISS 5) ISS 	<p>Idaho Science Standards 9-10.B.1.6.3</p>
---	--	---

Learning Context:

Student will use appropriate skills to explore possible sources for their projects using LiLI.

Materials/Resources:

Pen, Citation Worksheets, Computer, Metal Name/ Media Specialist, Chemistry Teacher, LiLI databases, Bear Library website

Evaluation:

Students will hand in Citation Worksheets, rating journals accessed on Lili Databases.

Notes:

The Definitive Big6™ Workshop Handbook, page 78

The “Big6” is copyright© (1987) Michael B. Eisenberg and Robert E. Berkowitz. For more information, visit www.big6.org

Worksheet 5-5— Lesson Plan

Format

(adapted with permission)

Subject: Science Lesson Name: Metals Project Class: Chemistry Date: April 1, 2009	Teacher: Thornton/Cyr/Blount Location: Moscow, Idaho Unit Context: Elemental Properties and Impacts Lesson 3
Activities 1) Students will return to the favored internet sites and Journal articles and begin the note taking process. 2) Notes are to be taken in their class notes spiral notebooks. 3) Students will add sources used to Works Cited page.	Big6™ Skills Locate and Access Idaho Science Standards 9-10.B.1.6.3 9-10.B.5.1.1

Learning Context:

Students should chose appropriate technology and library resources to perform a background research on their metal. After previewing journals, database articles and ebooks, and websites, students will return to the higher rated sources and delve more deeply into the sources, taking notes and creating a works cited page.

Materials/Resources:

Library resources including Bear Library website, LIL databases, Citation Worksheet, computers with word processing and internet access

Evaluation:

Citation Worksheets and rubric.

Notes:

Worksheet 5-5— Lesson Plan

Format

(adapted with permission)

Subject: Science

Teacher: Thornton/Cyr/Blount

Lesson Name: Metals Project

Location: Moscow, Idaho

Class: Chemistry

Unit Context: Elemental
Properties and Impacts

Date: April 2, 2009

Lesson 4

Activities

- 1) Students will finish note taking.
- 2) Student will begin design of magazine front cover and make decisions regarding which information is appropriate for the cover, including a main picture and subsequent information.
- 3) Students will create the Works Cited page for all items on the Magazine cover.
- 4) Students will begin to gather information about their metal for two articles they will write – one technical and one editorial.

Big6™ Skills

Locate and Access
Use of Information
Synthesis

Idaho Science Standards

9-10.B.1.6.3
9-10.B.5.1.1
11-12.C.1.8.2

Learning Context:

Using Microsoft Publisher, students will design a magazine cover about their metal. The cover will include a large picture of their metal and at least 5 subsequent pieces of information and will look like a “real” magazine cover. The students will use MLA documentation, 6th Edition conventions to cite their sources. As students begin work on their articles, they will be expected to do in-text citation using MLA documentation as well.

Materials/Resources:

Library resources including Bear Library Website, LILI Databases, internet, books from Interlibrary loan

Evaluation:

Citation Worksheets, rubric, MLA conventions.

Notes:

Works Cited
Metals Unit
Thornton/Cyr/Blount

Cyr, Penni. "Metals Project." Bear Library Media Center. 09032009. Moscow High School Library. 12 Mar 2009 <http://www.sd281.k12.id.us/mhslibrary/metals_project2.htm>.

UXL Encyclopedia of Science. Ed. Rob Nagel. Vol. 2nd ed. Detroit: UXL, 2002. Gale Virtual Reference Library. Gale. Moscow High School. 12 Mar. 2009 <http://go.galegroup.com/ps/start.do?p=GVRL&u=idaho_s_moscow>.

U*X*L Encyclopedia of World Mythology. Vol. Detroit: UXL, 2009. Gale Virtual Reference Library. Gale. Moscow High School. 12 Mar. 2009 <http://go.galegroup.com/ps/start.do?p=GVRL&u=idaho_s_moscow>.

"Various Articles.". eLibrary. Proquest CSA. MOSCOW SCHOOL DISTRICT 281. 12 Mar 2009. <<http://elibrary.bigchalk.com/curriculum>>.

Metal Research Project Date Due _____

What you will turn in:

161 points plus addition points
at interim project checks

1. **Side One: Magazine front cover with eye-catching information**
2. **Side Two: Lead Story including all informational research.**
3. **Side Two: Secondary story is to be your opinion supported by cited facts on whether this metal is harming our environment or whether its technological and/or medical uses today far outweigh the environmental impacts.**
4. **Side 2: MLA cited works**
5. **Your own review**
6. **Peer Review #1**
7. **Peer Review #2**
8. **Completed sources worksheets for: suggested web sites, reviewed books, designated Internet sites, periodical internet sites and internet sites of your choice**

You must:

- Use Microsoft Publisher
- 4 sources in the following formats:
 - Required – Gale Virtual Ref. Library, Science Journal; eLibrary Scholarly periodical; 1 book and 1 choice
- In-text citations (parenthetical documentation).
- Works Sited in MLA format—see Bear Library Website www.sd281.k12.id.us/mhslibrary
- Points take off for grammar, spelling, form, missing citations, etc (each -1)
- X3 points taken off for “skipped” information.
- Email the final project to the teacher or save it on her thumbdrive

√	PR		
	A	What is your element—both symbol and name?	2
	B	When discovered?	2
		Who discovered?	2
		How did it get its name and what does it mean?	2
	C	Define: Physical Property	2
		States of matter at room temp	2
		Boiling point (degrees C)	2
		Melting point (degrees C)	2
	D	Define: Chemical Properties	2
		Electronegativity	2
		Group and Period Number	2
		e- configuration	2
		common ion(s)	2
	E	What does element look like? Words and Picture	2
		Geographically, where is this element mined?	2
		How is it found and mined?	2
		What common compounds does it make?	2
		List any Alloys (min 2)	2
		Picture of bonding patterns/shapes it forms?	2
	F	How did people use it when it was first found?	2
		How is it used differently today than in the past?	2
		What are its rare uses?	2
	G	Cost of element now and in the past (at least 5 years ago) in Bar graph form. (www.infomine.com)	2
	H	List any health hazards for humans that have been linked to the metal.	2
	I	Example 1-relation to modern medicine and/or environment	2
		Example 2-relation to modern medicine and/or environment	2
	J	Example 1- relationship to technology.	2
		Example 2- relationship to technology.	2
	L	Works Cited MLA Format	6
		In-text citations	6
		Peer Review #1	6
		Peer Review #2	6
		4 sources in the following formats:	6
		Gale Virtual Ref. Library, Science Journal	6
		eLibrary “Scholarly” periodical article	6
		1 Book and 1 choice reference	6
		Completed a sources worksheet for 3 of the suggested web sites reviewed and one book review	6
		Magazine Cover contained eye-catching designed information	6
		Used Microsoft Publisher	6
		TOTAL	

Peer Grading (PR) and Teacher’s (T) Grading Rubric for Metal Project

Rubric for Metals Project

	Met all Criteria 3	Met Some Criteria 2	Most Criteria Missing or Incorrect 1	All incorrect or missing 0	Evidence Mag front =M Story = S
What is your element—both symbol and name?	Listed correct Symbol and Name using correct spelling or capitalization	Listed correct Symbol and Name	One or both missing or spelled and capitalized incorrectly	Missing or incorrect	
When discovered?	Listed correctly with correct spelling or capitalization When exact date was unknown the era was described	Listed correctly with a misspelling Era was not described adequately	Listed incorrectly	Missing or incorrect	
Who discovered?	Listed correctly with correct spelling or capitalization	Listed correctly with a misspelling or capitilization	Listed incorrectly	Missing or incorrect	
How did it get its name and what does it mean?	Listed both name and meaning correctly with correct spelling and capitalization	Listed both name and meaning correctly with misspelling or capitalization	Listed one or listed one or more incorrectly	Missing or both incorrect	
Define: Physical Property	Defined correctly with correct spelling and capitalization	Defined correctly with misspelling or capitalization	Definition lacking thoroughness	Missing or both incorrect	
States of matter at room temp	Listed correctly with correct spelling or capitalization and punctuation	Listed correctly with a misspelling or capitalization and punctuation	Listed incorrectly	Missing	
Boiling point (degrees C)	Listed correctly with correct spelling or capitalization and punctuation	Listed correctly with a misspelling or capitalization and punctuation	Listed incorrectly	Missing	
Melting point (degrees C)	Listed correctly with correct spelling or capitalization and punctuation	Listed correctly with a misspelling or capitalization and punctuation	Listed incorrectly	Missing	
Define: Chemical Properties	Defined correctly with correct spelling and capitalization	Defined correctly with misspelling or capitalization	Definition lacking thoroughness	Missing or both incorrect	
Electronegativity	Listed correctly with correct spelling or capitalization and punctuation	Listed correctly with a misspelling or capitalization and punctuation	Listed incorrectly	Missing	
Group and Period Number	Listed correctly with correct spelling or capitalization and punctuation	Listed correctly with a misspelling or capitalization and punctuation	At least one listed incorrectly	Missing	
e- configuration	Listed correctly with correct spelling or capitalization and punctuation	Listed correctly with a misspelling or capitalization and punctuation	Listed incorrectly	Missing	
common ion(s)	Listed correctly with correct spelling or capitalization and punctuation	Listed correctly with a misspelling or capitalization and punctuation	At least one listed incorrectly	Missing	

What does element look like? Words and Picture	Described correctly and picture appropriate and correct spelling and punctuation	Described correctly and picture appropriate and incorrect spelling and punctuation	Not described thoroughly	Missing	
Geographically, where is this element mined?	Described correctly with correct spelling or capitalization and punctuation	Described correctly with incorrect spelling or capitalization and punctuation	Not described thoroughly	Missing	
How is it found and mined?	Described correctly with correct spelling or capitalization and punctuation	Described correctly with incorrect spelling or capitalization and punctuation	Not described thoroughly	Missing	
What common compounds does it make?	Described correctly with correct spelling or capitalization and punctuation	Described correctly with incorrect spelling or capitalization and punctuation	Not described thoroughly	Missing	
List any Alloys (min 2)	Listed correctly with correct spelling or capitalization and punctuation	Listed correctly with a misspelling or capitalization and punctuation	Listed incorrectly	Missing	
Picture of bonding patterns/shapes it forms?	Listed correctly with correct spelling or capitalization and punctuation	Listed correctly with a misspelling or capitalization and punctuation	At least one listed incorrectly	Missing	
How did people use it when it was first found?	Described correctly with correct spelling or capitalization and punctuation	Described correctly with incorrect spelling or capitalization and punctuation	Not described thoroughly	Missing	
How is it used differently today than in the past?	Described correctly with correct spelling or capitalization and punctuation	Described correctly with incorrect spelling or capitalization and punctuation	Not described thoroughly	Missing	
What are its rare uses?	Listed correctly with correct spelling or capitalization and punctuation	Listed correctly with a misspelling or capitalization and punctuation	Listed only one or at least one listed incorrectly	Missing	
Cost of element now and in the past (at least 5 years ago) in Bar graph form. (www.infomine.com)	Graph made correctly with correct spelling or capitalization and punctuation	Graph made correctly with incorrect spelling or capitalization and punctuation	Graph not made correctly	Missing	
List any health hazards for humans that have been linked to the metal.	Listed correctly with correct spelling or capitalization and punctuation	Listed correctly with a misspelling or capitalization and punctuation	Listed only one or at least one listed incorrectly	Missing	
Example 1-relation to modern medicine and/or environment	Described correctly with correct spelling or capitalization and punctuation	Described correctly with incorrect spelling or capitalization and punctuation	Not described thoroughly	Missing	
Example 2-relation to modern medicine and/or environment	Described correctly with correct spelling or capitalization and punctuation	Described correctly with incorrect spelling or capitalization and punctuation	Not described thoroughly	Missing	
Example 1- relationship to technology.	Described correctly with correct spelling or capitalization and punctuation	Described correctly with incorrect spelling or capitalization and punctuation	Not described thoroughly	Missing	

Example 2- relationship to technology.	Described correctly with correct spelling or capitalization and punctuation	Described correctly with incorrect spelling or capitalization and punctuation	Not described thoroughly	Missing	
	Met all Criteria 6	Met Some Criteria 3	Most Criteria Missing or Incorrect 1	All incorrect or missing 0	Evidence Mag front =M Story = S
Works Cited MLA Format	Works cited 100% correctly with correct spelling and punctuation	Works cited correctly with incorrect spelling and punctuation	Most incomplete or incorrect or missing	missing	
In-text citations	In- text citations 100% correct	In- text citations correctly with incorrect spelling and punctuation	Most incomplete or incorrect or missing	missing	
Peer Review #1,#2	Submitted 2 Peer Reviews	Submitted 2 peer reviews but some items not filled out	Submitted 1 peer review	Missing	
Gale Virtual Reference Library, Science Journal	Sources 100% correct			Missing	
eLibrary Scholarly periodical article	Sources 100% correct			Missing	
One Book and one reference choice	Sources 100% correct			Missing	
One reference choice	Sources 100% correct			Missing	
Completed a sources worksheet for 3 of the suggested web sites reviewed and one book review	Sources worksheet 100% correct and completed	Sources worksheet but missing 1 item	2 sources missing	Missing	
Used Microsoft Publisher	Used 100% Publisher	Used a different program	Hand made	Partially had made or missing	
Magazine Cover contained eye-catching designed information	20 100% informational/ eye-catching	10 Lacking some information and not eye-catching	5 Has cover But lacking	0 Missing	
TOTAL 161					

March 23rd--1 week prior—Students will be given a short library lecture regarding filling out forms for inter-library loan. Students are assigned a metal and using OPAC they will find a book or request an interlibrary loan for a book with information on their metal.

Calendar of Due Dates

<p><u>March 30-Monday</u> Library instruction in Lili databases, MLA citation and parenthetical documentation.</p> <p>Students will explore Lili databases for possible sources of info. Students will turn in 2 citation worksheets from electronic databases for this day</p>	<p><u>March 31-Tuesday</u> Students will explore designated Internet sites and periodical internet sites and internet sites of their choice. Students will fill out citation worksheets for their periodical and internet site exploration. Minimum, two sheets must be turned in.</p>	<p><u>April 1-Wednesday</u> Students will return to the favored internet sites and begin the note taking process—Notes are to be taken in their class notes spiral notebooks. Remind students to cite source.</p>	<p><u>April 2-Thursday</u> Students will finish note taking and begin design of front cover and make decisions regarding which information is appropriate for the front cover. Students will choose a picture (cite it) for the front cover.</p>	<p><u>April 3-Friday</u> Students will complete the front cover with all information.</p> <p>This is printed and handed in today.</p>
<p><u>April 6-Monday</u> Students will begin writing the Lead Article which will include all remaining information that is not displayed on the cover.</p>	<p><u>April 7-Tuesday</u> Students will complete the Lead article and begin the Editorial Article with cited sources.</p>	<p><u>April 8-Wednesday</u> Students will complete the editorial article with cited sources.</p>	<p><u>April 9-Thursday</u> Students will finalize cited sources list for page 2 of project.</p> <p>Student will finalize their projects.</p> <p>After 30 min the projects will be peer-reviewed by 2 other students.</p>	<p><u>April 10-Friday</u></p> <p><u>Students will make adjustments based on peer reviews and hand in the project first of period Monday Morning</u></p> <p>PROJECT DUE at start of the period Monday April 13 Late Project =zero</p>

Lithium	Manganese
Beryllium	Cobalt
Potassium	Copper
Radium	Cadmium
Tungsten	Tin
Chromium	Lead
Sodium	Iron
Magnesium	Nickel
Calcium	Zinc
Uranium	Aluminum
Titanium	***Platinum
Cesium	
***Mercury	***Silicon
***Silver	***Gold