

# Academic Fair Project: 6<sup>th</sup> Grade Guidelines



**Name** \_\_\_\_\_

**Element** \_\_\_\_\_

**6<sup>th</sup> grade Academic Fair Calendar**

January 2010

Mon	Tue	Wed	Thu	Fri
				1
4 Intro AF Select element in Science	5 Science- work on intro with Element book	6	7 Science- intro to websites/databases English- Noodle intro	8 <i>Barlow Finals</i>
11 Science- Noodle body	12 Science- Noodle body	13 Science- Noodle body	14 English- Noodle body	15 English- Noodle body Early deadline
18 <i>No school MLK</i>	19 <b><i>Noodle Notes due in Science</i></b>	20	21	22 <i>No School</i>
25 Revised Noodle Notes due English- work on rough draft	26 English- work on rough draft	27 English- work on rough draft Science- talk about bibliography	28 English- Peer edit	29 English- Peer edit

February 2010

1 <b>Show rough draft in Science class</b> , start on Final report at home	2	3	4	5
8 <b>Final Copy due in English class</b>	9 Science- work on Blue print of display and model	10	11 <b>Science- blue prints due</b>	12 <i>No school</i>
15 <i>No school</i>	16	17	18	19
22	23	24	25	26

March 2010

1	2	3	4	5
8 Bring in display and models for AF week	9 Science- AF presentations	10 Science- AF presentations	11 Science- AF presentations  Open House	12

**\*\*Dates are subject to change for reasons such as inclement weather, etc. Students will be notified of any changes. Please check the Science Moodle page for updated dates.**

## **Step 1: Science- Your element**

You will be randomly assigned an element for your academic fair project to research, write a report, and create a model/display.

**The element I will be researching for my report is \_\_\_\_\_.**

**What do you already know about this element? List a few things you know:**

**What would you like to learn about your element? List a few things:**

### **Important Due Dates to Remember for this project:**

- 1. Noodle notes due to Mr. Bernstein: January 19, 2010 (Tuesday)**
- 2. Rough Draft of report finished: February 1, 2010 (Monday)**
- 3. Final typed report due to Mrs. Barrett: February 8, 2010 (Monday)**
- 4. Blue print of model and display: February 11, 2010 (Thursday)**
- 5. Display and model due: March 8, 2010 (Monday)**

**\*\* Academic Fair is the week of March 8-11. During this week, you will be presenting your report and display in the Middle School. You will also be making a presentation in Science class. The Open House will be on Thursday, March 11 in the evening.**

## Step 2: Outline of information to follow for researching and report writing

**\*This outline will help you keep your information organized when finding information and writing your report. It is important that you stick to this outline as you research and use it as a tool when you write your report.**

### **I. Introduction Paragraph- (6-10 sent.)**

Information to Include:

- Element name (this should be named in your topic sentence)
- Symbol of element
- Who discovered the element, date/year?( 2-3 facts about its discovery)

### **II. Body of Report**

#### **A. Paragraph 2- Physical/ Chemical Properties (7-10 sent.)**

1. Provide at least 6 physical properties of your element
  - Color, state of matter, boiling/melting points, etc....
2. Provide at least 3 chemical properties of your element
  - Flammability, reactivity, corrosion, etc....
3. Explain each example in this paragraph.

#### **B. Paragraph 3- Location of Element (5-10 sent.)**

1. Where is your element found on Earth? Be specific.
  - How abundant is it on Earth? The universe?
2. How is it obtained by man? How do we get it from nature?
3. Are there special tools used to obtain your element? Explain.

#### **C. Paragraph 4- Past and Current Uses for Element (7-10 sentences)**

1. How was your element used in the past?
2. Give and explain at least 3-5 important ways it is currently used.
3. Explain some common substances and compounds that contain your element.

### **III. Conclusion Paragraph (6-10 sentences)**

#### **A. Information to include:**

1. Restate your element name; explain if your element is essential or not essential for life? If it is, state good reasons. If it is not, also state your reasons.
2. Final concluding sentence- Should be a strong ending to your report!

### **IV. Bibliography- Last page of your report!**

- Noodle will help you create this page in MLA format.

**\*\*For Enrichment Ideas, please see the Academic Fair Enrichment Ideas page (p.8).**

### **Step 3: Find Resources on Your Element (Science/English)**

During this step, you will be required to find information on your element from various sources. One source will be a non-fiction book on your element from our Middle School library. You will be given this book in English or Science class to use. The other sources will be from the websites and database listed below.

<http://education.jlab.org/itselemental/index.html>

<http://periodic.lanl.gov/default.htm>

[http://www.chemsoc.org/viselements/pages/pertable\\_j.htm](http://www.chemsoc.org/viselements/pages/pertable_j.htm)

Encyclopedias like World Book, Grolier (Includes the New Book of Popular Science), and Britannica Online Premier are all sources on our database that you may use.

***\*\*Each student will be required to use one print source (book) and two website/database sources.***

Once you find your information from the websites, print a copy to read, and then highlight important information. Next copy your highlighted information from the source and paste it into Noodle.

## **Step 4: Noodle Your Information (English and Science)**

Once you have your sources, we will be using Noodle to record the information you selected. We will be working on your Noodle notes in Science and English class.

**Remember: When you are typing your notes on Noodle, you must paraphrase the information (put it into your own words) to avoid plagiarism.**

This is an example of how you will copy the information and paraphrase your notes; the source is also listed in correct format. The topic of “dinosaurs” is used in this example.

**Source:**

Weishampel, David B. “Dinosaur.” World Book Online Reference Center. 2007. World Book. 11 Dec. 2007 <<http://www.worldbookonline.com/>>.

**URL:**

<http://www.worldbookonline.com/wb/article?id=ar159320&st=dinosaur&sc=1#h12>

**Quote:**

Dinosaur is the name of a group of prehistoric reptiles that ruled Earth for about 160 million years. The name dinosaur comes from the term Dinosauria, which means terribly great lizards. But dinosaurs were not lizards, only distantly related to them, and most were not very terrible. The largest dinosaurs may have grown as long as 130 feet (40 meters) and weighed as much as 85 tons (77 metric tons). Such giants would have been more than 10 times as heavy as a full-grown elephant. The only animals that grow to this size today are a few kinds of whales, and they live only in the water. The first dinosaurs appeared on Earth about 230 million years ago. They lived in nearly all natural settings, from open plains to forests to the edges of swamps, lakes, and oceans. Then about 65 million years ago, the dinosaurs died out.

**Paraphrase:**

Dinosaurs are thought to have first lived on the Earth about 230 million years ago. According to scientists they are thought to have ruled the world for about 160 million years. The word dinosaur comes from dinosaurian which means terribly great lizards. The biggest dinosaur is thought to have been 130 feet long and weigh about 85 tons. It was not until approximately 65 million years ago that dinosaurs became extinct.

**\* Your Noodle Notes will be collected and reviewed by Mr. Bernstein. This step must be completely done before you begin your rough draft.**

**\*\*Please see the Noodle Tools Information pages (pp. 9-10) and the Noodle Notes Evaluation Form (p. 14) for more information.**

## Step 5: Write your Rough Draft (English)

Once your notes are completed on Noodle, you will be ready to begin writing your rough draft in English class. It is important that you stick to the information in your Noodle notes and adhere to the outline.

### Things to remember when writing:

1. Create good topic and concluding sentences for each paragraph. **Avoid** these phrases:
  - a. “Now I am going to tell you about \_\_\_\_\_”.
  - b. “\_\_\_\_\_ has a lot of information that is interesting.”
  - c. “That is all about the element \_\_\_\_\_.”
2. Do not use first person (“I”) when you write your report.
3. Conjunctions should not start sentences! (and, or, but, so)
4. Watch that you don’t use pronouns to start every sentence.
5. Do not use contractions in your paper (don’t, can’t, etc.).
6. Use word variety to begin each sentence. Stay away from “the” for every sentence.
7. Elaborate on your ideas with good adjectives in your writing. Try to stay away from adjectives such as “pretty, nice, cute, fun, super, interesting”. Using a thesaurus is helpful when improving your adjective usage in writing.
8. Try to use transition words between paragraphs. You will have a list of these transitional phrases to refer to when writing.

**\*\* When the rough drafts are finished, you will peer edit with a classmate in English.**

## Step 6: Final Draft (Completed at home)

This is the most important part of this project. All reports must to be **typed** according to these MLA guidelines:

1. The report must be **double spaced, and typed with 12 font in Times New Roman.**
2. **Your last name and page number** need to appear at the **top right of each page as a header.** (Ex: Bernstein 1)
3. Final report should match the outline with information in correct paragraphs.
4. Cover page on the front of report should include the **title, your name, date, and Mrs. Barrett’s and Mr. Bernstein’s name.** (no pictures or page number should appear on the title page!)
5. Bibliography page completed in correct format and **numbered as the last page.**
6. **Absolutely no spelling, writing, or grammatical errors!!!!** Parents may help you proofread your report; however they may not rewrite the report for you.

**\*\*Please see the Formatting Your Paper handout (pp.11-12) and the Academic Fair Research Paper Evaluation Form (p.15) for more information.**

## Step 7: Create Your Model and Display

The display for your project will consist of two parts, the display board and a model of the element. Please follow all guidelines for your display. Mr. Bernstein will be showing you a model in class, so you know what is expected.

See the additional handout on the Atom Model and Display.

### Display Board Guidelines:

1. 1 Tri-fold board (can be bought at the book store or craft stores)
2. Element's name and symbol
3. Brief history of element
4. Chart of Physical and Chemical properties
5. Past and Current Uses and Common Substances – list/chart and pictures
6. A Bohr Model Drawing of an atom of your element
7. Key for the 3-D model
8. Your name

*(Hint: Display boards look best when the information is typed, not written!)*

### Model Guidelines:

1. You will build a Bohr (solar system) model for one atom of your element
2. You will need to have the correct number of protons, neutrons, and electrons
3. The electrons need to be in the correct electron configuration
4. You may use any supplies that you want for the protons, neutrons, electrons, nucleus, and energy levels. Be as creative as you want!
5. A key explaining everything that will appear on the poster board
  - a. Element name and symbol
  - b. Atomic Number
  - c. Atomic Mass
  - d. Electron Configuration
  - e. Number of protons and object or color which represents protons
  - f. Number of neutrons and object or color which represents neutrons
  - g. Number of electrons and object or color which represents electrons

**\*\*Please see the Blueprint Assignment (p.13) and the Academic Fair Project Evaluation Form (p.16) for more information.**

## Academic Fair Enrichment Ideas

The enrichment portions of the project will be done on your own time and will not be part of the work that we will do in class. Students are welcome to consult with Mr. Bernstein during their research if they have any questions or want feedback. Additional references beyond the required ones will be needed to conduct this research.

You must check in with Mr. Bernstein if you choose to pursue an enrichment opportunity before the rough draft is due. You may choose one of the first three and/or number four.

1. Research your element's role in the human body or in a nature. Provide specific details and explanation of the element's role. This will be added on to the regular requirements. See Mr. Bernstein for more information.
2. Research specific applications of your element that are used in the world today. Explain in depth the role the element plays in the application. You need to go beyond just listing the use of the element. You need to be specific and provide discussion of the application. This will be added on to the regular requirements. See Mr. Bernstein for more information.
3. Compare and contrast your element with another element approved by Mr. Bernstein. This would need to go beyond just listing the similarities and differences but would need to be a well-written essay discussing the material. This will be incorporated into the regular requirements. See Mr. Bernstein for more information.
4. Display/Model Enrichment Ideas
  - a. Create a biological sketch, timeline, or photo essay of the scientist who discovered your element and of its discovery.
  - b. Come up with a simple experiment/demonstration showcasing your element
  - c. Build a very original, 3-D model of your element. Think "outside of the box" for this.

## 6<sup>th</sup> Grade Academic Fair Noodle Notes Information

### Creating a Citation (Websites, Databases, and Books)

#### Creating a List

1. Create a New List
2. MLA Starter
3. Description: "Name of your element"

#### **Websites:**

In Noodle, choose:

- Websites

Here is the info for each of the websites you can use:

Author: Steve Gagnon

Name of website: It's Elemental

Specific page or article name: Element name (example: Carbon)

Sponsoring organization: Jefferson Lab

Web address: <http://education.jlab.org/itselemental/ele024.html>

Author: Royal Society of Chemistry

Name of website: Visual Elements

Specific page or article name: Element name (example: Carbon)

Sponsoring organization: Royal Society of Chemistry

Web address: <http://www.rsc.org/chemsoc/visualelements/pages/nickel.html>

Author: University of California

Name of website: Periodic Table of Elements

Specific page or article name: Element name (example: Carbon)

Sponsoring organization: Los Alamos National Lab

Web address: <http://periodic.lanl.gov/elements/24.html>

#### **Databases:**

In Noodle, choose:

- Online Database
- Original content? →No →Reference Source
- Encyclopedia or biographical dictionary
- Yes. I will provide the publication details of the original print publication in my citation.
- Enter:
  - Author
  - Article title
  - Title of encyclopedia
  - Edition (if known)
  - Year of publication
  - Name of website/database
  - URL

**Book:**

In Noodle, choose:

1. Book
2. Print
3. Fill in the following:

**Author's name:** Look in the book

**Title of Book:** Element name (example: Carbon)

**City of Publication:** Look in the book

**Publisher's Name:** Benchmark Books

**Year of Publication:** Look in the first few pages of the book

**Notecards**

To create a notecard:

1. Click the Notecard tab on the top
2. Click on New Notecard
3. Fill in Title, Source, Direct Quote, Paraphrase
4. Save the card
5. Drag the card from New Note card to outer area
6. Drag the card to the corresponding section in the outline
7. Remember the following:
  - Always choose a source from where you got the info from
  - Title should reflect what the card is about (ex: Boiling and Melting point)
  - Always copy the original quote into the direct quote box
  - **There should only be one or two related pieces of information on a notecard.** For example you could put melting and boiling point on the same card, but you should not put melting point and a common compound on the same card.
  - Always paraphrase the information in your own words.
  - You can leave the URL, Pages, Tags, and My Ideas boxes empty
  - **Once you Click and drag the new notecard into the correct place on the outline screen**

## 6<sup>th</sup> Grade Academic Fair Formatting Your Paper

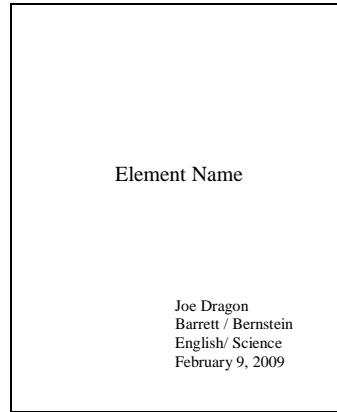
Your paper should be handed in according to the order indicated below.

### I. Title Page

Include:

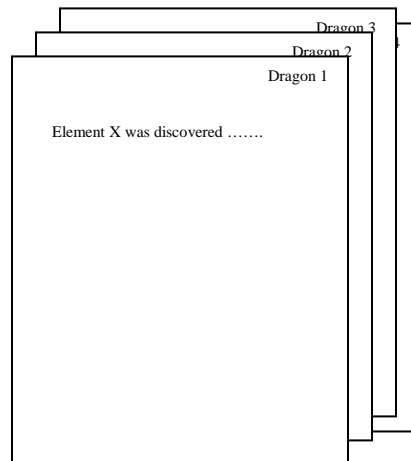
- Title
- Your name
- Teachers' names
- Classes' names
- Due date

\*No page number should be on the Title page



### II. Text

- You will format the main text of your paper according to MLA format.
- Using the “Header and Footer” function on the word processing program, place your last name and page number in the upper right corner. This is the first numbered page of your paper. Because you have already included your heading on the title page, you do not need to include the heading again here.
- Indent and begin the content of your paper.
- Double space the entire text of your paper, and use 12-point Times New Roman.
- 1 inch margins
- **Writing Tips:**
  - Do not use contractions (use “they are” rather than “they’re”; use “do not” rather than “don’t”).
  - Numbers:
    - Write out most numerals that can be written in one word (ten, four).
    - Use a combination of words and numerals for very large numbers (28 billion).
    - Use numerals in numbers preceding a unit of measurement (37 inches, 44 million miles).
    - Use numerals for percentages, decimals, and money (42%, 72.45, \$760,000).
    - NEVER begin a sentence with a numeral—always write out numbers appearing at the start of a sentence (Nineteen ninety-five was an amazing year for space research).



### III. Bibliography Page

- This is a separate page at the end of your paper which should have the same header as the rest of your paper.
- The title of the page is Bibliography.
- The page needs to be numbered as the last page.
- The entire page needs to be double spaced and the entries need to be organized alphabetically. Do not number the citations.
- You need to include a minimum of (1) book and (2) web-based or data-based sources.
- The second line, and every line after the second line, of each citation must be indented one tab.
- DO NOT number your citations.

**Fasten the pages of your completed paper with a single staple in the upper left-hand corner.**

Do not forget the header and page number!

Dragon 5

Bibliography

“Element Name.” It’s Elemental. Jefferson Lab. 22 Jan. 2008  
<<http://education.jlab.org//.html>>.

“Element Name.” A Periodic Table of the Elements. Los Alamos  
National Lab. 12 Feb. 2008  
<<http://periodic.lanl.gov/.htm>>.

“Element Name.” Visual Elements. The Royal Society of  
Chemistry. 12 Feb. 2008  
<[http://www.chemsoc.org//\\_j.htm](http://www.chemsoc.org//_j.htm)>.

Last Name, First Name. Element Name. Tarrytown, NY:  
Benchmark Books, 200X.

## 6<sup>th</sup> grade Academic Fair Blueprint Assignment

**Due Thursday, February 11**

Directions for the Blueprint assignment:

1. You will draw a blueprint of your element model and poster for your element project
2. Follow the guidelines on the other side of this paper
3. Model blueprint will be a Bohr model drawing of one atom of your element
  - a. You must have a key showing the atomic number, atomic mass, and number of protons, neutrons, and electrons
  - b. You must show the electron configuration
  - c. You should write a list of possible supplies that you will be using for the actual model
4. Poster blueprint will show the layout you are intending to do for your poster presentation. You need to include the following:
  - a. Element's name and symbol
  - b. Brief history of element
  - c. Chart of Physical and Chemical properties
  - d. Past and Current Uses and Common Substances – list/chart and pictures
  - e. A Bohr Model Drawing of an atom of your element
  - f. Key for the 3-D model
  - g. Your name

Below is just an example of how it can look. **Please be neat. If I cannot read it, you will lose points.**

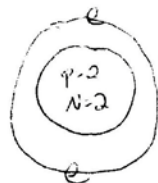
### Example

#### Model of Helium

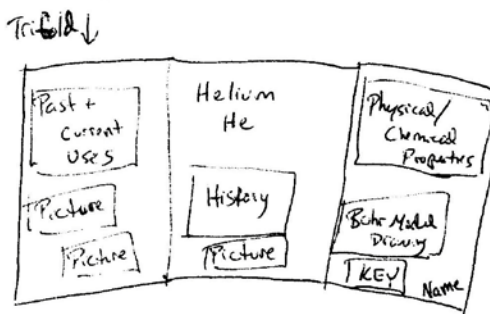
Atomic Number: 2  
 Atomic Mass: 4.003  
 P: 2  
 N: 2  
 E: 2  
 Electron Config: 2

Possible Supplies:

-  
-  
-



#### Poster of Helium



\* This is just an example - please do not follow this

**6<sup>th</sup> Grade Academic Fair**  
**Noodle Notes Evaluation Form**

Noodle Notes

Student Name: \_\_\_\_\_

Organization: /10

- Notes are put in the correct subtopic in outline
- Separate ideas are written as separate notes
- Each note card has a source

Content: /10

- A direct quote appears on each card
- Info is paraphrased
- Info is relevant to the subtopic
- Enough info has been found

Format & Conventions: /10

- Appropriate number of cards
- Spelling and general coherence have been checked
- At least 3 approved sources have been used

/30

Student Name: \_\_\_\_\_

Sci/ Eng Section: \_\_\_\_/\_\_\_\_

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**Academic Fair Research Paper Evaluation Form  
Grade 6**

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**Science Paper Evaluation:**

Accuracy of information	1	2	3	4	5
Synthesis of Information	1	2	3	4	5
Organization/ adherence to outline	1	2	3	4	5
Topic covered thoroughly	1	2	3	4	5

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Content Subtotal:       /20

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**English Paper Evaluation:**

Conventions: -Mechanics/Grammar/Spelling/Usage -Neatness -Bibliography	1	2	3	4	5
Organization: -Paragraph construction -Development of ideas -Introduction and conclusion	1	2	3	4	5
Sentence fluency: -Structure -Clarity -Word choice	1	2	3	4	5
Voice: -Written in own words	1	2	3	4	5

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English Subtotal:       /20

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**PAPER SCORE:**

**/40**

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Student Name: \_\_\_\_\_

Science Section: \_\_\_\_\_

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**Academic Fair Project Evaluation Form  
Grade 6**

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**Display:**

Appearance:

1      2      3      4      5      6      7      8      9      10

Effectiveness of display:

1      2      3      4      5      6      7      8      9      10

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Display Subtotal:      /20

**Oral Presentation:**

Ability to communicate:                      1      2      3      4      5

Use of project visuals:                      1      2      3      4      5

Accuracy of information:                      1      2      3      4      5

Ability to answer questions:                      1      2      3      4      5

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Oral Presentation Subtotal:      /20

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**PROJECT SCORE:**

/40

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