

Eastern Illinois
Writing Project

2008-2010

Content Activities Anthology

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Creative Writing

Mary Ellen O'Brien-Teaching Poetry

Overview: Poetry is an important literary genre. In this lesson I will be introducing several kinds of poetry including shape poems, acrostics, Haiku, quatrains, diamante, and free verse. This lesson is geared to a third grade classroom.

Rationale: Poetry can help children build literacy skills and motivate reluctant writers to shine writing shorter verse.

Learning Objectives: Students will demonstrate an understanding of poetry and will write several kinds of poems, from very simple to more difficult.

Materials: Handout, poem journal (to be constructed in class), paper, Internet access, Smart Board

Procedure: Introduce unit with a poem appealing to students. Many can be found on the internet. I am using "Homework, I Love You" by Kenn Nesbitt.

1. Writers beginning through advanced can succeed with SHAPE POEMS. In a shape poem the words of the poem are written in a specific shape.
 - A. Show examples with Smart Board
 - B. Write own poems
2. Young children appreciate poems put to songs.
 - A. Show examples on Smart Board
3. An ACROSTIC POEM uses the letters in a word to begin each line.
 - A. Show example on Smart Board
 - B. Write an Acrostic Poem using first name
4. HAIKU is a minimalist form of poetry. There are 17 or fewer syllables in the poem. It is composed of 3 lines with a 5-7-5 syllable pattern and when read aloud it can be completed in one breath.
 - A. Show examples on Smart Board
 - B. Write own Haiku poem
5. A QUATRAIN is a four line poem that rhymes. The most common rhyme schemes are ABAB, AABB and ABBA. If there is more than one stanza you could consider AABA, BBCB, CCDC, etc. Shakespeare used lots of quatrains in his poetry and plays. He mainly writes in SONNETS, which contain a combination of quatrains and rhyming couplets.

A. Show examples

B. Pick a rhyme scheme and start writing.

Meggyn Sytar - Candy Bar Wrap-Attack

Primary Subject Area: English/Language Arts

Grade Level: 5 – 8

Overview:

Students use online candy bar wrappers to create stories containing similes and/or metaphors about their school, teacher or other topics.

Approximate Duration: 2 fifty minute classes

Content Standards:

- Students write competently for a variety of purposes and audiences.
- Students communicate using standard English grammar, usage, sentence structure, punctuation, capitalization, spelling, and handwriting.
- Students locate, select, and synthesize information from a variety of texts, media, references, and technological sources to acquire and communicate knowledge.

Interdisciplinary Connections:

- Mathematics : Data analysis, Probability, and Discrete Math.
 - In problem-solving investigations, students discover trends, formulate conjectures regarding cause-and-effect relationships, and demonstrate critical thinking skills in order to make informed decisions.
- Arts : Creative Expression
 - Students develop creative expression through the application of knowledge, ideas, communication skills, organization abilities and imagination.

Objectives:

- Construct sentences with metaphors or similes using candy bar wrappers.
- Create short poems or paragraphs.
- Work cooperatively in groups or independently.

Lesson Materials and Resources:

- Directions posted at each computer and/or handouts given.
- Network server-to save student work or flash drive to save work.
- Candy Crossword Puzzle for early finishers.

Technology Tools and Materials:

- Hardware: Computers
- Software: Microsoft Word
- Websites:
 - Candy Bar Wrappers
www.bradkent.com/wrappers/
 - Online Candy Crossword Puzzle
www.infoplease.com/xwords/kidscandy.html
 - Candy Name word search (printable)
www.debidawn.com/candyws.htm
 - Candy Bar Game
www.smm.org/sln/tf/c/crosssection/namethatbar.html

Other Background Information:

Students should be familiar with similes and metaphors to do this lesson.

They should also be familiar with the format of a paragraph or poem.
Students should be familiar with WORD and copying and pasting pictures.

Lesson Procedures:

1. Begin the lesson by having students fill in this blank:
My teacher is as sweet as _____.
Our teachers are as smart as _____.
The teacher will review similes and metaphors having students give examples of each. An example of each should be written on the board for reference.
2. Teacher will demonstrate how candy bar wrapper pictures can be found on the internet and saved to a disk. <http://www.bradkent.com/wrappers/>
Teacher may also choose to have the wrappers already saved on a disk and demonstrate how to retrieve.
3. Students will brainstorm phrases that can be written using candy bar wrappers. Example: My father gave me a (Whatchamacallit) for my birthday. All our teachers are (Lifesavers) because of the help that they give us. (A list of candy bars is given in handouts. I find it helpful to give each child a list.)
Teacher can use a computer to show how to use WORD and insert the candy bar pictures.
4. Teacher will go over rubric with students so that all know what is expected of the group.
5. Teacher will let students preview 20-25 pictures on the internet or floppy of candy bar wrappers. (A written list is also helpful and is attached to this lesson).
6. Students will form groups of four to construct 3-5 sentences about their school or teacher using the candy bar names and pictures. Students should brainstorm for 5 minutes before moving to computers.
7. Students will turn in one completed copy within the time limit and also save a copy to disc. (20-25 minutes)
8. Student work will be graded with a rubric and displayed for all to read.
9. Students can also work on a candy word search if finished earlier than other groups.
10. Students can play the candy bar game online, see link in technology resources.
<http://www.smm.org/sln/tf/c/crosssection/namethatbar.html>
11. Groups will share their completed paragraphs with the class.

Assessment Procedures:

Teacher Observation

Each group will complete a paragraph graded with the rubric provided.

Accommodations/Modifications:

If only one computer is available groups should rotate through center. Students who need additional help should be placed in groups with children that will assist or grouped together so that teacher can assist. Computer directions should be posted at each computer.

Reproducible Materials:

Rubric to grade paragraphs

Candy Bar Names

Computer Directions

Example of Student Work

Explorations and Extensions:

Students may research candy facts or puzzles using <http://www.google.com>

Students can further use the candy bar wrappers in math or science class to study the nutritional information provided at the candy site.

Students can graph the candy bar names used by all groups to find the most popular used.

(9-12) Students can create stories (possibly personal narratives or (topic-derived) to create a story or summaries.)

(K-4) students can use candy bar wrappers to write complete sentences to reinforce new skills.

Lesson Development Resources:

Candy Bar Wrappers <http://www.bradkent.com/wrappers/> ;Retrieved 2003

Writing Paragraphs, Webster University, Online Writing Center; Retrieved 2003

<http://www.webster.edu/acadaffairs/asp/wc/paragraphs.html>

Mary Williams - Who wants to be a Songwriter? (Lyric poetry)

Grade Level: 5 – 8

Overview: The students will develop an understanding of lyric poetry through music.

Rationale: Students will listen to and analyze lyrics to popular songs to identify the rhyming patterns, theme, and write their own lyric poem.

Goals and Objectives:

- The students will learn the definitions of the following words:
 - Lyric Poetry
 - Rhyme scheme
 - End Rhyme
 - Quatrain
 - Stanza
 - Theme
- The students will listen to lyrics of modern songs and identify the rhyming scheme and theme of the given song.
- The students will create a 2 stanza quatrain and write what the songwriter's message is.

Required Materials:

- Computer
- LCD projector
- Chalkboard or Smart board
- Downloaded songs and hard copies of the song lyrics for the following:
 - Another One Bites the Dust by Queen
 - Fat Bottom Girls by Queen
 - Yesterday by the Beatles
 - ABC by Michael Jackson
 - Old Time Rock and Roll by Seger
 - Life's Been Good to Me so Far by Joe Walsh
- Paper
- Writing Utensils

Activities/Procedures:

1. Introduce the lesson by asking the class to raise their hands if they like poetry. (Usually only half of the class will raise their hand).
2. Ask the class to raise their hand if they like music. (Usually everyone will raise their hand).
3. Tell the class they are going to learn about a special kind of poetry called, *Lyric Poetry*.

Ask, "Does anyone know what lyric poetry is?" After a student response define Lyric Poetry to the class: A poem that expresses the thoughts and feelings of the poet, or in other words, a song.

4. Hand out the lyrics to *Another One Bites the Dust*
5. Tell the class they are going to listen to the song and you want them to follow along reading the words.
6. Play the song. Once the song has ended tell the class they are going to analyze the lyrics to find the rhyming scheme (the pattern of rhyming words)
7. Have a student read the first line.
8. Ask the student what the last word in the line is. Tell the class to label that A
9. Have another student read the second line. Again identify the last word. Ask, "Does it rhyme with the last word in the first line?" No, so we label that line B
10. Again, ask another student to read the third line. Does the last word rhyme with the second line? No, but it rhymes with the first line. Therefore, we label that line A
11. The fourth line is read by a different student. They should notice it rhymes with the second line so we label that line B.
12. The fifth line does not rhyme with A or B so we label that line C.
13. Continue with the process until all stanzas are labeled.
14. Tell the class what they just identified is called end rhyme.
15. Also note to the class that the cluster of lines in each group is called a stanza.
16. Ask the class, "What is the theme, or message, the songwriter is telling.
17. Hand out the lyrics for *Fat Bottom Girls*.
18. Play the song and have the class label each line as the song is being played.
19. At the end of the song, orally discuss the rhyming pattern and theme.

Small Group Activity: Divide the class into 4 small groups. Assign each group one of the following songs.

- *Yesterday*
- *ABC*
- *Old Time Rock and Roll*
- *Life's Been Good to Me*

20. Give each group the lyrics to one of the above songs.
21. Have each group label the rhyming scheme and write on the bottom or back side of the sheet what the theme is.
22. Once each group is finished play the appropriate song for each group and have them identify to the class the rhyming scheme. *If time is an issue you may have each group only present 2 stanzas of the song.

Independent Practice: Who wants to be a Songwriter?

- Now the fun begins. You are assigned to create your own song. Your song must be a 2 stanza Quatrain.
- Ask, “What is a Quatrain?” A quatrain is a poem written in four, rhymed lines following a set pattern.
- Your song can go to the beat of a familiar or favorite song
- Your song can have the same beat as a nursery rhyme
- Most importantly: Your song needs to be original and you need to label the lines and write a short paragraph on the message the songwriters expressing.

Closure: Once the class is finished creating their song ask for volunteers to come up and present their songs. Discuss the themes and how the songs can be interpreted differently.

Related Activities:

1. Round Robin - Assign each student to a partner. Give each pair a handout with rhyming schemes labeled. The students take turns writing lines to create a lyric poem. They can do it to the beat of a favorite song and/or nursery rhyme.
2. Have the students select a favorite song of theirs and have them print the lyrics. It is usually a good idea to have the students give you a copy to preview. Have each student identify the ending rhyme pattern and write a paragraph on the theme.
3. Nice Net Activity – similar to Round Robin, but the class logs on to nicenet.org and creates a poem by having many students writing lines. Make sure you have the rhyme scheme labeled for them to follow.
4. Design an album cover that would best illustrate the theme of your quatrain.
<http://tlc.ousd.k12.ca.us/~jreese/projects/quatrain.htm>
5. Students examine the role music plays in influencing ideas and behaviors. They read and analyze **lyrics** of current songs that contain suggestions of alcohol, tobacco, or other drug use,

participate in a class discussion about the banning of **lyrics** that promote drug use, and identify ways to counter the effects of **lyrics** that condone tobacco, alcohol, and drug use.

<http://www.lessonplanet.com/search?display=lessons&grade=all&keywords=Lyrics&media=lesson&page=2>

6. Students analyze a song to determine the composer's point of view regarding the subject addressed in the song. They design and create an original visual aid that illustrates the theme of the song. Students identify any social studies issues, events or person that is addressed in the song. They interpret the song **lyrics** and present their opinions and research information orally.

<http://www.lessonplanet.com/search?display=lessons&grade=all&keywords=Lyrics&media=lesson&page=7>

Bibliography:

http://poetry.suite101.com/article.cfm/lyric_poetry#ixzz0KWp6oyNR&C

http://www.tnellen.com/cybereng/lit_terms/index.html

Ruth-Anne Yang - Improving Your Writing With Plot Structure

Overview:

Understanding the format of plot to create a story that is interesting and creative.

Rationale:

A lot of my freshman students tend to write in a way that is very formulaic with no real excitement. This exercise helps them expand their ideas outside of what's comfortable for them and challenges them to evaluate their own work. Repetition in a creative way helps students to understand what they are learning. This activity has been successful in increasing student interest in creating stories that not only help them as writers but makes the stories more interesting for the readers.

Learning Objectives:

Evaluate written work for its effectiveness and make recommendations for its improvement.

Materials:

Notebook paper, writing utensil, projector, smartboard, plus/delta sheet

Activity/Procedure:

This is an activity where students will have already learned the parts of plot (exposition, rising action, climax, falling action, resolution). The students will review for this lesson these parts and then apply them in their writing as a group.

1. As a class, we will review the parts of plot on the board. Afterwards, we will discuss any novels that have great plots as examples for our own writing activity later on in this lesson. (Harry Potter, Twilight series, The Lightning Thief, etc)
2. Group the class into circles of four or five students. Each student should have a couple loose leaf sheets of paper and a writing utensil.
3. Each student will start writing an exposition to the beginning of a story. After 5-7 minutes, each student will rotate their stories in clockwise direction.
4. The next student will need to continue the story after reading what the previous student has written. The student will need to start writing a rising conflict. After 5-7 minutes, the students will continue to rotate like so until all parts of plot is finally completed. The writer will initial next to the paragraph they have written.

5. After the students are done, each student will need to take out their plus/delta sheet to evaluate each story as a group. The pluses will be anything the group feels was great. The delta sheet will be anything that needs to be changed.
6. The class will then gather as a whole and evaluate the classes writing and create one large plus/delta chart to evaluate what was good and what needs improvement.

Evaluation:

Participation during discussion time will be graded on the number of times they have participated compared to their peers. I usually collect the papers and grade them on the original and the revised version. Typically, if I decide to use this activity for an official paper, I'll count it for about 50 points.

Extensions:

- You can have the students revise and rewrite the papers. They can type them up to create a book they can illustrate.
- The students can pick the best one in each group and present them to the class through the use of a photo essay. The students will need to take pictures to illustrate each story's progression. They can either upload them through moviemaker or power point in the order of events. They will then use the story to narrate the slideshow of photos.

Sources: (helpful sites to use for extension)

Instructions for movie maker:

<http://desktopvideo.about.com/od/desktopediting/ss/mmphotomontage.htm>

Blank book store:

<http://www.triggermemorysystem.com/BlankBooks.html>

Food & Nutrition

Donna Denault - Using Recipes

Grade Level: 9

Subject: Food & Nutrition I

Overview and Purpose:

This lesson will be taught at the beginning of the school year and after safety and sanitation has been thoroughly reviewed. Since reading and writing recipes is a fundamental skill of the food service industry as well as a practice used in all home food preparation, students will continue to practice appropriate use of recipes throughout the semester

Education Standards

- National Family and Consumer Science Goal FCS 9.3.5
- Illinois State Writing Goals 3.C.4a

Objectives:

- Students will practice sequencing in recipes.
- Students will evaluate recipes for various formatting.
- Students will construct a well-written recipe.
- Students will utilize a recipe in the creation of a food product.

Materials Needed:

- PPT and projector for viewing
- Variety of recipes in differing formats
- Pencil/pen
- Graphic organizer for writing a recipe
- Recipe for vegetable wraps
- One, 8-inch, whole-wheat tortilla per student
- ¼ ripe avocado per student
- 1 T. cream cheese per student
- ¼ cup spinach per student
- ¼ cup shredded spinach per student
- Measuring cups, one set per lab team
- Frosting spatula or table knife, one per lab

- Cutting board, one per lab team
- Chef's knife, one per lab team
- Hand wash sink and soap
- Sanitizer solution
- Plates, napkins, etc. for setting a cover
- Product evaluation sheets
- Food service gloves, one pair per student
- Lab plan sheets, 1 per lab

Procedure:

1. Introduce lesson by asking students to write in their "Food for Thought" journals their reply to the following prompt: Why do you think chefs need standardized recipes?
2. Ask students to share their journal entries.
3. Define standardized - to remove variations and irregularities in something and make all types or examples of it the same.
4. Review sequencing in writing on PPT slide.
5. Ask students to form groups and handout different recipe for examination of format, and then to share with the whole class what they noticed concerning sequencing, i.e. numbering and words like before, first, next, then, finally
6. Use PPT slide to discuss order in which recipes are written, emphasize list of ingredients first and then, step-by-step directions.
7. Handout graphic organizers and demonstrate how to use them.
8. Ask students to follow directions to create their own sandwich recipe, and collect for a grade.
9. Handout recipe for California Vegetable Wrap and lab plan sheets.
10. Discuss recipe and ask groups to plan their lab, show their plan before they begin, and then, begin food lab activity.
11. Prepare food, eat, and clean up lab.

Extensions:

- Design a restaurant menu for a sandwich shop.
- Write a review for a sandwich and submit it to a food editor in the local paper.
- Create a recipe book.
- Write a recipe for a non-reader.
- Write a conversion recipe using ingredients for multiple servings and/or for use in foreign countries.

- Write a script for a food show.
- Create a sandwich tale based on the children's program, *Veggie Tales*.

Resources:

Kowtaluk, Helen, and Alice Orphanos Kopan. *Food for Today*. 9th ed. New York: New York, 2006.

Print

<http://www.readwritethink.org/classroom-resources/lesson-plans/cooking-with-words-creating-1018.html>

Name: _____ Date _____ Period _____

Procedural Writing Graphic Organizer: Writing Recipes

Brainstorm possible ideas for creating your own sandwich. Talk about what you would like to make, what you will need to make it, the steps you will use to prepare your sandwich, and how you think your sandwich will turn out. When you have finished brainstorming, write your ideas on this organizer to help you plan your recipe.

Title:

Purpose:

Ingredients:

Steps:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Add more steps as needed:

Conclusion:

Math

Patty Hawkins - Exploring Math Concepts through Writing

Patty's Demonstration – will begin with a “Joke of the Day!”

1. **Overview:** Students will deeply explore a mathematical concept and turn it into an expressive piece of writing. This project could be a way to introduce a topic or concept or to delve more deeply into a topic or concept. This could also be used to review an idea if it has been a while since students have used it.

According to Nagin and the National Writing Project, in *Because Writing Matters Improving Student Writing in Our Schools*, “Expressive writing is a means of thinking through a problem (52).” Also, the preservation of knowledge is aided by writing (52). Both being such important facets for mathematical learning.

2. **Rationale:** This activity will explore a mathematical concept of choice, and could benefit elementary students through college students, at any level of mathematics. In addition to the teacher, the target audience could be peers as well as students who are “mathematically younger.”

3. **Learning Objective:** Students will demonstrate an understanding of their chosen math concept and genre of their choice.

4. **Materials:** Students can use their text book, computer/internet/scanner, magazines, and any additional resources they can find, as long as they cite sources when needed.

According to Nagin and the National Writing Project, in *Because Writing Matters Improving Student Writing in Our Schools*, today writing is done in numerous technological forms such as e-mail, internet, fax, etc. requiring different materials than in the past (5). Mathematics has the same type of technological tools and advances that changes the face of learning. Tools such as graphing utilities, scientific calculators, the internet, and e-mail have changed the way we can

tackle math in the classroom and in the work force. Students can look at many more examples in the same time that they could look at only a few before the days of technology. Also, examples can be studied much more thoroughly and with much more precision than they could in the days of handwritten work.

5. Activities/Procedures:

A. Look at sample titled “Quartic Functions.” Go through the sample as if the audience has not covered quartic functions in much detail. (5 minutes)

B. As a group brainstorm possible ideas for topics/concepts (this will in no way be an exclusive list): e.g. 4, pi (endless possibilities), polynomial functions (if you like roller coasters), fractions, etc. I will handout candy as a reward for ideas. (5 minutes)

C. Choose the math concept you would like to write about whether it is part of our list or not. Individually brainstorm for 9 to 13 ideas or details you want to include in your writing. (10 minutes)

D. Share your list with the person beside you and brainstorm together for additional ideas. When finished, sign each other’s paper. (7 minutes)

E. Organize your list of ideas.(3 minutes)

According to Maxwell, in *Writing Across the Curriculum*, steps B through E are examples of “level 1 writing,” where students brainstorm, organize, and merely get some thoughts down on paper to get the writing process going (43). Maxwell feels that students should be given numerous opportunities to work through these types of processes, since this is when students are thinking critically and developing ideas to use in their writing (43).

“Level 2 writing” follows where students get more formal and work through numerous drafts, pushing toward “level 3 writing,” which results in a final draft. Where, according to Maxwell, the teacher will be looking at both content and form, for correctness and neatness (45).

F. With music playing in the background, choose a genre of choice, and write an explanation of your concept for an audience who does not understand it. You might write about the concepts’ beauty, flow, relevance, mathematical meaning, etc. Be creative! (20 minutes)

G. Find or create a visual (or visuals) that identify the math concept chosen and creatively incorporate it into your written expression. (5 minutes)

H. Please share your creations. (5 minutes)

6. **Evaluation:** Feedback on the activity. Suggestions made for improvement or ideas for other similar activities.

Simple rubric for classroom grading: (The rubric will likely evolve after time and with use.)

_____/10 Contains 9 – 13 ideas/details

_____/10 Ideas/details are properly explained and supported in genre of choice

_____/10 Creativity

_____/10 Creatively incorporates a related visual or visuals

_____/20 Brainstorming paper with your 9 – 13 ideas/details and suggestions from a peer, including his/her signature

Possibly...

_____/0 Bonus (0 to 6 points) for demoing to a “mathematically younger audience,” which would be evaluated by the cooperating teacher (requiring an additional rubric)

_____/60 Total points

Students will be given the rubric up front, along with written directions for the project, and time will be allowed for questions about the project and/or the rubric.

7. **Extension:** Write a more formal paper, including (possibly additional) research into the concept, demoing the project to peers, or demoing to a “mathematically younger” audience. Topics could be limited to a certain chunk of mathematical knowledge (e.g. polynomial functions, polygons, number systems, real/imaginary numbers, etc.) Compare/contrast could be done with some concepts (e.g. rational/irrational numbers, pi and $22/7$, 3 and -3, etc.)

Sources:

1. Maxwell, Rhoda J. Writing Across the Curriculum. Allyn and Bacon, 1996.
2. National Writing Project, and Nagin, Carl. Because Writing Matters Improving Student Writing in Our Schools. 2nd ed. San Francisco: Jossey-Bass, 2006.

Laughter is the shortest distance between two people.

~Victor Borge

Joke of the Day!

A team of engineers were required to measure the height of a flag pole. They only had a measuring tape, and were getting quite frustrated trying to keep the tape along the pole. It kept falling down, etc. A mathematician comes along, finds out their problem, and proceeds to remove the pole from the ground and measure it easily.

When he leaves, one engineer says to the other: "Just like a mathematician! We need to know the height, and he gives us the length!"

Another possible demo...what could students write about?

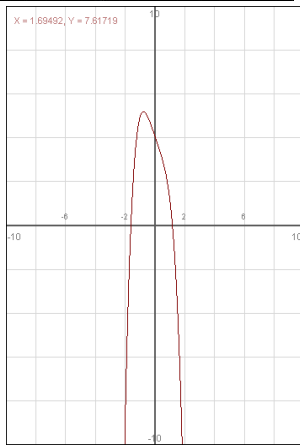
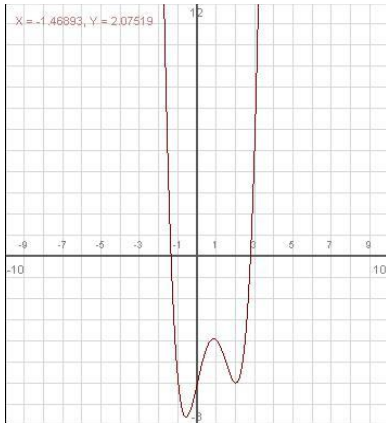
<http://www.quotegarden.com/laughter.html>

<http://www.math.utah.edu/~cherk/mathjokes.html#topic1>

Hawkins' Philosophy: There is great benefit in looking at the same problem or concept in numerous ways...because more than likely at least one method will click with every student, and if it "clicks" it is more easily recalled. Easier recall will tremendously benefit lifetime problem solving and even the dreaded standardized tests...there are no "method police" at test sites.

Whatever it takes for EACH STUDENT to be successful is what is important!

Quartic Functions



$$x^4 - 3x^3 + 4x - 6 + 4$$

Look at those quartics

$$-x^4 - 2x$$

Kristyn says, "Smokin' hot chicks"

Curvy and voluptuous

They all begin with a fourth degree equation

That can have one to four additional terms

However, no more are required, resulting in an extreme flattening of the curves

Shape determined by their equations

Width varies depending on coefficients and signs

Height is infinite

When the leading coefficient is positive the quartic may look like a "W"

Falling, then rising, and

Falling then rising again, from left to right

Negative leading coefficients may result in an "M" shape

From left to right, they will rise and fall

And rise and fall

Local minimums and/or maximums are present

Depending on their equation and resulting direction

Going on forever at the beginning and the end

A Y-intercept is represented by the constant

X-intercepts can be found by solving

Of which none are required

Solutions are REAL only when $y = 0$

Otherwise solutions are imaginary

HMMMMMMM... If solutions are imaginary do they REALLY exist?

Science

Sarah Pratte - The Scientific Method, *Mythbusting* and Beyond

Grade Level: 7-8

Subject: Science and Literature **ACTIVITY**

Prepared by: Sarah Pratte

Overview and Purpose:

This high interest lesson would be taught at the beginning of the school year to help review the scientific method, it can then be incorporated into the classroom when the topic aligns with the curriculum throughout the rest of the year.

Educational Standards:

- Illinois State Science Goals 11.A.3a-11.A.3g
 - Illinois State Writing Goals 3.A.3, 3.B.3a and 3.B.3b
-

Objectives:

- Students will learn/review the scientific method.
 - Students will draft a laboratory report using the provided worksheet.
 - Students will extend the science lesson/topic into a written language arts activity.
-

Materials Needed:

- Scientific method overview
 - *Mythbusters* DVD
 - DVD player and TV or LCD projector
 - Student worksheets
-

Procedure:

1. Review scientific method with students.
2. Handout worksheet and play selected *Mythbusters* segment.
3. Students will fill in the worksheet as they watch the video. Instructor may stop the video to allow for group discussion or completion of a portion of the worksheet.
4. After the video, bring the ideas from the students together and set-up a "master" lab report with the class.
5. Students then will work in pairs to complete one of the Language Arts extension activities or another extension activity approved by the teacher.

Cross-Curricular Extension Activities:

Students can expand this lesson in Language Arts by:

Developing it into a fiction story

Writing a screen play for another episode of their choosing

Make a story board of an episode

Write a journal entry about the myth busted

Write a comedy sketch about episode

Create a graphic novel

Compose a song/rap/poem

Write a letter explaining a myth to bust and submit to Mythbusters online

(<http://dsc.discovery.com/fansites/mythbusters/talk/talk.html>)

Write a persuasive essay on who is funnier, Jamie or Adam?

Make a movie about the episode using Windows Movie Maker

Pratte - Science

Name and

Date _____

MYTHBUSTERS

1. Explain the myth to be busted:

2. What was the *question*?

3. What was their initial *hypothesis*?

4. How did they *test the question*?

Adam and Jamie set up experiments to test the myth. Describe the experiments and the controls, the factors they did not allow to affect their experimental results.

Steps of the experiment:

Controls in the experiment:



5. What was their *analysis* and *conclusion*:

6. Was the myth busted or confirmed?

7. What safety precautions did they use in their experiments?

Worksheet adapted from:

<http://www.teacherweb.com/AR/LakesideHighSchool/Physics/ap5.stm>

<http://teachingphysics.wordpress.com/2008/05/31/mythbusters-the-scientific-method/>

Lab Report Template

Title:

** a brief, concise, yet descriptive title*

Statement of the Problem:

- * What question(s) are you trying to answer?*
- * Include any preliminary observations or background information about the subject*



Hypothesis:

- * Write a possible solution for the problem.*
- * Make sure this possible solution is a complete sentence.*
- * Make sure the statement is testable.*

Materials:

- * Make a list of ALL items used in the lab.*

Procedure:

- * Write a paragraph (complete sentences) which explains what you did in the lab.*
- * Your procedure should be written so that anyone else could repeat the experiment.*

Results (Data):

- * This section should include any data tables, observations, or additional notes you make during the lab.*
- * You may attach a separate sheet(s) if necessary.*
- * All tables, graphs and charts should be labeled appropriately*

Conclusions:

- * Accept or reject your hypothesis.*
- * EXPLAIN why you accepted or rejected your hypothesis using data from the lab.*
- * Include a summary of the data - averages, highest, lowest..etc to help the reader understand your results*
- * List one thing you learned and describe how it applies to a real-life situation.*

*Discuss possible errors that could have occurred in the collection of the data (experimental errors)

<http://www.biologycorner.com/worksheets/labreport.html>

Lab Report Rubric

	(4 pts)	(3 pts)	(2 pts)	(1 pt)	(0)
Introduction	1. Includes the question to be answered by the lab 2. states hypothesis that is based on research and/or sound reasoning 3. title is relevant. 4. Hypothesis (prediction) is testable.	One of the "excellent" conditions is not met	Two of the "excellent" conditions is not met	Three of the "excellent" conditions is not met	
Methods			A description or step-by-step list of how the experiment was performed	Description unclear, couldn't be repeated	
Results (data)	Results and data are clearly recorded, organized so it is easy for the reader to see trends. All appropriate labels are included	Results are clear and labeled, trends are not obvious,	Results are unclear, missing labels, trends are not obvious at all	Results are present, though too disorganized or poorly recorded to make sense of	
Analysis	The data and observations are analyzed accurately,	Analysis somewhat lacking in	Analysis lacking in insight, not enough data was	Analysis poor, not enough data, inaccurate	

	trends are noted, enough data was taken to establish conclusion	insight, enough data, though additional data would be more powerful	gathered to establish trends, OR analysis does not follow data	analysis	
Conclusions	<ol style="list-style-type: none"> 1. Summarizes the essential data used to draw conclusions 2. Conclusions follow data (not wild guesses or leaps of logic), 3. Discusses applications of experiment ("real world" connections) 4. Hypothesis is rejected or accepted based on the data. 	One of the "excellent" conditions is not met	Two of the "excellent" conditions is not met	Three of the "excellent" conditions is not met	
Format			Neat, organized with headings, few spelling/grammar errors	Somewhat lacking in organization, multiple spelling/grammar errors, not neat	

Name and Date _____

Lab Report

http://www.biologycorner.com/worksheets/labreport_rubric.html

Title:

Statement of the Problem:

Hypothesis:

Materials:

Procedure:

Results/Data:

Conclusions:

Special Needs Activity

Cassie McMillan - Title: Writing Through the Use of Boggle

Lesson Objective: To provide a chance for exploration and hands-on learning for students with special needs through the use of a game called Boggle.

Rational: Students with learning disabilities, as well as, other students struggle to find focus at times. The purpose of this activity is to help get them focused and interested in writing and not to look at it as just another boring assignment. This activity will help students with word recognition, word and sentence formation. It will also help with word validation either through other students or the dictionary/dictionary.com. It will also help them develop, organize and apply their words into a written piece.

Learning Objective: After completing the lesson students will write a creative writing piece using their found words.

Supplies:

Boggle game

Writing Utensil

Paper

Write/Left Story for the instructor

Dictionaries/computers for questionable words

Activities/Procedure:

- A. Explanation of how to play the game Boggle.
- B. In groups we will play 3-4 games depending on time and how much the kids are struggling to find words. During 1 of the games each student will come up with 1 nonsense word to put into a nonsense word pool.
- C. After playing each game the students will compare words (the real words) that were found within their groups. (This also checks to make sure that words are spelled correctly, real and appropriate! If there are questionable words students can use the dictionary or dictionary.com)
- D. After all games are played, students will return to their individual desks and write sentences using their words in them. (They can use more than 1 of their words in a sentence but no more than 3.) Their goal is to write good sentences with some style and flare to them.
- E. After each student is done with their individual sentences, the teacher will read the Write/Left story.
- F. At the end of the Write/Left story, each student should have a new set of sentences then it is their job to put those sentences into a creative writing story that makes sense.
- G. Upon completing their writing piece, each student will then pick a nonsense word to define and to write into a sentence, to be shared with the class when everyone is finished.

Evaluation:

Each student will read their piece to the class.

Check for vocabulary development and usage.

Check for correct sentence structure.

Check for following directions.

Could even have each student grade the activity on a scale of 1 to 5 (1-being not liked or 5-being really liked) then have them tell why they liked it or disliked it.