From STEM to STEAM handout (Friday, October 21, 2016). There are 11 paragraphs in the handout, ELEVEN full paragraphs. They were numbered on the handout you received.

For those who did not get the Friday handout with the circled number of each paragraph beside each of the eleven paragraphs, here are the first few words of each of the eleven paragraphs.

- 1. Most students have experienced ...
- 2. On those few occasions when students are ...
- 3. Mind-sets are those beliefs, assumptions, and expectations that guide how we ...
- 4. Researchers who study mind-set suggest that at a young age ...
- 5. By contrast, people who develop a growth (or fluid) mind-set operate ...
- 6. Most researchers believe that people are born with ...
- 7. This growth approach is evident in toddlers as they explore their ...
- 8. Because mind-set is such a powerful and ingrained force, it is not surprising ...
- 9. Ironically, even highly able students can suffer ...
- 10. Teachers with a growth mind-set believe ...
- 11. Students with a fixed mind-set in STEM areas will ...

Here is a link to the **From STEM to STEAM** handout.

These pages are from **Chapter Two:** What Science Says About the Arts and Creativity.

Paragraph	8 am class
Number	Table #
1	1
9	Yellow
8	2
10	Blue
3	3
2	Green
6	4
5	Pink
7	5
4	Purple

12 MWF class	Table#
Paragraph Numbers	Tubic ii
10	1
3	Blue
4	2
6	Green
9	3
7	Purple
1	4
2	Orange
8	5
5	Yellow

Your Table # is either 1, 2, 3, 4 or 5, as you know. We randomly chose TWO PARAGRAPHS from the first TEN paragraphs of the FROM STEM TO STEAM handout. Your table will make a presentations on the handout on Monday, October 24th. You will be given 15 minutes or so to work together and discuss what you learned, what you are confused about, how you related to, what you think is important, etc. from you reading of the entire handout, but with focus on what insights and issues and confusions and questions and relevance you find in your table's TWO PARAGRAPHS. Your table is the specialized experts on those two paragraphs.

Assignment due on Monday: Turn in a full two pages of hand-written and drawings of notes and ideas you found and developed from studying the FROM STEM TO STEAM handout. Of course, relating it to the Stands With A Fist Dances With Wolves and the Ghostbusters and Coaching the Artist Within material and the A Mind For Numbers readings and discussions would be WONDERFUL, and is part of the assignment.

What does TWO PAGES mean? One sheet of paper, from and back, filled with notes, quotes, questions, drawings, ideas, reflections. Or two sheets of paper is okay too, if you want to just write on one side. Obviously, it is okay to do more than two pages. It is not okay to do less than two pages.

Your table will have an active and engaged discussion on Monday, which this assignment guarantees each and every student will come prepared having read and reacted to and having written down reactions, quotes, insights, questions, applications of the material. Each table will give a presentation during the last portion of the class.

This assignment is another building block or brick in building up a structure to develop the Ghostbusters, Pretty Woman, Dances With Wolves, Much Ado About Nothing approach the problem solving and quantitative thinking.

If you want to look at some of the AMAZON.com First Pages, Surprise Me pages, reviews, Back Cover and/or Table of Contents for the book From STEM to STEAM, here you go: **FROM STEM TO STEAM on Amazon**.

Homework Assignment due: Start of class on Monday, October 24th.

Prefer it to be hand-written pen and/or pencil. Two pages long and readable. Best written from your notes and ideas, in other words rewritten or composed from some notes and questions and thoughts you had as you read the handout.

It should be readable enough so that others at your table can read it when you show it to them, or if they need to read aloud from it to discuss or present!

Here on the next page is what was done with the <u>From STEM To STEAM</u> in December 2015 for the final exam presentations preparation one year ago. It is given here just to give you more ideas and resources and possible approaches. From the 12/17/2015 final exam project page.

Also, note Twinkie quote from the Ghostbusters 1984. "Tell em about the Twinkie, Egon."

From the entry page for LI #5: http://www.cs.uni.edu/~jacobson/025/f10/f/ghost2015.html link to the from STEM to STEAM handout link and ideas referred to here.

4. Go to the LI List Item #5 for the above ghost2015.html page and reread the From STEM to STEAM handout.about: "Mind-Sets that Hinder and Mind-Sets that Improve Achievement. It is strongly related to the Dr Peter Venkman quote and the Dances With Wolves scene about how Stands With a Fist got her name." Take some additional notes and review it carefully. We worked on this in class in groups.

Go to the amazon.com page for the book Mindset by Carol Dweck and use Look inside by clicking the book icon. Find something that adds to your understanding and/or helps develop your understanding of From Stem to Steam reading. Quote it and then explain what insights you got from it that might help in understanding the Ghostbusters, Pretty Woman and Dances With Wolves problem solving material better. http://www.amazon.com/Mindset-Psychology-Success-Carol-Dweck/dp/0345472322

One side of one full sheet of paper should have your neatly written response to this task. You can have a mixture of quotes from the STEM TO STEAM PDF/handout, from the free pages of the Carol Dweck book, as well as questions you have, connections you see, confusions you have, etc. Connect it up to your student life, sports life, arts and music and hobbies life, future career plans or whatever. Connect it up to problem solving and the basic themes of Ghostbusters and waggle dancing bees and so on, if you wish. Try to develop at least one insight or question or great quote to contribute to your group discussion and perhaps be part of the presentation.

December 17th, 2015 link to final exam presentations prep for Fall of 2015. http://www.cs.uni.edu/~jacobson/025/f10/f/GB12_17_2015.pdf



"Well, let's say this Twinkie represents the normal amount of psychokinetic energy in the New York area. Based on this morning's sample, it would be a Twinkie... thirty-five feet long, weighing approximately six hundred pounds."