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Focus Project

As education progresses there has been more and more focus on individualized instruction to small groups of students. My district has mandated that we as educators use Guided Reading in our classroom for our reading instruction and that we use math time to break students into ability groups. With test scores in reading and math being the main focus and almost all of the time we have with our students is dedicated to both of those subjects; other subjects such as history and science are being left on the shelf. I have posed a question for my research that revolves around just that. My question is: "How can I infuse science into my guided reading focus so that my students can gain more knowledge in science as well as reading?". I believe that science and history are very important for my students because it is a great subject to teach observation, inquiry and help students relate themselves to the past. My main focus on this question will be in the area of science. I have chosen science because my school district has just purchased each grade level brand new National Geographic Science curriculum. With there not being a lot of time during the week as it is I do not want these new assets to me to become another book on the shelf but instead a great companion tools to what I already do in reading; but how do I make it work?

I did some research over the past few weeks and tried to discover just how important infusing other subject areas are in reading and how to infuse it in the most useful way. In my research I found a great educators newspaper with great article that is entitled, "Guided Reading as a tool to Aid Science Literacy". This article is just what I was looking for. In the article it gives a lot of great information about how science is perceived in the classroom and how "reading in the science classroom has been often limited to reading the text". That is the struggle that I am having in regards to infusing science. I do not want to make science just a book that students read and just go through the pages and get nothing from it. I want science to be an observation and investigation through reading so that reading is not just reading words but applying newfound knowledge to produce something new. In the article it has a section of how to implement science in Guided Reading. It gives great information about using the text or using a science magazine or article and having students go through and find prior-knowledge. While doing this students are encouraged to find unknown words, things that excite them, and questions that they may have. This article runs parallel with what we have learned through this class. We have learned that through reading that we need to put our reading in motion by being active. As readers we check for understanding, ask questions, make predictions, infer and many other techniques to build comprehension. Through this article I can take the comprehension piece on step further and use it with our science text. I can have my students dive into the text and article that I find on specific topics and dissect it; no pun intended and truly get to the meaning of what they have just read and discovered. This article has really given insight of how to use

the text in a reading way for comprehension but how can I dive further into making science in reading even more exciting and relevant to my students.

Through my research I found a great article in, "Teaching Today". This article not only put to the forefront vocabulary and finding unknown words for comprehension but it took the delivery of science to a new level. In the article it talks about issues that arise for science reading and issue number three was one that was spot on with what I was looking for in how to deliver meaningful lessons. In the article it gave five ways to help students with the process of not only reading science text that are more challenging but taking the new information and creating with it. The article instructed that educators need to implement these five ways if we as educators want successful science delivery. The five ways are:

1. Preview the text with the students.
2. Increase student interaction with the reading
3. Have students create charts and diagrams
4. Break reading into smaller sections
5. Let students create science signs

When reading this article I was brought back to chapter 9 of the Harvey and Daniels book. In that chapter we learned about small groups inquiry circles. By reading the chapter over again I see that the "Teaching Today" article runs parallel with what Harvey and Daniels text gives as the most beneficial way for science to be delivered in small group settings such as my guided reading groups.

In my research I found another great article in the "Post Journal". The article entitled: "Literacy Infuses All Subjects At JPS", is about how teachers in the New York school districts are infusing science and social studies in their literacy blocks because. The article gives great quotes from teachers who are infusing that just confirm that what I am trying to do is the best thing for my students. In the article Mrs. Chitester states, "It allows us to teach more thoroughly across the entire school day and allows us to cover more material". She also states that, "We integrate content area material for science and social studies with the ELA curriculum in order to build background and teach new concepts while also teaching reading strategies in both whole and small group settings." What Mrs. Chitester speaks of is a great testimony to what I am trying to accomplish. I want to have more time to teach the non-fiction topics and am going to be able to do so with infusing.

These article not only show me that my question of, "How can I infuse science into my guided reading focus so that my students can gain more knowledge in science as well as reading", is one that can be answered but these article show me which route to go in order to be successful in my delivery. Through the knowledge I have gained through these articles and journals as well as the information that I have gained from the course readings I am going to create a way in which I feel that I can get the entire science curriculum delivered, but delivered in a way that will benefit my students in a way that they grow in their reading as well.

Through my research I have created a plan of action that I will be putting into practice along with the other 3<sup>rd</sup> grade teachers that I work with. I have been in contact with my colleagues and they are very opened to the idea of infusing science in guided reading since I have shown them what I have learned from this class in regards to comprehension instruction and small group inquiry and through the confirmation that I have received from my research.

The first step to implementing my findings to my questions is to first look at the curriculum that I need to teach. As of write now Michigan has adopted the Common Core Standards that only address the areas of math and language arts. Since there are no standards as of right now for science I am going to have to look at what Michigan has established for us to teach. After reviewing the standards I am then going to have to address where to find reading passages that address each objective. The good news is that this year myself and a group of teachers have worked together and went through our new National Geographic textbooks and found out which chapters are ones that have the information that we need to teach and what chapters have additional materials that are not required by the state at our grade level. I am all set with the text book but I also would like to get small articles that I can find that touch a little more on the objectives. What myself and my other teachers have done is we have signed up for different children's magazines that deal on topics of science and what we are going to do is find articles that touch on what we are teaching. As of now we are on the right track on having reading materials for infusing our science curriculum in reading. I have also come up with how this material will be delivered.

In my guided reading centers I have now created a center that is titled, "Science Reading and Inquiry". This center will work on a two-week rotation with a new objective being looked at every two weeks. In the first day of the new objective I am going to go through important vocabulary and touch on specific ideas as a whole group, so that my students will have an easier time if there are words that they come across that might be challenging. I learned this idea as well through the module readings. I am then going to put text books and articles at the center and for the first week my students will dive into the informational text and pull out information that they are gaining. They are going to read the text and discuss it with their other group members and come up with questions that they may have and then work on answering them. This first part of the process was developed through information that I gained from chapter 9, in the Harvey and Daniels text as well as the "Teaching Today" article.

As my students gain information from the text for the first week they are going to record words that they do not know, questions that they have and other information that they feel should be shown or "taught" to the whole class. All of my students will be required to read all of the text that will be at the center for that week. They are going to take the readings as a book study approach where they first read the text by themselves and pull out information and then they will discuss what each individual is bringing to the table.

The following week my students will be working on inquiry projects where they take a question that they had with the curriculum that they are to learn. My students will take their questions and dive back into the text for answers or they can use their computer time and do a “researches workshop” like Harvey and Daniels put it and search the internet to find the answers to their inquires.

As and after my students have worked on the reading and research they are going to make a display to show the class the information that they gained through the inquiry process. Students will be encouraged to make a diagram like those found in the Harvey and Daniels text that shows what new information was gained through their reading, research and recording. On Friday of the second week students will get to go in front of the class and display to the class their diagrams or projects and teach the class what they have learned and explain the concepts and the journeys that they went on to find them answers and knowledge. I came up with this part of the concept through the, “Guided Reading as a tool to Aid Science Literacy” article when it gave me the idea for letting science not just be words in a book but an exploration to find meaning.

This process is one that I will do bi-weekly in my class and through my modeling and explicit instructions students will know what is expected out of them and in return come up with amazing projects that stem from the knowledge that they gained as they use their comprehension strategies that I modeled to them in our reading portion of the day. The process has been shown to me and given me hope and has truly answered my question, “How can I infuse science into my guided reading focus so that my students can gain more knowledge in science as well as reading?” I now know how to infuse science in my guided reading practice. I know how to create a center where students dive deep into multiple text and with the help and collaboration of their groups members find understanding to their questions and display their newfound knowledge in a display that in return may teach students new concepts and even bring new questions to the table to be answered by other students. I also now know how to have my students gain knowledge in their science curriculum as well as becoming better readers with great fluency and comprehension. My students will read multiple text with a verity of levels to understand a basic concept and while doing so will increase their abilities in comprehension strategies and in return will increase their fluency. My research has truly been a blessing for my third grade team and me because now we have an idea of how we can bring more science into our classroom without having to sacrifice our crucial reading instructional time.

Resources:

- (A) Resource:  
[Teaching Today: Improving Reading Skills in the Science Curriculum](http://glencoe.com/sec/teachingtoday/subject/reading_skills.phtml)  
[http://glencoe.com/sec/teachingtoday/subject/reading\\_skills.phtml](http://glencoe.com/sec/teachingtoday/subject/reading_skills.phtml)

Data:

This article gives a representation of what skills are needed and what techniques need to be established as a teacher to ensure that your reading students are successful in their science curriculum

Analysis:

This article has given me insight on what I need to do in order for my students to take the text that are given and work together as a team to come up with questions that they have. Also, it has given me an overview of what students can do in order to organize their findings in order to display them to the class.

(B) Resource:

Science News in the Classroom: Guided Reading as a Tool to Aid Science Literacy.

<http://www2.gsu.edu/~mstnrhx/4news.htm>

Data:

This article gives details of how students can take information from non-fiction text and by using comprehension skills can break the information down in order to get a better understanding of the concepts and objectives.

Analysis:

This article has given me insight in the area of comprehension skills for science in my guided reading groups. The article has very informative ideas that help students visualize the ideas that they know, don't know, or just ideas that are exciting for them. I am using this article to help with the group discuss part of my science center during guided reading.

(C) Resource:

Post Journal: Literacy Infuses All Subjects At JPS

<http://www.post-journal.com/page/content.detail/id/581419/literacy-infuses-all-subjects-at-jps.html?nav=5209>

Data:

This article gives an overview of teachers in the New York school districts and how they feel that by incorporating science and other areas of study in their guided reading, gives them more time for instruction and developing their students reading ability.

Analysis:

This article has given me confirmation that my questions is one that needs to be asked because of the ever changing world and how much

time we are handcuffed to give to reading and math that other areas are forgotten but through incorporation in reading can be found and taught at high levels

- (D) Resource:  
ProTeacher Community: Teaching Social Studies during Guided Reading  
<http://www.proteacher.net/discussions/showthread.php?t=22618>

Data:  
This web posting even though focusing on social studies gave me ideas for how my students can display the knowledge that they have gained from incorporating other areas in guided reading.

Analysis:  
Even though focusing on social studies I can take these examples and incorporate them for science. One example was for students to create a Power Point on people in history that they are studying. I can manipulate that idea in a way that students can create Power Points on the “big idea” that they are focused on.

- (E) Resource:  
Comprehension & Collaboration Inquiry Circle in Action (2009)  
Stephanie Harvey, Harvey Daniels

Data:  
This book has been filled with many great ideas of how to use inquiry circle for development of science. Multiple chapters are written with step by step instructions of how a teacher can guide and coach their students in the way of comprehension through collaboration with others.

Analysis:  
This text has been a god-send to me and has really opened my eyes of how I can truly have my students dive into their science curriculum with out having to take time away from reading.