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Hemisphere Lesson Plan/ Reflection

Lesson Plan by: Kirsten Schneider
Lesson: Different Hemispheres
Length: 30-40 minutes
Age or Grade Intended: 3rd grade
Academic Standard(s):

- Social Studies: 3.3.3. Identify the northern, southern, eastern, and western hemispheres; cardinal and intermediate directions; and determine the direction and distance from one place to another.

Performance Objective(s):

- The students will identify where the different hemispheres are on a map by putting together a graphic organizer/ visual aid with 7 out of 8 on their posttest.

Assessment:

- Graphic Organizer/ Visual Aid
- Multiple Choice Pre-test and Post- test

Advance Preparation by Teacher:

- Pre- test
- Post- test
- Graphic Organizer/ Visual Aid
- Maps

Procedure:

Introduction/Motivation: (10 minutes)

- Give Pre test one to two days before this lesson.
- Have the students meet you back in the meeting area
- Use the globe
- Ask the students if they know what this is? (globe)? **(Bloom's Knowledge)**
- Ask the students if they know what the shape of the globe? (sphere) **(Bloom's Knowledge)**
- How or why do we use a globe? **(Bloom's Knowledge)**
- Explain that there are two different lines on the Earth that cuts the Earth in half.
- Use a the apple for the next part.
- If I cut my apple this way (where the equator is located on a globe) this would represent the Equator on the globe, then
- Point to the Equator- this cuts the earth into the northern and southern hemispheres. **(Gardner's Verbal/ Linguistic Visual/ Spatial)**
- With the next apple, If I cut it this way (where the prime meridian is located on a globe) this would represent the Equator on the globe, then
- Point to the Prime Meridian- this cuts the earth into the western and eastern hemispheres.

- Explain that hemi is "half of the sphere" that is why we call it a hemisphere because it is half of a sphere. A sphere is spilt into two different parts, either the northern and southern hemispheres and/or the western and eastern hemispheres.
- What if I asked you, what continent is located in the northern hemisphere, where would you look first? We would look north of the (Equator). (North America or Europe)
- What if I asked you, what continent is located in the eastern hemisphere, where would you look first? We would look east of the (Prime Meridian). (Asia or Australia)

Step- by- Step: (20 minutes)

- To help us all learn where the Equator, Prime Meridian, and what continents are in each hemisphere we are going to make a foldable study organizer. **(Gardner's Visual/ Spatial)**
- The teacher should do this with the students as a model.
- Pass of the construction paper.
- Paste the world in the center of paper.
- Now we are going to draw a black/ or different color (to make it their own) line through the Equator and Prime Meridian.
- Next, fold the paper along the Equator, hot dog style.
- Now fold the paper along the Prime Meridian, hamburger style.
- We are going to label the Equator, Prime Meridian, and all four hemispheres. (northern, southern, eastern, western)
- As you study with this, fold one side over and test, your self or you can use it to test a partner. **(Gardner's Interpersonal/ Intrapersonal)**

Closure: (10 minutes)

- Review the words that they should know: sphere, hemisphere, prime meridian, and equator.
- Review the hemispheres and where they are divided on the globe.
- What approach would you use to identify were the northern hemisphere is on this map? **(Bloom's Application) (Gardner's Verbal/ Linguistic)**
- How would you prove that North America is a part of the western hemisphere? **(Bloom's Evaluation)**
- Give Post Test the next day!

Adaptations/ Enrichment:

- <u>ADHD-</u> Have these students work either at their seats or in the back of the room in a group with the IA.
- <u>Autism Spectrum Disorder-</u> Have this student work with a partner that have worked with this student before.
- <u>Disability in Writing-</u> Have one done and back on the table with the IA so these students can just copy the writing or have the IA do the writing for these students. These students much do the cutting and pasting.

Self- Reflection:

- What surprised me during the lesson?
- What was the level of student participation?
- Did the adaptations meet these students' needs?

- Did the students improve from the pre test to the posttest?
- What parts of the lesson did I have to repeat for the students?
- What parts of the lesson went well?

Pre- Test Hemispheres

Name:_____

1. What is the imaginary line that divides the Northern and Southern Hemispheres?
   A. Prime Meridian B. Equator

2. What is the imaginary line that divides the Western and Eastern Hemispheres?
   A. Prime Meridian B. Equator

*******When answering these next questions make sure that they whole continent is in that hemisphere!*******

3. Circle the continent that is a part of the Northern Hemisphere?
   A. Antarctica B. North America

4. Circle the continent that is a part of the Southern Hemisphere?
   A. Australia B. Europe

5. Circle the continent that is a part of the Eastern Hemisphere?
   A. Asia B. South America

6. Circle the continent that is a part of the Western Hemisphere?
   A. North America B. Australia

Posttest Hemispheres

Name:_____

7. What is the imaginary line that divides the Northern and Southern Hemispheres?

8. What is the imaginary line that divides the Western and Eastern Hemispheres?

9. What is the shape of the globe?

10. What is part of the globe or "half of a sphere called?

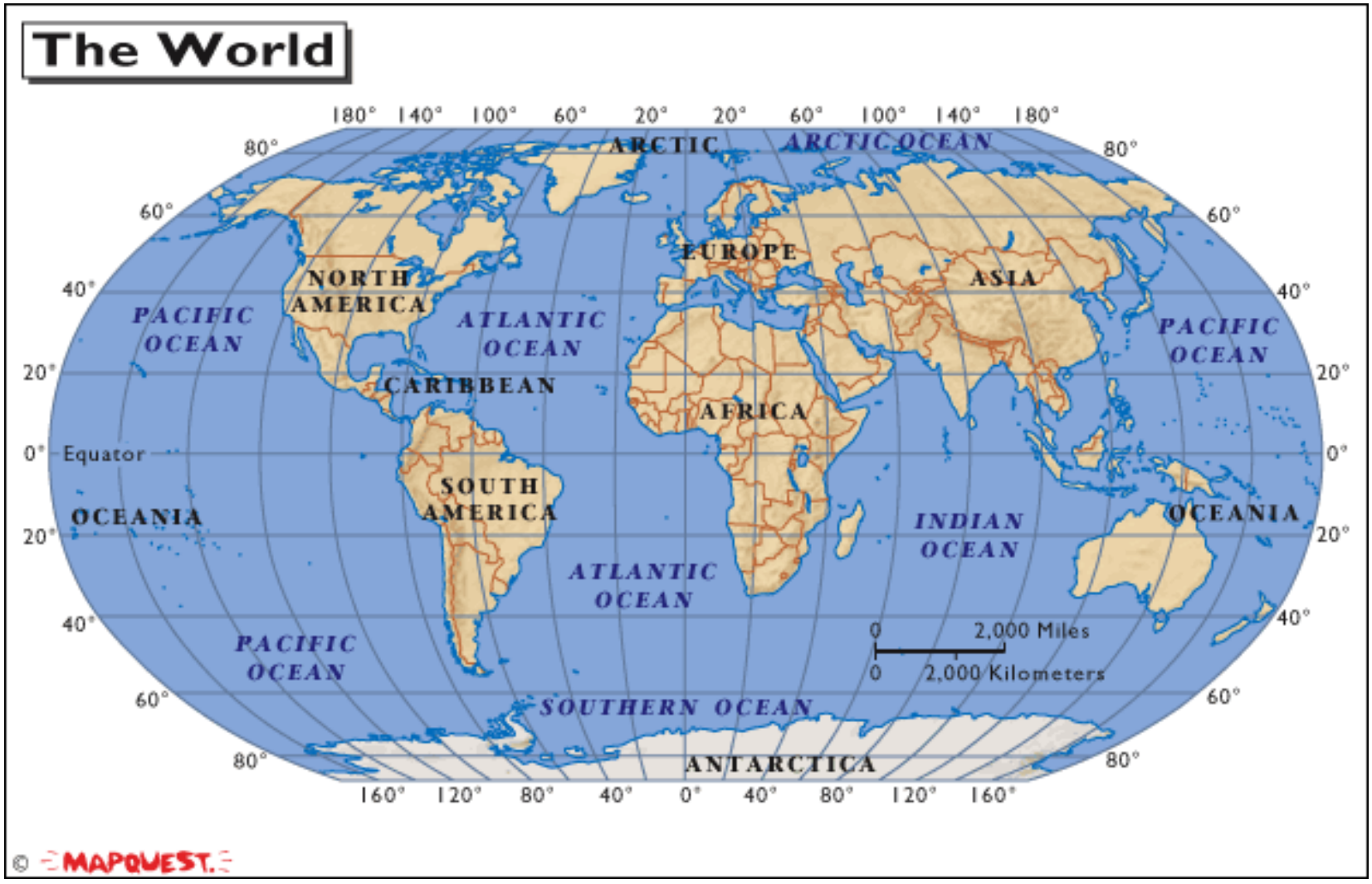
******When answering these next questions make sure that they whole continent is in that hemisphere!*******

11. Circle the continent that is a part of the Northern Hemisphere?
    A. Antarctica B. North America

12. Circle the continent that is a part of the Southern Hemisphere?
    A. Australia B. Europe

13. Circle the continent that is a part of the Eastern Hemisphere?
    A. Asia B. South America

14. Circle the continent that is a part of the Western Hemisphere?
    A. North America B. Australia


The World
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60°
40°
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Equator
20°
40°
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ARCTIC
ARCTIC OCEAN
EUROPE
ASIA
NORTH AMERICA
PACIFIC OCEAN
ATLANTIC OCEAN
CARIBBEAN
AFRICA
SOUTH AMERICA
OCEANIA
INDIAN OCEAN
ATLANTIC OCEAN
PACIFIC OCEAN
SOUTHERN OCEAN
ANTARCTICA
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0 2,000 Kilometers
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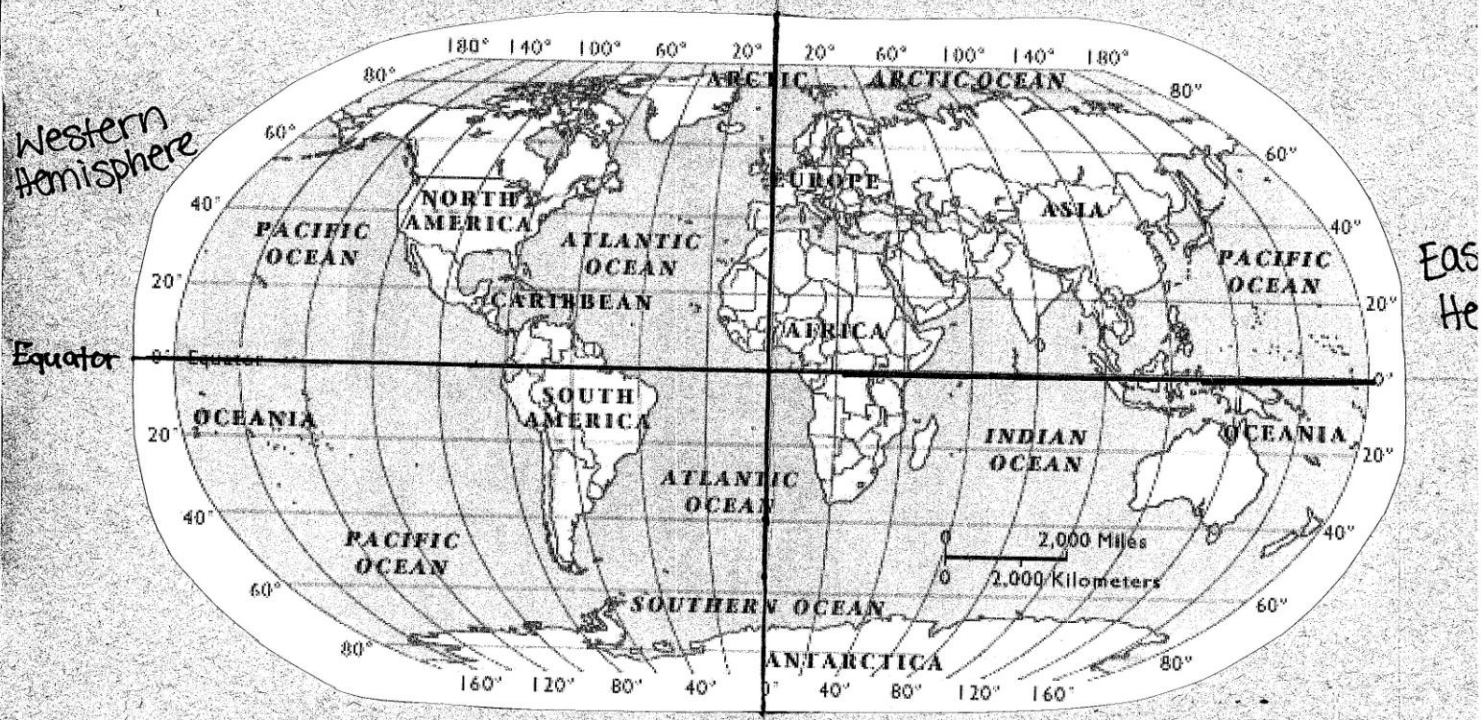
© MAPQUEST.

Northern Hemisphere

Prime Meridian



Southern Hemisphere

GLOBE

SIDEWALK CHALK

Student Teaching Reflection

Can I be a teacher? I asked that question to myself after I taught my lesson. My lesson was about hemispheres. I taught that that the equator and prime meridian divide our hemispheres. I used the globe and an apple as an example of how those specific lines divide the earth in its hemispheres. At first, we meet as a whole group and I asked them specific questions and stated the objective. The object was to learn about where the different hemispheres are on the earth. As I was asking questions, I had a student that started talking about the Civil War and I was totally not prepared for this when I asked him to answer one of my questions. This particular student knows everything about the Civil War. I listened to him the first time but the second time I told him that we needed to save that for another day. As I was calling on students, I was very consciences of whom I was calling on because of a previous teacher reflection that I received about how I only called on females. Then I cut an apple vertically and then horizontal to show the difference in hemispheres. Then I use the globe to point to the equator and prime meridian. Lastly, I taught the students the different continents that were in the different hemispheres.

I had to teach my lesson to about 45 students because two of the four third grade classes' team-teach social studies. There was one Hispanic student in the class and two other students that I am not sure of their race. There were at least 4 students with IEP's in my class and each of their disabilities were different and in severity. There were at least 5 students I know that RTI (Response to Intervention) has been started for them. I was very nervous to teach that many students all at one time because I was afraid that I would not be able to handle that many students. However, that part of the lesson went fairy well.

The part that I felt that did not go so well was the connection the students needed to make with the content.

I used a graphic organizer or visual aid to help the students learn how to take notes and to show them a new way to study. We pasted a globe on a piece of construction paper and labeled the different hemispheres, the equator, and prime meridian. I showed the students how to use there visual aid as a way to study. According to AGPA, "graphic organizers have been proven to be effective tools to aid learning and thinking by helping students and teachers to represent abstract information in more concrete form." I cannot say that knowledge of the hemispheres is abstract information but it is very difficult to understand. That is why I chose to utilize a graphic organizer to help present the difficult information into a concrete form for the students to learn. As I reflected about my lesson during reading I realized I needed to find a new way to engage and grab the students' attention. I explain later how I wished I would have taught this lesson.

I was very surprised about the flip that my students made in connecting with the content. What I mean, is that the students I thought would struggle with this, caught on to the content very quickly but the students that I thought would do fairly well, did not catch on quickly and struggled with the content and understanding. However, I really thought that I had all the students' attention because they all seemed to be attentive. But now that I reflect back on the lesson there were some students that needed to be redirected by the other teachers and some that were not sitting still. I tried to scaffold the learning by using the globe and cardinal directions as objects they had seen and knew and then pulled them to learn the hemispheres. One of the biggest, issues I ran into was assuming that the students new the cardinal directions. I knew that prior to my lesson a couple of weeks ago

the students learn the cardinal directions. Therefore, one of the things I would change about this particular lesson is to review the cardinal directions at the beginning of the lesson so that would be more of a concrete connection for the students.

After I was done teaching the whole group, the students went back to their seats to work on their visual aid/ graphic organizer and that is when I thought I was going to go crazy. Hands started flying up; students started asking what the directions were, and what they were suppose to label. They asked what the different hemispheres were named again. This is when I knew I needed to regroup the class and explain the lesson again; that is exactly what I did. I stop both classes and tried to re-teach and scaffold the students learning. If I would have realized that, that many of the students did not remember their cardinal directions I would have started my lesson with them. Instead I used different words to try and explain the information differently and hopefully easier for the students to understand. Finally, more students seemed to catch on and understand the content and what I asking them to do.

I was able to reflect after my lesson during their reading time because my cooperating teacher did not have much for me to do. However, I did listen to a couple of students read during that time. Then at recess, I talked to my cooperating teacher and she thought I did a respectable job. I thought to myself, were you in the same room I was in, did you not hear all the questions the students had. As I was talking to my teacher, I was telling her all the different ideas I had for this lesson but was worried about the space. One of my ideas was to use sidewalk chalk and make a huge circle with the prime meridian and the equator. My cooperating teacher thought that was a wonderful idea and asked me if I want to do it during enrichment time. So I re-taught my lesson outside.

However, I was only able to re-teach the lesson to my class of students, not the other class, because they were doing something different for enrichment time. I saw the difference in the test scores between Class A and Class B. Class A was the ones that got the lesson twice. I went outside then and made a large circle with a line for the equator and prime meridian. Therefore in the second lesson, I had the students stand on the equator, prime meridian and in the different hemispheres. I really felt that after that lesson the students really seem to understand and grasp the content.

The different in numbers between the pre- test and post- test are my examples of the students' learning. I felt like after seeing the test scores that I did not meet my object that student will receive a 75% on their tests. However, I did feel better that more students in Class A would receive a higher grade than Class B because of them having the lesson taught to them twice. I feel like I meet the learning objectives in covering all the material in my lesson, however like I said before it is not reflected in my scores that they meet my personal objective for them. Hemispheres can be a very hard concept to understand if the students do not have a good understanding of the cardinal directions.

The lowest and highest scores for Class A's pretest were 17% and 100%. One student scored the 17% and two students scored the 100%. The lowest and highest scores for Class B's pretest were 17% and 100%. In Class B, one scored the 17% and one student scored the 100%. One of the students from Class A that scored a 100% on the pretest did not score a 100% on his posttest, which I found interesting. I am not sure what to take from that information but my only thoughts are that the information I provided confused him or he was a lucky guesser on the pretest.

Some of the information I can take form these different graphs is that Class A had four students score lower than a 50% on their pre-test and then no one scored lower than a 50% on their posttest. Therefore, those students improved their scores from the pre-test to the posttest. Even thought Class B did not have the extra lesson there was still improvement. Class B had six students score below a 50% on their pre-test and only 2 score below a 50% on their posttest. One of the other interesting pieces of information from these graphs is that one more student in Class B score a 100% on their posttest than in Class A.

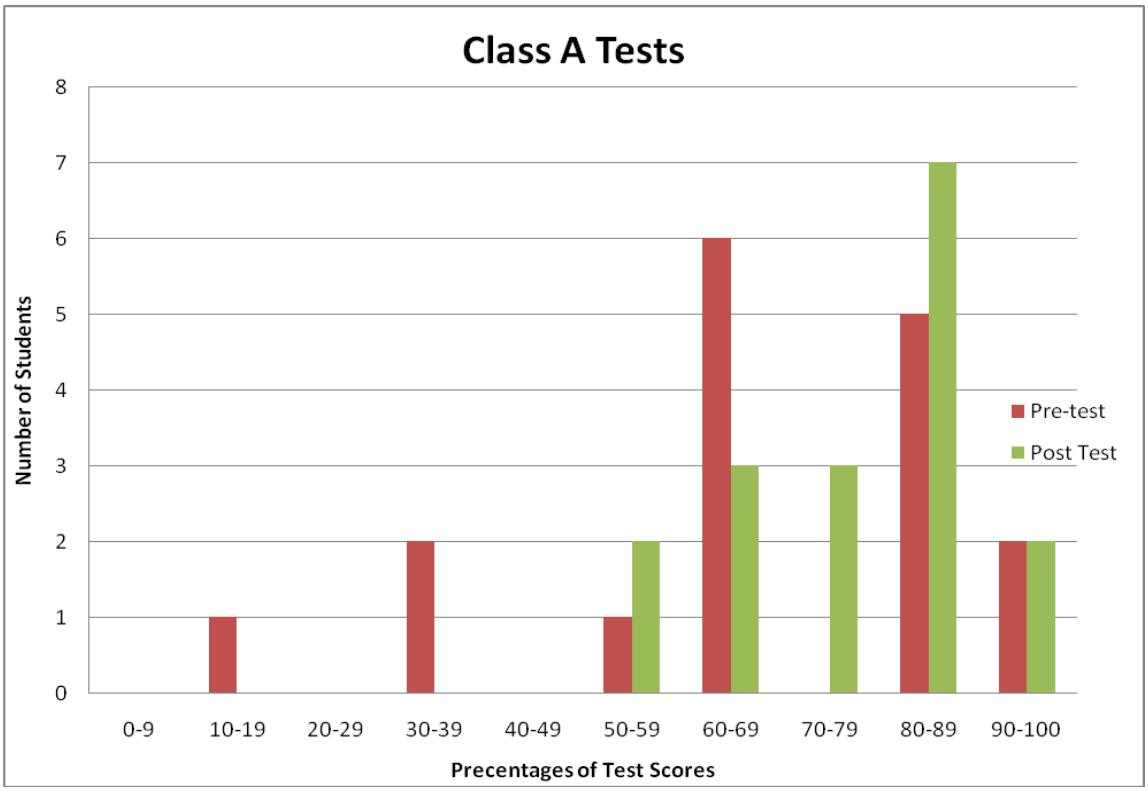
For the posttest Class A had two students score the lowest with a 50% which is an improvement from 17%. Then Class A had two students score the highest with a 100%. Class B had one student score the lowest with a 13% on the posttest, which is interesting because this particular student scored a 67% on his pretest. Again that information does not make sense to me but maybe the new information confused him. Class B had two students score 100% on the posttest and neither of these students scored a 100% on the pretest. Therefore that shows me that these students improved. I definitely see student improvement in both classes from the pretest to the posttest.

I would use this data to show that the more practice students have with content the more they remember and understand. The data on the graph shows that between Classes A and B posttests which class had more practice. The interesting thing with the data that I collected is that Class B preformed better on the pretest than on the posttest. Again, I think partly that is because they did not have the extra lesson and because the first and only lesson they got, most of the students were confuse.

There are many ways to teach hemispheres. I chose to use a graphic organizer as best practice and to show the students a new way to study. After teaching my lesson, I realized that this students needed more interaction/ or concrete experiences with the material, so I taught my lesson again outside using sidewalk chalk. However, I was only able to teach one of the two classes the second lesson. Because of only teaching my lesson to one of the two classes my data shows that the more practice students have with new material or content the better they will perform on an assessment. Class A definitely showed more improvement than Class B. This was a great learning experience, it definitely taught me how to reflect and how a lesson my not always go great the first time!

Works Cited

P-16 Science education at the Akron global polymer academy (AGPA). Retrieved October, 27, 2010, from http://agpa.uakron.edu/p16/btp.php?id=graphic-org.


Class A Tests
Number of Students
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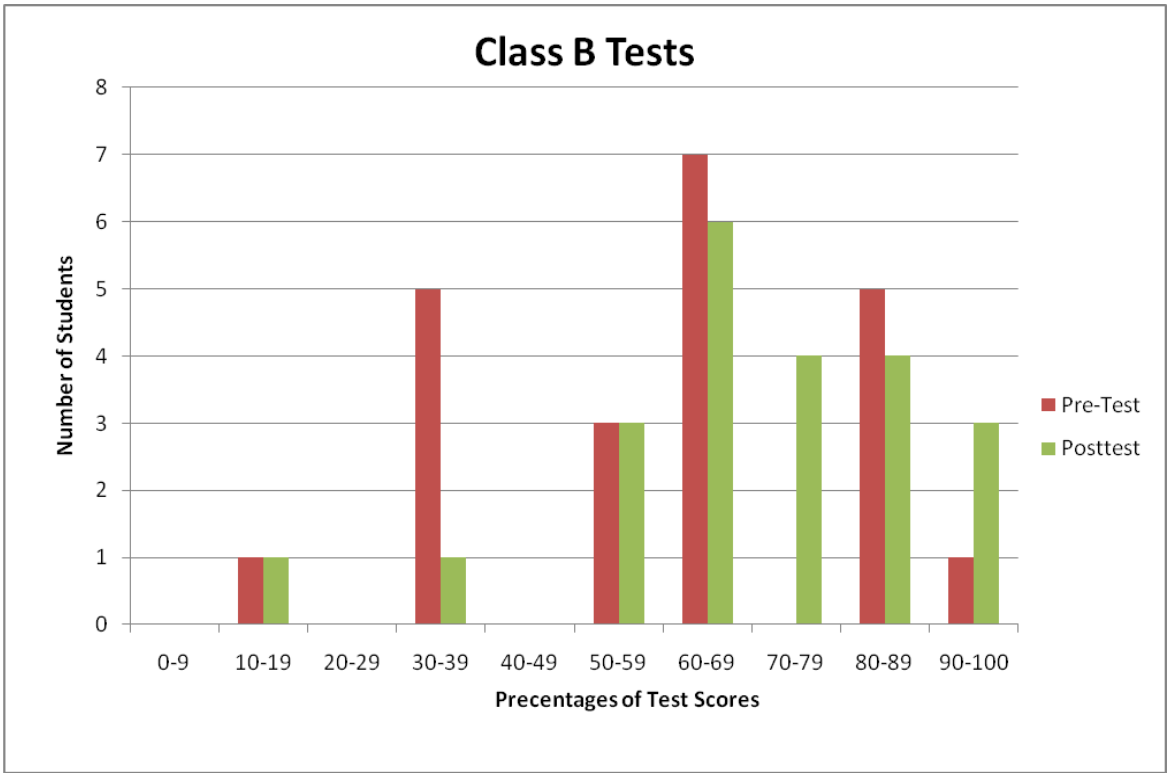
1
2
3
4
5
6
7
8
0-9
10-19
20-29
30-39
40-49
50-59
60-69
70-79
80-89
90-100
Precentages of Test Scores
Pre-test
Post Test


Class B Tests
Number of Students
0
1
2
3
4
5
6
7
8
0-9
10-19
20-29
30-39
40-49
50-59
60-69
70-79
80-89
90-100
Precentages of Test Scores
Pre-Test
Posttest