# Learning Context

## Instructional Implications of the Community



Herman T. Jones Elementary school is located in Prairie View, Texas, and a part of the Waller Independent School District. Prairie View is a city within Waller County. As of 2009, according to City Data, there is a total population of 4,514 residents in this area. 46.9% of the population consists of males, and the remainder of women is 53.1%. The estimated

median household income in Prairie View is \$26,484. This is about 50% less than the Texas median income of \$48,259. The ethnic backgrounds of Prairie View consist of Black, Hispanic, White, and Other. Black alone is a total of 85.1%; Hispanic 7.5%; White 5.8%, and Other 0.17% (City and Population Data, 2011).

The most unique and educational resource that city of Prairie View has is Prairie View A &M University. H. T. Jones sits on the campus of Prairie View A &M University, making it a very valuable and higher educational experience for the students who attend Jones Elementary. There are always several organizations from the university volunteering and giving a helping hand to help increase educational stability and motivation at Jones Elementary.



## Instructional Implications of the School

Waller Independent School District is the second largest school district in total square miles in the Greater Houston area. Waller I.S.D is a Texas Education Agency "Recognized" district. Waller I.S.D. is located on Highway 290, approximately 40 miles northwest of downtown Houston. H. T. Jones Elementary, along with the other eight Waller I.S.D.

campuses, located in semi-rural/agricultural region that is currently undergoing rapid residential and commercial development. As of the most recent student population consensus, Waller I.S.D. is home to roughly 5,450 students.

H.T. Jones is rated a Texas Education Agency "Exemplary" campus. Of the eight other campuses, Jones is one of the only two schools that have this rating. Jones Elementary is a PK-

5<sup>th</sup> grade campus, with approximately 271 students. African American students making up 50.56%, Hispanic 42.75%, White 5.58% and Other 1.1%. This student population is very culturally and academically diverse. There are a total of 19 teachers; 5 male teachers and 14 female teachers.



The student teacher ratio is roughly 14 to 1, which helps promote academic excellence and



achievement.

There are 5 support staff personnel's, 1 principal, 1 assistant principal/instructional facilitator (School details, 2011).

This campus has a library that students visit very

frequently throughout the week. The library has books that are developmentally age appropriate for each grade level. The books are labeled by grade level and month. (Example: Third grader in the fourth month of school, 3.4 reading level.)

The school computer lab is one of the few that in-house the new technology of the Smart Board system. This interactive board is used during computer classes, and also used by teachers when integrating technology into the students learning. The school computer lab has 25 desktops that are fully equipped with full length keyboards, mice, and headphones.

In order for teachers and staff to be fully prepared and capable of providing quality academic materials, the teacher resource room is full of top of the art science equipment from Foss Kits. This resource room also has a laminator machine, 3 speedy copy machines. The teacher resource room has a plethora of math, language arts, reading, social studies, and ELL materials onsite and easily accessible for all teachers to use.

Jones has a Parent Teacher Organization, also known as P.T.O. The P.T.O's mission at Jones Elementary is to support the school in whatever avenue it needs. This organization provides a fun and encouraging atmosphere for the students at Jones to learn in. The meetings are held every 2<sup>nd</sup> Tuesday of each month. With the support of the parents and teachers, the mission of helping making positive implementations throughout the school is being accomplished.

As of this year, Jones Elementary has reopened their before and after school program. The Afterschool Centers on Education program (ACE) is funded by the 21<sup>st</sup> Century Community



Learning Centers Program, administered by the US Department of Education. The purpose of the grant is to provide academic and recreational programs, and general enrichment opportunities in the after-school environment. Students participating in the program will receive the small group attention they need for that extra push toward

academic success, along with the thrill of trying new activities during the enrichment days. Activities include Multicultural Awareness, Fitness, Color Guard, Journalism, Science Club, Theatre Arts, Volleyball, 4- H, Soccer, Cooking and much more (Waller ISD, 2011).

#### Instructional Implications of the Classroom

This is one of two of the third grade classrooms. This classroom is one of the smaller sized classrooms that Jones has. Although the classroom is a comfortable arrangement for the students to have a positive and manageable environment, the classroom is small for about 18 to 19 students at a time. The desks are arrangement into five groups of four. Each group has a heterogeneous mix, which makes cooperative groups diverse.

There are 10 florescent tube lighting fixtures within classroom. The temperature is usually always set to about seventy-four degrees Fahrenheit. With the classroom being filled with mostly windows on one side, the temperature of the room is made sure to remain comfortable for the students. The graphics of the room display a variety of different math and science concepts; such as, math vocabulary, measurements, addition, subtraction, multiplication, and division models and steps. Everything that is displayed throughout the room is an educational reminder to help improve students thought process when working through different problems or hands-on activities.

There are a total of five computers, that all have seven easy accessible interactive math and science website on the desktop. This makes it quick for students to be able to access the websites they need to go through-especially when doing stations. There are several different math and science literature books and math computations at each table in a basket on the floor. Once students are complete with an activity or assessment, they are able to read these books or



do a math computation activity. Having books and mini activities accessible to students help with classroom management. Students do not have to get out of their desk to bother their peers or ask the teacher for directions on what to do next.

Students are able to access all of the needed supplies in the center of their desks. There is a bin of pre-sharpened pencils, erasers, glue sticks, scissors, markers, and colored pencils. Having supplies at the desk has proven to help the classroom with the time-on task scheduling. Students do not have to interrupt the class to sharpen pencils or get any needed supplies for activities, because they are already at the tables upon arrival for the students to access.

Upon student arrival, students are to pick up the warm-ups at the tray by the front door. Students are allotted six to seven minutes to complete the warm-up, depending on the rigor of the warm-up. After the timer goes off, the warm-up is checked together as a group. The warm-up is always student-centered, giving different students each time to share their thought process with the entire class. Warm-up takes about five minutes to check before the introduction of the lesson or mini lesson.

Most times, depending on the difficulty of the content, the teacher or I introduce and

review over different concepts before bridging off into small group instruction. Since each class is one hour and fifteen minutes, time is very precious and every moment counts. Students work from bell to bell, giving students a chance to intake and review as much as possible. Before the end of each lesson, there are always a few moments to wrap-up the lesson, and review the material that was learned for the day.



At Jones Elementary, there are two third grade classrooms. One teacher teaches Math and Science, and the other teaches English, Language Arts, Reading and Social Studies. Teacher X

always sees Teacher Y's homeroom first and vice verse. This is so at the end of the day, each teacher ends with their homeroom to pass out or pickup important documents and sign conduct folders. Each class is for an hour and ten minutes. Class One from 8:10 a.m. - 9:20 a.m.; Class Two 9:20 a.m. – 10:35 a.m.; Lunch 11:30 a.m.- 12:00 p.m.; Recess 12:00 p.m. -12:15 p.m. ; Conference/ Specials 12:15 p.m. -1:00 p.m. ; Class One 1:00 p.m. -1:20 p.m. ; Class Two 1:20 p.m. -2:35 p.m.; Foundation/Challenge 2:35 p.m. -3:30 p.m. ; 3:30 p.m. Dismissal.

Foundations are a chance for the at-risk, lower achieving students to be more one on one with the teacher. This is a small group instruction time for the teacher to instruct in a different way so that students grasp the concept. There are about five to six students that stay for foundation from each third grade class. On Monday and Tuesday, a group of students stay for math foundation, and Wednesday and Thursday, a group of students stay for reading/language arts foundation. I believe that this is a great learning technique to help all students get to where they are supposed to be in their learning goals. Each student has a folder that shows what objective was worked on for that day, as well as a list of the different learning styles the student



worked with.

With students being heterogeneous grouped, during small group instruction, children know which group letter they belong to. There are five groups; group A, group B, group C, group D, and group E. When breaking off for small

groups, students go with their group. During this time, the teacher and I monitor students learning, as well as work with the lower groups-which are groups A and B. This grouping method works well with this group of students, considering no one student is singled out for being lower or higher. Students work actively in their groups whether they are high or low.

Since the beginning of the year, my cooperating teacher and I have worked diligently together, along with the partner teacher, in order to successfully find a way to maximize each classes learning environment. With switching between the two classes twice a day, for an hour and fifteen minutes apiece, I felt that students were not gaining enough information in order for them to move on to the different concepts. Students seemed rushed, flustered, and nervous when having to feel rushed during test or daily activities.

In order to fix this issue, we all came up with a better time management schedule; Monday through Thursday, classes are one hour and thirty minutes, verses just the one hour and ten minutes. Friday's are assessments days; first class from 8:25 a.m. until 11:25 a.m., and the second class from 1:00 p.m. until 3:25 p.m. This way helped improve learning, as well as giving the students more time to slow down and focus on their work rather than rushing through just to complete.

The characteristics of this classroom are fit for each student's learning needs and styles. The implications of this classroom are positive, clear, and prompt student success.

### Instructional Implications of the Classroom Teacher and Teacher Candidate

My cooperating teacher, Ms. X is an African-American all about student success and achievement. Ms. X has been teaching for seven years, and also holds a degree in counseling.

She has been with Waller I. S. D. since August 2010, where she started as the Title I Math instructor.



Lev Vygotsky (1896-1934)

· Development can not be separated from its social context

anguage plays a central role in mental development

are interwoven

Prior conceptions and new concepts

The learning/teaching style of Ms. X is similar to the theorist Lev Vygotsky. Before I started working with the students, she assured me that the student's lack of motivation was a huge hindrance to their success and learning development. Like Vygotsky, Ms. X knows that the culture

and social environment affects the shaping of cognitive development. With Jones Elementary being in the midst of a small, low-income area, the social environment definitely affects the

EF	RICKSON'S P	SYCHOSOCIAL ST	AGES	
Stoges Crisis		Favorable Outcome	Unfevorable Outcome	
Childhood	data da			
1" year of life	There ve Mintmad	Faith in the environment and future events	Suspicion, fear of future events	
2 <sup>nd</sup> year	Autonomy vs. Device	A sense of self-control and adequary	Feelings of shame and self-doubt	
3 <sup>rd</sup> through 5 <sup>th</sup> years	initiative vz. Oulit	Ability to be a "self- starter," to initiate one's own activities.	A sense of guilt and inadequacy to be on one's own	
6 <sup>th</sup> year to puberty	inductry vs. infectority	Adjuits to search how things work, to understand and organice.	A sense of interiority at understanding and organizing.	
Transition year	rs.	1. A.	Contraction of the second s	
Adolescence	idensity is confusion	Seeing oneself as a unique and integrated person.	Confusion over who and what one reality is	
Adulthood				
Early adulthood	intimacy ve. Japietion	Ability to make commitments to others, to love.	Inability to form affectionate relationshi	
Middle age	denenitivity is septemorphism	Concern for family and society in general.	Cancern owy for self- one's own well-being and protoerity.	
Aging years	integrity in. drapoir	A sense of integrity and fulfilment, willingness to face death.	Dissetts faction with life, despain over prospect of death.	

children.

My own personal philosophy of teaching is geared towards Eric Erickson's learning theory. Since I have been working with children for over seven years, from infant to adolescents, I have encountered several different ways in which children react and learn. The factor that most children that I have worked with have all centralized around two basic conceptions; trust and self-esteem. In comparison with Erickson, I learned that if children don't trust

you, they don't perform well or perform at all. If a child has low self-esteem, it is very hard to

break that barrier to get through to them. Once those two factors are omitted, then students are able to open up to the learning environment.

I believe that I and Ms. X will have a successful learning environment since we are striving to boost and motivate students to learn and achieve. We both understand that not all children learn the same, nor operate the same. It is going to be an important factor that we reach out to the students in order to provide that positive learning experience for each student.

#### Instructional Implications of the Students

There are a total of nineteen very culturally and academically diverse in this third grade classroom setting. There are eight female students and eleven male students, ranging from ages eight to ten. Within the culturally diverse classroom, 58% of the population is African-Americans, 32% are Hispanic, and .10% is White.

The primary language of more than half of the total student population is English. Within the Hispanic population of the classroom, English is their second language, categorizing them as English as Second Language (ESL) students. Although English may be their second language, half of those students are high academically. To help the ESL students, there are usually accommodations for them to be able to understand what is being asked or taught. The lower ESL students are in Foundation groups in order to make sure each objective is being mastered through different methods of instruction and assessment.

Along with the ESL students, there is one student classified with having a comprehension learning disability. This student has modified activities and assessments to ensure that the objective is being mastered. With inclusion taking place with this particular student, twice a day, the student is able to go to resource class to work closely with that teacher on the concepts that are being taught in class. This is a very helpful method in ensuring this students success, as well as taking in the least restrictive environment aspect. The student is not singled out due to learning disability, but made a part of learning activity with modifications that help assist the particular needs.

These groups of students are very passionate and determined to learn and be successful. There are two Gifted and Talented (GT) students who are very alert and eager to learn. These students are always helpful to different groups in order to promote peer to peer instruction. Enrichment activities are always given to these students, as well as other who are not specifically classified as Gifted and Talented, in order to give another type of authentic learning experience.

With this class being very diverse, it is important to always have substance and foundation on all objectives. Since most of all of the student's prior learning experience has come from the same environment, students adapt with their learning better with one another as well as authentic and small group learning methods and styles. This method has proven to work best with this group of students. Students are able to get the one on one teacher engagement when working in small groups.

#### Literary Support

With Jones Elementary being a very diverse and determined group of students, staff, and faculty, I believe that the community support will positively continue to affect student learning. With the assistance from the P.T.O, teacher aides, volunteers from Prairie View A &M University, and the after school program, students have a plethora of different opportunities to make the best out of their education and learning experiences. The school is all for bringing in outside sources to give students the chance to witness real-life events and occurrences.

In order to continue the tradition of being a TEA "Recognized" campus, I know that Jones Elementary, along with the community, will provide as many contributions to the student's education as possible.

# Learning Goal and Objectives

### Appropriate Learning Goal

According to the Texas Essential Knowledge and Skills, also known as the TEKS, in third grade, students learn that the study of science uses appropriate tools and safe practices in planning and implementing investigations, asking and answering questions, collecting data by observing and measuring, and by using models to support scientific inquiry about the natural world.

During this unit of study, students overall goal is to demonstrate safe practices, label and identify lab equipment, as well as communicate valid conclusions supported by data in writing. This goal is appropriate in terms of being aligned with the third grade science TEKS. In order to meet all of the students learning levels, there will be modified instruction for the student who has in class inclusion, and in order to provide everyone with an equal and fair chance of being engaged, heterogeneous grouping will be used in labs. I will provide positive and effective feedback when monitoring all students work to ensure successful learning is taking place in order for students to meet the overall goal in this unit.

### Multiple Objectives Lead to the Goal

In this unit of study, there will be scientific investigations and reasoning. The student will conduct classroom and outdoor investigations following school and home safety procedures and environmentally appropriate practices. There are three primary learning goals to meet in order to master these objectives (TEKS-Knowledge and Skills B1).

- Learning Goal I (LGI)
  - The student will be expected to demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including observing a schoolyard habitat. (1.1 A)
    - Objective- The learner will (TLW) choose and demonstrate the correct lab safety rules and equipment to use during science investigations.
- Learning Goal II (LGII)

- The student will plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed to solve a specific problem in the natural world. (2.2 A)
  - Objective- TLW decide in which lab equipment to use during different scientific investigations.
- Learning Goal III (LGIII)
  - The student will communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion. (2.2 F)
    - Objective- TLW predict and select which science safety rules are to be followed and when during scientific investigations.

#### **Objectives Match Learner Context**

The learning goals and objectives presented in this section reflects the Texas Essential Knowledge and Skills (TEKS) expectations for third grade science. These learning goals are significant and offer a variety of opportunities for students to master each one of them successfully.

These learning goals and objectives are appropriate and suitable to be mastered due to the variety of instruction that will be given. The learning goals and objectives presented are suitable for students at this level because they focus on prerequisite knowledge, skills, and experiences. The classroom and school materials will play an important role in fostering the achievement of these goals and objectives.

#### **Objectives Suggest Multiple Learning Activities**

Students will be given multiple learning activities in order to ensure their understanding and success during these learning goals. There will be a lot of tactile activities, as well as roleplaying and discussion making activities to reach each students learning context.

In LGI and Objective I, students will be able summarize different lab safety rules, as well as identify different lab equipment. The way this will be accomplished is that the teacher will have lab equipment available for each group to see and touch. This will give students the opportunity to know what each piece of lab equipment looks like and feels like. LGII and Objective II, students will discuss what different pieces of lab equipment can be used for, as well as practice using these tools. Students will need to follow allow lab safety rules by demonstrating them in their practice with these pieces of lab equipment.

LGIII and Objective III, students will predict and select the appropriate science safety rules and equipment to use when in the science lab. Students will also be able to dramatize and role-play prior to working in the science lab.

In each learning goal and objective, students are given various methods and styles of learning in order to grasp each concept. Students will work in cooperative learning groups, which are heterogeneous mixed.

### Objectives Align with Texas Essential Knowledge and Skills (TEKS)

The learning goals presented address the specific educational expectations from the Texas Essential Knowledge and Skills (TEKS). These learning goals correspond with the third grade science TEKS as well; all goals are explicitly aligned with national, state or local standards.

LGI- The student will be expected to demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including observing a schoolyard habitat. *TEK 1.1 A* 

LGII- The student will plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed to solve a specific problem in the natural world. *TEK 2.2 A* 

LGIII- The student will communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion. *TEK 2.2 F* 

## Assessment Plan

### Pre-Assessment

The students received the pre-assessments before the beginning of any instruction. Preassessments were given as informal and formal formats. This action was done in order to get an accurate feel for what students knew and what they didn't know. In giving the pre-assessments, it helped me know where I needed to begin instruction, and what parts of instruction needed elaboration and more in depth concentration. The graphic representation of LGI, LGII, and LGIII pre-assessments is below.



The interpretation of this data will be broken down in the Design for Instruction section. Students that mastered the pre-assessments scored a 75% or better on a mastery/percentage scale.

## Assessment Plan Overview

Learning Goals	Assessment	Format of Assessment	Adaptations		
LGI: The student will be expected to demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including observing a schoolyard habitat. <i>TEK 1.1 A</i>	Pre-Assessment	Science Safety Worksheet	Learning Disability student will be read scenarios, in which to choose what he/she would do in order to be safe.		
	Formal Assessment	Safety First Skits	L. D. student will be able to participate.		
	Post Assessment	Scenario Worksheet	L. D. student will be read aloud the different scenarios and he/she is to circle the best answer.		
LGII: The student will plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed to solve a specific problem in the natural world. <i>TEK 2.2 A</i>	Pre-Assessment	What's That?! Worksheet	L. D. student will match and point to the equipment as it is being called out.		
	Formal Assessment	Getting to Know the Lab Experiments	L. D. student will participate as usual working with group members.		
	Post Assessment	Lab Equipment, Science Safety	L. D. student will point to correct lab equipment as being called out; will be read scenarios and need to circle best answer.		
LGIII: The student will communicate valid conclusions	Pre-Assessment	"If I Were in this lab I would "	L. D. student will be read aloud the different scenarios and he/she will be required to say		

supported by data in writing, by drawing pictures,	Formal Assessment	Worksheet	what they'd do in each lab; following safety rules and which equipment to use.		
and through verbal discussion. <i>TEK</i> 2.2 F	Post Assessment	Interactive Science Labs online	L. D. student will participate regularly.		
		Create My Own Lab	L. D. student will verbalize how he/she would create a science lab that is safe, as well as illustrate picture of lab.		

### Reliable Assessment

**Learning Goal I:** The student will be expected to demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including observing a schoolyard habitat. (*TEK 1.1 A*)

#### **Pre-Assessment**

In the pre-assessment for learning goal one, the students are to demonstrate safe



practices while in a science lab. Students will be given an objective assessment; Science Safety Worksheet (Appendix I), and need to choose the correct answer for each question. With this being an assessment that will assess mostly prior knowledge, students should not have a hard time mastering this learning goal. This is an appropriate pre-assessment because it tests students' prior knowledge with science safety relating to the state standards of science for third grade. Student's grades will reflect what they know and what they don't know.

### **Formative Assessment**

After the pre-assessment, the students will participate in Science Safety Skits (Appendix II). This is an authentic based assessment, in order to give students a real-life feel for the types of situations they may be a part of when working in a science lab. Each group-groups A-E, will each be given a different scenario that they will role-play, and model the correct methods in which to do when in science labs. This will give students a chance to work together, as well as

get familiar with the proper science safety rules to follow in a science lab. Each group will be given 5 minutes to practice and rehearse their different science safety scenarios, and then present them in front of each group. Each group will be given 2-3 minutes to do their skits. After the skits are complete, as a whole group, we will discuss what the proper ways to do things in the science labs, as well as the incorrect tactics to take in science labs.



This assessment is very appropriate for this learning goal, because

it enhances and engages students in their own learning. Students will get the real-life experience of role-playing different acts in order to know the science safety rules.

#### Post Assessment

In order to post assess the students on their knowledge of science safety rules, I will have discuss the different science safety rules with the class, and give students a chance to answer what the correct methods to do would be. I will monitor student engagement, as well as each student's participation, to ensure a successfully learning environment for the post assessment.

In the post assessment., the student's will not only recall their new knowledge of science safety rules, but they will be able to demonstrate their new knowledge by writing and giving examples to different science safety scenarios, that were very similar in the pre and formative assessments. Since this has been a repetitive field of study, students should do exceptionally well and master this learning goal. Students will answer each question to the best of their ability on the Science Safety Scenario worksheet (Appendix III).

**Learning Goal II:** The student will plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed to solve a specific problem in the natural world. (*TEK 2.2 A*)

#### **Pre-Assessment:**

In this pre-assessment in learning goal two, the students will name the different pieces of lab equipment in the *What's That* worksheet. This is a skill that students should know prior to

assessment, but I suspect that students will have a hard time recalling the different types of equipment (beaker, graduate cylinder, goggles, triple beam balance, etc.).

## Formative Assessment:

After reviewing over the pre-assessment, students will have a chance to get the authentic feel and sight of the science equipment. Each group will be given a triple beam balance, goggles, beaker (filled with water), graduate cylinder, and 5 and 10 gram weights. The students are to



complete the *Getting to Know the Lab* sheet as a group. They are to follow the steps in order to view the science concepts.

In order to ensure proper utilization of the tools and equipment in the labs, I will monitor each students and group's progress and answer questions and review things as needed.

## Post Assessment:

In the post assessment, students will be assessed on what they have

inquired from the pre-assessment and the formative assessment. Students will be given an objective test, *Lab Equipment and Science Safety*. Students are to label each piece of lab equipment (pictures are given), as well, students will be given different science safety scenarios from learning goal one, to add among in correspondence with learning goal two.

I expect students to do better in this assessment, hence all of the reinforcement and use of lab equipment and science safety rules that were used in labs.

<u>Learning Goal III:</u> The student will communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion. (*TEK 2.2 F*)

### Pre-Assessment:

In this pre-assessment, students will use prior knowledge from learning goals one and two. Students will be given a "If I Were in This Lab" sheet, and be expected to place come up with a conclusion to each of the lab scenarios.

## Formative Assessment:

Students get a chance to interact with a interactive science lab, using an online website:

*http://scorescience.humboldt.k12.ca.us/fast/kids.htm*. Students will get a chance to draw conclusions based on different lab modules. This will give students the chance to integrate their technology and science skills.

## Post Assessment:



In the post assessment, students will be given the opportunity to set up their own labs and demonstrate and discuss the different elements of their labs. Students will have to research (in groups) the type of experiment they

would like to do, as well as the materials they will need. Each group will present their lab experiment to the class. They may choose to do it in a power point format, or poster board.

### Valid Assessment and Scoring Procedures

During each of the assessments, students will be graded by their percentages, mastery score, and performance rating scale. In the pre-assessments students are graded on a scale from 0-100%. I determine if they master the assessment according to their percentage; 75% or better lets me know that the student is capable of mastering the learning goal by more reinforcement and more concrete examples and activities. Anything below 75% I know that the student will need more assistance and foundation of the learning goal.

During the formative assessments, students are graded on a performance rating scale (Appendix IV); if they are fully engaged and participating with group or individually, students receive full credit. For those students who are not participating or not engaged in learning, I will conference with them to see what the issue is, then give a verbal reminder that their learning is a critical factor in being successful. If the student still chooses not to participate, they will receive no credit for that activity, and be given another type of assessment to grade off of.

With post-assessments, some assessments will be graded on a mastery score/percentage rating scale (Scale 0-100%, standard grading scale). Student's mastery of that particular learning goal will be based on 75% or better. If the class average is lower than 75%, there will be a re-teach/re-asses. For students who do not make a 75% or better will have a re-teach. This will give those students an opportunity to improve and learn in a different way.

#### Adaptations in Assessment Administration Procedures

In each of the learning goals, the only adaptations that were primarily needed were for the learning disability (L. D.) student. Students, who are classified as ESL, receive individual foundation time to make sure they understand each concept.

After directions were given to all students, I would administer or help the learning disability student with their assessment. Students that are ELL received proper instructions as well. The other students knew their expectations and what they were to do, before one on one instruction was given to the student with a special need.

All of the student work was planned accordingly, so that students could complete during class instruction time. There are days that are simply dedicated to lab work, to ensure successful and accurate completion.

# Design for Instruction

### Interpretation and Application of Pre-assessment Data

This graph represents the percentage of students who <u>passed</u> (not the average) the preassessment of each learning goal. The passing grade criterion in order to master each learning goal was 75% or better.

Learning Goal I	14 of 19 students passed with 75% or better			
	74% Mastery of LGI			
Needs Improvement				
Learning Goal II	12 of 19 students passed with 75% or better			
	63% Mastery of LGII			
Unacceptable				
Learning Goal III	15 of 19 students passed with 75% or better			
	78% Mastery of LGIII			
Acceptable				

These scores are the class averages. The yellow represents that students are almost to mastery level in that learning goal, but there are stills means of improvement needed. In learning goal two, the red data reveals that almost more than half of the students did not master this learning goal, leaving it unacceptable. This data lets me know how I will need to plan for instruction in order for students to master. The green, which indicates acceptable, in learning goal three, represents that students did master the goal, but students will still need to work on a few things in order to continue to be successful.

#### Plan for Instruction

Before planning instruction, I had to interpret the pre-assessment data in order to plan accordingly for the remainder of each learning goal. Using best practices and having knowledge on student learning, I had used the following cycle to show how my plan for instruction would work for each learning goal.



In the identify part of the cycle, I have to ensure that I identified each students learning needs; IEP's, accommodations/modifications, and etc. in order to design instruction that fits every students learning needs. After identifying the needs of the students, I could then design the instruction accordingly. Whether I plan to make the formative assessments whole group or small group instructed, I know that it had to be planned to benefit the students needs.

Giving students the chance to have several learning opportunities was my primary goal. Since not all students learn the same, it is important to have various learning techniques and activities available. When given a plethora of different learning activities and opportunities for achievement, students will be assessed on what they have been taught. The results will show whether or not the learning opportunities were beneficial.

The benefit of this cycle helps me in planning for each learning goal. The scope and sequence of the cycle goes in order from identifying the learning goal and the objectives, to the results. With the learning goals trickling down information from one area to another, this cycle is

very helpful in planning and implementing proper instruction for the growth and development of students.

#### Impact of Learning Context

The contextual characteristics that are impacted through this unit of study will be the community and outdoor environment. Students will get a chance to use the environment around them in order to master these learning goals. Students will not only be able to use the environment around them, but the community resources are very valuable as well. The way that the community will effect is having outside networks, Prairie View A & M biology students, come in and assist during labs. This will give students an authentic experience, seeing how real scientists do things in labs to ensure safety and protection.

#### Use of Technology

The use of technology will contribute greatly in these learning goals. On the background of projecting the instruction, I must put together the lesson plans and upload them to the school Digital Notebook, also known as the DiGi. This is so that the entire Waller I. S. D can view what lessons are being taught and how. Teachers not only learn this way, but this gives an opportunity for other teachers in same grade levels to use the same ideas and concepts in order to reach and teach their students as well.

During one of the lesson goals, I will use technology in order to project the power points, as well as show students how to manipulate the interactive website they will be utilizing during their activities. There will be time set aside for class to be instructed in the school computer lab, so that I may utilize the Smart Board technology to present and display different science safety concepts that align with the specified TEKS. With technology growing rapidly each and every day, it is important that I am incorporating and integrating technology into the lessons.

## Instructional Decisions

#### Instructional Decisions Informed by Student Performance

When looking at the data revealed by the pre-assessments in learning goals I, II, and III, I had to make certain to make the most appropriate changes to best benefit the students learning. Since students did not master all of the learning goals, I did have to go back to the drawing board- the cycle of planning, which was in Design for Instruction. I had to go back and identify the learning objective that students had the most difficult in and go from there. Based on all of the information, including student's grades, I then planned the remainder of the unit.

There were two different modifications that I had to incorporate into the lessons. One modification had to benefit my learning disability student, because not all of the assessments would benefit him/her if they weren't modified to best suit their learning capacity. This meant that after giving whole group instruction, I, or my cooperating teacher, will have to go over concepts in smaller units. The learning disability student also has to have assessments read aloud, and given a hand on model that is more descriptive than words.

The last modification was to make sure that there is sufficient small group, and individualized instruction so that I can performance base asses each student on their knowledge of skills on each learning objective. Since students did not perform as well as expected on learning goal II, that will be the goal that I harp in on more in depth and concise for each student to understand and master. In monitoring students learning, it will be very imperative to give feedback in order to improve their learning experience. With all students being different and capable of learning different, it is important to have a multitude of activities and learning styles available to cater to all students learning needs.

#### Instructional Decisions and Learning Goals

With the two vital modifications/decisions that were made, students learning were successfully improved. Students had time to get a chance to work in cooperative learning groups to get the peer to peer instruction. This helped students learn to think aloud and share their own personal knowledge of each learning objective.

By giving the learning disability student a chance to learn equally and fairly, this students learning improved greatly with time. Knowing best practices and how students learn were very essential components in making these modifications to benefit and accommodate all students in their learning goals and objectives. Students knew the things that were expected of them, and were very diligent and successfully in improving their own learning.

## Instructional Impact on Student Attitudes and/or Behavior

With science being a very in depth and concrete subject, it was important for me to make this unit of instruction as interactive and hands-on as possible. Not only did student's attitudes about science change from the beginning of the unit, but their behaviors improved greatly. Students were eager and ready to learn each day there was a science activity or lab. This group of students knew what was expected of them in order to be successfully in their own learning. I strongly believe that in this unit, students took the responsibility to learn and be active into their own hands. All of the students participated and gave their all, especially when working together in cooperative learning groups.

Although I set the foundation of expectations and rules prior to doing any experiments or labs, students did not have to be reminded of what they were to do. Students demonstrated and modeled a passion for learning and improving. This group of students did not let anything or anyone get in between them and their learning ambitions. It was such a pleasure and a self testimony that I was able to teach and implement positive learning behaviors to help with their journey to mastery on all learning goals.

# Analysis of Student Learning

## Graphic Presentation of Assessment Results

The results in the table below show the grades of each student as an individual. The class average is based on all of the grades added and divided by the number of students. Unlike the Assessment Plan data, this data represents whole group achievement. This data provided a means for understand student achievement from pre-assessment to post assessment. This data also provided a clear way of viewing how students progress from learning goal to learning goal. As previously discussed in the Assessment Plan, the pre-assessments were based upon a 75% of better for mastery; this is the same scoring scale for the post assessments.

Student	Ethnicity	Pre(LGI)%	Post(LGI)	Pre(LGII)	Post(LGII)	Pre(LGIII)	Post(LGIII)	
1	Н	100%	93%	92%	100%	90%	100%	
2	Н	100%	100%	88%	90%	100%	95%	
3	AA	83%	93%	76%	80%	80%	75%	
4	AA	100%	93%	76%	80%	90%	90%	
5	AA	50%	76%	62%	90%	70%	80%	
6	AA	100%	100%	76%	90%	100%	100%	
7	W	66%	76%	46%	70%	70%	95%	
8	AA	83%	93%	80%	80%	80%	100%	
9	Н	83%	83%	84%	100%	90%	100%	
10	AA	100%	100%	76%	100%	90%	95%	
11	AA	66%	83%	50%	80%	80%	100%	
12	W	100%	93%	80%	90%	90%	100%	
13	Н	83%	93%	76%	80%	80%	95%	
14	Н	100%	93%	92%	100%	90%	95%	
15	AA	83%	93%	64%	90%	60%	85%	
16	AA	100%	100%	96%	100%	100%	95%	
17	AA	50%	83%	42%	80%	70%	90%	
18	Н	83%	93%	72%	90%	80%	85%	
19	AA	100%	93%	74%	90%	80%	95%	
Average		75%	87%	74%	88%	84%	89%	

Individual Grades on Pre and Post Assessments

According to the data, students improved from learning goal to learning goal. Students achieved and managed to pass the post assessment successfully

This data represents each student's progress from learning goal one, from pre to post assessments. Mostly the entire student population showed progress from pre to post assessment. The information used to assess on was introduced in the objective, and students could have possibly had previous learning experiences in order to be successful on this learning goal.



This data is the individual assessment data from learning goal two. Student's showed progress from their pre to their post assessments. Since this learning goal was based upon the knowledge that student's learned in learning goal one and two, student's were able to build upon their prior knowledge in order to be successful in this learning goal.



This individual assessment data is from learning goal three. Students were able to build on this learning goal from the previous learning goals one and two. This data alone can almost determine how students succeed as a whole during all three lesson goals.



## Analysis of Student Learning

## Whole Group

This chart discloses information on the class average as an entire entity.



### Sub-Groups

These two charts show the two different sub-groups that were compared.





#### Interpretation of Assessment Results

This data can be revealed that students were engaged and successfully in learning activities in order to grasp the concepts. The students had much gain from pre-assessments to post assessments. I strongly believe that formative assessments helped each student better understand and exceed to do so well on post assessments.

The whole group data shows student progress from not only pre-assessments to post assessments, but also from learning goal to learning goal. Students built on prior knowledge through each learning goal to be successfully on each of them. If student's did not grasp the concepts, it was revealed through their formative and post assessments. Student's were given multiply chances in which to become successful, and mainly all of the student's progressed through each of these learning goals.

The two sub-groups that were compared were girls and boys, and English language learners and English first language. These were two different sub-groups that I found to be the most interesting. Not to misconstrue the data, there were no biases when detecting this data. Each student was taught equally and given an equal chance at accomplishing each goal. This data was taken to actually research how well each of these sub-populations show variety in their learning and what they are capable of as their own separate populations.

During these learning goals, student's showed much interest and understanding. As an educator, when students are falling short of the given learning goals, it is very important to detect the problems and come up with educated solutions. If I knew students did not do so well in preassessments, I would not just take the data and not be concerned with it, but I read and interpreted the data in order to plan for a successful unit to meet each student's particular learning needs.

Overall, the student's exceeded and mastered all of the learning goals after re-teaches and activities that reinforced the concepts. Each student was able to be engaged, included, and assessed the same information. Students were able to be a part of their own learning and make their learning experiences a benefit to accomplish the learning goals.

# Reflection and Self-Evaluation

#### Reflection on Modifications to the Unit of Instruction

When using and reflecting back on best practices, it was really important for me to understand and interpret all of the data as a way of planning for the proper instruction. If students did not master any given objective, it was my job to ensure another method of teaching the information to that particular student, or students.

During this unit of instruction, I had several strengths in which I was capable of reaching each students individual learning needs and goals. Not each lesson ran as smoothly as I anticipated, but at the end of lesson I was able to ensure each student grasped the learning objective.

With not every student being the same, I ensured that I provided different learning experiences and gave a variety of learning activities to benefit each student.

#### Reflection on Implications for Professional Development

With each student being very diverse, ethnical and academically, there were a lots of provisions that were made in order to ensure success for each student. I was able to identify and take care of all of my weaknesses in order to provide sufficient and effective teaching to my students.

As implicated in the previous section, not every student did learn the same, but students were able to adapt to each of the learning activities that I provided. There was one on one student times, where I was able to assist those students who were inadequate in their learning responsibilities.

This unit of study taught and provided a lot of knowledge and skills that I will need to use in the future to continue to be an effective educator. The most valuable lesson learned throughout this unit was ensuring effectiveness, engagement, and understanding. Those three essential elements are the three main goals that I as a teacher made sure each lesson incorporated. I also learned that not each lesson is perfect, but each time a student proves their understanding of what is being taught is exceptionally rewarding.

# References

City and population data. (2011). Retrieved September 5, 2011, from http://www.city-data.com/city/Prairie-View-Texas.html

School details. (2011). Retrieved September 5, 2011, from www.har.com/school/dispCampusDetail.cfm?id=237904104&address=Jones%20Elementary

Waller I. S. D. (2011). Retrieved September 5, 2011, from wallerisd.schoolfusion.us

Interactive science lab. (2000). Retrieved September 26, 2011, from http://scorescience.humboldt.k12.ca.us/fast/kids.htm.

Population chart. Retrieved September 5, 2011, from http://www.city-data.com/city/Prairie-View-Texas.html

Vygotsky. Retrieved October 28, 2011, from Google Images.

Erickson stages. Retrieved October 28, 2011, from Google Images.