



Immigration and the Mathematical Mind

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This curriculum unit is intended for:
K-2 Elementary Students, 3-5 Math Classes

Keywords: immigration, DACA, categorization, immigration policy, emigrate, interpret, analyze, collect, represent, data, attributes, pose

Teaching Standards: See [Appendix 1](#) for teaching standards addressed in this unit.

Synopsis: This unit seeks to shed light on the importance of immigration and how it affects the well-being of students between the ages of 5-18. Through activities in mathematics such as categorization and data representation, students will have a more in-depth understanding of what immigration is and how important a social issue it is, particularly in our city of Charlotte. In addition, students will learn and discuss categories and engage in data representation with a human graph. Students will also apply what they know about data by drawing representations of categories and plotting themselves in a graph to show immigration representation from various countries such as Honduras, El Salvador and Mexico.

I plan to teach part of this unit in the Spring of 2018 and continue teaching the unit in Fall of 2018.

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Introduction

Nations Ford Elementary is a traditional school that is located on the west side of Charlotte, North Carolina. Our school serves pre-kindergarten through fifth grade. We have 3 pre-kindergarten, 8 kindergarten, 8 first grade, 7 second grade, 6 third grade, 5 fourth grade, and 5 fifth grade classrooms. We have 831 students enrolled in grades Pre-K through fifth grade. Of these students, 65.2% are Latino/Hispanic, 30.6% are African American, and 4.2% are other. We face an influx of unaccompanied minors coming from Central America, mostly from Honduras and El Salvador. This group of students, with limited or no English, have many social/emotional and academic needs.¹⁴

I have been a teacher at Nations Ford Elementary School for five years. I taught for a year in first grade. My last four years have been in Kindergarten. I have always had an enthusiasm for learning and teaching others. I feel that Kindergarten is a fun time where the world to them is a big place. It's a place where they explore their ideas, ask questions, and imagine the world as a place where opportunities are endless.

Imagine being a five year old who is a U.S. Citizen, but your parents are not. Some of these students come from countries such as Honduras, El Salvador, Nicaragua and other Latin American countries. The parents come from working class backgrounds, have limited formal education (though not all of them) and are doing the best they can to provide a stable, home life for their children. However, as the families go out on their daily runs, they encounter organizations such as Immigration and Customs Enforcement, who pose a threat. They are denied opportunities such as access to adequate healthcare because of the one thing that separates them from their child: Immigration. In addition, as a student, you could also be in danger of being deported because Deferred Action for Childhood Arrival (DACA) laws are no longer present to protect you.

This is a typical lifestyle for many students in Charlotte. They worry about the possibility of being temporarily orphaned because their parents are at risk of their parent being sent away. Families do not have access to adequate healthcare because they cannot go in and give proper information that allows them this protection. Students are worried about curfew and being in before night for risk of deportation.

The goal of my unit is to shed light on the social issue of immigration and the well-being of the child. Specifically, I want to focus on how immigration policies affect children's needs such as health care, education, and access to other resources. By doing this through mathematics, the students will also learn the mathematical concepts as they engage in an issue that is deeply personal to their lives.

Rationale

The topic of immigration policy has been a major topic within the last decade. The population of immigrants has been steadily increasing since 2000. However, in recent years, there have been several attempts to stop immigrants from coming into the country illegally. As of recent, the

presence of ICE has steadily increased in our neighborhood, striking fear in students whose parents brought them to America for a better life.

In America, we still have a long way to go in dealing with racism and our attitudes toward immigration. It is very disheartening to go places and hear comments such as, “I don’t know why they are allowed to work here...they aren’t even legal”. Unfortunately, for many people, these are comments they hear on a regular basis.

As a teacher of English Language Learners, this is a very sensitive topic. While I am not an immigrant, I share the sentiments that my children share in worrying about whether their parents will be taken away from them. I see their half smiles, their attempts to put on brave faces, and it breaks my heart. It also makes me question why the American dream cannot be available for everyone instead of having negative attitudes towards people of other races. I chose this topic because it is a reality for many of my students and a social issue that they constantly worry about.

Unit Goals

The North Carolina Standards Course of Study in Mathematics allows for the unpacking of mathematical concepts that students can build on as they progress in grade levels. It is designed for students to build upon their understanding across grade levels.

This unit will address the following standards:

K.MD.3 Classify objects into given categories

1.MC.4 Organize, represent and interpret data with up to three categories: ask and answer questions about the total number of data points, how many are in each category, and how many more or less are in one category than in another.

2.MD.10 Draw a picture graph and bar graph to represent a data set with up to four categories

3.MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories.

For this unit, I have four specific goals for my students. The first goal is to define immigration and explain why it is an important social issue. This is a very important goal for my students because we are at a school that has 75% of students who are English Language Learners. This is not an indication that many of the students have parents who are immigrants, but it is an important indicator in looking at the depth of knowledge and attitudes on this topic.

My second goal is to examine current immigration policy. Specifically, we will be looking at how these policies have an effect on children’s well-being, particularly on students who are the age of 5 or 6. This is extremely important considering the removal of DACA is looming over immigrants currently.

My third goal is to survey student attitudes and their knowledge on immigration. In this survey, I want to examine specific questions such as, “Do you have family members who

emigrated from another country?”, “Have you had family members sent back to their home country? How did that make you feel?”

Finally, the overall goal of the unit is to create and engage students in mathematical activities that will allow students to become practice mathematical thinkers and help to dispel some of the negative attitudes about immigration. This will be done through two main activities: students’ drawings based on categorization and human graph plots.

In terms of further mathematical goals, I will also be focusing on a few of the mathematical practices:

- Teaching students to reason abstractly and quantitatively-For example, as students draw their representations of specific categories (i.e. teacher), students will decide if their description is an accurate fit for the category.
- Construct viable arguments and critique the reasoning of others-Students will share arguments on why they drew the representation they did (What ideas did you have in your head when you were drawing? Is your representation what most people see? Where have you seen doctors or teachers who look like your picture?)
- Make sense of problems and persevere in solving them-This is the most relative practice because this is actually a life skill that I think students could learn and benefit from.
- Model with mathematics-for example, the use of a human graph to model and understand data. For grades 3-5, students will plot themselves in a graph to show representations of immigrants from different countries such as El Salvador, Honduras, Mexico, etc.

Math Background

Categorization of data is a major standard for students of all ages. In Grades K-3, data builds upon each other. In Kindergarten, students first learn what data is. They learn what it means to classify and sort into categories. For example, when students are counting green, red and yellow bear, they may sort the bears by color before counting. They learn what attributes are and they learn how to use the attributes to classify their data. This also helps in learning similarities and differences

In First Grade, students begin to use categorical data to answer a question. They organize their data in a chart or a table. Afterwards, they begin to interpret the data. They are introduced to the PCAI method (pose the question, collect the data, analyze the data, and interpret the results). The teacher provides opportunities for students to come up with questions based on their data.

In 2nd and 3rd grades, students continue to use the PCAI method and are responsible for their own data. This is an excellent opportunity for students to analyze and construct arguments regarding their data.

Content Research

Immigration has been a national focus for many years. Our country has been an ideal place to live and have a family because of the wonderful opportunities such as education, healthcare and being able to live the American dream. However, this dream for many immigrants is a far-fetched idea because they lack the one thing that is important: American citizenship.

North Carolina has a rapidly growing immigrant population. In 2015, North Carolina had 794,684 foreign-born residents in the state. Of these, 426,055 were born in Latin American countries.² 497,257 of the Latino population were considered noncitizens in 2016. Charlotte has grown considerably when it comes to the Latino population. According to Immigration Forum³ Charlotte has been an “immigrant getaway.” As such, immigrants contribute greatly to the economy with 71.4 percent of Latino immigrants making up the workforce. They are a part of industries such as agriculture and poultry. There are many who own their own businesses.³

Immigration policy has shaped the lives of family and children, especially in the last few years. There have been two arms of immigration policy that has an impact on migrants: policies that restrict migration and short-term separations. Both affect the child’s well-being because of the act of separation.⁴ As a teacher, I have seen how children can be affected by immigration. I will never forget the day when one of my children asked me the dreaded question, “Ms. Rogers, do you think they will send my parents away?” In my opinion, no child, at any age, should have to deal with this worry, but instead, should focus on the pleasures of being a child.

In recent years, U.S. demographics have changed drastically because of immigration. In 2008, 1,107,126 immigrants became legal permanent residents of the U.S., commonly immigrating from Mexico and China.⁵ Between 2000 and 2010, racial and ethnic minorities accounted for more than 90% of the nation’s population, with Latinos alone comprising more than half of this increase.⁶ As immigration increases in the U.S., the racists’ attitudes are increasing as well. According to Brown, many of these attitudes have developed due to the thought that immigration weakens the American identity.⁵ In actuality, immigrants come to American seeking a better life for themselves and their children.

Research has shown that by the age of 5, children have developed a national in-group identity and are able to label their nationality and categorize themselves according to group. They also tend to prefer their national in-group to other nationalities.⁵ As a teacher, I have seen students mingle according to their gender and nationality because they realize that they have more in common with these groups. As adults, we are also accustomed to identifying and mingling with certain groups because of what we have in common.

In a study, Brown⁵ examined White European American children’s identification and conceptualization of their national in-group. Brown also looked at three other aspects: their knowledge/attitudes of immigration, their stereotypes/attitudes about immigrants and whether children’s national identity is related to their attitudes about immigration. During this study, children were asked specific questions such as things they heard about immigrants and why they thought people did not want migrants to migrate to America. In this study, Brown found the

following: children held a strong American identity, being an American be obtained by anyone, and 82% of the children surveyed did not support illegal immigration.

When looking at how immigration affects children, several aspects have been considered. Access to quality childcare is of particular concern for children of Latino immigrants⁷. Latinos are the fastest growing group in America; especially children aged 0 to 6 in the U.S. Even though they are the fastest growing group in America, Latino immigrant children are less likely to be placed in formal childcare. These children also enter school less prepared than their nonimmigrant peers.⁷ As a Kindergarten teacher, I know firsthand how true this is. Many children come in having no experience in school and if they did, it may have been at a day care instead of a pre-k program or a childcare program that also provides instruction. These children have not been taught things such as name writing, letter naming and tying their shoes.

A significant number of children born to Latino immigrant parents are from undocumented families. In 2010, 5.5 million children were estimated to have an undocumented parent. 91% of these children were under the age of 6 with an undocumented parent.⁷ Having an undocumented parent means many negative things for children and their well-being, including restricted access to great healthcare, low-income opportunities, and less exposure to cultural things that American children have access to. For some students, it means that their familial educational background is nonexistent.

Ha and Ybarra's research supports the idea that immigration policies have a strong effect on children's well-being. They found that childcare decisions among Latino immigrant families were largely shaped by economic resources, parental education and access to governmental support.⁷ The gap between immigrants and Americans eludes to barriers to formal childcare access. These barriers include language and distrust of governmental program. This, along with below-average income, adds to this gap. Furthermore, there is a level of "vulnerability" among undocumented families, which stops them from seeking assistant or participating in these programs because of fear of deportation and family separation.⁷

Then, there is the threat of interference with the child welfare system. Parents who come to the attention of the child welfare system are likely to be economically distressed.⁸ Latino parents are less likely to utilize public and community services because of barriers to access and engagement of ethnic and cultural minorities.⁸ This is interesting because in America, the Department of Social Services is a major fixture when it comes to the whole child. As teachers, we have an obligation to report things when we feel children are in danger. For any parent, this is frightening. For parents who are undocumented, that fear is ten times worse.

Many Latinos do not use services available for children for several reasons. These reasons include cultural differences, being ineligible for public support under Federal law, or many just do not know that the services are available.⁸ More than a third of all Latino children who have been reported to child welfare agencies have at least one immigrant parent. There is limited research on service use by Latinos, but it is no secret that the ones who have been reported are poorer than others.

In the study that was done, the focus was to determine whether referral to and receipt of concrete services by Latino families reported to child welfare agencies was associated with parent legal immigration status. The data collected came from the National Surveys of Child and Adolescent Well-Being, dating back to 2008. In the study, the initial data was collected through primary care-giver self-report. Several variables were used such as age and gender of the children. In the end, the study found that referrals for concrete services among Latinos reported to child welfare strongly correlated to the needs of low-income family. They also found the present of domestic violence appears to be a driving factor of service referral and use. 20% of the parents surveyed resided in households where domestic violence was present. They also found that families with prior maltreatment reports were less likely to be referred for services based on if they previously received services.⁸

Chavez and his colleagues studied immigration's effect on a child's well-being in another study. In the study, immigrant families were defined as "mixed-status families" because and were determined to have a unique challenge for families and children. Chavez suggests that changes with immigration have allowed for officials at the federal level to impose penalties for unauthorized entry. These penalties range from fines, imprisonment, and prohibition against future entry.⁶ Current immigration populations are more likely to have large numbers of unauthorized immigrants and they are likely to settle in destinations where there are little to no immigrant populations.

Using interviews with families, the focus was to share ways in which unauthorized immigration status influences child well-being. These interviews lasted 1 hour and took place in the homes of the participants. At the interviews, multiple family member were present, which included immediate and extended family members.⁶

The study found that parents were stressed and felt uncertainty that comes with living in a mixed-status family. In addition, parents were concerned but felt it was important to secure their children's future during uncertain times. They were also less optimistic about future prospects, particularly for children who have lived in the U.S., but may have to go back to their home country due to current immigration policy. Furthermore, the number of mixed-status families is expected to continue to grow.⁶

The families in the study also expressed concerns about adequate healthcare for their children. Many parents shared that they were worried because they had yet to obtain medical services for their children. This has highly influenced the emotional stress on parents and increases worry for the parents.⁶

Finally, in the study, parents expressed concerns about education. It is no secret that immigrant parents are less likely to have lower levels of education and difficulty speaking English. Families in the study described the importance of education for their children and the struggles in that they face in meeting academic goals.⁶

In September 2017, news report began to surface regarding the possible elimination of DACA. Established as a Federal Executive Order, DACA was an American immigration policy that allowed some individuals who entered the country as minors to receive a renewable two-

year period of deferred action from deportation and to be eligible for a work permit.⁹ Without this program, minors are at risk for being deported if they are illegal immigrants, thus further limiting their access to adequate education, healthcare and the American dream.

As of 2017, the U.S. is home to approximately 11.4 million undocumented immigrants, half of whom are of Latino origin. Many of these are undocumented young adults who rely on DACA to give them the wonderful lifestyle they are hoping for.

Immigration policies have posed mental health risks for undocumented young adults who face these challenges¹⁰. In the study they presented, they focused on how the wellbeing of an individual is determined by interconnections of systems at multi levels. They gathered data from several community organizations, including DACA interns and several young adults who were directly impacted by DACA.

At the end of the survey, they found DACA smoothed undocumented immigrations integration into US society. They also found that without DACA, participants felt that their lack of legal status restricted their full societal engagement. The participants also felt without DACA, they had significant stress and attempts to survive without resources were a huge concern.¹⁰

This research supports the idea that immigration policy has a large impact on children and their well-being. Without a plethora of opportunities, children would not be afforded the opportunities that native children have. This is very disheartening, speaks to the lack of value for immigrants, and need for reform when it comes to immigration.

Unit Activities

Kindergarten

As mentioned earlier, Kindergarten students are introduced to data through concepts of sorting and classifying. They also benefit from having lots of experiences sorting and classifying objects¹¹. It is important for Kindergarten students to begin their data categorization with activities that allow them to explore data from the perspective of their personal views. Kindergarten students learn that data can be classified and they understand that attributes help them to understand and sort data.

Day One:

As with any new concept, it is important to expose students to new ideas by teaching vocabulary. The teacher would start by discussing the word attribute and what it means. An attribute is a socially agreed upon feature that is used for classifying objects, including people (e.g. hair color).¹² The teacher would model how to describe an object using attributes. For example, they could describe the classroom as big, square, wide, and colorful. Students would then have an opportunity to practice with a partner or with the teacher using attributes to describe themselves (cute, fun, little, five, girl, boy).

Day Two:

To explore the concept of categorization, the teacher could show students some pictures. These would be pictures that students have never seen before. The teacher would then ask the students to describe the pictures using attributes. For example, the teacher could show them a picture of some kids:

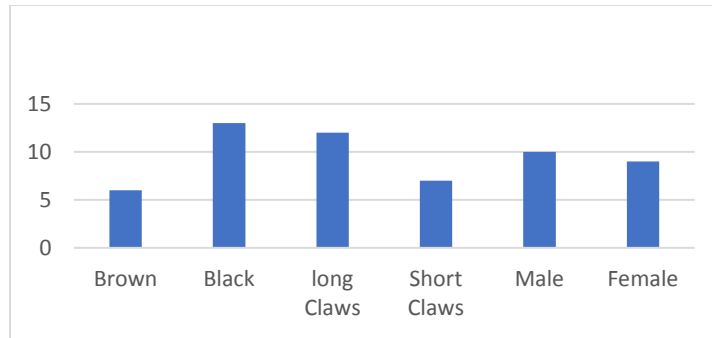


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As a class, students could come up with the following attributes: boys, girls, silly, happy, joyful, kids, young, etc. The teacher could also deepen student understanding by asking them to think about the following questions: why they chose the attributes they did and whether those attributes are true or false. The teacher will also point out that some are physical attributes, like gender, and others are emotional attributes, like happy. The emotional attributes could change in the moment, but the physical attributes remain constant over time.

Day Three:

For Kindergarten students, it is very important to model concepts in order to make sure students fully understand the assignment. The assignment idea for Kindergarten is to give students a category (i.e. Teacher) and have them draw a picture of what they think the category should look like. It may be helpful to have a discussion. For example, the teacher could say, "I want you to draw me a picture of what a dog looks like". Then have students discuss what they think the dog looks like—four legs, brown, black, long claws, wet nose, etc. After having students complete the assignment, have students sort their pictures by certain attributes—sex of the dog, color of the dog, long or short claws, spots or no spots, etc. The teacher would then graph the data for the students. (See below table as an example).



The class could then engage in a discussion about the data based on the chart created, but this is not required in Kindergarten.

Another variation of the activity could be where the teacher asks the students to draw the perfect animal. Students would then draw the animal and use three words to categorize the animal. The teacher and students could then engage in classifying the data and discussing the categorizations (type of animal, how many legs does it have, habitat).

Day Four:

For the first assignment, students will draw a picture of themselves. As students are drawing, teacher will observe what students are drawing, stopping to ask them, “Why did they draw themselves with those color eyes?” or “Why did you draw yourself with pigtails? The class would classify their data together looking at certain categories such as hair color, eye color, female or male. The class could also look at the data and categorize it as a class, understanding the concept that data can be sorted and categorized in many different ways. At this point the teacher will point out that many categories can be arbitrary and assigned by a group of people. For example, who is considered “illegal” vs “undocumented”.

Day Five:

To relate to the social issue of immigration, students could draw pictures of people they know who have traveled from other countries. After students finish their drawings, the picture will be stuck on the board in front of the class and the students will determine various categories to classify the drawings. Some of these could include categories like country (or continent), gender, hair color, distance travelled etc.. Students will gain a general understand that data can be classified and sorted in many different ways.

First through Third Grades

In these grades, students are exposed to a method in collecting data. They pose a question, collect the data, organize the data and interpret the results. In 2nd and 3rd grades, students analyze the data themselves as means of ownership.

One of the questions posed could be how many students have immigrants within their family. Students would then collect the data and this could be done in a variety of ways. If students do

not want to share this information (for fear of deportation, etc.) they could submit this via a secret ballot box. Students would then gather the data and organize it to collect numbers for further interpretation. In the interpretation phase, students would answer the following questions:

1. Which country has the greatest number of immigrants? (1st-3rd grade)
2. Which county has the least number of immigrants? (1st-3rd grade)
3. What similarities do you notice about the data? (2nd and 3rd grade)
4. What differences do you notice about the data? (2nd and 3rd grade)
5. Do you think if we grouped the data by regions (east, west, north, south), the data would look different? Why or Why not? (2nd and 3rd grade)
6. Are there more immigrants from _____ than _____? How do you know? (3rd grade)
7. What interval was used for your scale? (3rd grade)

For first grade, it may be better to review the data as a class. For second and third graders, the expectation would be for them to analyze and interpret the data on their own. Students would also have an opportunity in these grade levels to argue their points based on their own findings.

General Teaching Strategies

In thinking about teaching this unit, there are several strategies that I would like to utilize. These strategies will be designed to be engaging and fun, allow for student connections to the topic, and create an impact and understanding that can be adapted at all grade levels.

My first teaching strategy is explicit vocabulary instruction. This type of instruction helps with word attack strategies as well as providing visuals so that students are able to better understand the instruction, especially the ELL population. For younger ones in grades K-2, explicit vocabulary instruction is necessary for all students. A typical lesson would begin with the vocabulary instruction where the teacher introduces the word, explains how to spell it and say the word again. As the teacher of younger students, I would require them to repeat the word and spelling after me. For upper grade students, students would hear to word and be asked to think about any word parts they know in the word or share if they have hear the word before. It would also be important for the teacher to have the word written on the board. The vocabulary introduction would coincide with using the word in a sentence, finding the word in context, creating and using vocabulary banks, and sharing an article or literary piece in which the students can hear the word in context.

My next teaching strategy would be an activity that requires students to utilize a SIOP strategy as a way to express their thinking on the subject matter. This could range from doing a jigsaw on the topic, think pair share opportunities, or four corners activity (where students move to a corner based on the answer they feel is best). This strategy is extremely useful because it allows the teacher to gauge student responses to the topic.

Another teaching strategy that we would utilize is graphic organizer, such as K-W-L chart. In introducing the topic, I think a K-W-L Chart (Know, Want, Learn) is necessary in order to scaffold the topic of immigration policy. It would also give me an idea of what students know about the topic before proceeding on introducing the unit. For upper grades, I think a Jigsaw

activity would work. During this activity, students would be given an article on immigration to jigsaw based on sections in the article. Students would become reporters on their section in order to teach each other about the topic.

With the math activities, I think the most important strategy is exploration. For younger kids, this is very easy. The world is a huge place for them and I think their natural curiosity peaks on topics that mean something to them. I think through exploration, it gives students a chance to formulate their own ideas and opinions.

Another great teaching strategy would be the use of a Socratic seminar. It is much easier for upper grades to engage in this because they have more of a sense of how to debate. However, for younger grades, I would have to modify the rules. In the beginning, we would need to set norms and expectations. We would also need to practice how to answer questions respectfully and for younger grades, maybe the students speaking would hold something to let others know they are the speaker. I think this topic would be a great way to infuse the Socratic seminar and get student opinions on the topic.

During the mathematical activities, I think it would also be helpful to place students in cooperative learning groups. As the teacher, it would be most important for me to place students in groups where they would benefit the most from each other. I would set goals for the activities, roles for students, and provide support during the activities. Most importantly, I would listen, see their thinking, and see how they infuse their thinking with the thoughts and opinions of others. In addition, it would allow students to become problem solvers and continue to improve their social skills as students.

Finally, the last teaching strategy I would use is visual representation. This is a useful strategy for ELL students but I think it is also useful for any student so they can fully understand the concept that is being taught. These visual representations would include charts, pictures, graphs, human graphs, and others. The goal would be for students to become fully immersed in the activities and become more knowledgeable about the subject.

Conclusion

This topic is one of the many social issues that plague America today. It is very disheartening to know that it affects our children in many ways. As of 2017, immigration policy is still a hot debate topic and little has been done to try to rectify archaic policies that keep undocumented immigrants from getting the resources they need. I am hopeful that this unit will be a way to enlighten young minds as mathematical thinkers. I think it will also help me to dive more into the lives of my students, getting to know more about them. As a teacher, I feel like it will help me improve in the area of advocating more for my students. I feel as a teacher, I advocate for my students in the classroom. However, I feel that I have not done much for advocating for my students outside the classroom. I am looking forward to finishing this unit and implementing it within the classroom.

Appendix 1: Implementing Teaching Strategies for North Carolina Standard Course of Study

K.MD.3 Classify objects into given categories; count the number of objects in a given category, and sort the categories by count.

Students will explore classifying objects in specific categories. They also expected to identify similarities and differences and use the identified attributes to sort a collection of objects. They understand how to group like amounts in a collection.

1.MC.4 Organize, represent and interpret data with up to three categories: ask and answer questions about the total number of data points, how many are in each category, and how many more or less are in one category than in another.

In First grade, students use categorical data to answer a question. Once they collect the data, first graders are then expected to interpret the data in order to answer the question posed. They also describe the data by looking at the least/most responses and differences/similarities between the categories.

2.MD.10 Draw a picture graph and bar graph to represent a data set with up to four categories
Students will take more ownership with the data in their work. Data is a five step process for second graders. Students pose a question, determine up to four possible answers, collect the data, represent the data on a picture or bar graph and interpret the data.

3.MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories.

In 3rd grade, students take sole ownership with interpreting, analyzing and representing data. It is extremely important for them to have major knowledge on reading and solving problems regarding data before being asked to draw one. They continue to follow the PCAI process (pose, collect, analyze and interpret). In addition, 3rd grade students are expected to be reviewing and analyzing data that is relevant to their lives.

Appendix II: Teacher Resources

Articles:

Brown, Christia Spears. 2011. "American Elementary School Children's Attitudes about Immigrants, Immigration, and Being an American". *Journal of Applied Developmental Psychology*. 32 (3): 109-117.

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"3rd Grade Mathematic Unpacked Content." North Carolina Department of Instruction. Accessed October 28, 2017.

<http://www.ncpublicschools.org/docs/curriculum/mathematics/scos/3.pdf>

"School Improvement Plan ." Nations Ford Elementary School. Accessed September 05, 2017.

<http://schools.cms.k12.nc.us/nationsfordES/Pages/School-Improvement-Plan-2016-2017.aspx>

www.immigrationforum.org

This website contains a variety of information on Immigration information. It includes information about programs and policy regarding immigration.

www.migrationpolicy.org

The Migration Policy Institute provides information regarding data on immigration specific research information on policies for immigration

www.usimmigration.us

Homeland Security website on Immigration-provide information on current legal actions and paperwork for immigrants

Appendix III: Classroom Materials

Kindergarten

Drawing paper

Markers

Crayons

Colored pencils

Student Vocabulary Cards

First Grade

Pencils

Recording sheets

Data board

2nd and 3rd grade

Pencils

Recording sheets

Graphing paper

Literature-Children's Story Books

The Best Vacation Ever by Stuart J. Murphy-Enlightening math story about a little girl whose family wants to go on a vacation. She collects data and makes a chart to help everyone choose the perfect vacation

Midnight Math by P. Ledwon and M. Mets-This is a book with 12 mathematical games. One of the games focuses on sorting.

Planet Monster- A book where students navigate through a monster puzzle and engage in self-directed activities such as sorting and classifying.

Appendix IV: Student Resources

http://teacher.scholastic.com/activities/immigration/young_immigrants/

Meet Young Immigrations forum-introduces students to child immigrations from around the world. Also provides data on immigration from 1820 to the present. Suitable for 1-3rd grade independent and Kindergarten with teacher support.

http://www.educationworld.com/a_lesson/TM/1204_immigmath.shtml

Provides data for immigration for students and provides data related questions that students can answer using the data presented. The data is only for the years 1899-1924. Most appropriate for 2nd and 3rd grade students

www.illuminations.nctm.org

Website that provides interactive math activities for students support. The activity, looking back and moving forward, allowed students to interactively graph data and analyze it. Most activities also have reflection questions that can be answered independently or use with class discussion.

Appendix V: Assessment Questions

1. Why did you choose to draw the description you chose? (Kindergarten)
2. What do you notice about your drawing? (Kindergarten)
3. Ask Kindergarten students to describe their drawings-What did you draw in your drawing of a teacher?
4. Which country has the greatest number of immigrants? (1st-3rd grade)
5. Which county has the least number of immigrants? (1st-3rd grade)
6. What similarities do you notice about the data? (2nd and 3rd grade)
7. What differences do you notice about the data? (2nd and 3rd grade)
8. Do you think if we grouped the data by regions (east, west, north, south), the data would look different? Why or Why not? (2nd and 3rd grade)
9. Are there more immigrants from _____ than _____? How do you know? (3rd grade)
10. What interval was used for your scale? (3rd grade)

Appendix VI: Annotated Bibliography

Articles:

Brown, Christia Spears. 2011. "American Elementary School Children's Attitudes about Immigrants, Immigration, and Being an American". *Journal of Applied Developmental Psychology*. 32 (3): 109-117.

Journal Article that provided information after a study on student attitudes on immigration

Chavez JM, A Lopez, CM Englebrecht, and Viramontez Anguiano RP. 2012. "SUFREN LOS NIÑOS : EXPLORING THE IMPACT OF UNAUTHORIZED IMMIGRATION STATUS ON CHILDREN'S WELL-BEING.". *Family Court Review*. 50 (4).

Journal Article that discuss the impact of immigration on students

Dreby, Joanna. 2015. "U.S. immigration policy and family separation: The consequences for children's well-being". *Social Science & Medicine*. 132 (5): 245-251.

Journal Article that gave information on the consequences of immigration and how family separation impacts children

Finno-Velasquez, Megan. 2013. "The relationship between parent immigration status and concrete support service use among Latinos in child welfare: Findings using the National Survey of Child and Adolescent Well-being (NSCAWII)". *Children and Youth Services Review*. 35 (12): 2118-2127.

Provides thoughts and research on the interrelationship between parent immigration and support services provided for Latinos

Ha, Yoonsook, and Marci Ybarra. 2014. "The role of parental immigration status in Latino families' child care selection". *Children and Youth Services Review: Part 3*. 47: 342-351.

Discusses the role of immigration and child care selection

Siemons, Rachel, Marissa Raymond-Flesh, Colette L. Auerswald, and Claire D. Brindis. 2017. "Coming of Age on the Margins: Mental Health and Wellbeing Among Latino Immigrant Young Adults Eligible for Deferred Action for Childhood Arrivals (DACA)". *Journal of Immigrant and Minority Health*. 19 (3): 543-551.

Discuss mental health among latino young adults who rely on DACA

Websites

"K Grade Mathematics Unpacked Content For the new Common ..." North Carolina Department of Instruction. Accessed October 28, 2017. www.dpi.state.nc.us

Provides an in-depth look at the Kindergarten math standards and provides teacher with guided questions/thoughts on how to properly teach the standards

"1st Grade Mathematics Unpacked Content For the new Common ..." North Carolina Department of Instruction. Accessed October 28, 2017. www.dpi.state.nc.us

Provides an in-depth look at the 1st grade math standards and provides teacher with guided questions/thoughts on how to properly teach the standards

"2nd Grade Mathematics Unpacked Content For the new Common ..." North Carolina Department of Instruction. Accessed October 28, 2017. www.dpi.state.nc.us

Provides an in-depth look at the 2nd grade math standards and provides teacher with guided questions/thoughts on how to properly teach the standards

"3rd Grade Mathematic Unpacked Content." North Carolina Department of Instruction. Accessed October 28, 2017.

<http://www.ncpublicschools.org/docs/curriculum/mathematics/scos/3.pdf>.

Provides an in-depth look at the 3rd grade standards and provides teacher with guided questions/thoughts on how to properly teach the standards

"School Improvement Plan ." Nations Ford Elementary School. Accessed September 05, 2017.

<http://schools.cms.k12.nc.us/nationsfordES/Pages/School-Improvement-Plan-2016-2017.aspx>

School based website that provides information on Nations Ford Elementary School

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Notes

- ¹(North Carolina Department of Instruction 2010)
²(Migration Policy 2016)
³(Immigration Forum 2016)
⁴(Dreby 2015)
⁵(Brown 2011)
⁶(Chavez et al 2012)
⁷(Ha and Ybarra 2014)
⁸(Velasquez 2013)
⁹(Homeland Security 2017)
¹⁰(Simeons, Flesh, Auerswald, and Brindis 2016)
¹¹(Kindergarten.math-lessons.com 2017)
¹²(mathisfun.com 2017)
¹³(bing.com 2017)
¹⁴(Nations Ford Elementary 2016)