

Urban Disparity: The Negative Health Effects of Being Poor in an Urban Environment

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Overview

The topic I have chosen to investigate throughout my curriculum unit is titled, **Negative Health Effects Of Being Poor In An Urban Environment**. My students will investigate this topic by identifying the major factors the environment imposes on our health on a daily basis. My objective for my unit is to ensure that students obtain a firm and robust understanding of the factors that affect health in the poor urban environment. Moreover, they will be expected to apply the scientific process in ways that demonstrate their proficiency with the process. This includes interpretations and the construction of a multitude of graphs, charts, or tables to be used for supporting evidence. This will lead students to focus on the factors of their environment that contribute most to bad health.

To achieve these objectives my students will start by addressing the many different aspects of their own environment. Over time they will begin to recognize the relationship that biotic and abiotic factors share in an environment. Once they have achieved that understanding, they will progress towards identifying the most dangerous of the health factors and connect them with the various ailments that are associated with the identified dangerous health factors. Expressions of this relationship will be displayed in graphs, charts, and tables putting into perspective the stark differences that exist between city dwellers and suburbanites.

Because of the vastness and complexities of any particular environment, students will narrow down all poor urban environmental factors to the ones that are most relevant. These factors include:

- Air and Water Pollution
- Access to Healthy Affordable Foods
- Space for Exercise and Recreation

These are some of the most troublesome factors affecting health in the poor urban environment. Due to a variety of reasons studies show that people who live in urban

settings and are impoverished tend to be more susceptible to the environmental conditions listed above. The factors selected stimulate various illnesses and ailments that are less prone in areas outside the city, where land is less populated and where there tend to be more resources (surrounding Philadelphia). Recently, studies have shown that there is a significant increase in particular ailments like asthma, obesity, and malnutrition for those people living in urban areas. Some of these effects will be explored to help my students recognize how many of these ailments they can identify in their own environment.

Achieving different levels of success in life has always required some level of skills in problem solving. Accordingly, my students will utilize this skill in a multitude of ways to ensure understanding. It is also important to get my students to recognize that there are practical solutions to the problems they will explore. It will also be important for them to understand that some solutions can be achieved on a short-term basis. Potential solutions will be identified and then, in turn, related to their own lives.

Since there isn't one right solution for any one problem, students will be free to create their own, taking ownership of the solution by making it relevant to their own experiences with negative environmental factors. Activities will be provided that highlight the importance of being able to create solutions to problems. This skill must be reinforced throughout the unit, so that students are able to fully comprehend the details of problem solving.

Rationale

There are many stigmas that are attributed to education in urban settings. It is believed that many of these students lack the resources and ability to consistently perform proficiently on many standardized tests. The explanations for their underperformance tend to be complex and stereotypical placing the emphasis on the problems rather than the solutions. This being my fifth year in the Philadelphia School District, I have learned that the students are just as capable and resourceful as any I have ever met in my life. Their yearning to learn is trumped only by their passion to succeed. In light of this, it is my belief that exposure in conjunction with appropriate pedagogy can uplift students, in any setting, to an acceptable level of understanding.

Recently, there has been an ample amount of research posited that supports the idea that class or economic status is a significant factor in determining the health risk of an individual. Specifically, urban poverty and unhealthy living conditions are associated health determinants (Kjellstrom 2008). Other contributing factors include: living and working conditions, poor housing, and overcrowding. These statistics imply that living in poverty can have a dramatic effect on the quality of health for people living in the area. Unhealthy living conditions compromise the growth of young children, their nutritional status, their psychomotor and cognitive abilities, and their ability to attend school, which affect their future earnings while raising their susceptibility to chronic diseases at later ages (Kjellstrom 2008).

Some arguments have stated that other factors could be the reason for the low quality of health that exist in urban settings, however most research has pointed towards social class being the biggest determinant of poor health. For example, Hart and Risley, found that race, ethnicity, and gender did not matter for language acquisition for young children, but that social class did matter (Analytic and Strategic Review Paper: International Perspectives on Early Child Development 2005). In addition, there has been a correlation between poor health and a child's school performance and achievement.

Living in poverty has long been implicated in children's health, development, school performance and achievement and poor health in adulthood (Analytic and Strategic Review Paper: International Perspectives on Early Child Development 2005). Therefore, getting my students to understand that these factors deteriorate your overall health (Vella 2012) will help them be more mindful of the many different environmental factors that contribute to an individual's health.

Essentially, the basis for my unit stems from selected needs and problems of my students. Philadelphia is literally in "poor health" (Vella 2012) and my students need to understand this. In a study, University of Wisconsin Population Health and the Robert Wood Johnson Foundation ranked Philly as the least-healthy county in PA for the third consecutive year (Vella 2012).

Much of the design for this curriculum is set up to expose my students to concepts they are familiar with but know very little about. I teach in an area where most of the students come from environments that are not conducive for learning and growing at pace with the rest of the country. They suffer this disadvantage because of the conditions they are forced to live with daily. For example, my students may not know that Philadelphia is the poorest of the 10 major cities (Cosky 2012). Consequently, this can have serious effect on the quality of life in the city. It is said that "place shapes health" and that living in unhealthy communities, it is hard to adept healthy behaviors on an individual level (Cosky 2012). However, because their environment is usually all that they know, they accept their conditions as the norm.

Exposing my students to the truths behind their conditions will hopefully spawn a new generation of thinkers to reject their current conditions and demand equal and fair treatment from their localized government. Achieving such groundbreaking progress is a challenge and not something that occurs overnight. Nevertheless, by starting at such a young influential age, students could use the concepts learned in this unit as a vehicle used to drive a longstanding argument of unjust treatment towards city dwellers who are almost always overlooked or forgotten. In today's society, movements, like the one I speak of, can be seen happening all over the world by a youth movement full of exuberance. Therefore, there is no reason to think these same types of monumental shifts in ideology could not occur here.

The types of change mentioned are not created accidentally, in fact there is often a single moment or instance where people claim "enough is enough." In the classroom

this change is happening all around us. Our students are as adaptable and versatile as ever and thus so should be our approach to teaching them. Consequently, the topics I have chosen for my students to investigate surround concepts that match their backgrounds. Each topic directly or indirectly addresses an aspect of life that could be relevant to any one of my students.

Thus, by providing my students with the fundamental causes of most of their health problems, they will be able to challenge the status quo and progress towards an equal chance of maintaining good health. Ultimately, they will learn that even the most oppressed of people can change their situation if they are diligent and knowledgeable of their problem.

Taking this into account will provide my students with the confidence they need to succeed in this world. More often than not, lack of knowledge can stifle ambition and lead students to neglect their true desires for change, leading to an apathetic mentality forcing them to become hopeless. Exposing my students to the causes and potential solutions of the problems will give them a robust understanding of the issues. Their experience with this way of thinking will lay the foundation for the critical thinking they will most definitely need in the future.

Water and Air Pollution

In particular, the topic of air and water pollution is something that all my students can relate to since it is probably one of the health factors they recognize the most. Air and water pollution could originate from many different places. Fortunately, for the sake of the unit, my students already possess some familiarity with many of the causes of these factors. Exploring how these factors are created will help my students to understand how to fix the problem and, in turn, alleviate many of the illnesses that related to the pollution of air and water.

While most of their focus will be towards the environmental factors in Philadelphia creating bad health, there is no questioning the effect that poor air and water quality is having around the world. Specifically, poor environmental quality is responsible for an estimated 25% of preventable diseases worldwide (Pennsylvania Department of Health: Special Report on Minority Health 2002). Understanding the magnitude of the problem is necessary if my students are to truly understand how their environment is tied to health. This should spark my student's curiosity, causing them to ask questions about why and how the environment is creating so many issues for our health. The questioning of how and why should lead the class to focus on the areas of the world that these concepts most apply.

As mentioned earlier poverty seems to be the leading determinant of poor health no matter the race, gender, or ethnicity. One study argues that communities of impoverished populations are at higher risk to be exposed to environmental hazards (Pennsylvania Department of Health: Special Report on Minority Health 2002). Many times this is due to the exploitation of land that occurs in urban areas. Philadelphia alone has 27

hazardous waste sites, in comparison to Chester, Berks, and Bucks Counties, which have 23, 23, and 22 hazardous waste sites respectively (Pennsylvania Department of Health: Special Report on Minority Health 2002). These numbers are very significant, especially considering that the people who reside in these areas are predominantly poor and minority. One report showed that Chester County has the fourth largest garbage burning incinerator in the nation, along with the largest infectious chemotherapeutic medical waste autoclave. This data is alarming when you consider that Chester County also has a poverty rate of 25%, three times the average in rate of its neighbors in Delaware County (Pennsylvania Department of Health: Special Report on Minority Health 2002).

My students will not only have to identify the problems that are environment creates for our health, but they must also recognize how these problems can be solved. The solution, however, is not always as straightforward as it may seem or utilized to solve the entire problem. Often my students will raise their hands during a lesson and offer the most basic, direct solution to an issue troubling the planet, only to find out that their wonderful solutions are being overshadowed by politics and personal agendas. With regard to hazardous waste sites, my students might ask why we don't close or limit the use of the sites in our area. Some research on this question, states that landfill closures and closures of municipal waste incinerators in the city of Philadelphia result in **increased cost of trash disposal, causing illegal dumping of household trash, oil, oil byproducts as a major source of concern in South and Southwest Philadelphia** (Pennsylvania Department of Health: Special Report on Minority Health 2002). Therefore, closing of the sites is not always the best idea, but for a student that can be difficult to understand. Consequently, it is important to stress to the students the importance of understanding both sides of a story before passing judgment. Learning this skill could be very useful to them in the future.

Recreational Space for Exercise

One of the most critical topics affecting the health of our youth is the obesity rate. Many factors contribute to the obesity rate for our youth, but lack of recreational space for exercise seems to be one of the leading causes for the high obesity rate. The people of Philadelphia are quite familiar with the obesity rate of this city, since it has often been given the label of one of America's fattest cities. In fact, the rate of childhood obesity in Philadelphia trumps the national and state averages, with Philadelphia falling at a childhood obesity rate of 20%, while the state and national averages are at 16% and 17% respectively (Systems 2008-2009). Once the students grasp this idea they will be able to explore the reasons that limit the space for recreation in Philadelphia.

Being outdoors among the elements and the environment seems like a natural pleasure for most youth. However, in many urban impoverished areas, enjoying outside activities can be more dangerous than fun. Unfortunately, it has been observed that persons with low incomes suffered disproportionately from exposure to outdoor environmental hazards (Pennsylvania Department of Health: Special Report on Minority Health 2002). Because of this, children tend to find more creative, sedentary ways of enjoying themselves. This leads children to video and computer games, which utilize technology in a way that is

appealing to their culture. It seems evident that spending too much time engaged in an artificial world could lead to limited social and life skills, inhibiting children from developing the skills they need to survive in the real world.

The limited amount of space necessary for recreation and exercise can also be attributed to the many negative factors associated with living in poverty. Particularly in urban areas, like Philadelphia, space is often shared with many people. Because of this, your options for where you can go to exercise or play could be places that are dilapidated or even worse, dangerous.

The crime rate in Philadelphia is higher than the national rate of crime and it is having its effect. Crime has shaped other health behaviors. It could be discouraging residents from leaving their houses to socialize and exercise. “Other health behaviors can only follow after people feel safe” (Cosky 2012). In other cases, the distant to the nearest recreation space could just be too far to get to.

Nonetheless, it is evident that parents will have trepidations about where to send their child to play, particularly when you live in a city as dangerous as Philadelphia. This is significant, so much so that it could have a dramatic effect on the child’s development.

For example, it has been concluded that concerns regarding safety, for children as well as parents, might affect a child’s opportunity to participate in physical activity in venues such as neighborhood playgrounds; such limitations have a domino effect, inhibiting a child’s social experiences (Analytic and Strategic Review Paper: International Perspectives on Early Child Development 2005).

In conclusion, while it may be dangerous for students in urban settings to regularly exercise or “play” outside, the contrary may prove to be even more hazardous to a child’s health. As a result, it is essential that students recognize what can be done to ensure they maintain a healthy lifestyle. In the case of adequate space for recreation, students can learn to substitute individual recreation for team sports and activities in leagues, where recreation is usually structured and monitored by adults. This leads to the learning of important life skills as well as creating a sentiment of family and safety.

Access to Healthy Foods

Currently, my research leads me to believe that we, the human race, are designed very specifically to handle very specific situations and conditions. In spite of that we are also extremely adaptable. Our ability to adapt might be our best attribute and the key to our rate of survivability on this planet. Consequently, when investigating our health, understanding our physiology is crucial if we are to accurately assess the nutritional value of our diets. This allows us to regulate the exchange of energy in and out of our bodily systems, so that we are obtaining optimal performance on a daily basis. The regulation of this exchange of nutrients and energy causes our bodies to fluctuate in its response to external and internal stimuli.

In conclusion, the last topic my students will investigate is their access to healthy or high quality foods. My intention for this part of this unit is to reinforce many of the major ideas discussed in the unit by connecting their access to healthy foods with their rate of poverty. Students will not be isolated, but rather talked about as a whole or group, to highlight the economic woes of Philadelphia. My students will begin to understand this by comparing statistics of local regions their own statistics and interpreting the meaning of the differences that exist between each region.

Research has shown that in our area, economic disparity is an enormous predictor of health. You'll find that the counties around the city are some the healthiest in the state because they are the wealthiest, with Chester, Montgomery, and Bucks County ranking in the top 10 (Vella 2012). It appears to be clear, that having a better economic standing can give you advantages over people who are less fortunate economically. This is especially true when it comes to an individual's health. This could be due to the amount of money you have to spend on groceries, along with the quality of food that your local grocery store provides. In today's society, people who have more money tend to move out of the urban environment into to the suburban areas surrounding the city. Hence, it should be not be surprising that higher quality supermarkets and food chains would move out as well, giving the suburban dwellers better access to healthy foods.

Often, when the economic disparity between people is analyzed, little is said about the disparity that is growing between the amounts of resources being allotted to impoverished schools versus well-to-do schools. In regards to access to healthy foods, student lunches seem to be a topic that is increasingly overlooked. For example, one report posited that although half of public school students qualify for reduced-priced school breakfast and lunch, what generally is provided is processed and packaged foods (Cosky 2012). Once researcher even went as far as to say, "It's deplorable to think about what we feed our kids" (Cosky 2012). In the suburbs, where their resources are much more plentiful and of higher quality, it is rare to hear complaints about the food given to their kids, let alone the amount of other services they provide.

While the disparity continues to grow, the solutions for these issues seem to dwindle. However, there are some agencies who are giving their best effort to resolve these problems. Organizations like The Food Trust, a Philadelphia program founded circa 1992 that funds supermarkets, farmers' markets and school based nutrition programs throughout the city. There is also the Centers for Disease Control program, Communities Putting Prevention to Work, whose purpose is decrease tobacco use and increase access to healthy foods. Both of these programs may seem as if they haven't accomplished much, however the conditions for change must start somewhere.

Accordingly, this is where the intentions of my unit begin to be realized. My students may not be able to create the conditions for change, but they can surely take advantage of them. Hence, when they come across a similar problem of possessing access to healthy foods, they will have experience with the type of thinking necessary to contribute to the solving the problem. They will acquire these skills through their experiences with the details of this part of the unit.

Exploring the cause and effect of ill health in Philadelphia along with the possible solutions that may exist to solve these problems will lay the foundation they need to become active stewards in the future of their communities. Hopefully, the youthful exuberance of my students will combine with the institutions that are already set in place to sustain a movement that will accomplish real “in roads” for making significant change in our communities.

Objectives

My curriculum unit is designed for urban students in the 6th grade. Accordingly, the premise of my unit is the alarming health issues of urban youth. My students, like most students I have experienced, respond best to information that is most relevant to them. Their ability to retain and understand information is strongly connected to their overall interest in the topic. Ultimately, my objective is to achieve proficiency across the board on the topics provided. To achieve this I must engage my students in the curriculum such that it captivates their minds and sparks their curiosity.

Many of the objectives mentioned earlier are relevant to my students because of the setting and culture they live in. The factors in their environment have drastic effects on the quality of their health. Therefore, exposing my students to the effects our environment has on us as well as the factors that cause these effects will ensure a robust understanding of how to achieve overall good health. This is the overarching goal of my unit, which is supported by the many different facets of health that will be explored throughout the unit.

In addition to identifying health conditions and effects, students will also practice and apply the scientific process in a multitude of ways. Once they have fully grasped the gravity of the situation, they will begin to brainstorm possible solutions to the problems they face. Creating potential solutions to their health issues will bring the unit full circle allowing them to understand all aspects of the issues.

In an experiment, collection of data is one of the most critical parts of the scientific process. Data from an investigation or experiment can be displayed in several ways, however for sixth graders, the methods used most often are graphs, tables, and charts to communicate the data. Understanding how these tools are used equips my students with the skills they need to create clear, interpretive graphs. Accordingly, the development of these skills will be reinforced with much practice from different applications.

During this time, I will emphasize how to interpret and create different forms of graphs, charts, and tables. This skill is also particularly important since it is so often emphasized on standardized testing. Unfortunately, my students’ ability to identify specific pieces of information from graphs is limited by their frustration with how to interpret the graph. While their interpretations of graphs skills are limited, they struggle even more when the task is to create a graph based on the certain information given.

Therefore, exposing my students to many examples of graphing, charting, or creating tables, will allow them to become more comfortable with the process helping them get past the trepidations that prevent their success.

Recognizing the quality of nutrition in their own urban environment is another objective my students will investigate to further understand the negative health effects of urban living. Specifically, students will focus on what constitutes good nutrition and how negative environmental conditions produce bad nutrition. This will help them to relate good nutrition with good health. Ultimately, the nutrition quality a person receives largely depends on the type of environment they inhabit. Therefore, the interaction of humans with their environment will guide the students as they investigate the summative factors of good health.

The last objective will ensure the students have complete understanding of the issues by encouraging my students to create practical solutions to the issues discussed throughout the unit. The thinking process required for this part of the unit emphasizes skills that will be useful to them throughout life. Often students, and people in general, analyze issues based off of empirical observations without accounting for what can be done to resolve the issues.

Much of the focus is then given to what some people call the *blame game*: constantly redirecting responsibility until a scapegoat is crowned. This requires a lot of effort and often wastes valuable time and energy that could be spent resolving the current issues. As a result, my students will attempt to avoid this pitfall by exploring every facet of problem. This will include identifying the problem as well as the solutions, which will help them fully comprehend the importance of the issues. This objective will culminate towards the end of the unit where my students will systemically develop realistic solutions that could be used in their future.

Strategies

The Scientific Method will be the vehicle that transports my students through the concepts mentioned above. Each concept will have lessons that lead to its fundamental understanding. Meanwhile, the concepts will emphasize how the environment plays a role in maintaining our nutrition and health. I chose investigations to reinforce the concepts learned because it best simulates the methodology of science. Emphasizing the scientific method intends to strengthen my students' skills in the scientific process. Accomplishing this would bolster one of the underlying objectives in the unit, by assisting the students to think critically and analytically.

In order for my students to achieve the objectives of the unit they will have to take themselves on a journey. The journey starts with my students painting a picture of who they are in regards to their health. This will not be done literally but figuratively, so that they understand what components of their health are poor and in need of adjustment. By the end of the journey the students should be able to paint another picture depicting how their health should look. The before-and-after caricature of themselves will help them

recognize the changes required to avoid the pitfalls of being exposed to the negative health effects of an urban environment. Along the way various observational studies will serve as the vehicle that transports them from start to finish of the journey. This is intended to reinforce the major concepts in the scientific process while at the same time highlighting the relationship that is shared between my students and their environment.

There will be several topics used to help students explore the effects the urban environment on their health. The first topic deals with the amount of space they have for recreation and exercise. The introduction will begin with the students identifying the spaces available to them for recreation and exercise. Following this, they will appreciate why adequate spacing for exercise is important by recognizing what proper exercising does for the body.

This will lead to my students learning about diabetes and cardiovascular disease, two of the most epidemic diseases in the country. The first disease to be discussed would be diabetes because of its prevalence in my students' community. The first few days would focus on understanding its causes and the exactly how prevalent it is in their community. In addition, the methods used to prevent diabetes will help them guide them as they begin to make the appropriate choices for food selection. This lesson will be concluded with the development of observational studies that will ask my students to collect data on the amounts of students that are prone or likely to get diabetes. This will be the time when I emphasize the skills required to interpret and create graphs. The students will receive much needed practice in this area, so they can prepare for future investigations all the while leading up to their final project.

The next lesson along the journey will highlight how their environment contributes to cardiovascular disease. Much of the basic ideas discussed in the previous lesson will be reviewed to reinforce the idea that obesity remains a major problem in their community. This will include examination of the causes and rates of prevalence for the first couple of days.

Following this, preventable measures will be discussed on the subsequent days. The purpose of this strategy is to ensure that my students recognize the dramatic effects their environment can have on their health. Once they successfully gain that understanding, they move on to develop a survey to measure the amount of students that exercise regularly.

The plan will be to give all students in the 6th grade the survey and compare the results. If the class responds well to the project they can expand it to include more of the school and staff if desired. They will also compare the results to the statistics they collected during the diabetes lesson. All of this will assist with strengthening their interpreting skills when it comes to graphs.

In the succeeding lesson students will focus their attention on the depletion of resources happening around the world. They will then connect these ideas with their own environment and identify the local resources in danger of being depleted. Human

behavior will serve as the “smoking gun” used to explain the overexploitation of resources. By the end of this lesson students will begin to comprehend how humans have committed this crime against humanity.

An example of this can clearly be seen when my students explore how water and air pollution affect their health. They will explore this topic by identifying the background behind the epidemic of water and air pollution around the world by reading passages discussing the matter. This will precede their investigation into the water and air quality of their own environments. Once they have grasped the bigger picture, they will proceed to analyze their environment by accessing the health of water in their schools and homes. A water test kit, provided by my school, will be utilized to detect the amounts/types of elements and compounds found in their water.

Once they have identified the components of the water, the investigation will continue with an analysis of what the components imply about the health of the water. These strategies should help my students understand the importance of familiarizing themselves with their environment.

The duration of that idea should last a couple of days leading my students to the bigger picture of recognizing the ecological disruption that is caused by the depletion of resources. Eventually, they will begin to see how this forces our race to cut corners to make the best out of their situation. This will be related to the cheap or low quality food and drink that is given to urban communities. There will be many examples of this type of treatment along with the effects it has on a community as a whole. At the end of this lesson my students will continue their practice of their scientific process skills by developing another observational study that highlights the quality of food provided for them in the urban environment. One comparison that may be used could be the quality of food provided to the suburban schools versus the quality given to the urban schools.

Classroom Activities

Observational Study

Objective: Students will find out how common various types of behaviors and environmental factors are in the student population. This underlies a critical part of the scientific method, which clarifies the question that a study addresses in order to think about the best ways to carry out and analyze the study.

Warm Up:

My students will enter into the classroom and begin their warm up question. The warm-up question will ask them to list several ways the environment could negatively affect health. A discussion of the factors mentioned will follow the question

Direct Instruction:

Next they will be given the two worksheets that could be described as suggesting questions and/or format for an observational study questionnaire (**Observational Study and Exercise and Diet Survey Example Questions**, found in the appendix). This will provide them with instructions on how complete an observational study. During this time it will be explained to them the purpose of the experiment as well as the proper procedure to use to complete the survey.

Guided Instruction:

Following the introduction of the activity, my students will complete the first steps of the procedure with me. Any questions or trepidations will be answered here to ensure they complete their surveys successfully. Once I have modeled for them the correct way to go about the study, they will proceed to complete the study on their own.

Independent Practice:

My students will then take the survey and ask every student in the class what their answers are. Once they have filled in their survey they will report back to their seats and review their results with me. Here it will be explained to them that the study is just beginning and that they must learn how to interpret the data they collected.

Closing:

To close, my students will briefly reflect on the answers the collected from the class, sharing their initial thoughts about their findings.

Homework:

For homework, my students will create a list of 10 additional questions that could be asked to assess the overall health of the class.

Graphing Data

Objective: To follow up on the previous activity students will focus their attention on learning how to graph data and then, in turn, interpreting that data.

Warm-Up:

My students will enter the room, sit down, and take out their supplies. Following that, they will complete an introductory question: "Explain the best method/s you would use to analyze the data you have collected in your survey." The students will take 5-7 minutes to complete their answers. This will be followed by a brief discussion to assess my students understanding of graphs.

Direct Instruction:

Following the warm-up, my students will begin to understand the data they've collected by learning the importance and significance of graphs to explain sets of data. My students will identify why concepts such as labeling and accurate numbering of the axis are critical for interpreting the data of a graph. Once they have demonstrated an understanding of these concepts, they move on to learn how to create such graphs.

Guided Instruction:

Next, my students will model my actions as I demonstrate how to create a graph. An example set of data will be used to clarify why the concepts instructed on are so emphasized. This will be done using an overhead projector or “SMART Board” so the entire class can participate in the manifestation of the graph.

Independent Practice:

My students will then use the handout (found in the appendix) to create graphs of their own data. The graph the students created with me will be left on the overhead to be used as a reference.

Closing:

In conclusion, my students will share their interpretations and answers with the class. A class discussion will follow to summarize how much they have understood from the lesson.

Homework:

Create a graph from the observational study worksheet given out to you in class. Use the data from the worksheet to fill in the graph.

Scientific Proposals

Objective:

The purpose of this project is to make sure my students attain a well-rounded perspective on the issues discussed during the unit. During this activity they will also have a chance to enhance their problem-solving skills. Because of this students will be able to research and identify potential solutions to the health issues in their environment. Once they have identified their solutions, they will present the information in the form of a proposal. They will also be required to include visuals to help explain their solutions.

Warm Up:

My students will enter into the classroom and prepare to answer the introductory question presented to them. Since this lesson will conclude the unit, they should have acquired enough information to feel confident in answering the following question: “In your opinion, briefly describe how the most threatening issue to your health can be solved.”

Direct Instruction:

Following the discussion of their provisional solutions, my students will be introduced to the details of formulating a proposal. This will include an explanation of different parts they will be required to complete for their own solutions. These parts include: Introduction, Problem, Research, Hypothesis, Solution, Plan of Action, Timetable, and Summary. Each part will be explained so that they fully understand what is expected of them for the project.

Guided Instruction:

My students will then be instructed to group together and begin to formulate a plan of action to solve one of the assigned urban health issues. To assist them with this, I will model how to appropriately complete the worksheet (Attached in Appendix) given to them using an example topic.

Independent Practice:

Once they have modeled with me the correct way to complete the worksheet they will break apart into their groups. Once they have entered their group they will explore different potential solutions to their problems. Then they will complete the worksheet with the according information.

Closing:

Following their completion of the worksheet they will share their provisional results with the class.

Homework:

Perform research on the topic you have selected in class and come up with five facts about your topic.

Annotated Bibliography/Resources

1) Environmental Factors Affecting Health, Athena Global, April, 2004.

This source discussed the broad view of the role the environment can play in an individual's health. It detailed the attack the environment is forcing on our health causing it to deteriorate generation after generation. This source can be considered reliable because it is a scholarly article and pertains to the material in the curriculum.

2) KNOWLEDGE NETWORK FOR EARLY CHILD DEVELOPMENT:

Analytic and Strategic Review Paper: International Perspectives on Early Child Development, World Health Organization's Commission on the Social Determinants of Health, December 2005.

In this source, the main idea explains that their social class rather than their race, gender, and ethnicity create the primary reason for people's ill health. It then details the how the different factors that are associated with living in the poor urban environment. This source can be considered very reliable because it is scholarly paper published the distinguished World Health Organization.

3) Nutrition for Health and Development, World Health Organizations, 2008.

To increase the strength of the supporting evidence, this article adds the details of how urban environments differ from rural and suburban ones. Listing specifics about each nutritional value gives this source substance and allows me to think that it can be trusted to be proficiently done. It also is substantiated by the fact it was published by the World Health Organization.

4) Pennsylvania County by County Weight Percentiles, Bureau of Community Health

Systems, Division of School Health, 2008-2009.

This source serves as a report to provide concrete data to support the argument that the most overweight PA counties are found near cities. This idea is supported even more when the Philadelphia County is identified as being the most overweight in the state, which is not surprising because its higher population than the other counties. This source can be considered reliable because it originates from a state documented report issued by the state of Pennsylvania.

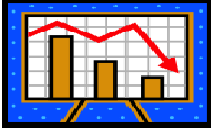
5) Pennsylvania Department of Health: Special Report on Minority Health, Ch. 6, 2002.
Like the source before this, the topic of health in the state of Pennsylvania is the focus. However, this report is even more specific because of its concentration on minority health in Pennsylvania as opposed to the majority. This source also can be considered reliable because it originates from a state documented report issued by the state of Pennsylvania.

6) Philadelphia County ranks last in state-wide health assessment:
Experts point to high poverty levels as a cause of poor public health, Laura Cosky, The Daily Pennsylvanian, April 16, 2012.
In this article, the focus centered on the connection between poor health, poverty, and the ripple effect it may have on the rest of a child's life. It argues that changes need to be made quick to prevent the loss of an entire generation. This source can be considered reliable because it originates from a state documented report issued by the state of Pennsylvania.

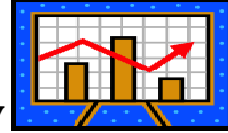
7) Poverty, crime, smoking: You bet Philly's unhealthy, VINNY VELLA, Daily News April 04, 2012.
In this article, the reporter confirms the longstanding idea that Philadelphia is one of the unhealthiest cities in the country. To reinforce that idea, the report compares the habits and practices of an urban setting to a suburban one. The reliability of this article seems acceptable, since it uses sufficient data to back up his point. However, his objectivity is questionable since there is no way to know if there is a hidden agenda.

8) World Health Organization: Our Cities, Our Health, Our Future, Acting on Social Determinants for Health Equity in Urban Settings, Tord Kjellstrom, 2008.
This report is the most substantiated of all of my sources. It provides painstaking detail to explain the effects the urban setting is having on the health of the world. It also provides an ample amount of data and statistics to help the audience draw their conclusions. This report seems to be completely and utterly reliable and because a team of scientists, rather than an individual, completed it, objectivity is likely.

Appendices



Urban Health Graphing Activity



Use the instructions below to create a graph from the data you've collected.

Procedure:

1. Collect a ruler and graphing sheet from your teacher.
2. Use the ruler to draw a straight line along the y-axis, starting two blocks up from the bottom and two blocks in from the left side.
3. Then, use the ruler to draw a straight line along the x-axis, starting two blocks up from the bottom and two blocks in from the left side.
4. Give x and y-axis a title that describes what it measures; then provide a title that describes the entire graph.
5. Assign numbers or any unit necessary along the x/y-axis
6. Complete the graph with the data you've collected

Questions:

1. What conclusions can you draw from the way your data looks on the graph?

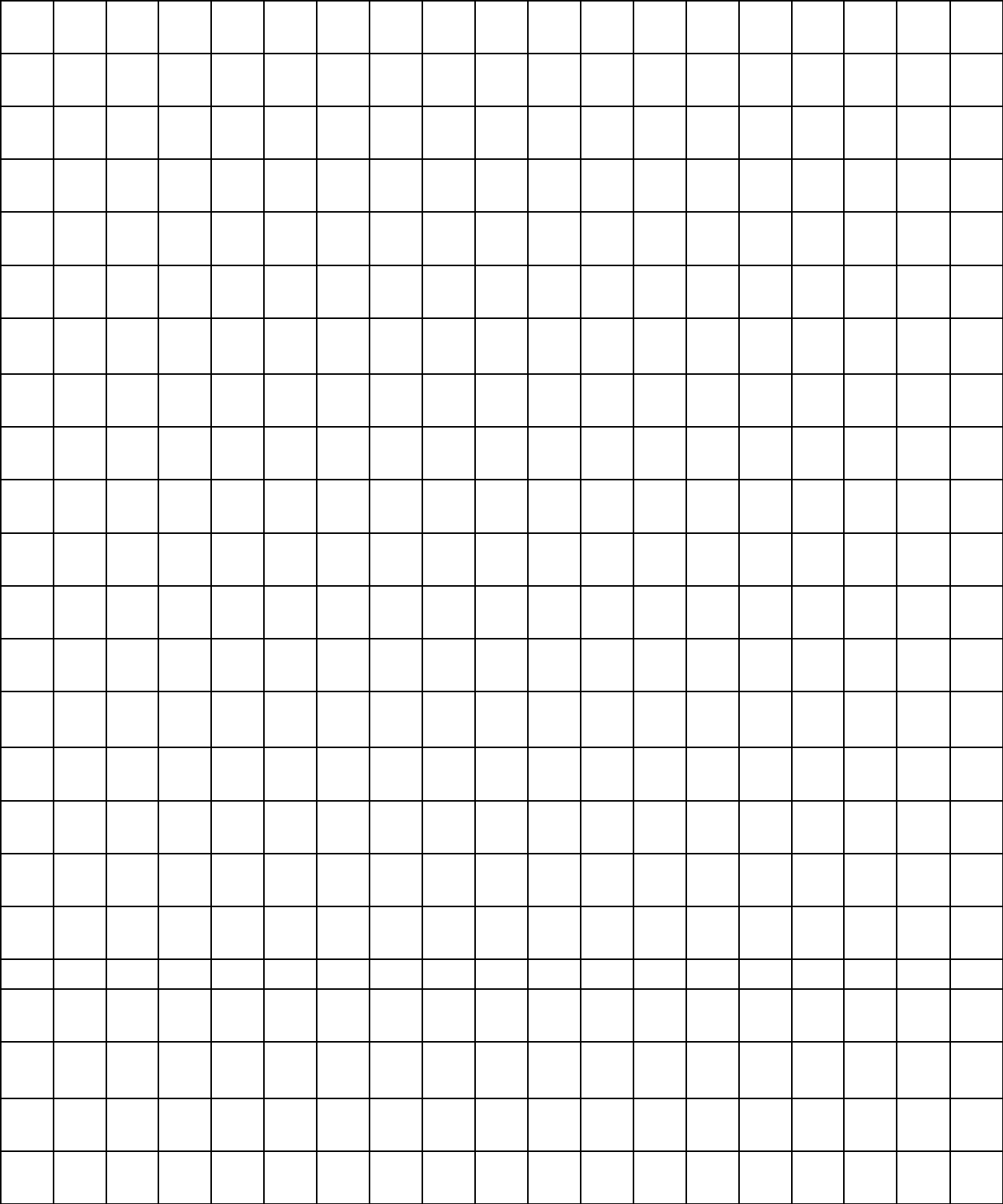
2. Are the results of your data surprising? Explain why or why not

3. Calculate the mean and median using the data from your graph

4. How could you have changed the study to get more or better information to answer your question

Exercise and Diet Survey Example Questions

- 1) How many hours a day are you sitting down?
- 2) How many hours a day do you exercise?
- 3) How many hours of TV do you watch a day?
- 4) How many hours of video games do you play a day?
- 5) How long does it take you to get to school?
- 6) Do you participate in any extracurricular activities?
- 7) How many times a week do you eat vegetables?
- 8) How many times a week do you eat out?
- 9) How many cups of water do you have in a day?
- 10) How long does it take you to walk to the nearest park (multiple facilities: court, fields, etc.)?
- 11) How long does it take you to walk to the nearest playground?
- 12) Do you live with people who smoke?
- 13) What would you rate the school lunch on a scale of 1-10, 1 being the lowest and 10 being the highest?
- 14) How many days a week do you eat the school lunch?
- 15) How many meals do you eat in a day?
- 16) How many times a week do you eat fast food?
- 17) Do you eat out during the week?
- 18) Do you play outside?
- 19) Do you play video games?
- 20) Do you play a sport?
- 21) Do you live with someone who smokes?
- 22) Do you walk to and from School?
- 23) Do you eat vegetables?
- 24) Do you drink water?



Urban Environmental Health Proposal

Name:

Date:

1. Introduction _____ _____ _____ _____ _____ _____ _____	2. Current Problem _____ _____ _____ _____ _____ _____ _____
3. Research _____ _____ _____ _____ _____ _____ _____	4. Hypothesis _____ _____ _____ _____ _____ _____ _____
5. Solution _____ _____ _____ _____ _____ _____ _____	6. Plan of Action _____ _____ _____ _____ _____ _____ _____
7. Timetable _____ _____ _____ _____ _____ _____ _____	8. Summary _____ _____ _____ _____ _____ _____ _____