

## HIV/AIDS Let's Talk About It: Prevention and Awareness in the Community

*May Nealey*  
Tinsley Elementary School

### INTRODUCTION

HIV/AIDS may seem like an irrelevant subject for elementary students; however, I am fully convinced that not only is it a subject that needs to be taught to that age group, but that it must be implemented now. Take a moment to look at our culture today. We are exposing our young children to sexual activity at increasingly younger ages. We need look no further than the family television set to see the cultural changes that have taken place in the last few years.

In the 1960s, Hugh Beaumont could only give Barbara Billingsley a chaste kiss on the cheek in any room in the house except the bedroom on the popular sitcom, *Leave It to Beaver*. Single parent, Fred MacMurray, on the popular series, *My Three Sons*, would have never asked his lady friend to spend the night or live with him without the benefit of marriage.

In our culture today we see married couples in bed together in sexually implicit scenes that leave little to the imagination on both daytime and nighttime television. We see single couples, both heterosexual and homosexual, living together openly. Shows like *Will & Grace* and *Ellen* have done much to change the attitudes of the average American as to what can and cannot be shown on national television.

Even with these groundbreaking shows, polls show that 55% of Americans still disapprove of same sex marriage (*Pew Forum*). A Gallup Poll conducted in 2002 shows that 51% of Americans are married, 6% live with a partner, 9% are widowed, 14% are separated or divorced, and 18% never married. These statistics are a telling revelation. They reveal that what we see on television does not necessarily reflect the views or habits of mainstream America.

Schools are the ideal place to show children the big picture. Students have the opportunity to do research and not only see the here and now, but also contemplate future happenings. The media, on the other hand, gives a snippet of information here and a snippet there that often leads to false conclusions simply because thorough information was not presented.

Schools can show students how to research and problem solve so that they not only have enough information, but the skills to manipulate that information so that they can make wise choices. Students need to realize that the media does not always reflect the same family values taught at home. They need to be able to make sound judgments when they look at information provided by the public media. That often means looking for other sources to offset biases as well as misrepresentations of supposedly factual material.

Parents and schools are primarily responsible for educating our children. We cannot let the media do it for us. Elementary school is the time when students are learning the social mores of their particular society. What they see on television certainly is weighed in the child's mind along with all the other information they receive at home, school, and from their peers.

Home and school need to interact to give the child a clear view of the world they live in. If the home and school do not address these issues, then the only thing the child has to rely on is what he or she hears in the media and from peers. That kind of information is generally

inadequate as well as inaccurate. If what is taught at home is not reflected at school then a conflict can develop in the child. This may sway the child to go in a direction contrary to the values of the parents. This decision on the child's part may be formed without the facts needed to make such an important decision.

Since the public media is prone to conflict with mainstream American beliefs, then it is the school's responsibility to help students see both sides so they can be equipped with the information they need make informed decisions about the lifestyles in which they choose to participate. Our children need to know that there are always consequences resulting from the decisions we make in life. Children need a plan for solving the everyday problems that develop as a result of living. Schools can teach children how to recognize the problems and develop ways to solve them.

Teaching children the facts about HIV/AIDS early will give them the opportunity to be proactive instead of reactive about this extremely dangerous and very preventable disease. Fifth grade students are at an age where they can look at the facts of a situation and make informed decisions. Some of them may not be in a place where they can take facts and manipulate them to formulate future consequences of behaviors, but they can look at the facts and see the real life results of those facts. Graphs and charts are a good way to inform concrete thinkers. They are tools that help them to make what is abstract concrete.

Middle school and high school aged children are at a time in life when role models are important. They need to be able to make informed decisions when they are selecting the people they emulate. They are making decisions and establishing lifestyles that will affect them for the rest of their lives. They are able to look at information and formulate future consequences. They need accurate available information that is accessible to them that will enable them to make good decisions concerning their present situations and their futures.

According to *Britannica Online*, the US population is composed of 68% Whites, non-Hispanic, 15% Hispanic, 12% African-American, and 5% Asian-American. The Center for Disease Control is a governmental agency. This agency maintains a website that includes information on disease outbreaks, health topics, and emergency preparedness in this country.

One of the topics highlighted on the website is statistical information of the effect of the HIV/AIDS virus on the population in the US.

The Centers for Disease Control (CDC) is so concerned with the devastation that the HIV/AIDS virus is having on the United States of America that it has launched a new initiative called the Act on Aids Communication Campaign. They launched this program after updating statistical information and finding out that someone in the US contracts HIV every 9 ½ minutes. They created a website just to address this particular issue, [www.nineandahalfminutes.org](http://www.nineandahalfminutes.org). The group most severely affected by the HIV/AIDS virus in this country is the African-American population, and it is the CDC's first target. The CDC is partnering with 14 national African-American organizations. Their purpose is to integrate HIV prevention into each organization's program.

The main CDC website gives the percentages of the effect of the HIV/AIDS virus on the various ethnic groups. Then it graphically organizes the information on the effect of the HIV/AIDS virus on these ethnic groups. The following paragraphs discuss some of the statistical information on HIV/AIDS provided by the CDC.

In 2006, African-Americans made up just 13% of the US population, but 49% of the new HIV/AIDS cases. One in 16 African-American males and one in 30 African-American females will be diagnosed with HIV/AIDS. Of the men living with the disease 41% are of African-American descent. African-American women make up 64% of the total number of women living

with the disease in the US. In 2005, 166 children under age 13 were diagnosed with HIV/AIDS, of whom 104 of them were African-American. One in five African-Americans living with HIV/AIDS do not know that they have the disease. This is compounded by the fact that most African-Americans are unaware of the HIV/AIDS epidemic in their community. This is one of the major explanations of why the disease is rapidly increasing in the African-American community.

Although HIV/AIDS is not as prevalent in the Hispanic community, it is becoming increasingly problematic according to the Centers for Disease Control. Hispanics make up 15% of the population of the US, but 17% of the new HIV/AIDS cases are attributed to them. In 2005 this disease was the fourth leading cause of death among Hispanic men and women between the ages of 35 and 44. In 2006 this number had risen to 19% of the new HIV/AIDS cases diagnosed and 19% of all people living with HIV/AIDS in this country.

The other major ethnic groups are Whites, Asian-Americans, and Native Americans. Although White Americans comprise 68% of the total US population, they account for 30% of the population living with the HIV/AIDS virus. Native-American and Asian-Americans account for only 2% of the US population that is living with the HIV/AIDS virus.

At Tinsley Elementary School, 2% of the students are Asian, 32% of the students are African-American, and 64% of the students are Hispanic. The majority of the students are considered to be economically disadvantaged, resulting in 95% of them receiving free or reduced priced lunches.

The main causes of HIV/AIDS in the African-American and Hispanic communities according to the Centers for Disease Control, in order, are sexually transmitted diseases, injection drug use, poverty, and cultural beliefs. The Act Against Aids Campaign has a focus on each one of these issues with a web page detailing each one.

One section is dedicated to showing how HIV/AIDS is transmitted sexually and is divided into different parts, with sections entitled abstinence and monogamy. This will enable teachers to limit the information the students are exposed to. Fifth graders will focus on learning how the disease affects the body and the impact it has on the population. Tinsley's students are living in a community where these risk factors are prevalent. Focusing on abstinence and monogamy reflects the values of mainstream America.

Students will also be able to research the spread of HIV/AIDS on the local level. *The Real Houston.org* is a website linked to the City of Houston's official website, and it focuses on the impact of the HIV/AIDS virus on the African-American community in Houston. African-Americans represent 16% of the population in Houston. According to this website, 55% of all HIV/AIDS victims in the Houston area are of African-American descent. African-American women make up 75% of the women with HIV/AIDS in Houston. The website also lists 13-24 year olds as the persons most at risk. We have students who are at are near that age in our school.

The whole community needs to be informed, and it can start with the students. Teachers need to disseminate useful and correct knowledge to our students and the community. Just as students are going home telling their parents that smoking is bad for them, they can also inform their parents that HIV/AIDS is prevalent in their community and what they can do to help spread awareness of the danger this disease is posing in the community. Being a language arts teacher on the ancillary staff allows an opportunity to reach all of the students in the school. The primarily focus will be on 5<sup>th</sup> grade students..

## OBJECTIVES

Although the topic is health related, the over-riding objective is derived from the Texas Essential Knowledge and Skills fifth grade language arts objective 13: (A) form and revise questions for investigations, including questions arising from interest and units of study; (B) use text organizers, including headings, graphic features, and tables of contents, to locate and organize information; (C) use multiple sources, including electronic texts, experts, and print resources, to locate information relevant to research questions; (D) interpret and use graphic sources of information such as maps, graphs, time lines, tables, or diagrams to address research questions; (E) summarize and organize information from multiple sources by taking notes, outlining ideas, and making charts; (F) produce research projects and reports in effective formats using visuals to support meaning as appropriate; (G) draw conclusions from information gathered from multiple sources; and (H) use compiled information and knowledge to raise additional, unanswered questions. The students will make KWL Charts and participate in a scavenger hunt that will be conducted at the Houston Museum of Health and Medical Science.

The main focus will be the Texas Essential Knowledge and Skills (TEKS) health objective 3. The student knows how to use health information; (3A) describes methods of accessing health information; and (3B) demonstrates ways to communicate health information such as in posters, videos, and brochures. The Centers for Disease Control websites are going to be valuable tools that help achieve these objectives. The main website has pie charts that disseminate information in a very user friendly manner. The initial chart shows the impact of HIV/AIDS on a circular graphic divided into sections showing 49% of the circle shaded for African-Americans. White Americans are the next largest section with 31% of the section shaded. There is an 18% shaded area for Hispanic Americans. All other groups are represented by a 2% shaded area. This area represents Native American/Alaskan Natives and Asian/Pacific Islanders.

There is additional charting of the same information on both the male and female populations. The students can use this information to create bar graphs where all three pie charts can be combined into one chart. Students can also develop pie charts depicting the different groups in the US and Houston, showing that African-Americans represent 12% of the US population and 16% of the Houston population, and the other groups, such as Hispanics and Whites. Students can also develop bar graphs showing both the US and Houston population on the same chart to easily demonstrate that the local problem is even more urgent than our national problem. Pie charts can be used to disseminate the information peculiar to Houston similar to the ones on the CDC website.

All of the information can be used by students working in small groups to develop a brochure. A student-created blog can also be generated with the students using graphics and speech to spread awareness about the HIV/AIDS virus. Students can create PowerPoint representations in small groups and present them to their classmates.

Secondary TEKS will include ELA 5.5B to demonstrate effective communication skills that reflect such demands as interviewing, reporting, requesting, and providing information. ELA 5.13C, where students produce research projects and reports in effective formats using visuals to support meaning as appropriate, will be included in the unit. Students will present information in various forms using available technology, ELA.5.21E. The students will meet this objective when they create graphic organizers, pie charts, KWL, charts, and bar graphs. They will use these graphic in creating brochures, PowerPoint representations, and a blog to be downloaded on the school's web page. Students will use available technology at the school to create these projects. They will use the computer lab as well as classroom computers and printers to access the Internet, make PowerPoint representations, and create brochures. They can also use video cameras and software equipment provided by the school computer lab.

## RATIONALE

Both Erik Erickson and Jean Piaget developed theories on the social, emotional, and intellectual development of children and young adults. Erikson's stages are concerned with the social-emotional development of the child, whereas Piaget's stages concern the intellectual development of the child.

According to Erickson (*Childhood and Society*, see also Child Development Institute 2008), children in the fifth grade are in the fourth stage of his developmental theory, *Industry versus Inferiority* (Erikson 258-260). His stages overlap, but this stage's focus is the elementary age child roughly 6 to 12 years of age. The child is learning to get along with others. He or she is learning to play by the rules and use self-discipline. This is a critical stage in a child's life because the child is learning to trust. When children successfully complete this stage they have the ability to trust and be trustworthy, independent, and motivated. Piaget calls this stage the *Concrete Operational* stage (Wadsworth 138-140, see also Child Development Institute 2008). He agrees with Erickson that in this stage of development children are learning to get along with others. It is also the stage where children learn to think logically and concretely. This is the ideal stage to learn the hows and whys of things: in particular, the facts about HIV/AIDS.

The next stage, *Identity VS. Role confusion* (Erikson 261-263), is peculiar to 13 through 20 year olds. In this stage children are becoming unique individuals. The child is developing confidence in himself or herself as an individual. They experiment with different roles. Sexual identity is established. At this stage self-doubt may cause minor delinquency and rebellion. Good role models play an important part in the lives of children at this stage of development. Piaget calls this stage of intellectual development *Formal Operations* (Wadsworth 138-140, see also Child Development Institute 2008). Children reach this stage somewhere between twelve and fifteen years of age. Children can now think abstractly. They can weigh consequences. They are not limited to what they can see. They can mentally manipulate objects and think about what may happen. The curriculum will take into consideration the developmental stage of each student group.

The CDC (2007) web page also chronicles some telling statistics on today's youth under *Sexual Risks Behaviors*. Almost 50% of high school students are sexually active, with 15% of them having four or more partners. Over 7% of sexually active youth became sexually active before the age of thirteen. Of the almost 50% who were sexually active, almost half of them used no protection when engaging in sexual activity. In 2006, 14% of the new HIV/AIDS cases occurred in youth between the ages of 13 and 24.

The curriculum for the fifth grade students will focus on making them aware of the effect of HIV/AIDS on the community. Their main concern will be describing the disease and the statistical information on how the disease is progressing in this country and in this city, Houston, Texas. This curriculum unit can also be applied to the higher grades. Not only are these higher level students facing a greater risk of contracting the disease, but they also can be taught more on the prevention of the disease. HIV/AIDS is spreading rapidly in both the African-American and Hispanic communities. Although it may be inappropriate to teach elementary students prevention techniques, they can be taught awareness techniques and develop ways to make others in the community aware as well. In the 13-19 year old age group African-Americans comprise less than 15% of the population, but 73% of new aids cases are contributed to them. This is a cause of concern for everyone. Students should be made aware that they can be the ones to break the cycle that is crippling their communities by making citizens in the communities aware that there is a problem.

## UNIT BACKGROUND

A good place to start the unit would be a field trip to the Houston Museum of Health Sciences. This museum features bigger than life exhibits that are replicas of the major organs of the human body. Unlike most museums, this one is almost completely hands-on.

Start with *You, The Exhibit*, a fantastic, life-sized, interactive exhibit. This is a personal experience that lets one get to know about his or her body. Everyone who participates is sure to learn something new. The *Body Scanner* lets visitor see their own images with the major body organs placed in all the right places. Another place that visitors can learn something new about themselves is the *Mirror of Heredity*. They learn that each of us have some unique individual qualities that many others do not have. There is also a message board in this area that allows visitors to leave temporary handprints and finger writing.

This next section of displays in this exhibit allows participants to access even more individualized information about his or her body. In the *Global View* they learn about how living in the city of Houston makes each one a unique person. The exhibit even explains how change would occur if they moved to another place. The *Feature Change* lets visitors see how one would look if one had different colored eyes or hair. The *Neurobot* is amazing. Visitors have the opportunity to control or initiate the movements of a robot much like one's brain controls the body. The *Person-A-Tron* is a talking computer that teaches all about personality.

This last section uses the personal data of each visitor, such as a picture, height, weight, and daily habits to supply specific information about himself or herself. The *Age-O-Matic* uses sophisticated computer technology that can age a person up to 30 years in the future. The *Height Calculator* determines how tall a child will be at maturity. The *Life-Span-O-Meter* is another technical marvel that allows participants to calculate how long he or she will live, by answering questions about his or her particular lifestyle.

Another fascinating exhibit is the *McGovern 4 D Theater*. It is really a 3D theater with digital surround sound. Here visitors get to go on a very up close and personal trip through the human body. The 3D effect puts them right in the middle of the action. It gives the movie a feel of being hands-on even though it is not. Visitors may also learn about nature in the *Sensory Garden*.

*Zap Surgery: Beyond the Cutting Edge* is a temporary exhibit that really is on the cutting edge of today's technology. Visitors can learn about electromagnetic waves on the *Wave Launcher*. Visitors are actually able to see videos of a 3D model of a Gamma Knife that formulates treatment plans for patients. The display shows how a Gamma Knife can destroy a tumor in a patient but leave the surrounding area unharmed. There are also some exhibits that are interactive so visitors can experience using a laser. Visitors can see how white light and laser light reflect and refract using mirrors, lenses and prisms in the *Laser Zone*.

You can be the optometrist and use a laser to operate on a large model of an eye in the *Zap-It* display. In *Fiber Optic Fun*, explore how scientists use fiber optics to power endoscopes which allow them to see inside bodies so they can perform laser surgery. *Picture It* uses a hidden picture to explain in more detail how endoscopes use optical fibers to transmit pictures that enable scientists to perform laser surgery.

Several of the displays let the visitor try to use models of endoscopes to perform some tasks the same way real life surgeons perform them but on a bigger scale. One is the *3D Maze* where visitors can try to maneuver a large block through a maze in a multi-level cube much like a laser surgeon manipulates a laser during an actual operation on a patient. Another interactive display is *Grab It*. The visitor can manipulate blocks inside a clear dome using huge handles. *Inside Moves*

is similar to *Grab It* and the *3D Maze*. Visitors use models of endoscopic tools to move shapes through rings in an opaque box.

Other displays actually let the visitor perform simulated surgery. In *Scope-It-Out* the visitor is invited to remove a small object from a patient's lungs. In *Virtual O.R.* you can assist the surgeon as he operates on a patient. There are several other displays that round out the *Zap!* exhibit. *Sound in the Round* teaches how objects conduct sound. It also addresses how sound moves. *Visible Vibes* lets the visitor create sound with different frequencies just by waving his or her hands. *Tissue Tremors* is a video that teaches how shock waves break up kidney stones.

Explore cryosurgery in *Fast Freeze* and *Cool Surgery*. Cryosurgery is another cutting-edge surgical technique using very cold temperatures that scientists use to perform operations. The Zap Cam is the most interesting display in this exhibit. You can get inside a simulated camera and take a virtual trip through the human body. The sound and motional effects of the simulated camera make the experience very realistic.

The *Challenge Gallery* is another fascinating interactive exhibit. It allows visitors to test their mental and physical muscles. The *Dance Challenge* is a musical memory game that features a lighted dance floor. Visitors can test their visual memory by stepping to duplicate a series of lighted sequences. A wide array of brain teasers that challenge you mentally as well as test your hand-eye coordination are also featured in this gallery.

The main feature of the museum is the *Amazing Body Pavilion*. In this exhibit the major organs of the human body have been scaled into models large enough for visitors to take a tour inside the human body. There is a huge backbone on the ceiling. Underneath the backbone are larger than life models of the human organs placed in the same order as organs are placed in the body.

The brain is located at the front end of the backbone. There are interactive videos and illustrations describing the functions of the brain. The video features a scientist explaining the main parts of your brain and the function of each section. Trivia information and memory games are also part of the exhibit.

There are also huge models of the heart and lungs. Interactive videos are included in these displays. The lung display features a portion devoted to the effect of cigarette smoking on the lungs. There are pictures and statistics that accompany the exhibit that are a deterrent to anyone considering smoking.

The heart display features ways to keep the heart healthy by eating the right kinds of foods. There is also information on what happens when you eat the wrong kinds of food. They actually have life-sized models of healthy foods and explanations on how they help keep your heart healthy. An explanation of clogged arteries is a major part of the display. It shows that clogged arteries can also be caused by heredity.

There is a display of a giant eye. It, too, includes interactive videos that demonstrate the functions of the different parts eye as well as information on keeping the eyes functioning properly. Healthy eyes are the main focus of this exhibit but malfunctions of the eye are also included such as explanations of near and farsightedness. A small section describes how lens and laser surgery can correct eye problems. A detailed exhibition of eyeglasses models from the earliest models to the latest models is available.

There are also interactive displays of the skeletal system, the digestive system, the vocal system and every major body organ, including the immune system. There is an interactive display of this system as well. There is a diagram of the body showing the three ways the immune system works. There are also displays explaining the different diseases of the immune

system. The most prominent part of the display is entitled *What is HIV/AIDS?* Here, through a questioning and answering strategy students are tested on their knowledge of the virus and given a simple explanation of the disease suitable for all ages that can be understood by most students.

The students will go on scavenger hunts finding and learning about various systems in the body and how they work. On this field trip the immune system will be the main focus of the scavenger hunt with a detailed cloze activity featuring the HIV/AIDS display. A cloze activity is a fill in the blank activity where students have a set of vocabulary words that they use to complete a paragraph.

Students will be able to find and document a working definition of the disease. They will also be prepared to understand the effects of the disease studying an interactive model of the immune system. Further study of the immune system will enable students to understand how the system works and the major part it plays in a healthy lifestyle. They can extend the lesson by studying the effects of allergies and asthma, which are also diseases of the immune system that affect many members of our communities.

Once the students get a working knowledge of the immune system they will be prepared to gain a more advanced understanding of the HIV/AIDS virus. This study will mainly focus on the information from the various Centers for Disease Control (CDC) websites that contain information on the HIV/AIDS virus.

Students will gather statistical information and design graphic organizers to display the information such as pie charts and Venn diagrams. They will graph the percentages of the Hispanic and African-American populations in the US. They will contrast that with the percentages of Hispanics and African-Americans who have the HIV/AIDS virus.

These charts will show them that a disproportionate amount of African-Americans and Hispanic Americans have the HIV/AIDS virus. This information should inspire the students to want to promote HIV/AIDS awareness in their respective communities. The students will also be able to order any pamphlets from this particular resource that they feel will help them in their quest to learn more about the disease.

Once students compile enough information, they will then problem solve to generate things they can do to stop the spread of the disease. All research and other available information will be obtained through Houston Independent School District (HISD) resources online.

The district has a wealth of resources that are available to parents, students and anyone else who cares to make use of the information. Before one can access this information on a home computer one must get a list from the school librarian with the log-in information. The first link is the *ABC-CLIO Schools* which is a search engine for history and geography with articles, primary resources, and maps, all correlated with the HISD curriculum.

*Brain Pop*, designed for students in grades 3-12, and *Brain Pop, Jr.*, designed for students in grades K-3, are two other resources aligned with the state's curriculum. This site has over 600 animated movies with interactive quizzes and other materials teaching in most subject areas that include English, math, science, social studies, health, music, art, and technology.

*Britannica Online* is a resource that includes three encyclopedias as well as a host of other reference materials. *Britannica Online* provides three English encyclopedias, *Britannica Elementary*, *Comptons*, and *Encyclopedia Britannica*. There are two encyclopedias in Spanish, *Enciclopedia Juvenile* and *Enciclopedia Universal*.

Also included in the package are the *Global Reference Center*, *Annal of American History*, *World Data Analyst*, and *Webster's International Dictionary*, unabridged. The EBSCO links



connect to five different search engines, *Searchasaurus*, *Kid Search*, *Student Research Center*, *EBSCO Host*, and the *Gokker* visual search tool.

*Grolier Online* provide the services of several different encyclopedias, as does *Britannica Online*. *The New Book of Knowledge* is a reference and current events encyclopedia for elementary students. *Grolier Multimedia Encyclopedias* is designed to be used by middle and high school students. *La Nueva Enciclopedia Cumbre* is a complete Spanish encyclopedia for Spanish speakers and Spanish language learners. *Britannica Americana* extends a little more and provides research and world current events for middle, high school, and college students.

*Nettrekker* is a search engine organized around the K-12 curricula. You can search by grade level, key word, famous person, or subject. It provides age and grade appropriate websites that have been tested for academic integrity and are aligned with the Texas Education Agency (TEA) standards. The websites are organized by types. Users can research by lesson plans, images, learning exercises, maps, charts, and games. Special content and read aloud help is provided for English language learners and students with vision or other related disabilities.

*E-Curriculum Library*, *History Study Center*, *Proquest Literature*, and *Historical Newspapers* make up the *Proquest* search engine. The library has full-text magazines, newspapers, reference books, newspapers, transcripts, pictures maps, educator-approved websites, and video/audio content. *Historical Newspapers* offers back issues of the *New York Times* as well as a wealth of other primary source historical documents.

An author and illustrator resource is *Teaching Books*. This website provides movies of the authors and illustrators as well as professional reading excerpts. There are also teaching guides to many titles as well as multimedia resources for children and young adult literature.

The *Thompson Gale* resource also provides information on authors from the *Literature Resource Center*. This information includes literature reference books, current journal articles, and critical information on authors and their work.

The *Student Research Center Gold* is a search engine offering research in essays, magazines, biographies, historical overviews, photographs, and audio files. The *Testing and Education Center* is designed for high school students. It provides information on entrance exams for college as well as online interactive practice tests designed to help pass or increase scores on entrance exams. Users can also access other information on colleges and universities such as the degree programs or majors offered. Students who intend to start careers immediately after high school can also find information to help them on this website.

The *Wilson Web* is geared toward educators and college students. This engine provides many professional journals related to educators.

Last is *United Streaming*, which is restricted to HISD employees. Users must have an employee password to log in to use the many content specific full-length educational videos in subject areas such as math, language arts, science and social studies.

Students will also use videos from the HISD resources, *Brain Pop* and *United Streaming*. The students will generate their own posters by brainstorming ways to inform the community of these statistics. Some possibilities are brochures or newsletters to send home and share with other students in the school community.

The school web page can be used to post blogs so web page visitors can be made aware of the problem. These brochures and blogs will focus on the statistics. There is a wealth of local information that students can access through the CDC website. Students can make this information a part of their finished products.

This information will inform the community on where they can get tested for the virus. There is a host of information out there that includes slide shows, pamphlets, and websites that we can use to inform ourselves about HIV/AIDS statistics. This same information can help us show the community a need for HIV/AIDS awareness in the respective communities. Participating students can get some much-needed information about the disease and share it with others who are less informed in their respective communities.

The students will start with a KWL graphic organizer. This organizer is similar to a pre- and post- test. The student makes three lists about a particular event of study. The first list contains all the things they know about the subject. Then they make a list of all they would like to learn about the subject. This is done before the lesson is represented. After the lesson is represented they conclude with a list of all that they learned about the subject. The information is usually depicted in a three- column chart.

Sometimes students also list additional information they would like, especially if all of their question are not answered in the rendition of the lesson. Students will work on the KWL graphic organizers before and after the field trip to the museum.

On the chart they will first catalog all they know about the disease. Individually they will answer the following questions.

- What is HIV/AIDS?
- Who is affected by it?
- Who is at risk?
- Why do I need to know about it?

After the field trip they will be asked to generate additional questions that they will use to drive their quest to inform the community of epidemic proportions of the disease. They will use questions similar to the following to drive their research.

- How can I help spread awareness of the drug at home and in my community?
- What kind of information do I need to include to get the community seriously involved in stopping the spread of this disease?
- Are my friends at risk?
- How can I help them?

Students will be asked to conduct research to answer the above questions. The students will work on three different projects. Each group will be asked to design a PowerPoint presentation that will be presented to the class. The presentation will be entitled *Basic Facts of HIV/AIDS*. The students can view the X-Plain.com interactive video as a resource as well as the information obtained from the museum field trip. This video can be accessed through the CDC additional resources links. This is a slide show with 80 slides that explain HIV/AIDS in terms fifth graders understand with words and pictures suitable to the age group.

The other presentation will be a brochure that the students design for the community at large showing the basic information about aids, including statistics, as well as explaining the complications, infections, symptoms, diagnosis and treatment of the disease. The charts and graphs the students design will be included in the brochure.

The last project will be a student-created blog that can be posted on the school web page. They will use the graphic organizers and basic information about HIV/AIDS they have learned to produce a short 3 to 5 minute video to post on the school web page.

## CONCLUSION

According to the CDC web page that is devoted to youth, lack of HIV/AIDS awareness is the major contributing factor to youth getting the virus:

Research has shown that a large proportion of young people are not concerned about becoming infected with HIV. Adolescents need accurate, age-appropriate information about HIV infection and AIDS, including how to talk with their parents or other trusted adults about HIV and AIDS, how to reduce or eliminate risk factors, how to talk with a potential partner about risk factors, where to get tested for HIV, how to use a condom correctly. Information should also include the concept that abstinence is the only 100% effective way to avoid infection.

This unit is very flexible. It can be used for all grades levels. Lower grades define the disease and learn the effect the disease has on the body. HIV/AIDS is a cause for concern for all. The earlier students become aware of the disease, the more they can do to prepare themselves and others. Before we can eradicate this disease we have to be aware of it. In this country's past polio (poliomyelitis) and tuberculosis were diseases that were eradicated because of public response. Today we have technology that was not available during those times. With today's technology we are better prepared to make laws and use the media to create a heightened public response to the HIV/AIDS epidemic that can bring about the same or better results than the responses for polio and tuberculosis.

## LESSON PLANS

### **Lesson Plan One: Introductory KWL Chart, Field Trip to Health Science Museum**

#### *Objectives*

The students will be expected to meet the following objectives, based on the Texas Essential Knowledge and Skills for 5<sup>th</sup> grade Language Arts objective 13A-F

#### *Materials and Resources*

Students will need tablets, pencils, large chart table or notepad and markers to use when brainstorming and answering the initial and final questions for the KWL chart. For the museum field trip each will need a clipboard, pencils, and a teacher generated scavenger hunt worksheet. The teacher will also have to make arrangements with the museum and parents to sponsor the field trip. A chaperone will be needed for each group of 5 students. The teacher will have to get permission from the principal of the school to sponsor the field trip and make arrangements with the school secretary to reserve transportation and space availability at the museum. Students will need signed permission slips from parents as well as money to cover the expenses of the field trip, including transportation to and from the museum. All these arrangements should be initiated at least a month before the field trip is expected to occur. This field trip should take the better part of a school day, so be sure to make arrangements for lunch.

#### *Procedures and Activities*

The day before participating in the expedition to the museum the students will create a class sized as well as individual KWL chart. Students will answer the following questions both individually and as a group. What is HIV/AIDS? Who is affected by it? Who is at risk? Why do I need to know about it?

The next day will be the field trip to the Houston Museum. Each student will have a detailed CLOZE worksheet (fill-in-the-blanks worksheet) they will need to complete the scavenger hunt. The worksheet will need to have details on major organs of the body, including the immune system and the HIV/AIDS virus. Make sure to include details about other organs in the Amazing

Body Pavilion, otherwise all of the students will congregate on the same display at once. There are 4 main sections of the museum. The groups can be divided into 4 major groups, with each group starting in a different area of the museum and a schedule of order to visit each exhibit. The sections are You, the Exhibit, McGovern 4D theater, Challenge Gallery, and the Amazing Body Pavilion.

The next day the students will revisit the KWL chart. They will adjust the previous answers to reflect information they learned at the museum. They will also generate future questions to answer, such as the following: How can I help spread awareness of the drug at home and in my community? What kind of information do I need to include to get the community involved in stopping the spread of this disease? Are my friends at risk? How can I help them? How can I protect myself?

### ***Assessment***

Students will compile the information they have learned about the HIV/AIDS virus in a short one or two-paged paper that answers the four initial questions. What is HIV/AIDS? Who is affected by it? Who is at risk? Why do I need to know about it?

**Lesson Plan Two: The students will create pie charts and bar graphs detailing the effect of the HIV/AIDS virus on the general population as well as youth both locally and nationally.**

### ***Objectives***

Texas Essential Knowledge and Skills (TEKS) health objective 3, the student knows how to use health information: (3A) describes methods of accessing health information; and (3B) demonstrates ways to communicate health information such as in posters, videos, and brochures.

### ***Materials and Resources***

Students will need tablets, pencils, graph paper, art or manila paper and markers. They will also need compasses and protractors to make angles and circles for pie charts. Rulers will be needed for bar graphs. Students will need the Internet to access statistical information.

### ***Procedures and Activities***

Students will begin by accessing statistical information online. They will go to the HISD Resource page. They will access one of the online encyclopedias such as Grolier or Britannica to get the population breakdown of the US and Houston. The five major groups will be White non-Hispanic Americans, African-Americans, Hispanic Americans, Asian-American/Pacific Islanders, and Native Americans. They will make a pie chart (later used in a PowerPoint presentation and brochure) showing this information. The students will then make a bar graph showing the breakdown of both populations on a bi-colored bar graph.

In the next activity the students will work in small groups of 4. They will need access to the CDC and the City of Houston's HIV/AIDS fact sheets located on the respective web pages. These web pages have pie charts with statistical information detailing the number of HIV/AIDS cases in each population group. The students will transfer the information on the pie charts to a bar graph they will create. Students will complete the activity with two bi-colored bar graphs, one for the US and one for Houston. One colored bar graph will show the percentage of each population group and the other color will reflect the number of HIV/AIDS cases in that group.

### ***Assessment***

Each group will present their graphs to the whole group. They will make comparisons and come to a consensus on the information presented in all groups.

**Lesson Plan Three: Students will develop a brochure on basic information about HIV/AIDS.**

***Objectives***

Texas Essential Knowledge and Skills (TEKS) health objective 3, the student knows how to use health information: (3A) describes methods of accessing health information; and (3B) demonstrates ways to communicate health information such as in posters, videos, and brochures.

***Materials and Resources***

Students will need access to the Internet to view the Medline Aids Tutorial. Students will need tablets, pencils, graph paper, art or manila paper and markers. Students will also need access to the computers, Internet, a scanner, and Microsoft Office.

***Procedures and Activities***

Students will begin by watching the slide show as a whole group. They will also have the opportunity to go back and review the video as needed. Students will also utilize the information that they obtained from the HIV/AIDS fact sheets from the CDC and City of Houston web pages as well as information obtained from the museum field trip. Next they will create a graphic organizer that answers the who, what, why, and when questions about Aids. They will also find clip art and use the self-created bar graphs to design a brochure.

The main point of this lesson will be to create the brochure using one of the templates from Microsoft Online utilizing the information.

***Assessment***

The brochures will be graded using a student-generated rubric. Each group will view and discuss all the brochures to determine if all guidelines were met. Last they will decide which brochure would be best to publish and share with the community.

**Lesson Plan Four: The student will use the brochures to create a PowerPoint presentation.**

***Objectives***

Texas Essential Knowledge and Skills (TEKS) health objective 3, the student knows how to use health information: (3A) describes methods of accessing health information; and (3B) demonstrates ways to communicate health information such as in posters, videos, and brochures.

***Materials and resources***

Students will need the brochures they created. They will need access to computers with the Internet, Micro-Soft Office, and scanners.

***Procedures and Activities***

Students will create PowerPoint presentations using the information they included in the previous brochures. The students will have a minimum of 10 slides. They will be able to choose from two subjects, basic information or statistical information. In “basic information” about the HIV/AIDS virus they must include such things as the effect of the virus on the body, its symptoms, and diagnosis. “Statistical information” must include the impact of the virus on the general population as well as youth. The slide show must include graphic organizers such as charts and bar graphs they have created. They can also include pictures or clip art from the computer.

These presentations will be shared with the class through group oral presentations.

## ***Assessment***

The PowerPoint presentations will be graded by a rubric. The rubric will require that the students give a clear explanation of the material. The **who**, **what**, **where** and **when** questions must be answered and clearly understood. Students will be given bonus points for poise and confidence during the oral presentations, determined by the students' interactions with the audience such as eye contact and voice projection.

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