

You Are What You Eat, What You Do, How You Do It, and with Whom You Do It

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INTRODUCTION

People often say, “You are what you eat.” I never paid much attention to that statement until I became a witness to how true that statement really is. I want to share my personal life experiences with my students in order to show them the impact of lifestyle on one’s health. The Texas Essential Knowledge and Skills (TEKS) requires that health science teachers instruct students on health and wellness as part of the introduction to health science technology course. This unit is designed to share what I have learned in the past and the information gained through research, and attending the 2005 Houston Teachers Institute Seminar. The curriculum unit is designed for a 90-minute block-scheduling program. The health and wellness section of the course will include the following topics:

UNIT OBJECTIVES

What You Eat: Eating Habits and Personal Hygiene

Students will discuss the importance of eating healthy and eating safely. Students will also describe the nutrients contained in food, read food labels, discuss disease prevention, discuss how to maintain a health weight, calculate BMI, research family medical history, and keep a food diary.

What You Do: Physical Activities

Students will discuss the importance and the benefits of living an active lifestyle. Students will discuss the two main types of physical fitness, skill-related and health related. Students will also keep a three-week physical activity log.

How You Do It: Stress on the Body

Students will be directed to websites where they can study how stress affects the body, how to identify the different types of stress, and how to cope with stress.

With Whom You are Doing It: Social Environment of Peer Pressure to Smoke, Drink, Take Drugs, and Engage in Premarital Sex

Students will be directed to websites where they can study how to cope with peer pressure, discuss the dangers of smoking, drinking alcoholic beverages, discuss the dangers of drugs, and discuss sexually transmitted diseases (STD’s).

SECTION 1: MY PERSONAL EXPERIENCE WITH HEALTH

When I was growing up, I was what they called a “sickly child.” Several times a year I would get infected by an organism called Rhinovirus, which causes the common cold. At least once a year I would get infected by an organism called influenza virus that causes the flu. Part of my title is, “You are What You Eat”; this is a major reason why people get infected with viruses. People touch an object or a person infected with the viruses, and then eats something without

washing their hands. The virus is ingested along with the food, and illness will soon occur. This process happened to me over and over as a child. I also developed bronchitis, and many times developed pneumonia. I was always full of mucus. In my late teens, I developed what people call a nervous stomach. Many days I would wake up and my stomach felt like it was tied in knots. This feeling would last for two hours or so then go away. It was so uncomfortable that I could not get dressed for school in the morning and was late to school often. Later in life, as a wife, mother, and working adult, the problem persisted. I was quite often late for work. My 2nd son was diagnosed with asthma at the early age of 18 months. This just added to my being late and now absent a lot from work. When my son's asthma flared up, it was a trip to the doctor's office for shots, breathing treatments, and sometimes hospitalization to get his asthma under control. My first son was not so sickly, but one year my family reached an all time record for sickness in the family. That year, my son with asthma missed a total of six weeks out of the school year, and my other son missed a total of five weeks out of the school year. They both developed chicken pox, which is caused by the Varicella-Zoster virus. Because this organism is highly infectious, they were out of school for more than a week. I was not a popular person at work because when you are absent, other co-workers had to do double the work. They even had a joke about when the phone rings in the morning. It had to be me or another co-worker that was absent and often late. I did not get excellent evaluations because of my attendance and punctuality on my job.

My life changed one summer when my mother and I attended a seminar by health expert Jay Kordich also known as the "Juiceman." At the seminar he gave his testimony of how he cured his cancer by juicing and eating right. We tasted fresh fruit and vegetable juice extracted by the "Juiceman" juicer. The "Juiceman" also explained that when you extract juices from fresh fruits and vegetables, you get not only the vitamins your body needs, but live enzymes that help your body in so many ways. These enzymes help your body digest food properly and aid in boosting your immune system. The commercial juices at the stores do not have the live enzymes. Also at the seminar, we learned that fruit juices are the body cleansers, and vegetable juices are the body healers. My mom and I were so impressed by the seminar that we decided to change our lifestyle to eat right and exercise. I purchased the Juiceman's *Power of Juicing* book at the seminar. The very same day, I purchased a juice extractor from a local retailer and began juicing. Naturally when I changed my lifestyle, it affected my immediate family as well. My mother was living with me at the time, so each morning before we set out to work, we made various fresh juices for my family. Each evening we made various vegetable juices for my family. My mother and I ate fresh fruits, fresh vegetables, fresh juices, beans, brown rice, nuts, and only whole grain products. In fact, except for the little meat products we ate, if the food did not come from "Mother Earth," it did not go into our bodies. The only meat products we ate were chicken, turkey, and seafood; absolutely no beef, pork, or dairy products from cows. For milk, we drank the juice of almonds at first, and then we switched to soymilk as recommended by the "Juiceman." The reason we stopped red meat is that at the seminar we learned that red meat is very hard to digest. The reason we stopped eating and drinking dairy products from cows was because on page 233 of the "Juiceman's" book, cow's milk is associated with mucus, which slows and inhibits digestion.

Another book I read stated that cow's milk contained caseinate which is mucus forming. The author stated that people with asthma should not eat or drink dairy products or white bread. According to the book, fresh goat's milk and goat's cheese were not mucus forming, and goat's milk is supposed to be the best milk to drink and goat the best meat to eat because of the low fat content compared to beef and pork. I knew that milk was important for the growth and development of strong bones, etc. in adults and children. We did not have a goat or have access to get fresh un-pasteurized goat's milk, so my family started drinking soymilk with calcium and vitamin D. It also contains all the good stuff that is in cow's milk. Since we still liked cheese, and a lot of food made using cheese, like pizza, we ate goat's cheese in the place of cheese made

from cows. We started eating healthy at the beginning of the summer, and in the months that followed, my son's asthma greatly improved. The following school year my son with asthma only missed one day of school, and my other son did not miss any days of school. As each year went by, my son's asthma got better. He went from having asthma attacks three to four times a month, to once a month; then once every three months; then, six months; then once a year, to every once in awhile, to none. My son is now nineteen years old, and he has not had an asthma attack in the past five years. My health drastically improved. I stopped waking up with stomach pains. I started having more frequent bowel movements, at least two, sometimes three a day, which is what your body is supposed to do. There was also no smell associated with my bowel movements. Another miracle happened that year. For the first time in my thirty years of life, I did not get the symptoms associated with the cold or the flu. For as long as I stayed away from the mucus-forming dairy products, I never came down with the symptoms associated with the cold or flu.

Because of the improved health of my family, I stopped being late and absent from work. I worked at the VA Hospital as a microbiologist for seven years. I went on my health kick my last three years at the VA Hospital in the summer of 1989. In 1990, I received my 1st award of work excellence and again in 1992. I attribute my awards not to the quality of work that I did because that did not change, but my work attendance. I left the VA Hospital the 1993/1994 school year to obtain my current position at DeBakey High School for Health Professions. To this day, I still maintain good attendance on my job, not being late or absent due to illness.

Due to a busy schedule, I do not have time to cook and juice like I used to do. I am no longer a health "nut" like I was in the early 90's, but I am still a health conscious individual. I try to eat right and exercise most of the time. Even though I do not eat as healthily as I once did, my health never reverted back to my "sickly days," and my son's are still healthy and asthma free.

Another critical aspect of health is exercising. I learned through reading and personal experiences, that you can't just eat right, you must exercise. My own personal testimony to that is, when I eat regular without exercising, I will gain weight. When I do both, I maintain my weight, and when I am really strict about only eating healthy foods and doing exercise, I lose weight. When I began my health kick, I was a size 9/10. Prior to my health kick, I was always on somebody's diet trying to get back to my ideal weight, which was a size 5/6. When my mother and I decided to eat right and exercise, we were no longer concerned about losing weight. Our main focus was finding different health food recipes to cook and eat, and finding different exercises to do so we would not get bored and stop exercising. My mom and I both went from a size 9/10, to a size 4/5 within a six to eight month period. My mom, who is now 68, is still a size 4/5. Whenever I stray from eating right and exercising, my weight bounces from size 5/6 to size 8. When my weight increases, my energy level goes down, and this makes me want to exercise less. I have learned through experience that one must eat right and exercise to maintain good health, energy, and a healthy weight.

The school where I currently teach, DeBakey High School for the Health Professions, has a diverse student population, and their eating habits and lifestyles are also diverse. Some students live a healthy lifestyle mentally and physically, but many do not. It is essential that all of our students at least know how to live a healthy lifestyle both mentally and physically. Although health and wellness is taught freshman year, it is reemphasized through the senior year. We even have a *Fit for Life Club* at DeBakey High School of which I am one of the founding sponsors. I would also like to share the information gained through the Houston Teacher Institute Seminar with our club members, and they can in turn share it with their peers across the city of Houston and surrounding areas.

SECTION 2: YOU ARE WHAT YOU DO: PHYSICAL EXERCISE

Our bodies are much like a machine with moving parts, they were created to keep moving. Just like a machine get rusty if it sits too long without moving, our bodies will do the same. A long time ago, day-to-day living required more physical activity than today. There were no cars, so people did more walking. Most labor was done by people not machines. With all the modern technology, people have to make a special effort to get enough physical activity needed to maintain good health.

The International Consensus Conference on Physical Activity Guidelines for Adolescents recommends that adolescents should be physically active almost every day, but it does not have to be “exercise.” These physically activities can be part of play, games, sports, work, transportation, recreation, or physical education classes. The guidelines recommend at least twenty minutes of moderate to vigorous levels of exertion for adolescents at least three times a week.

Being physically active has many benefits. According to the authors of one of the main reference books for this paper, *Essential of Health & Wellness*, these benefits include:

- Improved function of the heart, lungs, and circulatory system
- Increased resting metabolic rate (the rate at which the body burns calories while at rest)
- Increased muscle mass from strength training
- Increased levels of HDLs (High-density lipoproteins), the “good” cholesterol, and decreased levels of both LDL (low density lipoproteins) the “bad” cholesterol, and triglycerides
- Reduced chance of hypertension
- Decrease risk of colon cancer and possibly lower risk for breast and prostate cancer
- Reduced risk of osteoporosis, and thinning of the bones
- Improved immune function (Robinson and McCormick 183).

In addition to the physical benefits of being physically active, there are mental and emotional benefits to being physically active. Doing a physical activity that you enjoy is a great way to relieve stress. When one has a longer session of exercise for about 45-60 minutes, it can help improve mood. Studies have shown that physically active people are less stressed and experience less anxiety than inactive people. There are many theories as to why this is the case, although researchers are still trying to pin point why this is the case. One theory is that the rhythmic motion of the body during exercise stimulates an area of the brain associated with mood (Robinson and McCormick 184).

There are two main types of physical fitness, skill-related, and health related. Skill related deals with power, agility, speed, coordination, and balance, which is required to be great in sports. Health related deals with health benefits and prevention of certain diseases (Robinson and McCormick 185). Health related fitness has five major components:

- Cardiorespiratory endurance – the ability of the circulatory and respiratory system to provide enough oxygen to sustain moderate levels of physical activity for long periods of time. It is considered the most important component of health-related fitness. Aerobic exercises such as walking, running, cycling, and swimming are good exercise for cardiorespiratory fitness. Aerobic exercise can be improved when reaching your target heart rate during exercise. (Robinson and McCormick 186). To learn how to calculate your resting heart rate visit: <http://www.webguru.com/calculate-target-heart-rate.htm>.
- Muscle strength – is the amount of force a muscle is capable of exerting against a resistance with a single maximum amount of effort. Muscular strength is needed to

perform everyday tasks, such as heavy lifting of any object. (Robinson and McCormick 189).

- Muscular Endurance – is the ability of a muscle to contract over and over without becoming tired. Muscular endurance is needed for all types such as walking, climbing stairs, and sports activities. (Robinson and McCormick 190).
- Flexibility – is the ability to move the joints of the body through a full range of motion, meaning the many directions that a joint can move. Developing flexibility like many professional dancers have involves stretching the muscles and tendons that surround each of the joints. To maintain flexibility, stretching exercises should be done on a daily basis. Although it is good to stretch lightly before an activity, the best time to stretch a muscle group is after it has been warmed up at the end of a workout session. (Robinson and McCormick 190).
- Body composition – is the relationship between fat-free mass (muscle, bone, and water) and fat tissue in the body. The amount of body fat for males should be between 12% -15%, and for females 18% -21%. Research has shown that when body fat percentages increase above the recommended levels, health risks also increase. Because of this fact, increasing muscle, or decreasing body fat or both are important part of health and wellness. (Robinson and McCormick 191).

When performing any physical activity you must take precaution to avoid injury to the body. The authors Robinson and McCormick of *Essentials of Health and Wellness* state:

Many people who begin fitness programs injure themselves and cannot continue. There is always some risk when participating in physical activity, and some activities have more risk than others. You can lower your risk of injury in several ways:

1. Properly prepare your body for the activity.
2. Learn how to perform the activity correctly, and follow proper safety precautions.
3. Know your limitations. (Robinson and McCormick 191)

SECTION 3: YOU ARE WHAT YOU EAT: EATING HABITS AND PERSONAL HYGIENE

Eating Safely

We know that we have to eat to maintain our health, but we must be careful that the food we eat is handled correctly and safely. When food is not packaged properly, refrigerated and or cooked properly, illness even death can occur. There are two ways in which the food we consume can cause damage to our bodies. Organisms can invade our food and cause food poisoning and organisms can invade our body and cause illness.

Bacterial organisms can invade food products and alter them by releasing toxic (poisonous) chemicals. These organisms can grow inside food that was improperly prepared, handled, or refrigerated. The organisms can enter our food in many ways. One common way is a food handler failing to wash hands before preparing food. Two common organisms that cause food poisoning are *E. coli* and *Staphylococcus*. *E. coli* is normal flora in the intestinal tract. If a food handler has a bowl movement and during the cleaning process gets *E. coli* on his or her hands, and fails, to wash his or her hands, then goes to make potato salad, the *E. coli* will then get into the potato salad and start to grow, especially if it is not refrigerated properly. *Staphylococcus* is normal flora on our skin. If a food handler makes potato salad without washing his or her hands, the same thing can occur. Another common organism that causes food poisoning is *Salmonella*. Some poultry, meat, or fish can be contaminated with this bacterium. In the United States there are between one and two million cases of salmonella food poisoning each year. Since organisms

that can cause food poisoning can be present in the air, on preparation surfaces, or on the hands of the food preparer, there are some basic rules to follow to prevent food-borne illnesses:

- When shopping, put frozen and refrigerated items in your shopping cart last so they won't be exposed to warm temperatures that would promote the growth of disease-causing organisms.
- Do not buy food past the expiration date because the food may likely be spoiled.
- Never buy or attempt to eat canned foods that have a bulging top, because the bulge can come from poisonous gas that comes from organisms that were not killed during the canning process.
- Be careful when using cutting boards. Germs can get caught in the cut marks, especially on wooden cutting boards, and be transferred to your food. Always thoroughly wash your cutting board with 1 teaspoon of bleach in 1 quart of hot soapy water.
- Defrost meat overnight in refrigerator and not outside because the outside meat will thaw first and become a place for germs to multiply.
- Cook meat thoroughly to ensure that all organisms have been killed. One parasite called Trichinella spiralis, found in uncooked or undercooked pork, deer, and walrus can get in your striated muscle and cause serious problems.
- Always wash fresh vegetables to get rid of any organisms.
- One of the best ways to prevent common illness is simple hand washing. Always wash your hands before and after preparing food. Some meats and vegetables may contain organisms that can get on your hands. Your hands can also contain harmful bacteria and viruses that you pick up by touching surfaces all day long. When you eat food without washing your hands, you ingest the organisms along with your food that can make you sick.

Remember eating food safely is one good way to prevent common everyday illnesses. Don't take your food for granted. Remember improper handling of food can cause illness and even death (Robinson and McCormick 156).

Eating Healthy

Teenagers growing up in the United States are always hungry. Most are fortunate to have food at home or money to buy food when at school or away from home. Most Americans in general satisfy our hunger with food we like instead of what is best to meet our nutritional needs. Eating what we like, especially junk food, may be satisfying at the time, but poor eating habits can result in negative consequences later in life.

Keep in mind that being well-nourished is not the same as being well-fed. People who have a diet that consists largely of fast food and high-calorie snacks probably consume enough food but is not well nourished. Of all age groups in the U. S., teenagers are the most poorly nourished. Poor eating habits put our teenagers at risk for a number of health problems. These health problems include, obesity, delayed sexual maturation, failure to reach their potential genetic height, brittle bones, heart disease and diabetes.

Eating the proper nutrients is the key to a healthy lifestyle. Exactly what are nutrients? Nutrients are substances in the foods we eat that our bodies must have to function. The six basic nutrients that our bodies must have are: carbohydrates, protein, fats, vitamins, minerals, and water (Robinson and McCormick 139).

According to Taber's *Cyclopedic Medical Dictionary*, the following nutrients are necessary for good health:

- Carbohydrates – A group of chemical substances including sugars, glycogen, starches, dextrin, and celluloses. Carbohydrates are absorbed in the forms of glucose, galactose, or fructose. These monosaccharide are available for direct utilization in energy production, or they may be stored after conversion to glycogen. The glycogen is available for metabolism to glucose whenever there is a need for reserve energy.
- Proteins – One of a class of complex nitrogenous compounds that occur naturally in plants and animals and yield amino acids when hydrolyzed. Protein provides the amino acids essential for the growth and repair of animal tissues.
- Fats – Adipose tissue of the body, which serves as an energy reserve.
- Vitamins – Are essential for normal metabolism, growth, and development of the body. They are principal regulators of metabolic processes and play a role in energy transformation, usually acting as coenzymes in enzymatic systems. There are fat-soluble vitamins (A, D, E, and K), and water-soluble vitamins (B and C). Certain vitamins cannot be manufactured by certain species. Man is one of the few species that cannot manufacture vitamin C.
- Minerals – An inorganic element or compound occurring in nature, especially one that is solid. Inorganic; not of animal or plant origin.
- Water – H₂O, hydrogen combined with oxygen, forming a tasteless, clear, odorless fluid. It is the principal chemical constituent of the body composing of approximately 65% of the body weight of an adult male and 55% of the adult female. Water is the principal constituent of all body fluids (blood, lymph, tissue fluid), secretions (salivary juices, gastric juices, bile, sweat), and excretory fluid (urine). Humans can survive only a short time without water intake. The recommended amount of water (or other fluids) needed for adults is sometimes said to be about eight, 8 oz. glasses per day.

Visit the e-diets website below for more information about fluid consumption.

<http://www.ediets.com/news/article.cfm?cmi=497540&cid=6&code=24829>

To find out how much of each of followings nutrients are needed on a daily basis, refer to the food pyramid guide by USDA. The following website is interactive.

<http://www.MyPyramid.gov>

<http://www.nal.usda.gov/fnic/Fpyr/pmap.htm>

To find out where the vitamins and mineral are in the food pyramid visit:

<http://www.ces.purdue.edu/extmedia/CFS/NCR-540-W.pdf>

To find out the nutritional data of foods visit the following websites:

<http://www.bodybuilding.com/fun/nutrient.htm>

www.nutritiondata.com/index.html

<http://www.nutri-facts.com/bmi.php>

SECTION 4: HOW YOU DO IT: STRESS ON THE BODY

Health and wellness are not just about eating right and exercising. If you are not mentally well, your overall health can suffer. It is a well-known fact that when your body is stressed, it can cause serious health problems such as high blood pressure just to name one. To find out more information about stress and how to deal with it visit the following website by the Texas Education Agency. Print out this information and make copies for your students.

<http://www.texashste.com>

Click on Course Guides/TEKS

Click on Introduction to Health Science

Go down to the Health and Wellness section

Click on Stress and Coping

SECTION 5: WHOM YOU ARE DOING IT WITH: SOCIAL ENVIRONMENT OF PEER PRESSURE TO SMOKE, DRINK, TAKE DRUGS, AND ENGAGE IN PREMARITAL SEX

Health and wellness also encompasses what you put in your body that is not considered food. Your health is also affected when organisms are introduced into your body that can cause disease. Please direct your students to the following websites:

<http://www.reachout.com.au>. Inspire Foundation 2005. June 2005.

Reach Out! is a web-based service by the Inspire Foundation that inspires young people to help themselves through tough times. It provides information about the dangers of smoking, drugs, alcohol, and more.

<http://www.reachout.com.au/default.asp?ti=274> : Peer pressure link

<http://www.reachout.com.au/index.asp?mci=3&mwi=2&tii=28> : Drug and Alcohol

<http://www.reachout.com.au/default.asp?ti=68> : Alcohol link

<http://www.reachout.com.au/default.asp?ti=66> : Drug link

<http://www.reachout.com.au/default.asp?ti=67> : Smoking link

www.avert.org Last update June 2005

AVERT is an international HIV and AIDS charity based in the UK, with the aim of AVERTing HIV and AIDS worldwide. AVERT also provides information about STD's

<http://www.avert.org/young.htm> : HIV and Aids Information

<http://www.avert.org/std.htm> : STD's Information

<http://www.avert.org/stds.htm> : STD's Information

Activity 1: Personal Physical Activity Chart

Name _____ Seat # _____ Period _____
 Teacher _____ Start Date _____ End Date _____

My overall Personal Activity Goal:

My Plan to Achieve My Goal:

Type of Activity WEEK 1 (Hrs. or Min.)	Sun. Date:	Mon. Date:	Tue. Date:	Wed. Date:	Thurs Date:	Fri. Date:	Sat. Date:	Total Hrs/Min

Type of Activity WEEK 2 (Hrs. or Min.)	Sun. Date:	Mon. Date:	Tue. Date:	Wed. Date:	Thurs Date:	Fri. Date:	Sat. Date:	Total Hrs/Min

Type of Activity WEEK 3 (Hrs. or Min.)	Sun. Date:	Mon. Date:	Tue. Date:	Wed. Date:	Thurs Date:	Fri. Date:	Sat. Date:	Total Hrs/Min

What is your target heart rate? _____: www.webguru.com/calculate-target-heart-rate.htm

What is your BMI at the start of week 1? _____ <http://www.nutri-facts.com/bmi.php>
 or see BMI chart. What is your BMI at the end of week 3? _____

Number of calories needed daily for your body _____ <http://www.nutri-facts.com/bmi.php>

List people that will help you in your effort _____

How will you reward yourself?

Activity 2: Pre- Health and Wellness Lesson 2 DAY FOOD DIARY

Name _____ Seat # _____ Class _____
 Teacher _____ Start Date _____ End Date _____
 Period _____ Number of calories needed daily for your body _____

Day One

Meal	Calories	Calories from fat(g)	Total Fat (g)	Saturated Fat (g)	Trans Fat (g)	Cholesterol (mg)	Sodium (mg)	Total Carbohydrates (g)	Dietary Fiber (g)	Sugar (g)
Item Breakfast Day 1										
1										
2										
3										
4										
5										
Item Lunch Day 1										
1										
2										
3										
4										
5										
6										
Item Dinner Day 1										
1										
2										
3										
4										
5										
6										
Item Snacks Day 1										
1										
2										
3										
4										
TOTALS FOR DAY										
Breakfast Continued	Protein (g)	Vit A %	Vit C %	Calcium %	Iron %	Vit D %	Vit E %	1 st Ingredient	2 nd Ingredient	3 rd Ingredient
Item 1 from above										
Item 2 from above										

Item 3 from above										
Item 4 from above										
Item 5 from above										
Lunch Continued										
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										
Item 5 from above										
Item 6 from above										
Dinner Continued										
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										
Item 5 from above										
Item 6 from above										
Snacks Continued										
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										
TOTALS FOR DAY										

Day Two

Meal	Calories	Calories from fat(g)	Total Fat (g)	Saturated Fat (g)	Trans Fat (g)	Cholesterol (mg)	Sodium (mg)	Total Carbohydrates (g)	Dietary Fiber (g)	Sugar (g)
Item Breakfast Day 2										
1										
2										
3										
4										
5										
Item Lunch Day 2										
1										
2										
3										
4										
5										
6										

Item	Dinner Day 2									
1										
2										
3										
4										
5										
6										
Item	Snacks Day 2									
1										
2										
3										
4										
TOTALS FOR DAY										
Breakfast Continued	Protein (g)	Vit A %	Vit C %	Calcium %	Iron %	Vit D %	Vit E %	1 st Ingredient	2 nd Ingredient	3 rd Ingredient
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										
Item 5 from above										
Lunch Continued										
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										
Item 5 from above										
Item 6 from above										
Dinner Continued										
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										
Item 5 from above										
Item 6 from above										
Snacks Continued										
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										

TOTALS FOR DAY										
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Activity 3

1. Break students up into 6 small groups.
2. Put one sample from pocket nurse with each group.
3. Let the students analyze the content of each of the samples comparing samples to the data on their food diary.
4. After 5 minutes rotate the students or the samples to a different set of samples.
5. Repeat process until students have reviewed all 6 sets.

To get samples from pocket nurse contact:

Pocket Nurse: Medical Supplies for Education and Promotion. P.O. Box 9358, Pittsburg, PA 15225-0358. 1-800-225-1600

Order Sample to show the amount of fat, salt, and sugar in some of common food people eat.

How Much Fat? Part 1 Item # 10-81-503

How Much Fat? Part 2 Item # 10-81-504

How Much Fat? Part 3 Item # 10-81-505

How Much Fat? Special Edition Item # 10-81-501

How Much Sugar? Item # 10-81-502

How Much Salt? Item # 10-81-506

Name _____ Seat # _____ Period _____
Teacher _____ Date _____

Activity 4: Nutrition and Disease Prevention Video Questions

1. What are the top 4 leading causes of death?
2. What are 2 main causes of disease?
3. What is insulin?
4. What is the name for Type 2 diabetes?
5. Describe what happens in Type 2 diabetes?
6. What is the name for Type 1 diabetes?
7. Describe what happens in Type 1 diabetes.
8. How can diabetes be controlled?
9. If diabetes isn't controlled, what can it lead to?
10. Describe the obesity cycle.
11. What are causes of atherosclerosis?
12. What are the effects of atherosclerosis?
13. Which cholesterol is bad, and what types of fats increase it?
14. How is atherosclerosis controlled?
15. What is hypertension and how is hypertension controlled?
16. Food rich in what two substances will help hypertension?
17. What causes cancer?
18. What can contribute to the risk of developing cancer?
19. How can cancer be controlled?
20. What are some ways to avoid potential carcinogens?

Name _____ Seat # _____ Period _____
Teacher _____ Date _____

Activity 5: Fat and Fit Test Video Questions

1. Quick weight loss will readjust your set point? True or False? Explain.
2. One pound equals to...
3. A person is called obese when he has ____% fat.
4. How long does it take for a signal to reach the brain?
5. Who is most likely to become obese?
6. If both parents are obese what chance dose the children have to be obese?
7. Fast food nutritious? True or False? Explain.
8. Is it more difficult for the body to burn food eaten late?
9. Which is the best type of diet to achieve permanent weight loss?
10. Will exercise prolong your life?
11. What percentage of people regain their weight?
12. Who uses fewer calories?
13. Are women more likely to crave sweets during their pre-menstrual cycle? Explain.
14. Which turns to fat faster?
15. Will a child be less likely to be over weight in its first two years of life if a mother breast feeds him or her?
16. Do fat cells die?
17. If you give up smoking will you gain weight?
18. Who loses weight more easily?
19. What percentage of people are obese due to thyroid?
20. As you grow up and want to maintain the same weight you eat _____ calories.

Activity 6: Post- Health and Wellness Lesson 2 Day Food Diary

Name _____ Seat # _____ Class _____
 Teacher _____ Start Date _____ End Date _____
 Period _____ Number of calories needed daily for your body _____

Day One

Meal	Calories	Calories from fat(g)	Total Fat (g)	Saturated Fat (g)	Trans Fat (g)	Cholesterol (mg)	Sodium (mg)	Total Carbohydrates (g)	Dietary Fiber (g)	Sugar (g)
Item Breakfast Day 1										
1										
2										
3										
4										
5										
Item Lunch Day 1										
1										
2										
3										
4										
5										
6										
Item Dinner Day 1										
1										
2										
3										
4										
5										
6										
Item Snacks Day 1										
1										
2										
3										
4										
TOTALS FOR DAY										
Breakfast Continued	Protein (g)	Vit A %	Vit C %	Calcium %	Iron %	Vit D %	Vit E %	1 st Ingredient	2 nd Ingredient	3 rd Ingredient
Item 1 from above										
Item 2 from above										
Item 3 from above										

Item 4 from above										
Item 5 from above										
Lunch Continued										
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										
Item 5 from above										
Item 6 from above										
Dinner Continued										
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										
Item 5 from above										
Item 6 from above										
Snacks Continued										
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										
TOTALS FOR DAY										

Day Two

Meal	Calones	Calories from fat(g)	Total Fat (g)	Saturated Fat (g)	Trans Fat (g)	Cholesterol (mg)	Sodium (mg)	Total Carbohydrates (g)	Dietary Fiber (g)	Sugar (g)
Item Breakfast Day 2										
1										
2										
3										
4										
5										
Item Lunch Day 2										
1										
2										
3										
4										
5										
6										
Item Dinner Day 2										
1										

2										
3										
4										
5										
6										
Item	Snacks Day 2									
1										
2										
3										
4										
TOTALS FOR DAY										
Breakfast Continued	Protein (g)	Vit A %	Vit C %	Calcium %	Iron %	Vit D %	Vit E %	1 st Ingredient	2 nd Ingredient	3 rd Ingredient
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										
Item 5 from above										
Lunch Continued										
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										
Item 5 from above										
Item 6 from above										
Dinner Continued										
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										
Item 5 from above										
Item 6 from above										
Snacks Continued										
Item 1 from above										
Item 2 from above										
Item 3 from above										
Item 4 from above										
TOTALS FOR DAY										

Lesson Plan 1

Instructor: Regina M. Jackson
Introduction to HST
Subject: Health & Wellness

DeBakey HSHP
Day 1 Lesson plans
A & B Days

Objective

The student will:

- learn the importance of physical activity
- learn the benefits of living an active lifestyle
- identify the two main types of physical fitness, skill-related, and health related
- calculate target heart rate
- calculate Body Mass Index (BMI)
- calculate daily calories needed

Activities

- Read Section 2
- Calculate Body Mass Index (BMI)
- Calculate how many calories you need every day
- Calculate your target heart rate
- Read Section 1 for homework
- *Inform students to keep any food wrappers that they eat for breakfast/and or lunch the morning of the next class period so they can record it on a food diary.*
- Do Activity 1 Personal Activity Chart daily for three weeks

Resources

<http://www.webguru.com/calculate-target-heart-rate.htm>

<http://www.nutri-facts.com/bmi.php>

Section 1 notes

Section 2 notes

Activity 1 worksheet

Student Evaluation/Test

Health & Wellness major test and student activities will serve as evaluations for this lesson.

Lesson Plan 2

Instructor: Regina M. Jackson
Introduction to HST
Subject: Health & Wellness

DeBakey HSHP
Day 2 Lesson plans
A & B Days

Objective

The student will:

- discuss the importance of eating healthy
- discuss the importance of eating safely
- discuss how to read food labels
- list food items eaten along with the nutritional value of each food item

Activities

- Read Section 3
- Watch Video: *Standard Deviants School Nutrition Module 1: Introduction to Nutrition*
- Discuss how to read food labels: Visit the following website in class or print out information for students. <http://vm.cfsan.fda.gov/~dms/foodlab.html>
- Do activity 2: Pre-Health and Wellness Lesson Two Day Food Diary for homework. (Instruct students not to change their eating habits at this time. After learning more about nutrition and disease, the students will do a post lesson two-day diary.)
- Eating right according to the new food pyramid. Students will then compare the pre and post diary to see how it differs in the fat, salt, and sugar areas, and also compare if they are getting more nutrients in their diet. Students can visit the following website to assist in this lesson. <http://www.kidshealth.org>
- Update Activity 1: Personal Activity Chart

Resources

- Video: *Standard Deviants School Nutrition Module 1: Introduction to Nutrition*
- Section 3 notes
- Activity 1 worksheet
- Activity 2 worksheet
- Food Label website <http://vm.cfsan.fda.gov/~dms/foodlab.html>
- Nutrition Data Websites: <http://www.bodybuilding.com/fun/nutrient.htm>, www.nutritiondata.com/index.html , <http://www.nutri-facts.com/bmi.php>

Student Evaluation/Test

Health & Wellness major test and student activities will serve as evaluations for this lesson.

Lesson Plan 3

Instructor: Regina M. Jackson
Introduction to HST
Subject: Health & Wellness

DeBakey HSHP
Day 3 Lesson plans
A & B Days

Objective

The student will:

- apply established diet-planning principles to develop nutritional diet plans.
- analyze their two day diary
- analyze the contents of the most common types of food for salt, sugar, and fat

Activities

- Have students add up the total, fat, salt, and sugar counts from their two-day diary.
- Activity 3: View Sample of salt, sugar, and fat in the most common types of food
- Read Diet Planning Principles
- Update Activity 1: Personal Activity Chart

Resources

- Food Samples by pocket nurse
- Activity 1: Personal Activity Chart
- Activity 2 worksheet Two Day Food Diary
- Activity 3 instruction sheet
- Diet Planning Principles: Make copies for your students or visit the website in class.

<http://www.texashte.com>
Click on Course Guides/TEKS
Click on Introduction to Health Science
Go down to the Health and Wellness section
Click on Diet Planning Principles link

Student Evaluation/Test

Health & Wellness major test and student activities will serve as evaluations for this lesson.

Lesson Plan 4

Instructor: Regina M. Jackson
Introduction to HST
Subject: Health & Wellness

DeBakey HSHP
Day 3 Lesson plans
A & B Days

Objective

The student will:

- discuss nutrition and disease prevention
- discuss immunity, diabetes, atherosclerosis, and cancer
- discuss principles of weight loss and maintaining a health weight

Activities

- Watch Video: *Standard Deviants School Nutrition Module 11: Nutrition & Disease Prevention*
- Do Activity 4: *Nutrition & Disease Prevention* video questions while watching the video.
- Watch Video: *Health Quiz #10 The Fat or Fit Test*
- Do Activity 5: *Fat or Fit* video questions while watching the video.
- Update Activity 1: Personal Activity Chart
- Review the new food pyramid: <http://www.MyPyramid.gov>
- Do activity 6: Post-Lesson Two-Day Food Diary for homework, and have students follow the new pyramid guidelines to the best of their ability.
- Do Activity 7: Medical Family Free for homework

Resources

- Video: *Standard Deviants School Nutrition Module 11: Nutrition & Disease Prevention*
- Activity 1 worksheet
- Activity 4 worksheet
- Activity 5 worksheet
- Activity 6 worksheet
- Activity 7 worksheet: Medical Family Free: Make copies for your students
 - <http://www.texashte.com>
 - Click on Course Guides/TEKS, Click on Introduction to Health Science
 - Go down to the Health and Wellness section, Click on Medical Family Free link
- Website for new interactive food pyramid: <http://www.MyPyramid.gov>
- Nutrition Data Websites: <http://www.bodybuilding.com/fun/nutrient.htm> ,
- www.nutritiondata.com/index.html, <http://www.nutri-facts.com/bmi.php>

STUDENT EVALUATION/TEST

Health & Wellness major test and student activities will serve as evaluations for this lesson.

Lesson Plan

Instructor: Regina M. Jackson
Introduction to HST
Subject: Health & Wellness

DeBakey HSHP
Day 3 Lesson plans
A & B Days

Objective

THE STUDENT WILL:

- identify general responses to stress
- identify common events that cause stress
- identify defense mechanisms in response to stress, and types of maladaptive behavior.
- discuss how to cope with peer pressure
- discuss the dangers of smoking, alcohol, and drugs
- discuss HIV and Aids and other STD's

Activities

Read lesson on Stress and Coping. It can be found by visiting the following website. You can make copies of this lesson for your students.

- <http://www.texashte.com>
- Click on Course Guides/TEKS
- Click on Introduction to Health Science
- Go down to the Health and Wellness section
- Click on Stress and Coping
- Direct your students to the following website in the resource section. This can be assigned for class work, homework, or both.

RESOURCES

- <http://www.reachout.com.au/default.asp?ti=274> : Peer pressure link
- <http://www.reachout.com.au/index.asp?mci=3&mw=2&tii=28> : Drug and Alcohol
- <http://www.reachout.com.au/default.asp?ti=68> : Alcohol link
- <http://www.reachout.com.au/default.asp?ti=66> : Drug link
- <http://www.reachout.com.au/default.asp?ti=67> : Smoking link
- <http://www.avert.org/young.htm>: HIV and Aids Information
- <http://www.avert.org/std.htm> : STD's Information
- <http://www.avert.org/stds.htm> : STD's Information

Student Evaluation/Test

Health & Wellness major test and student activities will serve as evaluations for this lesson.

ANNOTATED BIBLIOGRAPHY

Works Cited

Jay Kordich. *The Juiceman's Power Juicing*. Clayton, VIC: Warner Books, Inc, 1993
This book discusses the benefits of juicing and why fruits and vegetables are so good for you. The book contains health juice recipes for energy, health, weight loss, and relief from scores of common ailments.

James Robinson, III, and Deborah J. McCormick. Clifton Park, NY: *Essentials of Health & Wellness*, Delmar Learning, a division of Thomson Learning Inc, 2005
This book has a comprehensive approach to health and wellness. It contains 30 chapters relating to health and wellness. Most of the informational text of this paper comes from this book. I recommend this book as a class textbook for health and wellness.

Taber, Clarence Wilbur. *Taber's Cyclopedic Medical Dictionary, 16th edition*. Philadelphia: F A Davis Company, 1989.

Web Sources

AVERT is an international HIV and AIDS charity based in the UK, with the aim of AVERTing HIV and AIDS worldwide. AVERT also provides information about STD's June 2005.

Some of these links include:

- <http://www.avert.org/young.htm> HIV and Aids Information
- <http://www.avert.org/std.htm> STD's Information
- <http://www.avert.org/stds.htm> STD's Information

Body Mass Index Calculator. Nutri-facts.com. June 2005. <<http://www.nutri-facts.com/bmi.php>>.

Nutri-Facts is your free source for nutrition information on almost six thousand different foods. They have taken the USDA Nutrient Database for Standard Reference, Release 13 and put it into a format that the average Joe could use. In fact, the format is much the same as what you see on the "Nutrition Facts" label that is shown on almost all food packages in your local supermarket. At this site you can calculate your BMI and daily calorie intake.

E-Diets.com. Susan Burke MS, RD, LD, N, CDE. Vice President of Nutritional Services. *The Best Drinks for Dieters*. March 29, 200. <<http://www.ediets.com/news/article.cfm?cmi=497540&cid=6&code=24829>>.

This website has information on the amount of water that is required daily.

Food Nutrition Database. Body Building.com. June, 2005. <<http://www.bodybuilding.com/fun/nutrient.htm>>.

At this website you can find out how many grams of protein, carbs, and fats are in the the foods we eat, along with the full vitamin and mineral profile.

The Food and Nutrition Information Center (FNIC). *A Guide to Daily Food Choices*, 3/37/05.

<<http://www.nal.usda.gov/fnic/Fpyr/pmap.htm>>.

This website has the old food pyramid, how to calculate your Body Mass Index (BMI), how to aim for a healthy weight, how to choose sensible food and more.

Inspire Foundation. 2005. *Reach Out!*. June 2005. <<http://www.reachout.com.au>>.

Reach Out! is a web-based service that inspires young people to help themselves through tough times. It provides information about the dangers of smoking, drugs, alcohol, and more.

- <http://www.reachout.com.au/default.asp?ti=274>
Peer pressure link
- <http://www.reachout.com.au/index.asp?mci=3&mwi=2&tii=28>
Drug and Alcohol info link
- <http://www.reachout.com.au/default.asp?ti=68>
Alcohol link
- <http://www.reachout.com.au/default.asp?ti=66>
Drug link
- <http://www.reachout.com.au/default.asp?ti=67>
Smoking link

Kids Health. June, 2005. <<http://www.kidshealth.org>>.

This is a good site for students to visit to learn about health and wellness. The site contains games and recipes for kids.

Nutrition Facts & Calorie Counter. NutritionData.com. June 2005. <www.nutritiondata.com/index.html>.

(ND) provides nutrition facts, Calorie counts, and nutrient data for all foods and recipes, including many fast food restaurants. ND also tells you, in simple terms, what's good and bad about the foods you eat, and helps you select foods that best meet your dietary needs.

Purdue University in cooperation with the North Central Regional Education Materials Project, an extension of the US Department of Agriculture. *Vitamins and Minerals in the Food Guide Pyramid: Where are They?* March 27, 2005. <<http://www.ces.purdue.edu/extmedia/CFS/NCR-540-W.pdf>>.

This website has information on where the vitamins and minerals are listed on the food pyramid.

Texas Education Agency. 2004. Texas *Health Science Technology Education*, Curriculum Coordinator, Renee Krzykowski, University of North Texas, <<http://www.texashste.com>>.

This website has information needed for teaching Health Science Technology courses along with other links to work-based learning, teaching certification, professional development for teachers, textbook, and much more.

U. S. Department of Agriculture. *Steps to a Healthier You*, May 2, 2005. <<http://www.MyPyramid.gov>>.

This website has the new food pyramid, how to calculate your Body Mass Index (BMI), dietary guidelines for Americans 2005, and more.

U. S. Food and Drug Administration. *How to Understand and Use the Nutrition Facts Label*. Updated November 2004. February 1, 2005. <<http://vm.cfsan.fda.gov/~dms/foodlab.html>>.

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WebGuru, Inc. Written by Jessica Horwath © 2004. *Health Topics: How to Calculate Your Target Heart Rate*. May 2, 2005. <<http://www.webguru.com/calculate-target-heart-rate.htm>>.

This website takes you step by step on how to calculate you target heart rate.

Partial Filmography

Fat of Fit Test: Health Quiz #10 Video . VCI Home Video VHS 1997 30 min. Hosted by Dr. Frank Field, six time Emmy winner and senior Health and Science Editor of WCBS-TV. 1-800-331-4077 or 918-254-6337 Video item# 8610

Standard Deviants School Nutrition Module 1: Introduction to Nutrition. Cerebellum Corporation. Co-written by Sharlene Holladay, M.S., R.D. of George Mason University and Wayne C. Miller, Ph.D. of George Washington University. Running Time: 17 minutes. ISBN: 1-58198-185-6 UPC: 631865028931. 1-800-238-9669. www.standarddeviants.com

From calories to vitamin deficiencies and the digestive process, the Standard Deviants explain how the body works in a fun, friendly format. Topics include: nutrients, calories, non-nutrients, and nutrition standards & guidelines.

Standard Deviants School Nutrition Module 11: Nutrition & Disease Prevention. Cerebellum Corporation. Co-written by Sharlene Holladay, M.S., R.D. of George Mason University and Wayne C. Miller, Ph.D. of George Washington University. Running Time: 15 minutes. ISBN: 1-58198-215-1 UPC: 631865031931. 1-800-238-9669. www.standarddeviants.com

From calories to vitamin deficiencies and the digestive process, the Standard Deviants explain how the body works in a fun, friendly format. Topics include Immunity, Diabetes, Atherosclerosis, and Cancer.

Misc. Resources

Pocket Nurse: Medical Supplies for Education and Promotion. P.O. Box 9358, Pittsburg, PA 15225-0358. 1-800-225-1600.

Order Sample show the amount of fat, salt, and sugar in some of common food people eat.

- How Much Fat? Part 1: Item # 10-81-503
- How Much Fat? Part 2: Item # 10-81-504
- How Much Fat? Part 3: Item # 10-81-505
- How Much Fat? Special Edition: Item # 10-81-501
- How Much Sugar? : Item # 10-81-502
- How Much Salt? : Item # 10-81-506