CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

KNOWLEDGE FOR A HEALTHIER YOU: NUTRITION AND FITNESS CURRICULUM FOR ADOLESCENTS

A graduate project submitted in partial fulfillment of the requirements for the degree of Master of Science in Family and Consumer Science

By

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December 2015
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DEDICATIONS

This graduate project is dedicated to:

- My husband, Peter Christianson, who supported me over the years as I worked many long days, nights and weekends to complete this project. Thank you for your understanding, your patience and your unwavering love and devotion that helped me see this project through. I could not have done it without you.

- My parents, Michelle and John Frick, who have always encouraged and supported me through my academic ventures.
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ABSTRACT

KNOWLEDGE FOR A HEALTHIER YOU: NUTRITION AND FITNESS CURRICULUM FOR ADOLESCENTS

By

Amanda Christianson
Masters of Science in Family and Consumer Science

The purpose of this graduate project was to develop curriculum and a student handbook that could be used to educate adolescents 14-19 years of age, on ways to maintain a healthy bodyweight through physical activity and proper nutrition, at little to no cost, at high schools and/or community-based centers. The Knowledge for a Healthier YOU curriculum and student handbook were designed to complement one another in providing knowledge related to fitness, nutrition, and healthy lifestyle behaviors through lectures and activities no more than 20 minutes in length. To pilot the curriculum and student handbook, both were to be integrated into a twice-a-week/eight (8) week structured community-based physical activity program that took place at a high school in the city of San Fernando, California. Due to scheduling conflicts and an unanticipated relocation of the program, a significant drop out of the target population occurred; thus, the program ended after just 6 ½ weeks. However, the relevance and overall effectiveness of the curriculum and student handbook were evaluated by a panel of experts with experience working with adolescents (i.e. 12-19 years old), as well as a professional background in nutrition, fitness, general wellness, or high school education. After a formative evaluation of the curriculum and student handbook was completed, each expert acknowledged the validity of the information provided and confirmed that they would recommend the implementation of the
curriculum and the student handbook as a means to educate adolescents on topics related to healthy lifestyle behaviors.
CHAPTER I
INTRODUCTION

The quality of health education programs delivered to the nation’s youth plays a critical role in improving their overall health and well-being. By promoting and establishing healthy behaviors such as adopting an active lifestyle, eating healthy, and avoiding tobacco use early on in life, the development of chronic diseases may be preventable. According to the Centers for Disease Control and Prevention’s (CDC) Healthy Youth Initiative and the Carnegie Council on Adolescent Development, establishing healthy behaviors among young people is much easier and more effective than attempting to re-establish healthy behaviors later in life. However, budgetary cuts on state funding are hindering school districts’ abilities to provide high-quality educational programs, particularly in school districts with high concentrations of children in poverty (Oliff & Leachman, 2011). Therefore, it is clear that efforts need to be made to provide no- or low-cost health education programs to the youth of underserved communities.

Statement of the Problem

During the past 30 years, there has been a dramatic increase in childhood obesity in the United States (U.S.) and rates continue to remain high. In 1980, only 5% of adolescents aged 12-19 years were considered obese. By 2012, this number more than tripled to 21% (Ogden, Carroll, Kit, & Flegal, 2014). Significant racial and ethnic disparities have been reported in the prevalence of obesity particularly among Hispanic and African American communities. In 2011-2012, among the non-Hispanic Black adolescents and Hispanic adolescents, aged 12-to-19 years, approximately 22% were classified as obese compared to 19% of non-Hispanic white adolescents (Ogden, Carroll, Kit, & Flegal, 2014).
The obesity crisis is the result of an energy imbalance: an increased consumption of high calorie-low nutrient dense foods and beverages coupled with a decline in daily physical activity (Let’smove.org, 2013; Butte, Cristiansen, & Sorensen, 2007). However the issue of obesity becomes more complicated when social, economic, environmental, and genetic factors are accounted for. Obesity among adolescents not only has immediate implications on health and well-being, but also has severe long-term consequences. If lifestyle behaviors do not change during adolescent years, obese adolescents are at an increased risk of remaining obese during adulthood and developing chronic diseases such as coronary heart disease (CHD), type II diabetes (DMII), stroke, and cancer early on in life (Ogden, Yanovski, Carroll, & Flegal, 2007; Feedman, Zuguo, Srinivasan, Berenson, & Dietz, 2007; Parikh & Stratton, 2011).

According to a 2011 report done by the Center on Budget and Policy Priorities (CBPP), 37 states were provided less funding per student to local school districts during the 2011 school year compared to the previous year (Oliff & Leachman, 2011). Additionally, states such as Arizona, California, Hawaii, and South Carolina reduced per-student funding to K-12 schools by more than 20% (Oliff & Leachman, 2011). Such budgetary cuts in state funding may contribute to an increased incidence of childhood obesity, as without proper funding, school districts are unable to provide high-quality health education programs.

As the obesity epidemic continues to threaten lives of young people across the nation, there is a need to develop ways to help address the issue from a public health perspective. Initiatives such as Michelle Obama’s Let’s Move campaign and Healthy People 2020 are examples of programs dedicated to solving the obesity epidemic by fostering change in the home, at school, in the community, and within the government through public policy. Multi-
disciplinary programs that provide physical activity and nutrition education are more comprehensive than programs that target each component independently.

**Purpose**

The purpose of this project was to develop curriculum aimed at educating adolescents (14-19 years old) in the city of San Fernando, California on how to maintain a healthy bodyweight through physical activity and proper nutrition, as part of a community-based after-school program, “SF Fuerte”. The curriculum focuses on improving participants’ knowledge in the areas of fitness, nutrition and healthy lifestyle behaviors, and facilitating learning through lectures and activities appropriate for adolescents. By improving knowledge in these areas, it may be possible to prevent the onset of adulthood obesity and related diseases associated with obesity. Further, the purpose of this project was to also develop a student handbook to complement lectures and activities within the curriculum, and provide areas to record personal achievements, FitnessGram® scores, and additional notes. The *Knowledge for a Healthier YOU* curriculum and student handbook was designed to be implemented at little to no additional cost to high schools and/or community-based centers across the nation that work with adolescents (i.e. 14-19 years old).

**Definitions**

- **Adolescent**: a young person who is developing into an adult or going through adolescence; 12-19 years old individuals (American Academy of Pediatrics, 2014; Merriam-Webster, Inc., 2014a)
- **Body Mass Index (BMI)**: a reliable indicator of body fatness calculated from a person’s weight and height. It is calculated by dividing an individual’s weight in kilograms (kg) by height in meters squared (m²) (U.S. Department of Health and Human Services, 2013a).
For children and adolescents, BMI is compared to growth charts that show BMIs for different ages and genders.

- Childhood and Adolescent Overweight: is defined as Body mass index (BMI) for age is greater than or equal to 85th percentile up to 95th percentile (U.S. Department of Health and Human Services, 2013b).

- Childhood and Adolescent Obesity: is defined as a Body mass index (BMI) at or above the 95th percentile for children of the same age and sex (U.S. Department of Health and Human Services, 2013b).

- Chronic Disease: a long-lasting condition that can be controlled but not cured (University of Michigan, 2011).

- Energy Balance: The relationship between “energy” consumed (calories from food and beverages) and “energy” expended (calories used to perform normal body functions, daily activities and exercise) (Merriam-Webster, Inc., 2014b)

- Epidemiology: the study of how disease spreads and can be controlled (Merriam-Webster, Inc., 2014c).

- FitnessGram®: FitnessGram® assesses a variety of health-related physical fitness tests, aerobic capacity, body composition, muscular strength, muscular endurance, and flexibility; that are used to determine students overall health. Student assessment outcomes are compared to health fitness standards that are carefully established for each age and gender (The Cooper Institute, 2013).

- Multi-disciplinary program: programs composed of or combining several usually separate branches of learning or fields of expertise (Dictionary.com, 2014).
• Physical Fitness: is a general state of health and well-being or specifically the ability to perform aspects of sports or occupations (U.S. Department of Health and Human Services, 2014a).

• Physical Activity: any bodily movement produced by skeletal muscles that requires energy expenditure (World Health Organization, 2014).

• Nutrition: the intake of food, considered in relation to the body’s dietary needs and their effect on health, growth, and development of an individual (Williams, 2002; World Health Organization, 2013).

• Type II Diabetes (DMII): a chronic disease that affects the way the body metabolizes glucose (blood sugar) to maintain a normal glucose level (Mayo Foundation for Medical Education and Research, 2014).

• Youth Risk Behavior Surveillance System (YRBSS): monitors health-risk behaviors that contribute to the leading causes of death and disability and prevalence of obesity among youth and adults (U.S. Department of Health and Human Services, 2011a).

Assumptions

The Knowledge for a Healthier YOU curriculum and student handbook were developed based on the following assumptions:

• Participants will be between the ages of 14-19 years.

• Participants will attend and actively participate in at least 80% lectures and activities scheduled during the eight-week period.

• Participants will be able to read and write in English, and understand the content and delivery of the curriculum and student handbook.
• Participants will perform at least 30 minutes of physical activity on a daily basis, OR the curriculum and student handbook will be implemented in conjunction with a physical activity program overseen by a professional in the field of Kinesiology.
• Program facilitator(s) will be knowledgeable in the area of fitness or nutrition, and have appropriate qualifications.
• Each expert of the panel will participate in the formative evaluation process by completing a formative evaluation survey after reading the curriculum and student handbook.
• Each expert of the panel who completes a formative evaluation survey will do so honestly, of their own free will, with no influence from others, and without compensation.

**Limitations**

The *Knowledge for a Healthier YOU* curriculum and student handbook were designed to educate adolescents on how to maintain a healthy bodyweight through physical activity and proper nutrition. However, the following limitations do exist:

• The curriculum and student handbook were developed for adolescents between the ages of 14-19 years who can read and understand English, and may not be generalizable to other ages.
• Recruitment of adolescents was limited to those attending a school within the San Fernando area of the Los Angeles Unified School District (LAUSD) and may not be generalizable.
• The curriculum and student handbook were administered to a small sample size of the target population (i.e. adolescents between the ages of 14-19 years).
• The program experienced a significant dropout rate of the target population due to unanticipated relocation and scheduling conflicts, which resulted in the program ending 2.5 weeks early. Therefore participants were unable to complete lesson 15 and 16, and were unable to evaluate the curriculum and student handbook.

• The curriculum and student handbook were only evaluated by three experts with differing backgrounds; therefore, the experts may have differing views in the curriculum and student handbook developed for the project.
CHAPTER II
LITERATURE REVIEW

Obesity rates among U.S. children and adolescents continue to increase at an alarming rate, with higher incidences reported among Hispanics and African Americans ( Letsmove.org, n.d.), suggesting the need for effective strategies to encourage healthy behaviors at home and in school and community environments to reduce the risk of developing obesity and obesity-related chronic diseases. In a time where budgetary cuts are impacting the quality of health education programs provided within the school system, the need for community-based multi-disciplinary programs focusing on physical activity and nutrition is imperative to combat the obesity issue among adolescents, particularly in Hispanic and African American communities.

Epidemiology of Obesity and Implications for Adolescents

Obesity, a condition that was once primarily noted to develop in adulthood, now is commonly noted to impact children and adolescents. Even though obesity rates vary among gender, ethnicity/race, and age, the cause of obesity is recognized to be a complex interaction between social, economic, environmental and genetic factors. Poor eating habits and lack of physical activity resulting in a positive imbalance between energy expenditure and energy intake, most certainly plays a role in the development of obesity; however the relative contribution of other factors is not fully understood (Kant & Graubard, 2006; Nguyen & El-Serag, 2010).

Socioeconomic Factors

Lower socioeconomic status and education levels have been shown to contribute to the disparities seen in obesity rates, as well as other chronic diseases related to lifestyle habits, particularly nutritional intake (Zhang & Wang, 2012). The Food Research and Action Center (FRAC) suggests that low-income families are more at risk of becoming overweight and obese.
because they face unique environmental challenges beyond other Americans. Such challenges include limited resources and lack of access to healthy and reasonably priced foods, as well as limited opportunities for safe and convenient public spaces to engage in physical activity (Food Research and Action Center, 2010). Kirkpatrick, Dodd, Reedy, & Krebs-Smith (2011) found that individuals in low-income households (<185% of the federal poverty level) had a greater deficit in meeting dietary recommendations than other groups. In the highest income group, consumption of total vegetables, milk, and oils was double that of the lowest income group. Among race/ethnic groups, generally adult non-Hispanic blacks and Mexican-American adults and children fail to meet the dietary recommendations. Fifteen percent of non-Hispanic black children met the minimum recommendations compared with 42% of non-Hispanic white children, and 35% of Mexican-American children (Kirkpatrick et al., 2011).

**Sociocultural Factors**

Cultural and social influences also significantly affect behaviors surrounding healthy eating and physical activity (Nguyen & El-Serag, 2010). Christakis & Fowler (2007) evaluated the social framework (e.g. interpersonal relationships) of more than 12,000 people from 1971 to 2003, to determine if an individual’s weight gain was impacted by the weight of their 1) friends, 2) siblings, and 3) spouses. The researchers found that an individual was 57%, 40% and 37%, respectively, more likely to become obese if a friend, sibling, and spouse became obese. Weight gain was more influenced by friends and siblings of the same sex than friends or siblings of the opposite sex. Overall, the social distance of the relationship was more important than the geographical distance. Among preadolescent Hispanic children, Gesell et al. (2008) findings also revealed a positive correlation among social influence from family and friends and the amount of physical activity self-reported by the subjects.
Cultural beliefs have also been shown to impact the incidence of obesity among different ethnic and racial groups. Culture is a system of shared understandings shaped by learned experiences within a group. The shared understanding of obesity among different cultures varies, including its cause, cure, and the extent to which the group views obesity as an illness (Kumanyika, 2007). Additionally, cultural beliefs surrounding body image and parental decisions related to eating and physical activities behaviors, contribute to the risk of childhood obesity among minority groups. Elder et al. (2010) conducted a study to determine associations of obesity among Hispanic elementary school children and found that the family environment (parenting and parent characteristics) were more significant correlates of child BMI than the school or community environment. In the study, despite nearly 75% of the parents reporting their own weight as good, very good, and excellent, the parents’ mean BMI was 29.7, which would clinically be classified as overweight (33.8%) or obese (41.3%) (Elder et al., 2010). The researchers determined that parents who rated their own health more positively were more likely to have children who were overweight, and that the BMI of the parent was among the strongest correlate of child’s BMI (Elder et al., 2010).

**Environmental Factors**

Among children in the U.S., being physically active and making healthy food choices can be difficult especially when exposed to certain factors within their home, community, and school environments that may influence their judgment and attitude towards a healthy lifestyle. Environmental factors such as limited advertisement and access to healthy, affordable foods, as well as fewer safe and appealing options for physical activity in both schools and communities seem to play a significant role is the fight against obesity, not only among children and adolescents, but among adults, as well (Nguyen & El-Serag, 2010).
Since the 1970s, accessibility to affordable energy (i.e. calorie) dense foods from fast food restaurants has risen (Sebastian, Cleveland, & Goldman, 2008). By the 1990s, fast food and other restaurants contributed to 19.3% of the energy intake of U.S. adolescents (Sebastian, Wilkinson, & Goldman, 2009). A 2006 study by Kant & Graubard analyzed dietary data of 39,094 adults in the U.S. within four consecutive National Health and Nutrition Examination Survey (NHANES) reports (1971-1975, 1976-1980, 1988-1994, and 1999-2002) to determine how food consumption patterns have changed over time. The study illustrated the correlation of increased consumption of energy dense foods and the prevalence of obesity in the U.S. population (Kant & Graubard, 2006). Meals eaten away from home were associated with a decrease in diet quality and an increase in BMI and total energy intake (Ransley, Donnelly, Bothman, Khara, Greenwood, & Cade, 2003; Ebbeling, Sinclair, Pereira, Garcia-Lago, Feldman & Ludwig, 2004). With the accessibility and convenience of affordable energy dense foods and beverages, along with an increase in food portions served, it is estimated that the consumption of fast food will continue to increase, thus negatively impacting diet quality (Sebastian, Wilkinson, & Goldman, 2009). Access to energy dense food from fast food and restaurants is just one factor that impacts certain communities’ ability to meet dietary recommendations; the lack of available, reasonably priced nutrient dense foods, such as fruits and vegetables, in low-income communities and schools also contributes to the problem (Laraia, Siega-Riz, Kaufman, & Jones, 2004; Ransley et al., 2003). In a 2006 report from the Latino Coalition for a Healthy California, only 52% of residents in low-income areas live within one-half mile walking distance of a supermarket (Woodward-Lopez & Flores, 2006). This factor may prevent some from seeking healthier food options due to the inconvenience.
The lack of physical activity also contributes to the rise in obesity rates. In the age of technology, the use of computers at school and home as well as access to media like televisions and video games, has increasingly contributed to sedentary lifestyles among children and adolescent. Dietz & Gortmaker (1985) reported a two percent (2%) increase in obesity prevalence for each additional hour of television watched. Also, survey results from the 2012 National Health and Nutrition Examination Survey (NHANES) and the NHANES National Youth Fitness Survey, reported 98.5% and 91.1% of youth aged 12-15 watched television and used a computer daily. A third (29.5%) of youth reported viewing television for 2 hours daily, while a quarter (21.2%) of the youth indicated they had accessed a computer for at least 1 hour each day (Herrick, Fakhouri, Carlson, & Fulton, 2014). Other circumstances, such as lack of access to safe and convenient recreation facilities and reduction of physical education and recess time during school, have also contributed to an overall decreased level of physical activity occurring in communities, particularly in low-income areas (Food Research and Action Center, 2010). In fact, a study in 2012 determined that access to local and safe parks not only has a positive association with the level of physical activity performed by Americans, but also may reduce the likelihood of becoming overweight or obese (Blanck et al., 2012). Within low-income neighborhoods, even fewer well-equipped playgrounds, parks and recreational facilities, pedestrian and bike-friendly streets, and other safe and affordable places to exercise, play and be active are available. Park space in Los Angeles County is disproportionately concentrated in wealthy neighborhoods (Woodward-Lopez & Flores, 2006).

The school environment also plays a critical role in improving the dietary and physical behaviors of children and adolescents, as a majority of the day is spent at school (National Division of Adolescent and School Heath, 2013). Academic success has been linked with good
health; therefore, schools should work to support and promote physical activity and dietary behaviors to youth (National Division of Adolescent and School Health, 2011). In fact, Gordon-Larson and colleagues (2000) demonstrated that participation in school-based physical education programs and the use of community centers had a positive effect on the likelihood of adolescents engaging in vigorous physical activity (Gordon-Larsen, McMurray, & Popkin, 2000).

**Genetics Factors**

In addition to environmental factors, genetic factors also place certain individuals at greater risk of becoming overweight or obese compared to others. Research has shown that single gene mutations have been linked to forms of monogenic obesity. Studies have identified a single-nucleotide polymorphism (SNP) located in the fat mass and an obesity-associated gene variant (FTO) that was linked to a 1.67-fold increased risk of becoming obesity compared to those who do not have the gene variant (Nguyen & El-Serag, 2010).

**Human Ecological Theory**

In order to understand the complex interactions that influence an individual to make choices, it is important to study the 1979 Human Ecological Theory (HET) model, first introduced by Bronfenbrenner. According to the HET (Figure 1), the individual is influenced by a multitude of factors: 1) humans are interdependent with the environment; 2) the system and its parts are interdependent and operate in relation to each other; 3) a change in any part of the system affects the system as a whole and also the other parts of the system; and 4) the Microsystem, which includes the family, is the direct setting in which development occurs (Bronfenbrenner, 1979).
Figure 1. Human Ecological Model. This figure illustrates the HET, according to Bronfenbrenner (1979).

HET recognizes that situations and experiences that happen to individuals or families, as well as outside of the family, can have a profound effect on the quality of the relationships and actions within the family and on an individual. At the core, the individual is part of direct and indirect social settings such as family, work, school, church, etc. When applying this model to obesity among children and adolescents, it is clear to see that the individual (child/adolescent) is highly influenced by a number of factors that dictate ones’ ability to make decisions related to nutrition and exercise. For example, if a child is surrounded by family and friends who do not engage in regular physical activity and nutritious eating, the child will likely not see the value or importance these behaviors have on their health and well-being. Moreover, if a child is brought up in a family of low socioeconomic status, the child may not have many options of what type of foods are provided within the home. In fact, Monsivais and Drewnowski (2007) determined that the cost of low-energy dense foods such as lean meats, low-fat dairy product, fruits, and
vegetables were greater than high-energy dense foods, revealing an inverse correlation between energy dense foods and cost. Therefore, it is understandable that higher obesity rates are observed among low socioeconomic status.

Further impacting the health and well-being of the individual, it is important to consider settings in which the individual does not actively participate, but in which significant decisions are made affecting the individual (Bronfenbrenner, 1979). This was pointed out in a 2011 CDC report from the Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, which noted that school policies and practices play a critical role in preventing obesity by establishing a safe and supportive environment for healthy behaviors to occur (U.S. Department of Health and Human Services, 2011b).

Understanding the HET model and how the system as a whole and its parts are interdependent on one another helps to explain the influences that directly or indirectly impact the individual and their overall health and well-being. Therefore, in order to combat childhood obesity, a coordinated approach that targets all parts of the system is likely best.

**Obesity among Hispanic Adolescents**

Obesity rates among U.S. adolescents have increased dramatically over the last three decades, including noticeable surges among Hispanics; presently, national obesity rates among all adolescents stand at around 20% (Ogden, Carroll, Kit, & Flegal, 2014). Currently, nearly two in every five - or 40% - of Hispanic adolescents are considered overweight or obese (Letsmove.gov, 2013). A report from the California Center for Public Health Advocacy stated that childhood obesity rates were as high as 38% in 2010, while rates in the Los Angeles County stood much higher (41.6%) (California Center for Public Health Advocacy, 2012). According to the 2010 Census, approximately 16% of the 308.7 million people who reside in the U.S. are of
Hispanic origin; approximately 28% of these reside in California (Ennis, Rios-Vargas, & Albert, 2010). Los Angeles, California has the second highest number of residents within the US who are of Hispanic origin (Ennis, Rios-Vargas, & Albert, 2010). In California, among adolescents aged 12 to 17 years, Hispanics are the most likely to be overweight or at risk for overweight compared to other races and ethnic groups (Woodward-Lopez & Flores, 2006).

**Physical Activity & Nutrition Behaviors among Adolescents**

Research has shown that adolescents who engage in healthy eating and physical activity patterns that focus on making informed food choices, consuming fewer calories, and participating in regular physical activity can help to maintain a healthy weight while reducing the risk of developing obesity and other related chronic diseases, including heart disease, cancer, and stroke during adulthood (U.S. Department of Agriculture, 2011). However, the latest Youth Risk Behavior Survey (YRBS) reveals that adolescents are still participating in unhealthy behaviors at an alarming rate (U.S. Department of Health and Human Services, 2013c).

**Eating Behaviors**

According to the *Dietary Guidelines for Americans 2010*, any person aged 2 years or older should consume a diet rich in fruits and vegetables, whole grains, and fat-free and low-fat dairy products, and limit intake of foods that contain cholesterol, added sugars, saturated and trans fatty acids fats, sodium and refined grains (U.S. Department of Agriculture, 2011). Unfortunately, many young people do not meet the minimum recommendations of fruits, vegetables and whole grains set forth in the *Dietary Guidelines for Americans* (U.S. Department of Agriculture, 2011). Data from the 2013 YRBS affirmed that adolescents have yet to implement healthy dietary patterns, such as consuming more nutrient dense foods like fruits and vegetables and choosing milk over other sugar sweetened beverages (National Division of
Adolescent and School Heath, 2013). In fact, when comparing data from the 2011 to 2013 YRBS, 7% of adolescents indicated that they did not consume vegetables during the seven days before the survey (U.S. Department of Health and Human Services, 2013c). No differences were reported when comparing rates among different race/ethnicity groups (U.S. Department of Health and Human Services, 2012).

**Physical Activity Behaviors**

In addition to eating behaviors, the health and well-being of children and adolescents can also be improved by participating in regular physical activity. Physical activity helps reduce the risk of developing obesity and other chronic diseases, but can also improve cardiorespiratory fitness, strengthen bones and muscles, provide better weight management, increase self-esteem, and can reduce symptoms of depression and anxiety (U.S. Department of Health and Human Services, 2008). Physical activity recommendations set forth by the 2008 Physical Activity Guidelines for Americans state that children and adolescents aged 6-17 years should engage in at least 60 minutes of physical activity each day, with a majority of this time including aerobic activities at moderate- or vigorous-intensity level. Additionally, as part of their 60 minutes of physical activity, children and adolescents should participate in bone and muscle building activities at least three days a week, such as walking, jogging and body weight exercises (U.S. Department of Health and Human Services, 2008).

According to the data gathered from a 1991-2013 report by the CDC, children and adolescents continue to participate in more sedentary activities and less physical activities each day. In 2013, only 27.1% of adolescents surveyed had participated in at least 60 minutes per day of physical activity on all seven days before the survey, and just 29% attended physical education class daily (U.S. Department of Health and Human Services, 2014b). By contrast, the
report revealed that 33% and 41% of adolescents indicated they participated in three or more hours of sedentary activities like watching television and computer usage per day on an average school day (National Division of Adolescent and School Heath, 2013). Among racial/ethnic comparisons, African American and Hispanic students were more likely to participate in these health risk behaviors than non-Hispanic white students (Centers for Disease Control and Prevention, 2011).

**Obesity Intervention Programs**

The complexity of childhood obesity has posed challenges for public health professionals in the U.S. Even though the concept behind combating childhood obesity appears to be a straightforward solution (i.e. behavioral changes related to physical activity and eating patterns to positively impact obesity rates), not many obesity prevention programs have proven successful (Dietz & Gortmaker, 2001; Summerbell, Waters, Edmunds, Kelly, Brown, & Campbell, 2005). This is primarily because childhood obesity intervention models often utilize a one-dimensional approach to a multifaceted crisis (Kaufman & Karpati, 2007).

Schools play a critical part in reducing obesity rates among children and adolescents by establishing healthy behavior patterns early in life that will likely carry into adulthood (U.S. Department of Health and Human Services, 2007). More than 95% of youth aged 5 to 17 years are enrolled in school within the U.S. As a result, schools provide critical channels to promote and practice healthy behaviors that protect health while reducing health risks (Coalition of National Health Education Organizations, n.d.). The CDC recommends the use of a coordinated school health (CSH) strategy to improve students' health and learning in U.S. schools. Such programs typically have several interdependent goals that, if addressed simultaneously through a
coordinated approach, could prove to be successful (U.S. Department of Health and Human Services, 2015).

In 2013, a systematic review of childhood obesity prevention programs, including a review of over 40,000 articles, was conducted to determine if community-based obesity intervention programs were effective in combating childhood obesity (Bleich, Segal, Wu, Wilson, & Wang, 2013). Studies were included in the review if they (1) were community-based; (2) targeted children ages 2-18 years; (3) followed up at least after 1 year of baseline; (4) compared an intervention group to a comparison group; (5) reported differences in weight between the intervention and control groups; and (6) results were determined either by randomized control, quasi-experimental or natural experimental studies. Among the studies reviewed, nine were included; however, only four of studies resulted in desirable and significant changes in BMI or BMI z-scores of the target population. When comparing intervention programs that were successful and the strategies incorporated, those that incorporated school and/or home strategies with a community-based approach yielded more significant desirable outcomes. As a result, intervention programs may prove to be successful in combating childhood obesity if behavior changes among children and adolescents (i.e. physical activity and eating patterns) are addressed in the community, school and home, concurrently.

However, with school districts experiencing budgetary cuts on both the state and federal level, schools struggle to continue to provide high-quality educational programs (Oliff & Leachman, 2011). K-12 schools rely heavily on federal and state funds with approximately 47% of total education expenditures coming from state funds (Oliff & Leachman, 2011). A report from the Center on Budget and Policy Priorities (2011) indicated that at least 37 states received less state funding for elementary and high schools than the previous year. As a result, state
education cuts are undermining initiatives to combat childhood and adolescent obesity (Oliff & Leachman, 2011).

As evident by the literature reviewed within this chapter, obesity rates among U.S. children and adolescents are at an all-time high, with disparities seen among Hispanic and African American communities. In order to combat obesity and enhance the well-being of those afflicted obesity-related chronic diseases, there is a need to identify effective strategies that take a multifaceted approach to the multifaceted problem. Based on research findings, community-based intervention programs that encourage healthy behaviors that can be employed in the home, community, and school setting may prove to be the most successful.

The purpose of the Knowledge for a Healthier YOU curriculum and student handbook presented in this project was to educate and encourage adolescent participants aged 14-19 years to adopt healthy lifestyle behaviors such as engaging in regular physical activity and making informed choices to eat healthier. Due to the known budgetary constraints within the school system, the curriculum and student handbook were intended to be implemented in conjunction with a structured exercise program in a community-based center at no cost to the community or participants.
CHAPTER III

METHODOLOGY

With the increased prevalence of childhood obesity in the U.S., the quality of health education programs can play a critical role in improving young peoples’ health and well-being. The purpose of the Knowledge for a Healthier YOU curriculum and student handbook was to educate adolescents aged 14-19 years on the importance of physical activity, proper nutrition, and other healthy lifestyle behaviors in order to improve overall health and well-being. In order to evaluate a change in knowledge of participants, pre- and post-assessments were to be administered.

Curriculum and Student Handbook Development and Delivery

The Knowledge for a Healthier YOU curriculum and student handbook were intended to be implemented as part of an 8-week physical activity program titled “SF Fuerte” (translation: “San Fernando Strong”) during the summer of 2011. The curriculum and student handbook were to be facilitated by a credentialed professional in the field of nutrition and/or physical activity with a strong knowledge and understanding of health behaviors related to nutrition and physical activity and their impact on overall health and well-being. Each week, two 15-20 minute curriculum lesson plans were designed to cover topics related to nutrition, fitness, and general wellness prior to engaging in some type of physical activity; and were to be administered to high school students within the city of San Fernando, California. The physical activity program was included cardiorespiratory and resistance exercise that was developed and administered by two graduate students within the Kinesiology department of California State University, Northridge (CSUN). In order to assess whether participants increased their knowledge but participating in the program, a pre- and post- assessment was to be administered. However, due to unforeseen
circumstances such as relocation and schedule conflicts, the program experienced a significant drop out rate of the target population and ended 1.5 weeks early. As a result, some of the intended lesson plan topics were not facilitated and therefore were not included in this project. Additionally, due to these circumstances, post-assessments were not administered to the remaining participants. Instead, the curriculum and student handbook were evaluated by a panel of experts after the program had concluded to determine the overall effectiveness if administered again in the future.

**Student Handbook Development**

Before developing the *Knowledge for a Healthier YOU* curriculum (Appendix B-CC), it was necessary to first establish the desired content related to nutrition, fitness, and wellness that would be covered in the student handbook (Appendix DD) based information from the *Dietary Guidelines for Americans 2010* and the *2008 Physical Activity Guidelines for Americans*. Once the content was established, additional components were integrated to support the use of the student handbook to complement components of the SF Fuerte program. For example, an incentive tracker was included to encourage participation through the duration of the program. Each time a participant attended and actively participated in lesson activities or completed take home assignments, a number of points were to be awarded and tracked within the student handbook. A section was also added to the student handbook to document fitness assessment scores received when performing standardized FitnessGram® assessments. Finally, a section was also added to allow participants to define a personal goal (i.e. S.M.A.R.T. goal) and the steps needed to accomplish the goal by the end of the 8-week program, as well as other areas to take notes during the lessons.
Curriculum Development

Based on the content developed in the student handbook, a total of 16 lesson plans were outlined as part of the curriculum and included topics such as goal setting strategies, well-balanced diets, food moderation, meal planning, healthy and unhealthy eating and exercising behaviors and ways to improve health and fitness (Appendix A). However due to the developmental stage of most adolescents, some topics such as disordered eating and eating disorders were purposefully excluded. Rather, topics were designed to educate students on healthy eating and exercise habits to help reinforce positive behaviors. In order to maintain the focus and attention of the participants, lesson plans were designed to last no more than 20 minutes, ideally prior to engaging in any structured physical activity. For each curriculum lesson plan, learning objectives were established and based on the California State Standards for Health Education (Appendix FF). These objectives were listed at the top of each lesson plan and contained all of the necessary materials in an organized packet as a means to assist the facilitator in the assessment process. Additionally, the curriculum lesson plans were strategically designed to use minimal resources such that it could be implemented at either a school or community center with a little-to-no budget.

Curriculum and Student Handbook Delivery

The Knowledge for a Healthier YOU curriculum and student handbook were introduced to a group of adolescents 14 to 19 years of age; and designed to be delivered over the course of an 8-week community-based nutrition and physical activity program, “SF Fuerte”. Each week and prior to engaging in structured physical activity, two 15-20 minute curriculum lesson plans related to nutrition, fitness, and general wellness were covered on non-consecutive days while using the student handbook as the informational tool for the participants to reference and take
notes. To ensure that student handbooks did not get misplaced during the program, the handbooks were retained with the program facilitators until the final day when they were given to the participants to take home, if possible.

**Program Participants**

The target population was limited to those attending a school within the San Fernando area of the Los Angeles Unified School District (LAUSD). Subjects (n=29) were within the age of 14-19 years old, either male or female, considered otherwise healthy; and weight status varied from normal weight to overweight or obese.

**Formative Evaluation**

The *Knowledge for a Healthier YOU* curriculum includes a total of 14 lessons plans; additionally a student handbook was created to complement the educational content covered during the lessons. Due to the unforeseen circumstances that resulted in the SF Fuerte ending 1.5 weeks early, data was not gathered from program participants to assess whether a change in knowledge had occurred. Instead, the content of the curriculum and student handbook were evaluated by a panel of experts after the conclusion of the program, to determine if curriculum and student handbook would effectively meet the desired learning objectives, if administered in the future to the target population. Therefore, a panel of experts was asked to complete a formative evaluation survey (Appendix EE) to obtain their honest opinions of the curriculum and student handbook.

**Panel of Experts**

Experts were selected to participate in the formative evaluation process based on their professional background and experience within nutrition, fitness, general wellness, and high
school education. Each expert of the panel had experience in working with adolescents; however their areas of expertise were diverse and included any or all of the following: education, curriculum, physical activity, nutrition, and health. The participation and feedback obtained by the panel of experts within diverse areas aided in ensuring the accuracy and validity of the curriculum and student handbook, thus contributing to the greater likelihood of success.

**Expert Evaluation Procedures**

A copy of the *Knowledge for a Healthier YOU* curriculum and student handbook was provided to each expert on December 30, 2012. Each expert was asked to evaluate the curriculum, honestly and without compensation, by completing a formative evaluation survey, and return by January 31, 2013.

**Expert Evaluation Measurements**

The formative evaluation survey (Appendix EE) consisted of two parts, Part I and Part II. Part I requested general demographic information about each expert completing the survey including: age, gender, ethnicity, area of expertise, credentials/degrees, current position of employment, and background/experience working with adolescents aged 12-19 years. Part II of the survey requested each expert to provide a response to a series of close-ended questions about the curriculum and student handbook. Using a Likert scale, each expert was asked to rank each statement, where 1= Strongly Disagree, 2= Disagree, 3= Not sure, 4= Agree, 5= Strongly Agree. Each expert was also asked whether he/she would recommend the use of the curriculum by responding yes or no. Finally, an open-ended question was included to allow each expert to include additional comments, criticisms, or recommendations.

**Expert Characteristics**
The panel of experts was composed of three white, non-Hispanic females, all of whom had experience working with adolescents’ aged 12-19 years. Each expert differed in age, areas of expertise, education level, and area of employment.

Evaluator 1 had expertise in physical activity, nutrition, and adolescents. She is a Registered Dietitian (RD) and a University Professor who holds a PhD in Nutritional Biology and a Masters of Science degree in Exercise Physiology. Additionally, she is a member and contributing editor for the Academy of Nutrition and Dietetics’ Sports, Cardiovascular, and Wellness Nutritionists (SCAN) dietetic practice group and is a member of the American College of Sports Medicine. Her research interests include studying the prevalence of physiological and behavioral factors associated with low bone mineral density and bone stress injury among adolescent endurance runners.

Evaluator 2 identified Education as her area of expertise. She is a second grade teacher with 8 years of teaching experience and holds a Masters of Arts in Education Administration, a Bachelors of Science degree in Recreation, and a Multiple Subjects education credential. Additionally, she has undergone extensive training in the area of curriculum development strategies.

Evaluator 3 had expertise in all areas: education, physical activity, curriculum, nutrition, adolescents, and health. She is a Brandon University instructor with 22 years of teaching experience with adolescents. She holds a Masters and Bachelors of Science in Physical Education (PE), a single subject credential in PE, and an adaptive PE specialist credentials.
CHAPTER IV

RESULTS

Results from the Evaluation by Experts

After reviewing the *Knowledge for a Healthier YOU* curriculum and student handbook (Appendix A-DD), the qualitative and quantitative feedback gathered from each expert indicated the panel, collectively, would support and recommend the use of *Knowledge for a Healthier YOU* as an effective tool to educate adolescents in topics related to health and wellness. Tools such as these could be used to help reduce the incidence of childhood obesity, if implemented in conjunction with a structured physical activity program.

For the following statements, all experts acknowledged that they strongly agreed:

- The curriculum topics were researched and displayed well.
- The curriculum was clear and concise.
- The curriculum was easy to understand.
- The Student Handbook and other lesson handouts supported the curriculum appropriately.

The expert who is a Registered Dietitian indicated she agreed and the other two experts indicated they strongly agreed with the following statements:

- The curriculum was appropriate for its target audience.
- The material used in the curriculum were cited and referenced properly.

Though the Registered Dietitian expert agreed that the curriculum was appropriate for its target audience, she did indicate that some of the lessons appeared to be targeted towards a younger population (i.e. grade school rather than high school students).
In regards to the statement of whether the materials used in the curriculum were cited and referenced properly, the Registered Dietitian expert recommended the addition of in-text citations within the Student Handbook, along with a reference list of these resources at the end of the handbook.

The Registered Dietitian expert indicated that she was in-between agreed and strongly agreed to the following statement:

- The curriculum content was presented in an effective manner.

Further comments from the panel of experts included the following:

- “Overall great work, very thorough!”
- “… the group interaction and physical movement of the activities offered strength to the program.”
- ”The use and explanation of the acronym S.M.A.R.T. when setting goals was an added benefit.”
- “Very informative … the lesson plans were detailed and well thought out.”
- ”The student handbook would be useful for young adults and appreciated the program because it focused on obesity prevention.”
- ”The curriculum is excellent and is appropriate for ‘today’s student population’.”

Recommendations to add the following sections of the Student Handbook included:

- Addition of a chart referencing the acceptable ranges for each fitness assessment conducted to help the students determine where their test results stand.
- Revise the second bullet under the “Healthy Eating” section to avoid stating that milk products provide protein. Additionally, recommend adding the Dietary Guidelines as a reference.
- Provide information about the specific roles of vitamins under the “Nutrients and how they can benefit you” section.
CHAPTER V
DISCUSSION

The purpose of this project was to design curriculum and a student handbook that could aid in reducing the number of adolescents who are at risk of developing obesity and chronic diseases related to obesity, particularly in low-income communities. The goal of the *Knowledge for a Healthier YOU* curriculum and student handbook was to educate and encourage adolescents to adopt healthy eating and physical activity behaviors through lectures and activities. Even though the *Knowledge for a Healthier YOU* curriculum and student handbook were designed for a specific program within the city of San Fernando, California, the intention was to develop content and other support materials that could be implemented in any school and/or community-based setting that works with adolescents (14-19 years old), at little-to-no cost to facilitators. Due to the unforeseen scheduling and relocation conflicts that arose during program implementation, a significant drop out rate was experienced. Therefore, participants of the program were not given an opportunity to evaluate the curriculum and student handbook, nor was there an opportunity to ascertain if a change in knowledge occurred in the adolescents that participated in the program. However, the feedback provided by each expert on the panel was considered and improvements or modifications were made accordingly to enhance the delivery to the target population in the future.

**Discussion of the Findings and Modifications**

The formative evaluations completed by the panel of experts were helpful in assessing the content and delivery method of the curriculum and student handbook among adolescents aged 14-19, as well as accuracy in the content provided. The diverse areas of expertise that each expert offered enhanced the project as a whole and may increase the likelihood of success, if the
curriculum and student handbook were implemented in future school/community-based programs. Based on the feedback provided by the panel of experts, no changes were recommended for the curriculum; however, the following modifications were made to the student handbook (Appendix DD) to enhance the delivery and overall effectiveness if implemented in the future to the target population:

- In-text citations and a list of references at the end
- Addition of FitnessGram® assessment standard scores
- Addition of the Dietary Guidelines for Americans
- Other small additions to content in areas mentioned

**Implications and Conclusions**

In light of the rising obesity rates among children and adolescents within the U.S., it is clear that efforts must be made to reduce the incidence of obesity and obesity-related chronic diseases, particularly in communities and groups where disparities are seen. Based on the research previously discussed, in order to combat childhood obesity, there is a need for multidisciplinary intervention programs that take a holistic approach to the obesity crisis by understanding and integrating factors such as socioeconomic challenges, family, sociocultural practices, as well as other factors surrounding their environment. Moreover, Bleich et al. (2013) findings suggest that obesity intervention programs that incorporate a school and community component are more effective than intervention programs only implemented in school or the community alone.

Due to the disparities seen among specific communities and groups, intervention programs should focus their efforts in low-income areas as these communities face several socioeconomic challenges beyond other Americans, such as unsafe public spaces to engage in
physical activity as well as limited access to healthy and reasonably priced foods (Food Research and Action Center, 2010). As access to and convenience of energy dense beverages and meals are expected to increase, low-income families will have a greater difficulty meeting dietary recommendations if efforts are not made to educate healthy lifestyle behaviors to these communities, whether through intervention programs or government initiatives to change public policy (Kirkpatrick, Dodd, Reedy, & Krebs-Smith, 2011). Additionally, with nearly 40% of Hispanic adolescents being classified as overweight or obese (Letsmove.gov, 2013), intervention programs should work to enhance the health and well-being of children and adolescents from this ethnic/race group. Hispanic adolescents are not only more likely to participate in unhealthy behaviors (Centers for Disease Control and Prevention, 2011), but as Gesell et al. (2008) pointed out, may be more socially influenced by family and friends on whether to adopt healthy lifestyle behaviors for themselves.

Although it has been shown that schools play a critical role in enhancing the health and well-being of students, which in turn has been linked to more academic success (National Division of Adolescent and School Health, 2011), budgetary restrictions are hindering the abilities of schools to provide high-quality educational programs, particularly in low-income areas (Oliff & Leachman, 2011). Therefore, efforts should be made to implement community-based intervention programs as little-to-no cost to facilitators.

The purpose of the Knowledge for a Healthier YOU curriculum and student handbook was to educate and encourage healthy eating and exercising behaviors among adolescents. Although implementation of this project was limited to one area within the city of San Fernando, California and may not be generalizable, it could serve as a model for an effective tool in reducing the risk of, or preventing, obesity among children and adolescents by introducing
healthy lifestyle behaviors in an interactive manner, if administered with a structured physical activity program. Moreover, the fact that this project was integrated as part of a joint partnership between a school and community-based center, as an after-school program, such collaborations increase the likelihood of greater success when compared to other intervention programs only implemented in school or the community alone.
REFERENCES


Disease Control and Prevention:


http://www.cdc.gov/healthyyouth/cshp/index.htm


Lesson 1. Introduction: How to Use your Student Handbook

Lesson 2. Motivation and Goal Setting

Lesson 3. Health: Where YOU stand

Lesson 4. Nutrients and Fitness Components

Lesson 5. MyPlate and Portion Control

Lesson 6. The Benefits of Physical Activity and Energy Balance

Lesson 7. Nutrition Fact Labels

Lesson 8. Staying Healthy

Lesson 9. Eat This or Eat That?

Lesson 10. Eating Habits and the Impact on Health and Exercise

Lesson 11. Eating Out and How to Stay in Control

Lesson 12. Exercise Intensity

Lesson 13. Diet is just a Four Letter Word


Lesson 15. Managing a Healthy Weight

Lesson 16. Workouts that work for YOU
## APPENDIX B

**Knowledge for a Healthier YOU: Lesson 1**

**Knowledge for a Healthier YOU: Lesson 1**

<table>
<thead>
<tr>
<th>Grade Level: 9-12</th>
<th>Subject: Introduction</th>
<th>Prepared By: Amanda Christianson</th>
</tr>
</thead>
</table>

### Overview & Purpose
- Introduction of the program and the student handbook.

<table>
<thead>
<tr>
<th>Plan</th>
<th>Teacher Guide</th>
<th>Student Guide</th>
<th>Materials Needed</th>
<th>Additional Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Instructor will begin by introducing oneself.</td>
<td>2a. Student will write his/her name on the front of the handbook in the designated area.</td>
<td><strong>Handbook</strong></td>
<td><em>Collect Student handbooks at end of lesson</em></td>
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<tr>
<td>2. Introduce handbook and identify program objectives.</td>
<td></td>
<td><strong>30 Food and Fitness Daily Log and instructions</strong></td>
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<tr>
<td>o Instructor will give each student a “Knowledge for a healthier YOU” handbook. Inform students that handbooks will be collected at the end of each day for safe keeping, and then theirs to keep after the 8 week program is complete.</td>
<td></td>
<td><strong>Pencil</strong></td>
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<td>o Instructor will give the purpose of handbook.</td>
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<tr>
<td>3. Instructor will explain incentive program, page 1.</td>
<td>3a. Student should be excited about incentive prizes.</td>
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<td>o Discuss ways of earning points, incentive prizes, and required points needed to receive grand prize.</td>
<td>3b. Student should understand how to enter points into scorecard, by demonstrating so when entering the day’s participation points.</td>
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<td>o Introduce “Point Scorecard”, pages 4-7.</td>
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<td>o As a group demonstrate how to enter points earned within handbook by entering the current points earned for participating for the day.</td>
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<td>4. Introduce “Food and Fitness Challenge” packet</td>
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<tr>
<td>Activity</td>
<td>1. Instructor will identify point earning take activity: 3 day Food and Fitness Challenge. Students will be asked to log their food and fitness for 3 consecutive days (2 weekdays and 1 weekend day). &quot;Food and Fitness Challenge&quot; packets will be collected during week 2.</td>
<td>1a. Students will log food and fitness for a 3 consecutive days (2 weekdays and 1 weekend day). Students will turn in completed packet during week 2.</td>
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<tr>
<td>Verification</td>
<td>1. Throughout lesson instructor will encourage students to ask and answer questions. Instructor will give examples on how to log food and fitness into the log sheet.</td>
<td>1a. Students will ask and answer questions throughout lesson.</td>
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<tr>
<td>Summary of Objectives</td>
<td>By the end of the lesson, the student will understand how to use the student handbook and the Food and Fitness Challenge, and how to earn and track their points throughout the 8 week program.</td>
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APPENDIX C

Knowledge for a Healthier YOU: Lesson 1 Take Home Activity

“3 Day Food and Fitness Challenge”

Tracking your daily food and fitness can help to identify ways in which you can become healthier by improving the quality and quantity of food and physical activity you receive each day.

Directions: Fill out one “Food and Fitness Daily log” each day, for 3 consecutive days. Make sure to get at least one day during the weekend. For example, you would log your food and fitness for Thursday, Friday, and Saturday. *Make sure to eat, drink, and participate in physical activity as you normally would.

Use the “Sizing up Servings” guide to help you determine the amount and number of servings you are eating or drinking.
Sizing up Servings Right for YOU

Grains
- Half a bagel
- 1 cup of rice or pasta/cereal

Fruits & Veggies
- 1 fruit/veggie
- 1/2 cup of canned fruit
- 1 cup of salad

Dairy
- 1 oz. cheese (4 dice)
- 3/4 cup of yogurt
- 1 cup of milk

Meats & Alternatives
- 3 oz. Meat, poultry, fish
- 2 small eggs or 1 large egg
- 2 tablespoons of peanut butter

Oils, Spreads, Dressings
- 1 teaspoon of dressing, oil, butter, or cream cheese (2 stacked nickels or top joint of thumb)

http://caldining.berkeley.edu/nutrition.html
### Food and Fitness Journal

**Date:**

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<th></th>
<th>Qty</th>
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<th>Food</th>
<th>Grains</th>
<th>Veggies</th>
<th>Fruit</th>
<th>Protein</th>
<th>Dairy</th>
<th>Other</th>
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**Total number of Servings**

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<th>Qty</th>
<th>Serving Size</th>
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**Daily Totals**

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# APPENDIX D

**Knowledge for a Healthier YOU: Lesson 2**

**Grade Level:** 9-12  
**Subject:** Motivation and Goal Setting  
**Prepared By:** Amanda Christianson

## Overview & Purpose
- Identify motivation factors for becoming healthy
- Identify goal setting techniques and effectively create two (2) personal goals for the program.

<table>
<thead>
<tr>
<th>Plan</th>
<th>Teacher Guide</th>
<th>Student Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Instructor will distribute &quot;Knowledge for a healthier YOU&quot; handbooks</td>
<td>3a. Student will demonstrate understanding. See activity 1.</td>
<td></td>
</tr>
<tr>
<td>2. Instructor will begin by re-introducing oneself for any new students</td>
<td>4a. Student will demonstrate understand of how to apply S.M.A.R.T. guideline. See activity 2.</td>
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<tr>
<td>3. Discuss purpose of motivation and common factors</td>
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<tr>
<td>4. After activity 1, instructor will discuss the purpose of goal setting and the S.M.A.R.T. acronym, page 6.</td>
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<tr>
<td>o Read the example on bottom of page 6 and break it down using the S.M.A.R.T. guideline.</td>
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<table>
<thead>
<tr>
<th>Activity</th>
<th>1. The instructor will ask students to name a few reasons why they are motivated to exercise and eat healthier.</th>
<th>1a. After discussion, student will right three (3) factors that motivate them to exercise and eat healthy into the student handbook, page 6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Using the S.M.A.R.T. guidelines on page 6, the instructor will ask the students to set two (2) goals that they would like to achieve during the 8 weeks and the steps needed to be successful: one (1) nutrition related and one (1) fitness related, into their handbooks, page 7.</td>
<td>2a. Student will write down two (2) goals: one (1) nutrition related and one (1) fitness related into handbook, page 7.</td>
<td></td>
</tr>
<tr>
<td>Verification</td>
<td>1a. Students should participate by sharing with class.</td>
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<tr>
<td>1. During objective 1 and 2 instructors may ask students to share answers with the rest of the group. Answers may vary but should fall with discussed material.</td>
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</table>

### Materials Needed
- Handbook
- Pencil

### Additional Notes
* Collect Student handbooks at end of lesson

### Summary of Objectives
By the end of the session, students will be able to ID motivation factors for becoming healthy; identify goal setting techniques and effectively create two (2) personal goals for the program.
## APPENDIX E

### Knowledge for a Healthier YOU: Lesson 3

**Grade Level:** 9-12  
**Subject:** Health: Where do YOU stand?  
**Prepared By:** Amanda Christianson

### Overview & Purpose
- To identify factors that can have a positive or negative impact on health status.

<table>
<thead>
<tr>
<th>Teacher Guide</th>
<th>Student Guide</th>
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</thead>
</table>
| **Plan**  
1. Instructor will distribute "Knowledge for a healthier YOU" handbooks.  
2. Instructor will begin by re-introducing oneself for any new students.  
3. Instructor will have students participate in pre-lesson activity, "Where you stand."  
4. After activity 1, Instructor will then discuss how the statements impact health and how small and simple steps can be made to improve where they stand.  
5. Instructor will ask one or two students to share one way he/she can improve where they stand.  
   - 5 points will be given to those students that choose to share.  

5a. Students, who choose to share, one way he/she will improve their health, will receive 5 points. |  
| **Activity**  
1. The instructor will read and follow teacher instructions. See pre-lesson activity handout. |  
| 1a. Students will wait for instructions from instructor on what to do. |
| **Verification**  
1. After activity 1, instructor will ask one or two students to share one way he/she can improve where they stand. |  
1a. Students should participate by sharing with class. |

### Materials Needed
- Handbook
- Pre-lesson activity handout
- Pencil

### Additional Notes
* Collect Student handbooks at end of lesson

### Summary of Objectives
By the end of the lesson students will understand factors that impact their health and identify those that he/she can control by living a healthy lifestyle.
APPENDIX F

Knowledge for a Healthier YOU: Lesson 3 Pre-lesson Activity

“Where you stand”

Time: 5-10 minutes

Teacher Instructions:

- Have students stand in a row (shoulder to shoulder) facing the instructor.
- The instructor will then take ten (10) large steps backwards.
- Instructor will then announce the activity name, “Where you stand”, and read the directions to the students (see below).
- The instructor will then have all students close their eyes and keep them closed until told otherwise.

Activity Directions:

Part A. The instructor will read one (1) positive behavior statement at a time, to the students. Have students take one (1) step forward towards the instructor if he/she acknowledges the statement to be true for them. For example: After reading the statement, “I get at least eight (8) hours of sleep a night”, if the student acknowledges this is something he/she does then he/she will take one (1) step forward. If the student does NOT acknowledge the statement to be true, he/she will remain in the same place.

Before reading each statement, the instructor will say, “Take one (1) step forward, if you…”

1. “…get at least eight (8) hours of sleep a night.”
2. “…use exercise as a way to relieve stress.”
3. “…drink more than eight (8) cups of fluids a day.”
4. “…eat at least five (5) fruits and veggies a day.”
5. “…exercise as least three (3) days/week for 60 minutes each time.”
6. “…eat junk food like chips, soda, and candy no more than once or twice a week.”
7. “…eat breads, pastas, cereals made with whole grains.”
8. “…lift weights as a workout at least one (1) day out of the week.”
9. “…watch TV, play video games, or sit around less than two (2) hours a day.”
10. “…walk, skate, or bike to get around.”

Part B. The instructor will then read one (1) risk factor statement, at a time, to the students. Have students take one (1) step backwards if he/she acknowledges the statement to be true for him/her.

Before reading each statement, the instructor will say, “Take one (1) step backwards, if you…”
1. “…have more than one family member who is overweight.”
2. “…have or a family member has high blood pressure.”
3. “…have or a family member has diabetes.”

**Conclusion:** Have students open their eyes and see how close or far he/she was from the instructor. Those who are farther from the instructor could have a greater risk of chronic diseases and should take steps to improve their health. Instructor will discuss how some factors are out of our control, whereas others are not. Instructor will then ask one or two students to share one step towards better health.
# APPENDIX G

## Knowledge for a Healthier YOU: Lesson 4

### Overview & Purpose
- To identify the six (6) nutrients essential for life.
- To identify the five (5) components of fitness.

### Plan

<table>
<thead>
<tr>
<th>Teacher Guide</th>
<th>Student Guide</th>
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<tbody>
<tr>
<td>1. Instructor will distribute “Knowledge for a healthier YOU” handbooks</td>
<td>5a. Students will turn to page 30-31 and read along with instructor.</td>
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<tr>
<td>2. Instructor will begin by re-introducing oneself for any new students</td>
<td>6a. Students will wait for instructions from instructor on what to do. See activity 1.</td>
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<tr>
<td>3. Instructor will also introduce lesson topic, Nutrition and Fitness Components.</td>
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<td>4. Instructor will discuss what healthy eating means and then discuss the six (6) nutrients, page 14-15 of student handbook.</td>
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<tr>
<td>5. Instructor will then discuss the benefits of physical activity and the five (5) fitness components of fitness, page 30-31 of student handbook.</td>
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<tr>
<td>6. After all nutrient and fitness components have been discussed, instructor will lead into activity 1, “Match It”.</td>
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### Activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>1. The instructor will reveal “Match It” game boards and read instructions. See Lesson 4 handout.</th>
<th>1a. Students will wait for instructions from instructor on what to do.</th>
<th>Additional Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verification</td>
<td>1. After activity 1, instructor will quickly go over answers by asking for students’ participation.</td>
<td>1a. Students will participate by shouting out the correct answer.</td>
<td>* Collect Student handbooks at end of lesson</td>
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</table>

### Summary of Objectives
By the end of the lesson students will understand and be able to identify essential nutrients and components of fitness.

### Materials Needed
- Handbook
- Pencil
- Lesson 4 handout.
- Two (2) “Match It” game boards and two (2) sets of 11 game pieces.

---

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APPENDIX H

Knowledge for a Healthier YOU: Lesson 4 Activity

“Match It”

Time: 10 minutes

Teacher Instructions:

- Divide students into two teams. Each team will create a team name and identify their team captain.
- Each team will have one (1) game board along with 11 game pieces. *Make sure to face game boards away from each other.
- Instructor will then announce the activity name, “Match It” and read the directions to the students (see below).

Activity Directions:

Each team has been given one (1) game board along with 11 game pieces. On the board you will see the six (6) essential nutrients and the five (5) fitness components that were discussed earlier. Team captains are responsible for reading each game piece to the team. Discuss and then match to the correct category, as a team. Game pieces may either describe the category or give examples of the category.*only one (1) game piece per category. The team with the most correct answers wins 20 points per team member.

Answer Key:

<table>
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<tr>
<th>Fitness Components</th>
<th>Essential Nutrients</th>
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<tbody>
<tr>
<td>Flexibility</td>
<td>Water 60% of your body is composed of this and is necessary for life.</td>
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<td>Can help you reduce muscle soreness and injury.</td>
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<tr>
<td>Cardio</td>
<td>Vitamins Vitamins A, B’s, C, D, E, and K</td>
</tr>
<tr>
<td>Strengthens your heart and lungs so that you can deliver oxygen to your body better.</td>
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<tr>
<td>Muscular Endurance</td>
<td>Minerals Used within the body to help build things such as teeth and bones. Some examples include iron, calcium, potassium, and sodium.</td>
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<tr>
<td>Ability to use the muscles many times without tiring.</td>
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<tr>
<td>Muscular Strength</td>
<td>How much weight you can lift only once.</td>
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<td>----------------------------------------</td>
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<tr>
<td>Body Composition</td>
<td>Is a way to describe what percentage of body weight is made up of, such as body fat and lean (muscle, water, bone), within your body.</td>
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*Bonus round: 5 points to the first team that can name:

1. Essential nutrients that provide energy.

Answer: Fats, carbohydrates, and lipids

Conclusion: Instructor will go over correct answers by asking students to shout out correct answers.
APPENDIX I

Knowledge for a Healthier YOU: Lesson 5

Grade Level: 9-12  Subject: MyPlate and Portion Control  Prepared By: Amanda Christianson

Overview & Purpose
- To identify what appropriate plate portions should look like by using MyPlate.
- To identify how to measure appropriate serving sizes.

<table>
<thead>
<tr>
<th>Plan</th>
<th>Teacher Guide</th>
<th>Student Guide</th>
<th>Materials Needed</th>
<th>Additional Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Instructor will distribute “Knowledge for a healthier YOU” handbooks</td>
<td>2a. Students will call out the six (6) essential nutrients and a function in which was covered from previous lesson.</td>
<td>o Handbook  o Pencil  o 30 Blank Create your plate Handouts  o 30 Take Home Activity #2 handouts</td>
<td>* Collect Student handbooks at end of lesson</td>
</tr>
<tr>
<td>2.</td>
<td>Instructor will remind students of previous lesson topic, Nutrition and Fitness Components, and ask students to call out the six (6) essential nutrients and a function covered.</td>
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<td>3.</td>
<td>Instructor will then introduce first part of lesson topic, MyPlate and discuss examples from the five (5) food categories, fruits, vegetables, grains, dairy, and protein.</td>
<td>4a. Students will receive one (1) “Create Your Plate” handout and wait for instructions. See Activity 1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>After all five (5) food categories have been discussed, instructor will lead into activity 1 and distribute “Create Your Plate” handouts.</td>
<td>5a. Students will then compare and identify differences between their meal and the correct MyPlate version.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>After students have completed Activity 1, instructor will show the correct version of MyPlate and discuss helpful tips for each category. o Instructor quickly recall on information discussed. See Verification 1.</td>
<td>o Students will participate by shouting out the important tip given in the discussion.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Instructor will lead into second part of lesson and re-introduce “Sizing up Servings” chart, page 20 of student handbook.</td>
<td>6a. Students will turn to page 20. o Students will use “Sizing up Servings” chart to call out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>1. Once each student has received “Create Your Plate” handout, instructor will read instructions. See “Create your plate” handout.</td>
<td>1a. Students will wait for instructions from instructor on what to do.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Instructor will identify points earning “Take home activity #2: Determine what is right for you.”</td>
<td>2a. To earn points, students will follow directions on handout and create a personalized meal plan.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Students will be asked to create a personalized meal plan by following directions on handout.</td>
<td>o Students will turn in personalized meal plan during week 4.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Take Home Activity #2 will be collected during week 4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verification</td>
<td>1. After activity 1, instructor will quickly call out categories and ask students to name the important tip for that category.</td>
<td>1a. Students will participate by shouting out the important tip for each category.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. After “Sizing up Servings” chart has been re-introduced, instructor will call out types of foods and ask students to give the correct serving size.</td>
<td>2a. Students will participate by shouting out the correct serving size for each type of food by using “Sizing up Servings” chart on page 20.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary of Objectives</td>
<td>By the end of the lesson students will understand how to determine appropriate serving sizes for each food category and be able to apply information when preparing his/her meals.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# APPENDIX J

## Knowledge for a Healthier YOU: Lesson 6

**Grade Level:** 9-12  
**Subject:** The Benefits of Physical Activity & Energy Balance  
**Prepared By:** Amanda Christianson

### Overview & Purpose
- To identify factors that help in managing a healthy weight, physical activity and nutrition.
- To identify the health benefits of physical activity and the type and amount of physical activity recommend for good health.

<table>
<thead>
<tr>
<th>Teacher Guide</th>
<th>Student Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plan</strong></td>
<td></td>
</tr>
<tr>
<td>1. Instructor will distribute “Knowledge for a healthier YOU” handbooks</td>
<td>3a. Students will participate by shouting out responses to questions given by instructor.</td>
</tr>
<tr>
<td>2. Instructor will remind students of previous lesson topic, MyPlate and Portion Control, and ask students to call out how portion control can play a part in managing a healthy weight.</td>
<td>4a. Students will participate by shouting out responses to questions given by instructor.</td>
</tr>
<tr>
<td>3. Instructor will then introduce first part of lesson topic for the day, The Benefits of Physical Activity, and discuss how physical activity also plays a part in managing a healthy weight.</td>
<td>5a. Students will stand up to participate in “Do More, Less, or Just Enough”, see Activity 1.</td>
</tr>
<tr>
<td>4. Instructor will also discuss what it means to be physically active, the benefits, and amount recommended, and ask students to shout out responses to questions. See pages 30-33 of student handbook.</td>
<td>6a. Students will remain standing and participate in discussion.</td>
</tr>
<tr>
<td>5. Instructor will then lead into Activity 1, “Do More, Less, or Just Enough”.</td>
<td></td>
</tr>
<tr>
<td>6. Instructor will have students remain standing while introducing second part of lesson topic, Energy Balance, and discuss what energy is and the art of managing a healthy weight, page 23 of student handbook.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Activity</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Instructor will ask student to stand and then will read instructions. See Lesson 6 Activity: “Do More, Less, or Just Enough” instructor handout.</td>
<td>1a. Students will stand to participate in game and wait for instructions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Verification</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. At the end of the lesson, the instructor will ask students to shout out one (1) new thing he/she has learned from the lesson.</td>
<td>1a. Students will participate by shouting out something he/she learned during the lesson.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Summary of Objectives</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>By the end of the lesson students will understand the importance of physical activity and the correct amount and type of exercise he/she should participate in. Students will also understand the role physical activity and nutrition play in managing a healthy weight.</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX K

Knowledge for a Healthier YOU: Lesson 6 Activity

“How More, Less, or just Enough”

Time: 5 minutes

Teacher Instructions:

- Prior to the start of the activity, post up in the three (3) signs; “Do More”, “Do Less”, and “Do Enough”, in different locations making a triangle.
- All students will be in one (1) large group.
- Instructor will then announce the name of the activity, “Do More, Less, or Just Enough” and read the directions to the students (see below).
- Instructor will explain what is meant by “Do More”, “Do Less”, and “Do Enough”.

Activity Directions:

All students will be in one (1) large group and must work as a team. The instructor will name an example of physical activity (PA) and the group must decide which category it should fall under; “Do More”, “Do Less”, or “Do Enough” by moving under the sign which best describes the category in which the PA belongs. Before the group can move they must first decide as a group which category it should fall under and then will run towards that category sign. A total of 12 examples will be given during the activity. For every correct answer, one (1) point will be awarded, for a total of 12 points possible.

Answer Key:

<table>
<thead>
<tr>
<th>Do More</th>
<th>Do Enough</th>
<th>Do Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bike riding</td>
<td>Walk a dog</td>
<td>Talk on the phone</td>
</tr>
<tr>
<td>Swimming</td>
<td>Stretch muscles</td>
<td>Watch TV</td>
</tr>
<tr>
<td>Dancing</td>
<td>Push-ups</td>
<td>Play computer games</td>
</tr>
<tr>
<td>Playing sports like soccer,</td>
<td>Lift weights</td>
<td>Sit still</td>
</tr>
<tr>
<td>tennis, and basketball</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX L

Knowledge for a Healthier YOU: Lesson 6 Take Home Activity

“Determine What is Right for YOU”

Based on the five (5) food categories shown on the MyPlate, the number of servings needed per day depends on many factors such as your age, gender, level of activity, and daily calorie intake. Simply determine how many servings of each category you need by following these five (5) steps, below:

Step 1: Go to http://www.choosemyplate.gov/
Step 2: On the right hand side, click on “Get a personalized plan”
Step 3: Enter in your age, gender, weight, height, and level of activity
Step 4: There you go, YOU now have a personalized food plan, just for you!
Step 5: But WAIT!...Make sure to get a printable version, by clicking on the link on the right hand side of “your results”.

Looks something like this…

My Daily Food Plan

Based on the information you provided, this is your daily recommended amount for each food group.

- **GRAINS**: 6 ounces
  - Make half your grains whole
  - Aim for at least 3 ounces of whole grains a day
- **VEGETABLES**: 2 1/2 cups
  - Vary your veggies
  - Aim for these amounts each week
    - Dark green veggies = 1 1/2 cups
    - Red & orange veggies = 1 1/2 cups
    - Beans & peas = 1 1/2 cups
    - Starchy veggies = 1 1/2 cups
    - Other veggies = 1 cup
- **FRUITS**: 2 cups
  - Focus on fruits
  - Eat a variety of fruit
  - Choose whole or cut-up fruits more often than fruit juice
- **DAIRY**: 3 cups
  - Get your calcium-rich foods
  - Drink lowfat or nonfat milk, for the same amount of calcium and other nutrients as whole milk, but less fat and Calories
  - Select fat free or low-fat yogurt and cheese, or try calcium fortified soy products
- **PROTEIN FOODS**: 5 1/2 ounces
  - Go lean with protein
  - Have a week, make使之 lean the protein on your plate
  - Vary your protein sources—choose beans, peas, nuts, and seeds more often
  - Keep meat and poultry portions small and lean

Find your balance between food and physical activity

Be physically active for at least 150 minutes each week.

Know your limits on fats, sugars, and sodium

Your allowance for sat is 6 teaspoons a day

Limit Calories from solid fats and added sugars to 200 calories a day.

Reduce sodium intake to less than 2300 mg a day.

Your results are based on a 2000 Calorie pattern.

Name:

This Calorie level is only an estimate of your needs. Adjust your bodyweight as you if you need to adjust your Calorie intake.
Create your plate

Go back in time; recall the meal that you had for dinner last night. Then on the picture below, divide the plate into sections just as your dinner plate looked. You may only divide your plate into the following categories: fruits, vegetables, grains, and protein, if appropriate. Only put categories that you had for dinner last night. Don’t forget to include the type of drink that you had with your meal!
### APPENDIX M

**Knowledge for a Healthier YOU: Lesson 7**

**Grade Level:** 9-12  
**Subject:** Nutrition Fact Labels  
**Prepared By:** Amanda Christianson

<table>
<thead>
<tr>
<th>Overview &amp; Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>- To identify ways students can make healthier food choices by understanding how to read nutrition fact labels.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher Guide</th>
<th>Student Guide</th>
<th>Materials Needed</th>
<th>Additional Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plan</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 1. Instructor will distribute "Knowledge for a healthier YOU" handbooks. | 2a. For every food package students bring in will receive five (5) points. | - Handbook  
- Pencil  
- One (1) Nutrition Fact Poster  
- Eight (8) sample food packages  
- Eight (8) "Evaluate My Food Label" handouts | *Collect Student handbooks at end of lesson*  

<table>
<thead>
<tr>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Instructor will divide students into groups of (4) and distribute one (1) food package per group and then read instructions. See &quot;Lesson 7 Activity&quot; handout.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Instructor will have students demonstrate understanding by completing the &quot;Evaluate My Food Label&quot; handout. 2. After having two (2) groups share their &quot;Evaluate My Food label&quot; information, instructor will ask students to shout out the</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary of Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>By the end of the lesson, students will understand how to read food labels and be able to determine healthier food choices.</td>
</tr>
</tbody>
</table>

61
“Evaluate My Food Label”

**Time:** 5-10 minutes

**Teacher Directions:**

- Instruct students who have a food package to find four (4) other students to join his/her group.
- Instructor will then hand out one (1) “Evaluate My Food Label” worksheet to each group. See page two (2).
- Instructor will then read the activity instructions. See below.

**Activity Instructions:**

Each group will receive one (1) “Evaluate my Food Label” worksheet and must answer the questions based one the information found on their food package.

**Conclusion:**

After all groups have completed the “Evaluate My Food Label” worksheet, instructor will ask students to shout out the healthiest option based on the information given.
Evaluate My Food Label

Answer the following questions, based on the information found on the food package provided.

1. How many calories per serving? __________
2. How many servings per package? __________
3. What is the total amount of calories per package? __________
4. What is the % Daily Value for total fat per serving? __________
   a. Is this considered to be low or high? __________
5. What is the % Daily Value for sodium per serving? __________
   a. Is this considered to be low or high? __________
6. What is the % Daily Value for Dietary Fiber? __________
   a. Is this considered to be low or high? __________
7. What is the % Daily value for Sugar? __________
   a. Is this considered to be low or high? __________
8. Is your food package, a high source of: Circle Yes or No
   a. Vitamin A? Yes No
   b. Vitamin C? Yes No
   c. Calcium? Yes No
   d. Iron? Yes No
APPENDIX O

Knowledge for a Healthier YOU: Lesson 7 Poster

Nutrition Facts Poster

<table>
<thead>
<tr>
<th>Nutrition Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving Size 1 cup (228g)</td>
</tr>
<tr>
<td>Servings Per Container 2</td>
</tr>
<tr>
<td>Amount Per Serving</td>
</tr>
<tr>
<td>Calories 250</td>
</tr>
<tr>
<td>% Daily Value*</td>
</tr>
<tr>
<td>Total Fat 12g</td>
</tr>
<tr>
<td>Saturated Fat 3g</td>
</tr>
<tr>
<td>Trans Fat 3g</td>
</tr>
<tr>
<td>Cholesterol 30mg</td>
</tr>
<tr>
<td>Sodium 470mg</td>
</tr>
<tr>
<td>Potassium 700mg</td>
</tr>
<tr>
<td>Total Carbohydrate 31g</td>
</tr>
<tr>
<td>Dietary Fiber 0g</td>
</tr>
<tr>
<td>Sugars 5g</td>
</tr>
<tr>
<td>Protein 5g</td>
</tr>
<tr>
<td>Vitamin A</td>
</tr>
<tr>
<td>Vitamin C</td>
</tr>
<tr>
<td>Calcium</td>
</tr>
<tr>
<td>Iron</td>
</tr>
</tbody>
</table>

* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.

<table>
<thead>
<tr>
<th>Sample Nutrition Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories: 2,000 2,500</td>
</tr>
<tr>
<td>Total Fat</td>
</tr>
<tr>
<td>Sat Fat</td>
</tr>
<tr>
<td>Cholesterol</td>
</tr>
<tr>
<td>Sodium</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
</tr>
<tr>
<td>Dietary Fiber</td>
</tr>
</tbody>
</table>
## Knowledge for a Healthier YOU: Lesson 8

### Overview & Purpose
- To identify ways students to stay healthy.

### Teacher Guide

<table>
<thead>
<tr>
<th>Plan</th>
<th>Student Guide</th>
<th>Materials Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Instructor will distribute &quot;Knowledge for a healthier YOU&quot; handbooks</td>
<td>1a. Students will receive one (1) phrase card and wait for instructions.</td>
<td>o Handbook&lt;br&gt;o Pencil&lt;br&gt;o Six (6) &quot;Charades&quot; phrase index cards&lt;br&gt;o Various props to act out phrases.</td>
</tr>
<tr>
<td>2. Instructor will introduce topic of the day, &quot;Staying Healthy&quot;, and have students recall on previous lessons covered that help contribute to good health, by shouting out answers.</td>
<td>2a. Students will shout out topics covered in previous lessons that help contribute to good health.</td>
<td>Additional Notes&lt;br&gt;Collect Student handbooks at end of lesson</td>
</tr>
<tr>
<td>3. Instructor will then explain that good health is more than just eating healthy and being physically active, and will then introduce activity, &quot;Charades for Good Health&quot; and ask for six (6) students to volunteer to participate.</td>
<td>3a. Students will raise their hand to volunteer to be a part of the activity. See activity 1.</td>
<td></td>
</tr>
<tr>
<td>4. While the six (6) student volunteers are learning how to play the activity, another instructor will lead a brief five (5) minute ice breaker activity of choice.</td>
<td>4a. Students not participating in the activity will participate in the ice breaker activity.</td>
<td></td>
</tr>
<tr>
<td>5. After activity 1, instructor will then verify students understand the information given during the activity. See Verification 1.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Activity

<table>
<thead>
<tr>
<th>Plan</th>
<th>Student Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Instructor will hand out one (1) &quot;Charades for Good Health&quot; phrase card to each student volunteer and then will read instructions. See &quot;Lesson 8 Activity&quot; handout.</td>
<td>1a. Student will receive one (1) phrase card and wait for instructions.</td>
</tr>
</tbody>
</table>

### Verification

<table>
<thead>
<tr>
<th>Plan</th>
<th>Student Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. After activity 1, instructor will ask one (1) student to name all eight (8) ways to stay healthy.</td>
<td>1a. Students will attempt to name all eight (8) ways to stay health covered during activity.</td>
</tr>
</tbody>
</table>

### Summary of Objectives

By the end of the lesson, students will understand that staying healthy is more than just eating nutritious foods and being physically active, but involves living a healthy lifestyle.
APPENDIX Q

Knowledge for a Healthier YOU: Lesson 8 Activity

“Charades for Good Health”

Time: 10 minutes

Teacher Instructions:

- Ask for six (6) students to volunteer to participate in activity, each volunteer will receive 5 points or a small prize for participating.
- Each student volunteer will receive one (1) “Charades” phrase card.
- Instructor will then read directions to these students only. See directions A, below. All other students will participate in an ice breaker activity while student volunteers prepare.
- Once all student volunteers are ready, the instructor will then introduce the activity and read the directions. See directions B, below.

Activity Directions:

A. Each student volunteer will receive one (1) “Charades” card that has a phrase written on it and then must think of a way to act it out without saying any words. Student volunteers may use any props or assistance from other instructors to help act out the phrase written on the card.
B. One (1) student volunteer will come to the front of the room and will act out a phrase. The audience will then try to guess the phrase being acted out. A total of six (6) phrases will be performed.

Answer Key: “Charades” phrases

1. Don’t smoke and avoid second hand smoke.
2. Always buckle up when in a vehicle.
3. Don’t use drugs or alcohol. Don’t get into a car where the driver has been drinking or using drugs.
4. Wear protective gear when being physically active.
5. Avoid violent situations where you can get hurt.
6. Talk to your parents or doctor if you are really sad or stressed.
7. Eat healthy foods.
8. Be physically active.

Conclusion:

After all six (6) phrases have been guessed correctly, instructor will offer a grand prize to the first student who can name all eight (8) ways to stay healthy. (These are the ones from the
Charades game.) Instructor will also remind students that these are only a few ways to stay healthy.
APPENDIX R

Knowledge for a Healthier YOU: Lesson 9

Grade Level: 9-12  Subject: Eat This or Eat That?  Prepared By: Amanda Christianson

<table>
<thead>
<tr>
<th>Overview &amp; Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>To identify ways students to stay healthy.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher Guide</th>
<th>Student Guide</th>
<th>Materials Needed</th>
<th>Additional Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td></td>
<td></td>
<td>* Collect Student handbooks at end of lesson</td>
</tr>
<tr>
<td>1. Instructor will distribute &quot;Knowledge for a healthier YOU&quot; handbooks</td>
<td>2a. Students will participate by shout out reasons why it is important to read food labels on packages.</td>
<td>Handbook</td>
<td></td>
</tr>
<tr>
<td>2. Instructor will recall on Lesson 7 topic, &quot;Nutrition Fact Label&quot; and ask students to shout out why it is important to read food labels on packages.</td>
<td>3a. See Activity 1.</td>
<td>Pencil</td>
<td></td>
</tr>
<tr>
<td>3. Instructor will then introduce lesson topic for the day, &quot;Eat This or Eat That?&quot;, and will lead into activity 1.</td>
<td>4a. One (1) student from each group will stand and talk about their food labels and which choice was the healthiest.</td>
<td>Ten (10) sample food labels</td>
<td></td>
</tr>
<tr>
<td>4. After activity 1, instructor will ask one (1) student from each group to stand and talk about the food labels and which choice was the healthiest.</td>
<td></td>
<td>Eight (8) &quot;Eat This or Eat That?&quot; worksheet</td>
<td></td>
</tr>
</tbody>
</table>

| Activity |               |                  | |
|----------|---------------|------------------|* Collect Student handbooks at end of lesson |
| 1. Instructor will divide students into groups of (4) and distribute three (3) food labels per group and then read instructions. See "Lesson 9 Activity" handout. | 1a. Students will divide into groups, receive food labels and wait for instructions. See "Lesson 9 Activity" handout |

| Verification |               |                  | |
|--------------|---------------|------------------| |
| 1. Instructor will have students demonstrate understanding by completing "Eat This or Eat That?" worksheet, correctly. | 1a. Students will demonstrate their understanding by correctly evaluating and choosing the healthiest food choice. |

Summary of Objectives: By the end of the lesson, students will understand how to make healthier food choices by understanding how to read a food label.
APPENDIX S

Knowledge for a Healthier YOU: Lesson 9 Activity

“Eat This or Eat That?”

Time: 15 minutes

Teacher Instructions:

- Divide students into groups of four (4) and distribute three (3) food labels, and one (1) “Eat This or Eat That?” worksheet to each group. See page two (2).
- Instructor will then read the activity instructions. See below.

Activity Directions:

Each group will receive one (1) “Eat This or Eat That?” worksheet and must answer the questions based on the information found on their food label. Each group who correctly choose the healthiest option will earn 20 points per team member.

Conclusion:

After all groups have completed the “Eat This or Eat That?” worksheet, instructor will ask student one (1) student from each group to stand and talk about the food labels and which choice was the healthiest.

Fill in each box with the information found on the food labels provided

<table>
<thead>
<tr>
<th></th>
<th>Food Label #1</th>
<th>Food Label #2</th>
<th>Food Label #3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calories Per Serving</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Servings per package</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Fat Percentage (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Percentage (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiber Percentage (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protein Percentage (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Vitamins and Minerals?  
Circle One  
Yes  No  
Circle One  
Yes  No  
Circle One  
Yes  No

Which food product had the highest percentage (%) of fat?_______________________
Which food product had the highest percentage (%) of sodium?___________________
Which food product is the healthiest choice overall?__________________________
# APPENDIX T

## Knowledge for a Healthier YOU: Lesson 10

**Grade Level:** 9-12  
**Subject:** Eating Habits and the Impact on Health and Exercise  
**Prepared By:** Amanda Christianson

### Overview & Purpose
- To identify ways students to stay healthy.

<table>
<thead>
<tr>
<th>Teacher Guide</th>
<th>Student Guide</th>
<th>Materials Needed</th>
<th>Additional Notes</th>
</tr>
</thead>
</table>
| **Plan** | 1. Instructor will distribute “Knowledge for a healthier YOU” handbooks  
2. Instructor will introduce lesson topic, “Eating Habits and the Impact on Health and Exercise” and briefly discuss how foods can impact both health and exercise performance.  
3. Instructor will then introduce activity, “True or False” | 2a. Students will participate in discussion by shouting out responses to instructors questions.  
3a. See Activity 1. | Handbook  
Pencil  
One (1) Lesson 10 Activity handout  
Four Signs, Two (2) “True” and two (2) “False” signs  
* Collect Student handbooks at end of lesson |
| **Activity** | 1. Instructor will divide students into two (2) groups, each group will receive one (1) “True” and one (1) “False” sign.  
2. Instructor will then read instructions. See Lesson Activity 10: “True or False” handout | 1a. Students will divide into groups and receive one (1) “True” and “False” sign.  
2a. Students will wait for instructions. | |
| **Verification** | 1. Instructor will have students demonstrate understanding by correctly answering questions from activity 1. | 1a. Students will demonstrate understanding by correctly answering questions from activity 1. | |

## Summary of Objectives
By the end of the lesson, students will understand the impact food can have on health and exercise performance.
APPENDIX U

Knowledge for a Healthier YOU: Lesson 10 Activity

“True or False”

Time: 10 minutes

Teacher Instructions:

- Divide students into two (2) teams. Each team will create a team name and identify their team captain.
- Each group will receive one (1) “True” and one (1) “False” sign
- Instructor will announce the activity name, “True or False” and read the directions to the students (see below).

Activity Directions:

Each team has received one (1) “True” and “False” sign. The instructor will read one (1) statement at a time. As a team, discuss whether the statement it true or false and then hold up the corresponding sign. Example, if the statement is determined to be “true” the team will hold up the “True” sign. For every correct answer, each team will receive five (5) points. If only one (1) team answers the question correctly, they will have an opportunity to earn extra points for correctly explaining why the statement is true or false.

Answer Key:

1. Food high in fiber like fruits, vegetables, and whole grains help decrease the risk of many chronic diseases like diabetes and heart disease. TRUE
2. Eating foods high in fat can lead to heart disease, if eaten often. TRUE
3. Water should only be consumed before exercise. FALSE
4. After exercise, a snack or meal should be eaten within no more than 60 minutes TRUE
5. Skipping meals cannot impact health or exercise performance. FALSE
6. Breakfast is an important meal to help fuel the day’s activity. TRUE

Conclusion:

Instructor will go over statements if teams are unable to select the correct answer.
# APPENDIX V

## Knowledge for a Healthier YOU: Lesson 11

### Overview & Purpose
- To identify ways students to stay healthy.

<table>
<thead>
<tr>
<th>Teacher Guide</th>
<th>Student Guide</th>
<th>Materials Needed</th>
<th>Additional Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plan</strong></td>
<td>1. Instructor will distribute &quot;Knowledge for a healthier YOU&quot; handbooks</td>
<td>2a. Students will participate by shout out reasons why large portions can be trouble</td>
<td>* Collect Student handbooks at end of lesson</td>
</tr>
<tr>
<td></td>
<td>2. Instructor will introduce lesson topic for the day, &quot;Eating Out and How to Stay in Control&quot; and discuss how portions sizes have changed over the last decades. (Usually we look at the size changes between the 70s and today.)</td>
<td>3a. Students will participate in discussion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Instructor will also discuss the tips on how to stay in control when eating out by using the &quot;Eating Out&quot; poster. Also see page 25 in student handbook.</td>
<td>4a. See Activity 1.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Instructor will then introduce the activity, &quot;Get Popping&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. After activity 1, the instructor will go over each step one more time</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Activity</strong></td>
<td>1. Instructor will divide the students into two (2) groups and have each group stand on opposite sides of the room.</td>
<td>1a. Students will divide into groups and stand on one side of the room.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Instructor will then read instructions. See &quot;Lesson Activity 11&quot; handout.</td>
<td>2a. Students will wait for instruction.</td>
<td></td>
</tr>
<tr>
<td><strong>Verification</strong></td>
<td>1. After activity, instructor will have students demonstrate understanding by finding all eight (8) pictures found on &quot;Eating Out&quot; poster.</td>
<td>1a. Students will demonstrate understanding by finding all eight (8) pictures found on &quot;Eating Out&quot; poster.</td>
<td></td>
</tr>
</tbody>
</table>

### Summary of Objectives
By the end of the lesson, students will understand way to make healthier choices when eating out.
APPENDIX W

Knowledge for a Healthier YOU: Lesson 11 Activity

“Get Popping”

Time: 10 minutes

Teacher Instructions:

- Divide students into two (2) groups. Each group will stand on opposite sides of the room.
- Instructor will pour out balloons into the middle of the room.
- Instructor will then announce the activity name, “Pop It” and read the directions to the students (see below).

Activity Directions:

A total of 50 balloons will be placed in the middle of the room. Each balloon contains one (1) of the eight (8) pictures found on the “Eating Out” poster. When the instructor blows the whistle, students will run to the center of the room and pop the balloons to find all eight (8) pictures. The first student to find all eight (8) pictures will earn 20 points.

Answer Key:

Eating Out

Sticking to your healthy eating plan doesn’t mean you have to take your pre-package meals everywhere you go. Here are a few ways to stay in control:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Choose a small or medium portion. This goes for main dishes, side dishes, and beverages.</td>
</tr>
<tr>
<td>2.</td>
<td>Ask for whole wheat bread for sandwiches. Demo what is a serving.</td>
</tr>
<tr>
<td>3.</td>
<td>Start your meal off with a salad first and don’t forget to ask for the dressing on the side. Demo what is a serving.</td>
</tr>
<tr>
<td>4.</td>
<td>Choose main dishes that include vegetables like kebobs or stir fries. What’s a portion for one?</td>
</tr>
</tbody>
</table>
5. Order steamed, grilled, or broiled dishes instead of those fried or sautéed. (Again, what’s enough for one person?)

6. Rethink your drinks. Ask for water, fat-free or low-fat milk, unsweetened tea, or other drinks without added sugar. Show serving size.

7. Choose fruits for dessert instead of high calorie, fat, and sugar desserts.

8. Don’t feel obligated to “clean your plate”, when you eat enough, leave the rest or take it home for another meal.

**Conclusion:**
Instructor will go over all eight (8) tips found on “Eating Out” poster.
APPENDIX X

Knowledge for a Healthier YOU: Lesson 12

Knowledge for a Healthier YOU: Lesson 12

<table>
<thead>
<tr>
<th>Overview &amp; Purpose</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>* To understand how to determine exercise intensity by using several different methods.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher Guide</th>
<th>Student Guide</th>
<th>Materials Needed</th>
<th>Additional Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plan</strong></td>
<td>2a. Students will shout out the number of minutes of physical activity recommended each day.</td>
<td>o Handbook</td>
<td>* Collect Student handbooks at end of lesson</td>
</tr>
<tr>
<td>1. Instructor will distribute “Knowledge for a healthier YOU” handbooks.</td>
<td>3a. Students will participate by shouting out reasons why it is important to understand exercise intensity.</td>
<td>o Pencil</td>
<td></td>
</tr>
<tr>
<td>2. Instructor will first ask students to recall on the recommended amount of physical activity a day, covered in lesson 6.</td>
<td>4a. One (1) student will volunteer to participate in activity 1.</td>
<td>o One (1) large poster board</td>
<td></td>
</tr>
<tr>
<td>3. Instructor will introduce lesson topic for the day, “Exercise Intensity” and discuss the importance of understanding how to rate the level of intensity, and the amount of light, moderate, and high intensity physical activity needed each day. See page 36 of student handbook.</td>
<td>6a. Students will receive one (1) handout and then return the next day of attendance.</td>
<td>o One (1) large Sharpie</td>
<td></td>
</tr>
<tr>
<td>4. Instructor will then discuss ways in which exercise intensity can be measured, Talk Test, RPE Scale, and Target Heart Rate (THR). See page 36 of student handbook.</td>
<td>7a. See Verification 1.</td>
<td>o One (1) calculator</td>
<td></td>
</tr>
<tr>
<td>5. Instructor will ask for one (1) student to volunteer for activity 1.</td>
<td></td>
<td>o 40 “Take Home Activity #3”</td>
<td></td>
</tr>
<tr>
<td>6. Instructor will introduce and distribute, “Take Home Activity # 3: Target your Heart Rate” and the possible points if returned next day of attendance.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. After Activity 1, instructor will have students demonstrate understanding during physical activities for the day.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity</th>
<th>1a. Student will call out his/her age.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Instructor will demonstrate how to calculate THR by using the age of the student.</td>
<td>o The student will assist in the activity by writing in the answer on the poster board.</td>
</tr>
<tr>
<td>o Instructor will ask the student to help by writing in the answer on the poster board.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Verification</th>
<th>1a. Students will demonstrate understanding by rating his/her exercise intensity for the day.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Before beginning physical activity, instructor will confirm students understanding of how to rate exercise intensity by asking students to rate his/her exercise intensity for the day.</td>
<td></td>
</tr>
</tbody>
</table>

| Summary of Objectives | By the end of the lesson, students will understand the importance of exercise intensity and will be able to demonstrate how to rate the level of intensity using several methods: Talk Test, RPE Scale, and THR. |
APPENDIX Y

Knowledge for a Healthier YOU: Lesson 12 Take Home Activity

Name: __________________________

“Target your Heart Rate”

Knowing what intensity you are working at helps you to get the most out of your physical activity, making sure you're not overdoing or even underdoing it. Exercise intensity also is reflected in how hard your heart is working. There are several ways in which YOU can determine exercise intensity.

Directions: Calculate your target heart rate, how to monitor your intensity level when doing physical activity, and tell the benefits of being physically active at different levels of intensity by using the following steps. (TURN IN ON NEXT DAY OF ATTENDANCE FOR EARN 10 POINTS!!)

Step 1: Calculate Your Target Heart Rate Using the Following Formula

1) 220 minus (-) your age = maximum heart rate

Write your maximum heart rate here: __________________

2) Maximum heart rate x (.6) = lower range of target heart rate (60%)

Write your lower range here: __________________

3) Maximum heart rate x (.9) = upper range of target heart rate (90%)

Write your upper range here: __________________

Step 2: Monitor Your Intensity Level When Doing Physical Activity

When doing physical activity, you can use target heart rate and the following chart to determine the level of intensity. When doing physical activity, take your pulse for 15 seconds and then multiply that number by four (4) to get the total number of times your heart beat in 60 seconds.
Step 3: Know the Benefits of Being Physically Active at Different Levels of Intensity
Whether you do light, moderate, or vigorous physical activity, your body can benefit from being active. It is important to do at least 60 minutes of physical activity a day, and at least half of that time should be at moderate intensity (70%-80% of your maximum heart rate).

This table shows how intensity of physical activity relates to different potential health benefits.

<table>
<thead>
<tr>
<th>Age</th>
<th>Light Effort 60% to 70%</th>
<th>Moderate Effort 70% to 80%</th>
<th>Vigorous Effort 80% to 90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>121-144</td>
<td>141-164</td>
<td>161-185</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Your Physical Activity Level</th>
<th>Health Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light effort- 60% to 70%</td>
<td>Burn calories at a slower rate</td>
</tr>
<tr>
<td>Moderate effort- 70%-80%</td>
<td>Heart and lung benefits and burn calories at a medium rate</td>
</tr>
<tr>
<td>Vigorous effort- 80% to 90%</td>
<td>More heart and lung benefits and burn calories at a high rate</td>
</tr>
</tbody>
</table>
APPENDIX Z

Knowledge for a Healthier YOU: Lesson 13

Knowledge for a Healthier YOU: Lesson 13

Grade Level: 9-12
Subject: Diet is just a Four Letter Word
Prepared By: Amanda Christianson

<table>
<thead>
<tr>
<th>Overview &amp; Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>• To understand dieting is an unhealthy method of maintaining a healthy weight.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher Guide</th>
<th>Student Guide</th>
<th>Materials Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plan</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Instructor will distribute “Knowledge for a healthier YOU” handbooks</td>
<td>2a. Students will participate by shouting out what the word “Diet” means to him/her.</td>
<td>o Handbook</td>
</tr>
<tr>
<td>2. Instructor will introduce lesson topic for the day, “Diet is just a Four Letter Word” and ask students what the word “Diet” means to him/her.</td>
<td></td>
<td>o Pencil</td>
</tr>
<tr>
<td>3. Instructor will then discuss how the difference between dieting and a lifestyle change and how foods are not good or bad. See page 24 in student handbook.</td>
<td>4a. Students will participate by shouting out ways dieting can impact health.</td>
<td>o One (1) “Lesson 13 Activity” handout</td>
</tr>
<tr>
<td>4. Instructor will also discuss the impact dieting can have on health.</td>
<td>5a. Students will wait for instructions. See Activity 1.</td>
<td>o Ten (10) “Fit into MyPlate” handouts</td>
</tr>
<tr>
<td>5. Instructor will introduce Activity 1, “Make it Fit” and read instructions. See “Lesson 13 Activity” handout.</td>
<td>6a. See Verification 1.</td>
<td>o Ten (10) sets of “Food Group” puzzle pieces.</td>
</tr>
<tr>
<td>6. After activity 1, the instructor will go over each fad diet and evaluate how well it fit into the MyPlate.</td>
<td></td>
<td>o Ten (10) ’Fad Diet Meal’ handout</td>
</tr>
<tr>
<td>7. Instructor will end lesson by discussing how “D-I-E-T-ing (fad diets)” is not the answer. See page 24 of student handbook.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Activity | | |
|----------|----------------|
| 1. Instructor will divide the students into groups of four (4) and distribute one (1) “Fit into MyPlate” handout, one (1) set of “Food Group” puzzle pieces, and one (1) “Fad Diet Meal” handout to each group. | 1a. Students will divide into groups and receive one (1) “Fit into MyPlate” handout, one (1) set of “Food Group” puzzle pieces, and one (1) “Fad Diet Meal” per group. |
| 2. Instructor will then read instructions. See “Lesson Activity 13” handout. | 2a. Students will wait for instructions. |

| Verification | | |
|--------------|----------------|
| 1. After the activity, instructor will have students demonstrate understanding by shouting out what food groups are missing in each fad diet. | 1a. Students will demonstrate understanding by shouting out what food groups are missing in each fad diet. |

<table>
<thead>
<tr>
<th>Summary of Objectives</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>By the end of the lesson, students will understand why fad diets are an unhealthy method of maintaining a healthy weight.</td>
<td></td>
</tr>
</tbody>
</table>

Additional Notes
* Collect Student handbooks at end of lesson
APPENDIX AA

Knowledge for a Healthier YOU: Lesson 13 Activity

“Make it Fit”

Time: 5 minutes

Teacher Instructions:

- Divide students into groups of four (4). Each group will receive one (1) “Fit into MyPlate” handout, one (1) set of “Food Group” puzzle pieces, and one (1) “Fad Diet Meal” per group.
- Instructor will re-introduce MyPlate, discussed during lesson 5.
- Instructor will then announce the activity name, “Make it Fit” and read the directions to the students (see below).

Activity Directions:

Each group should have one (1) “Fit into MyPlate” handout, one (1) set of “Food Group” puzzle pieces, and one (1) “Fad Diet Meal” handout. Based on the food groups found on the “Fad Diet Meal” handout, each group will place the correct “Food Group” puzzle piece onto the plate.

Answer Key:

- Atkins Diet
- Carb Lover’s Diet
- Subway Diet
- Grapefruit Diet
- Healthy Diet
Instructor will go over each diet and evaluate how well it fit into the MyPlate.
## APPENDIX BB

### Knowledge for a Healthier YOU: Lesson 14

**Grade Level:** 9-12  
**Subject:** Keeping F.I.T.T.  
**Prepared By:** Amanda Christianson

### Overview & Purpose
- To understand how to use the F.I.T.T. principle to achieve greater health benefits from being physically active.

### Teacher Guide

<table>
<thead>
<tr>
<th>Plan</th>
<th>Student Guide</th>
<th>Materials Needed</th>
<th>Additional Notes</th>
</tr>
</thead>
</table>
| 1. Instructor will distribute “Knowledge for a healthier YOU” handbooks.  
2. Instructor will first ask students to briefly recall on the importance of physical activity and the type and amount needed to be healthy, covered in lesson 6.  
3. Instructor will then introduce the lesson for the day, “Keeping F.I.T.T.” and distribute one (1) “F.I.T.T. Principle” worksheet to each student.  
4. Instructor will discuss how the F.I.T.T. principle can be used to improve health and introduce activity, “Make it F.I.T.T.”. See Activity 1.  
5. After activity 1, the instructor will have students quickly shout out what F.I.T.T. principle stands for. | 2a. Students will participate by shouting out answers to instructor’s questions.  
3a. Students will receive one (1) “F.I.T.T. Principle” worksheet.  
4a. Students will participate in discussion by shouting out answers to instructor’s questions and wait for instructions.  
5a. Students will quickly shout out what F.I.T.T. principle stands for. | o Handbook  
 o Pencil  
 o One (1) large blank poster board  
 o One (1) “Lesson 14 Activity” handout  
 o 40 “F.I.T.T. Principle” worksheets | o Collect Student handbooks at end of lesson |

### Activity

| 1. Instructor will complete part 1 of “F.I.T.T. Principle” worksheet as a group, asking students shout out the answers.  
2. Instructor will then have students recall the fitness goal set during lesson 2, page 9 of student handbook, and then read instructions. See “Lesson Activity 14” handout. | 1a. Students will participate by shouting out the answers to questions on part 1 of “F.I.T.T. Principle” worksheet.  
2a. Students will recall his/her fitness goal set by turning to page 9 of student handbook and then wait for instructions. | 3a. Students will watch instructor demonstrate how to apply F.I.T.T. principle to a fitness goal previously established and then do the same in part 2 of worksheet. |

### Verification

| 1. Instructor will have students demonstrate understanding by completing the “F.I.T.T. Principle” worksheet, correctly. | 1a. Students will demonstrate understanding by completing the worksheet correctly. |

### Summary of Objectives
By the end of the lesson, students will understand the components of the F.I.T.T. principle and understand how to use to achieve greater health benefits from being more physically active.
Knowledge for a Healthier YOU: Lesson 14 Activity

“Make it F.I.T.T.”

**Time:** 5-10 minutes

**Teacher Instructions:**
- Distribute one (1) “F.I.T.T. Principle” worksheet to each student and announce the activity name, “Make it F.I.T.T.”.
- Before reading instructions (see below), complete part 1 of ‘F.I.T.T. Principle” worksheet as a group, asking students shout out the answers.
- Instructor will read directions (see below) and then demonstrate how to apply the F.I.T.T. principle to fitness goals set during lesson 2, and then have students do the same on part 2 of the worksheet.

**Activity Directions:**
Each student should have created one (1) Fitness goal during week 1. If any students began attending after the first week, they will quickly set a fitness goal for the remainder of the program. After the instructor has demonstrated how to apply the F.I.T.T. principle to a fitness goal set, students will do the same on part 2 of the worksheet.

**Answer Key:**

**Part 1:** Indicate which of the following is an example of frequency (F), of intensity (I), and of time (T):  

- Walk within target heart rate zone ______(I)_______
- Walk five days a week _____(F)_______
- Walk for 45 minutes each day _____(T)_______
- Walk to increase aerobic fitness_______(T)_________

**Conclusion:**
Instructor will have students quickly shout out what the F.I.T.T. principle stands for.
F.I.T.T. Principle Worksheet

Name: ____________________

Part 1: Indicate which of the following is an example of frequency (F), of intensity (I), and of time (T):

Walk within target heart rate zone ________________
Walk five days a week ________________
Walk for 45 minutes each day ________________
Walk to increase aerobic fitness ________________

Part 2: Based on the fitness goal YOU set, on page 9 of student handbook, design one (1) exercise program that will help you achieve your goal. Make sure that your program adheres to the F.I.T.T. Principle.

Fitness Goal: ________________________________

F: 

I: 

T: 

T:
APPENDIX DD

Knowledge for a Healthier YOU: Student Handbook

KNOWLEDGE FOR A HEALTHIER YOU

NAME: ________________________________

Summer 2011
8-week Fitness and Nutrition program that will change your life!
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1
THE PURPOSE AND BENEFIT OF THIS HANDBOOK

This handbook was designed to help YOU take small and simple steps to keep a healthy weight. It provides you with basic facts about nutrition and physical activity, and offers practical tools that YOU can use in your everyday life, from knowing how much and what type of foods to eat, how to read a food label, to how to create a workout plan that is right for YOU.

DID YOU KNOW?

- Obesity results from teens taking in more calories from food and beverages than he or she can use up during physical activity and to support normal growth (U.S. Department of Health and Human Services, 2012).

- In 2008, approximately 17% of U.S. teens between the ages of 12-19 were overweight (Ogden & Carroll, 2010).

- Overweight children and teens are at high risk for developing serious diseases such as Type 2 diabetes and heart disease. These diseases were once considered adult diseases, but they are now being reported in children and teens (U.S. Department of Health and Human Services, 2012).

- If lifestyle behaviors are not changed, teens that are overweight have a 70-80% chance remaining obese as an adult (U.S. Department of Health and Human Services, 2012).
PARTICIPATE AND BE REWARDED!

YOU have the opportunity to earn cool prizes throughout the 8 weeks, by:

- Attendance: 10 points per day
- Participation in weekly lessons: Up to 5 points each*
- Win lesson games/challenges: Up to 20 points each*
- Complete and return take home exercises: Up to 15 points each*

*Numbers of points will be announced on the day of.

If YOU earn a total of **400 POINTS** by the 6th week of the program, you will receive a one of a kind SF Fuerte “I earned it” shirt! Prizes may also be earned by successfully winning lesson activities and may include exercise equipment, towels, water bottles, and bags.

To be eligible for prizes, YOU must log and track points earned on the “Point Scorecard” (page 4-7). In order for points to be valid, your point scorecard must be signed off at the end of the day by an SF Fuerte trainer.
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<tr>
<th>Date</th>
<th>Reason for Points Earned</th>
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</table>

Grand Total__________________
WHAT MOTIVATES YOU?

Before YOU can be successful in achieving fitness and health goals, it is important to identify what motivates YOU to be physically active and to live a healthy life. List 3 things that motivate you:

1. __________________________________________

2. __________________________________________

3. __________________________________________

WHY SET GOALS?
Setting goals gives you long-term vision and short-term motivation. It focuses your achievement of knowledge, and helps you to organize your time and your resources so that you can make the very most of your life.

BEING S.M.A.R.T. ABOUT THE GOALS YOU SET
A useful way of making goals more powerful is to use the SMART mnemonic which stands for:

Specific: What exactly do you want to accomplish?

Measurable: How will you know when you have reached your goal?

Attainable: Is this goal realistic to accomplish with effort and commitment? Do you have the resources to achieve this goal? If not, how will you get them?

Relevant: Why is the goal significant to your life?

Time-bound: When will this goal be achieved?

For example, instead of having "To be more fit" as a goal, it's more powerful to say "To become more fit, I want to be able to run one mile without stopping by the end of the 8 weeks" Obviously, this will only be attainable if a lot of preparation has been completed beforehand!

Figure 1. Goal Setting Techniques
List one Nutrition goal and one Fitness goal for yourself during the 8 weeks by using the five S.M.A.R.T. concepts and list three ways YOU will achieve these goals.

**Nutrition goal:**

________________________________________________________

Step 1: ________________________________________________

Step 2: ________________________________________________

Step 3: ________________________________________________

**Fitness goal:**

________________________________________________________

Step 1: ________________________________________________

Step 2: ________________________________________________

Step 3: ________________________________________________
WHAT DOES IT ALL MEAN?
FitnessGram® assesses a variety of health-related physical fitness
tests that are used to determine your overall physical fitness and
suggest areas for improvement when appropriate. The following
tests will be administered during the first and last week of the
program to measure any changes that may occur (The Cooper
Institute, 2011).

- Body Mass Index (BMI): Is a tool used to determine whether
  your weight is appropriate for your height based on your age
  and gender.

- Body Fat %: indicates the proportion of total body weight
  that is fat. High levels of body fatness are associated with
  increased risk of coronary heart disease, stroke, diabetes,
  high blood pressure, high cholesterol, some cancers, and
  joint problems.

- Push-ups: used to measure muscular strength and
  endurance of the upper body.

- Curl-ups: used to measure muscular strength and
  endurance of the abdominals

- Trunk Lift: used to measure flexibility within your back and
  trunk muscles

- Sit and Reach: used to measure flexibility within your
  lower body

- PACER (Progressive Aerobic Cardiovascular Endurance
  Run): used to measure your cardiovascular fitness.
WHERE YOU STAND

What is your height? __________ cm

<table>
<thead>
<tr>
<th></th>
<th>Week 1:</th>
<th>Week 4:</th>
<th>Week 8:</th>
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</thead>
<tbody>
<tr>
<td>Weight (pounds)</td>
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<tr>
<td>Body Mass Index (BMI percentile)</td>
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<td>Body Fat %</td>
<td>Calf:___%</td>
<td>Calf:___%</td>
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<td></td>
<td>Tricep:__%</td>
<td>Tricep:__%</td>
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<tr>
<td>Push-ups (number completed)</td>
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</tr>
<tr>
<td>Curl-ups (number completed)</td>
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<tr>
<td>Trunk Lift (inches)</td>
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<tr>
<td>Sit and Reach (inches)</td>
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<tr>
<td>PACER (number of laps)</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight Status Category</th>
<th>Percentile Range</th>
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</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>Less than the 5th percentile</td>
</tr>
<tr>
<td>Normal or Healthy Weight</td>
<td>6th percentile to less than the 85th percentile</td>
</tr>
<tr>
<td>Overweight</td>
<td>85th to less than the 95th percentile</td>
</tr>
<tr>
<td>Obese</td>
<td>Equal to or greater than the 95th percentile</td>
</tr>
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</table>
EATING BETTER FOR A HEALTHIER YOU
HEALTHY EATING
Eating healthfully means getting the right balance of nutrients your body needs to perform every day. According to the 2010 Dietary Guidelines for Americans, a healthy eating plan should include:

- Fruits and vegetables
- Fat-free or low-fat milk and milk products
- Lean meats, poultry, fish, beans, eggs, and tofu
- Whole grains

A healthy diet should also be low in saturated and trans fats, cholesterol, salt, and added sugars.

NUTRIENTS AND HOW THEY CAN BENEFIT YOU!
Below are six nutrients that support growth, maintenance, and repair of body tissues AND are necessary for life. These nutrients are not created within your body and must be provided by the foods YOU eat.

- Energy-yielding nutrients: Carbohydrates, proteins, and fats release energy that can be used by your body when eaten. The energy that is released is measured in calories.
  - Carbohydrate: Provides four (4) calories per gram and is your main source of energy and helps keep everything going. YOU can find carbohydrates in foods like fruits, vegetables, breads, cereals, and other grains; milk and milk products, and foods containing added sugars (e.g., cakes, cookies, and sugar-sweetened beverages).
  - Protein: Also provides four (4) calories per gram and can be found in every living cell of your body. Protein from the foods YOU eat help to build and maintain...
bones, muscles and skin. Foods such as meat, dairy products, nuts and certain grains and beans provide protein.

- **Fat**: is a major source of energy providing nine (9) calories per gram and helps vitamins to be absorbed and keep YOU healthy. Fat also provides taste to foods and helps you feel full. Dietary fat also plays a major role in your cholesterol levels.

- **Non energy-yielding nutrients**: Vitamins, minerals, and water do not provide the body with energy but are important to allow your body to do what it does best…live!
  
  - **Vitamins**: Can be found in fruits and vegetables and help to release energy from carbohydrates, proteins, and fats YOU eat.
    - Vitamins such as A, B’s, C, D, E, and K
  
  - **Minerals**: Can be found within fruits and vegetables. Minerals are used within the body to build structures such as teeth and bones; and also help regulate important functions within your body.
    - Minerals such as iron, calcium, and folate
  
  - **Water**: Can be found in many foods and beverages eaten. Water makes up 60% of our body weight and is essential for almost all functions within the body.

**TIP**: Not all fats are the same. YOU should try to avoid saturated fats such as butter, solid shortenings, and lard; and Trans fats, found in vegetable shortenings, some margarines, crackers, cookies, and snack foods.
A NEW WAY TO LOOK AT WHAT FOODS YOU SHOULD EAT!

MyPlate, a new way to look at what foods YOU are eating, was designed to remind Americans to eat healthfully. MyPlate illustrates the five food groups using a familiar mealtime visual, a place setting.

![MyPlate Diagram](image)

**Figure 3. Myplate**

Before YOU eat, think about what goes on your plate or in your cup or bowl for each meal. Foods like vegetables, fruits, whole grains, low-fat dairy products, and lean protein foods contain the nutrients you need without too many calories.
DETERMINE WHAT IS RIGHT FOR YOU

Based on the five (5) food categories shown on the Myplate, the number of servings needed per day depend on many factors such as your age, gender, level of activity, and daily calorie intake. Simply determine how many servings of each category you need by following these five (5) steps, below:

Step 1: Go to http://www.choosemyplate.gov/

Step 2: On the right hand side, click on “Get a personalized plan”

Step 3: Enter in your age, gender, weight, height, and level of activity

Step 4: There you go, YOU now have a personalized food plan, just for you!

Step 5: But WAIT!!...Make sure to get a printable version, by clicking on the link on the right hand side of “your results” and post on your fridge.

Looks something like this…

My Daily Food Plan

Based on the information you provided, this is your daily recommended amount for each food group.

GRAINS
6 ounces
VEGETABLES
2 1/2 cups
FRUITS
2 cups
DAIRY
3 cups
PROTEIN FOODS
5 1/2 ounces

Make half your grains whole
Vary your veggies
Focus on fruits
Get your calcium-rich foods
Go lean with protein

Find your balance between food and physical activity
Know your limits on fats, sugars, and sodium

Your results are based on a 2000 Calorie pattern. Name: ________

This Calorie level is only an estimate of your needs. Monitor your weight to see if you need to adjust your Calorie intake.
**MY DAILY FOOD PLAN**

Based on the number of servings given on your personalized meal plan from choosemyplate.gov, enter in the amounts here:

Estimated number of Calories per Day_______________

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Tip</th>
<th>Number of Servings per day</th>
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<tbody>
<tr>
<td>Grains</td>
<td>Make at least half your grains whole grains</td>
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<tr>
<td>Vegetables</td>
<td>Aim for variety every day; pick vegetables from several subgroups:</td>
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<tr>
<td></td>
<td>dark green, red, orange, beans and peas, starchy, and other veggies</td>
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<tr>
<td>Fruits</td>
<td>Select fresh, frozen, canned, and dried fruits more often than juice</td>
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<tr>
<td>Milk</td>
<td>Include fat-free and low-fat dairy foods every day</td>
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<tr>
<td>meat&amp;beans</td>
<td>Aim for variety-choose seafood, lean meat &amp; poultry, beans, peas, nuts, and seeds each week</td>
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(U.S. Department of Agriculture and U.S. Department of Health and Human, 2010)
MAKING FOOD CHOICES FOR A HEALTHIER LIFESTYLE

United States Department of Agriculture (USDA) gives you 10 tips on how to become healthier.

1. Balance Calories: First step to managing your weight is to find out how many calories YOU need for a day. Your personalized meal plan from chosemyplate.gov has estimate this for you (See page 17). Being physically active also helps you balance calories.

2. Enjoy your foods, but eat less of them: You can end up eating too many calories when you eat too fast or when your attention is elsewhere. Recognize when to eat and when you’ve had enough by paying attention to hunger and fullness cues before, during, and after meals.

3. Avoid oversized portions: At home, use a smaller plate, bowl, and glass and portion out foods before YOU eat. When eating out, choose a smaller size option, share a dish, or take home part of your meal.

4. Foods to eat more often: Vegetables, fruits, whole grains, and fat-free or 1% milk and dairy products have the nutrients YOU need for health—including potassium, calcium, vitamin D, and fiber. Make them the basis for meals and snacks. Eat more of them!

5. Make half your plate fruits and vegetables: Include a variety of colorful vegetables like red, orange, and dark-green, along with other vegetables for your meals. Add fruit to meals as part of main or side dishes or as dessert.

6. Switch to skim or 1% milk: They have the same amount of calcium and other essential nutrients as whole milk, but fewer calories and less saturated fat.

7. Make at least half your grains whole: Switch out refined products like white bread and rice for whole-grain versions such as whole wheat bread or brown rice.

8. Foods to eat less often: Cut back on foods like cakes, cookies, ice cream, candies, sweetened drinks, pizza, and fatty meats like ribs, sausages, bacon, and hot dogs. They are too high in solid fats, added sugars, and salt. Use these foods as occasional treats, not everyday foods.

9. Compare salt (sodium): Use the Nutrition Facts label to choose lower sodium versions of foods like soup, bread, and frozen meals. Select canned foods labeled “low sodium,” “reduced sodium,” or “no salt added.”

10. Drink water instead of sugary drinks: Cut calories by drinking water or unsweetened beverages. Soda, energy drinks, and sports crinks are a major source of added sugar, and calories, in American diets.

(U.S. Department of Agriculture, 2011)
SIZING UP SERVINGS RIGHT FOR YOU!
The portion sizes that you get in restaurants, grocery stores, or school events may contain more food than YOU need to eat at one sitting. So how can you control your food portions? Use this quick guide, to measure portion sizes that are right for YOU!

Figure 4. Sizing up servings
GET THE FACTS ON FOOD LABELS

By reading food labels YOU can become a smart shopper to find out more about the foods YOU eat. The Nutrition Facts panel found on most food labels will help YOU find out important information and make healthier decisions. The Academy of Nutrition and Dietetics (AND) has a quick guide to reading the Nutrition Facts Label (Academy of Nutrition and Dietetics, 2011).

- **Start with the serving size**
  - Look here for both the number of servings in the package and serving size (amount for one serving). Food packages often contain more than one serving.
  - Remember to check the label serving size listed on the label. If the label serving size is one cup, and you eat two cups, you are getting twice the calories, fat, and other nutrients listed on the label.

- **Check out the Total Calories and Fat**
  - Find out how many calories are in a single serving and the number of calories from fat.

- **Let the Percent Daily Values be your Guide**
  Use percent Daily Values (DV) to help you evaluate how a particular food fits into your daily meal plan:
  - Daily Values (DV) are average levels of nutrients for a person eating 2,000 calories a day. A food item with a 5% DV means 5% of the amount of fat that a person consuming 2,000 calories a day would eat.
  - Remember: % DV are for the entire day, not just for one meal or snack.
  - 5% or less is low- try to aim low in total fat, saturated fat, cholesterol, and sodium.
  - 20% or more is high- try to aim high in vitamins, minerals, and fiber.
• **Limit Fat, Cholesterol, and Sodium**
  - Remember to aim low for % DV in the categories.

• **Get enough Vitamins, Mineral, and Fiber**
  - Choose more fruits and vegetables and remember to aim high on % DV of these nutrients.

• **Check the Ingredient List**
  - Foods with more than one ingredient must have an ingredient list on the label. Those used in the largest amount are listed first.

**TIP:** Avoid added sugars by reading the ingredient lists on food labels! Look for added sugars like brown sugar, corn sweetener, corn syrup, dextrose, fructose, fruit juice concentrates, glucose, and high-fructose corn syrup.
THE ART OF MANAGING A HEALTHY WEIGHT

The art of managing a healthy weight involves consuming enough, but not too much, of each type of food. Designing a balanced diet without overeating requires careful planning. The amount of calories (energy) from food YOU eat should equal the amount of calories (energy) used to maintain body functions and physical activity. Upsetting this balance can cause YOU to gain or lose weight (U.S. Department of Health and Human Services, n.d.).

For each 3,500 calories eaten in excess, a pound of body fat is stored; similarly, a pound of fat is lost for each 3,500 calories expended beyond those eaten. No more than 1-2 pounds should be lost in a week or you should not reduce your caloric intake by more than 500-1000 calories per day; in order to maintain good health. Staying in control of your weight contributes to good health now and as YOU age (U.S. Department of Health and Human Services, 2013).

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<tr>
<th>If you are...</th>
<th>Your caloric balance status is...</th>
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<tbody>
<tr>
<td>Maintaining your weight</td>
<td>&quot;in balance.&quot; You are eating roughly the same number of calories that your body is using. Your weight will remain <strong>stable</strong>.</td>
</tr>
<tr>
<td>Gaining weight</td>
<td>&quot;in caloric excess.&quot; You are eating more calories than your body is using. You will store these extra calories as fat and you'll <strong>gain</strong> weight.</td>
</tr>
<tr>
<td>Losing weight</td>
<td>&quot;in caloric deficit.&quot; You are eating fewer calories than you are using. Your body is pulling from its fat storage cells for energy, so your weight is <strong>decreasing</strong>.</td>
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FOODS AREN'T GOOD OR BAD.

Healthy eating is like a puzzle with many parts, each part or food is different. Some foods may have more fiber or vitamins, while others may have more fat, sugar or salt. What makes a diet good or bad is how foods fit together. Moderation and balancing your choices are two important factors. If eating a higher-fat food, like pepperoni pizza, at dinner choose lower-fat foods at other meals to balance out.

DIET VS. LIFESTYLE CHANGE

The key to achieving and maintaining a healthy weight isn't about short-term dietary changes. It's about a lifestyle that includes healthy eating, regular physical activity, and balancing the number of calories you consume with the number of calories your body uses.

DIETING IS NOT THE ANSWER

Best way to maintain a healthy weight is to be physically active and eat healthfully. Often teens turn to unhealthy dieting methods to lose weight, including eating very little, skipping meals, cutting out whole groups of food, and following trend diets they have heard about (Atkins diet, South beach diet, cleansing diet, etc.). Methods like these can leave out important foods YOU need to grow. Other weight-loss tactics such as self-induced vomiting, smoking, or using diet pills or laxatives can lead to health problems. In fact, unhealthy dieting can actually cause YOU to gain more weight because it often leads to a cycle of eating very little, then overeating or binge eating (Mayo Foundation for Medical Education and Research, 2012).

Figure 8. Unhealthy diet methods.
**PLANNING IS GOLDEN**
Planning meals and snack ahead of time is important to maintaining a healthy diet. Think about the meals and snacks YOU would like for the week, including bag lunches to take to school.

**PACK YOUR LUNCH**
Lunch should provide YOU with one-third of the day’s nutritional needs, whether you eat lunch from school or pack your own. A lunch filled with chips, cookies, candy, or soda just gives you lots of calories, but not many nutrients. Instead of buying snacks at school, bring food from home.

**SMART SNACK IDEAS**
A healthy snack can contribute to a healthy eating plan and give YOU the energy boost you need to get through the day. When a snack attack strikes, refuel with these smart snacking ideas (Academy of Nutrition and Dietetics, 2009).

- Fruit of any kind - fresh, canned in 100% juice, dried, or frozen
- Peanut butter and whole wheat crackers or your favorite veggie
- Veggies and low-fat dip
- Top low-fat vanilla yogurt with crunchy granola and sprinkle with your favorite fruit
- Make a trail mix, add your favorite nuts, dried fruits, pretzels, and whole grain crackers.
- Make a delicious smoothie with low-fat milk and your favorite frozen fruits

When hunger strikes...eat lean proteins, fruits, veggies, and whole grain products to curb your appetite.
Microwave a small baked potato. Top with reduced-fat cheddar cheese and salsa.

Sprinkle grated Parmesan cheese on hot popcorn

EATING OUT AND HOW TO STAY IN CONTROL
Sticking to your healthy eating plan doesn’t mean YOU have to take pre-packed meals with you everywhere you go. Play it safe and be creative when you eat out so you won’t leave the table unsatisfied. Here are just a few ways to take control (Academy of Nutrition and Dietetics, 2014):

Rethink your drinks. Ask for water, fat-free or low-fat milk, unsweetened tea, or other drinks without added sugar.

Ask for whole wheat bread for sandwiches.

Start your meal off with a salad first and don’t forget to ask for the dressing on the side.

Choose main dishes that include vegetables like kebobs or stir fries.

Order steamed, grilled, or broiled dishes instead of those fried or sautéed.

Choose a small or medium portion. This goes for main dishes, side dishes, and beverages.

Choose fruits for dessert instead of high calorie, fat, and sugar desserts.

Don’t feel obligated to “clean your plate”, when you eat enough, leave the rest or take it home for another meal.
SMART NUTRITION TO FUEL YOUR ACTIVITY

Just as a well-balanced diet is important for YOU to maintain good health, diets that provide the right amount and type of nutritious foods can also fuel your exercise. Here are a few important tips on how YOU can get the most out of your exercise by simply choosing the right foods:

- Start off on the right foot with a balanced breakfast to fuel your daily activities. Breakfasts that include fiber and an average amount of protein help to prevent mid-morning hunger.
- Avoid skipping meals during the day to ensure YOU have proper nourishment to support your exercise.
- 3-4 hours before moderate to high activity, eat a snack or meal that is rich in carbohydrates along with small amounts of protein and fat.
- After exercise make sure to eat a snack or meal within 15-60 minutes.

HYDRATE RIGHT

- Make sure to drink plenty of fluids before, during, and after exercise.
- Rehydrate with sport drinks for exercise that is moderate to high intensity for more than 60 minutes otherwise rehydrate with water (Sports, Cardiovascular, and Wellness Nutrition, 2009).
GET MOVING FOR A HEALTHIER YOU
BENEFITS OF PHYSICAL ACTIVITY
Like eating well, physical activity may help you feel good. People of all ages, shapes, sizes, and abilities can benefit from being physically active. Regular physical activity can produce long term health benefits. The more physical activity you do, the greater the health benefits (U.S. Department of Health and Human Services, 2015a).

Being physically active can help YOU:
- Stay at or get to a healthy weight
- Build and strengthen muscles and bones
- Feel better about yourself
- Increase your chances of living longer
- Sleep well at night
- Be with friends or meet new people
- Enjoy yourself and have fun

When you are not physically active, you are more likely to:
- Get heart disease
- Get type 2 diabetes
- Have high blood pressure
- Have high blood cholesterol
- Have a stroke
**FITNESS COMPONENTS**

Being physically fit means that YOU are able to perform schoolwork, responsibilities at home, and still have enough energy and vigor to enjoy school sports and other leisure activities during your day. Physical fitness is made up of five (5) parts that determine if you are in good health.

1. **Cardiovascular Fitness:** is the ability to exercise your entire body for long periods of time without stopping. Activities, for example like walking, running, dancing, biking, or swimming; help to strengthen your heart and lungs so that YOU can efficiently deliver oxygen to your body.

2. **Muscular Strength:** is the amount of force that your muscles can generate and is usually measured by how much weight you can lift only once. The stronger YOU are, the less effort your body has to exert when doing strenuous exercises.

3. **Muscular Endurance:** is the ability to use your muscles many times without tiring. Muscular endurance can help YOU have better posture and fewer back problems.

4. **Flexibility:** is the ability to use your joints fully through a wide range of motion. Flexibility can help YOU reduce muscle soreness and injury.

5. **Body Composition:** is a way to describe what percentage of body weight is made up of fat when comparing to the other tissues, such as bone and muscle, within your body. If YOU are in a healthy range of body fat percentage, YOU may be more likely to avoid illness and live longer. Too little or too much body fat can cause health problems. Body Mass Index (BMI) is one way of determining if YOU are in a healthy range for your age and gender.

These five components are not only important for YOU now, but are important to maintain throughout your life.
HOW MUCH PHYSICAL ACTIVITY IS NEEDED?

Physical activity is important for everyone and should be a part of your daily life, whether you play sports, take P.E. or other exercise classes, even ride a bike or walk to get around. In general, YOU should be physically active for at least 60 minutes or more on most, if not all days of the week. Being active 5 or more hours each week can provide even more health benefits (President's Council on Fitness, Sports & Nutrition, n.d.).

Most of the 60 minutes should be either moderate or vigorous intensity aerobic physical activity, with at least 3 days a week at vigorous intensity. Activities that are vigorous should be spread throughout the week. Also, as part of your 60 or more minutes of daily physical activity, YOU should include muscle-strengthening activities, like climbing or lifting weight, and bone-strengthening activities, like jumping, running, or walking, at least 3 days a week (U.S. Department of Health and Human Services, 2015b).

Check out the Physical Activity Pyramid on page 33!!
PHYSICAL ACTIVITY PYRAMID

Cut Down On
• Watching TV
• Sitting around
• Surfing the Internet
• Playing on the computer

2 to 3 Days a Week
• Stretch the muscles in your arms, legs, shoulders, and chest
• Do leg-lifts, stomach crunches, arm-curls, push-ups, use tension bands, or weight lifting

3 to 5 Days a Week
• Bike
• Walk vigorously
• Play soccer
• Play basketball
• Swim
• Dance at a quick pace

Every Day
• Work in the garden
• Rake leaves
• Walk to the store
• Play with your kids
• Walk to work
• Walk with a friend

IF YOU RARELY DO PHYSICAL ACTIVITY
Begin with activities at the base of the pyramid
• Walk whenever you can
• Make physical activity a part of your leisure time
• Set realistic goals, and work your way up toward the middle of the pyramid

IF YOU DO PHYSICAL ACTIVITY SOMETIMES
Be more consistent with activities in the middle of the pyramid
• Plan physical activity in your day
• Set weekly and monthly goals
• Partner with a friend or family member to do physical activity together

IF YOU DO PHYSICAL ACTIVITY OFTEN
Choose a mix of aerobic, flexibility, and strengthening activities
• Mix up your routine to keep it fun
• Try new physical activities
• Challenge yourself with new goals

Figure 12. Physical activity Pyramid
**INCREASING PHYSICAL ACTIVITY**

Make physical activity a regular part of the day

Choose activities that you can do regularly and enjoy. Fitting activity into a daily routine can be easy such as taking a brisk 10 minute walk to and from the parking lot, bus stop, or subway station. Or, join an exercise class. Keep it interesting by trying something different on alternate days. Teens are often active in short bursts of time rather than for sustained periods of time, and these short bursts can add up. Make sure to do at least 10 minutes of activity at a time, shorter bursts of activity will not have the same health benefits. Every little bit adds up and doing something is better than doing nothing. Mix it up. Swim, take a dance class, garden or lift weights. To be ready anytime, keep some comfortable clothes and a pair of walking or running shoes in the car.

**At home:**

- Join a walking group in the neighborhood or at the local shopping mall. Get a friend to join YOU for support and encouragement!
- Walk the dog; don’t just watch the dog walk.
- Do household chores like cleaning the house or car.
- Drive less and walk, skate, and cycle more.
- While watching TV, do stretches, exercises, or pedal a stationary bike.
- Exercise to a workout video.

**At play:**

- Walk, jog, skate, or cycle.
- Do water activities like swimming, kayaking, or water aerobics.
- Take a class in martial arts, dance, or yoga.
- Golf without a motorized cart (pull cart or carry clubs).
- Play sports that YOU like: racquetball, tennis, squash, basketball, softball, or soccer.
- Hand cycle or play wheelchair sports.
- Take a nature hike.
- Most important, have fun while being active!
KEEPPING F.I.T.T.
Whether you are a person who is just getting started or does physical activity regularly, the FITT formula can help YOU be more physically active. By increasing the frequency, intensity, or time of your physical activities, YOU can achieve greater health benefits and enjoyment (Champions for Change Network for a Healthy California, n.d.).

- F stands for **Frequency**: is how often you participate in physical activity.
- I stands for **Intensity**: is related to how you feel when doing physical activity as your heart beats faster, your breathing gets heavier, and your body gets warmer.
- T stands for **Time**: is related to how long you spend doing physical activity.
- T stands for **Type**: is related to the type of physical activity you do.

CHANGE OCCURS SLOWLY
Old habits are hard to break and new ones can be even harder to develop and stick with. Here are some tips to help you stay on track.

- The eating or activity habits YOU have made will not change overnight. Changing too much too fast can hurt your chances of success, so make small changes overtime.
- Log food and activity for 4-5 days and write down everything. Review your log to get a picture of your habits and then identify ways to make healthier choices. Do you eat enough fruits and veggies? Do you skip meals? Are you physically active most days of the week?

DETERMINE HOW HARD YOU ARE WORKING
Knowing what intensity you are working at helps you get the most out of your physical activity, making sure you’re not overdoing or even underdoing it. Exercise intensity also is reflected in how hard your heart is working. There are several ways in which YOU can determine exercise intensity.
Talk Test: The talk test is a simple way to measure relative intensity. As a rule of thumb, if you're doing moderate-intensity activity you can talk, but not sing, during the activity. If you're doing vigorous-intensity activity, you will not be able to say more than a few words without pausing for a breath (U.S. Department of Health and Human Services, 2015c).

Rate of Perceived Exertion (RPE): RPE is a way of measuring physical activity intensity level. Perceived exertion is how hard you feel like your body is working (U.S. Department of Health and Human Services, 2015c).

While doing physical activity, rate your perception of exertion. This feeling should reflect how heavy and strenuous the exercise feels to YOU, combining all sensations and feelings of physical stress, effort, and fatigue. Look at the scales and the expressions and then give a number.

Target Heart Rate: YOU can also use the target heart rate to monitor your exertion level while being physically active. Use this formula: 220-your age = Maximum Heart Rate (MHR), then multiple MHR by .6 to determine your lowest heart rate or multiple MHR by .8 to determine your highest heart rate (U.S. Department of Health and Human Services, 2015c).

<table>
<thead>
<tr>
<th>Age</th>
<th>Light Effort 60% to 70%</th>
<th>Moderate Effort 70% to 80%</th>
<th>Vigorous Effort 80% to 90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>121-144</td>
<td>141-164</td>
<td>161-185</td>
</tr>
</tbody>
</table>

Overexerting yourself
Beware of pushing yourself too hard too often. If you’re short of breath, in pain or can't work out as long as you’d planned, your exercise intensity is probably higher than your fitness level allows.
Back off a bit and build intensity gradually (U.S. Department of Health and Human Services, 2015c).

**HOW MANY CALORIES DOES PHYSICAL ACTIVITY USE?**

The number of calories you burn depends on your gender and body size. A 154-pound man (5’ 10”) will use up about the number of calories listed doing each activity below. Those who weigh more will use more calories, and those who weigh less will use fewer.

<table>
<thead>
<tr>
<th>Calories Used per Hour in Common Physical Activities</th>
<th>Approximate Calories/Hr for a 154 lbs Person</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Moderate Physical Activity</strong></td>
<td></td>
</tr>
<tr>
<td>Light gardening/yard work</td>
<td>290</td>
</tr>
<tr>
<td>Dancing</td>
<td>280</td>
</tr>
<tr>
<td>Bicycling (&lt;10 mph)</td>
<td>180</td>
</tr>
<tr>
<td>Walking (3.5 mph)</td>
<td>330</td>
</tr>
<tr>
<td>Weight lifting (general light workout)</td>
<td>330</td>
</tr>
<tr>
<td>Stretching</td>
<td>280</td>
</tr>
<tr>
<td><strong>Vigorous Physical Activity</strong></td>
<td></td>
</tr>
<tr>
<td>Running/jogging (5 mph)</td>
<td>590</td>
</tr>
<tr>
<td>Bicycling (&gt;10 mph)</td>
<td>290</td>
</tr>
<tr>
<td>Swimming (slow freestyle laps)</td>
<td>480</td>
</tr>
<tr>
<td>Aerobics</td>
<td></td>
</tr>
<tr>
<td>Walking (4.5 mph)</td>
<td>460</td>
</tr>
</tbody>
</table>
PHYSICAL ACTIVITY AND EXERCISE SAFETY

The health benefits you gain from being active are far greater than the chances of getting hurt. However, your safety must be a top priority when doing moderate to vigorous types of physical activity. Here are some things YOU can do to stay safe before, during, and after you are active:

- Start out with 3-5 minutes of easy aerobic activity, such as walking, to gradually increase your heart rate, breathing, and circulation.
- If you haven’t been active in a while, start slowly and build up gradually increasing the intensity and duration of your activities as your fitness improves.
- Choose activities that are appropriate for your fitness level.
- If you experience chest discomfort, nausea, shortness of breath, lightheadedness, sharp joint or muscle pain; STOP doing the physical activity and talk to your health care provider.
- Engage in a variety of physical activities that include stretching, strength training, and cardiovascular fitness.
- Drink plenty of water before, during, and after your activity.
- Dress appropriately for the activity you will be doing. Make sure you wear clothes and shoes that are comfortable to wear.
- Choose a safe place to do your activity.
- Never suddenly stop, make sure to gradually decrease the intensity over 3-5 minutes.
- Add whole body stretching exercises at the end of the activity, holding for no more than 20 seconds.
STAYING HEALTHY

Figure 14. Balance of staying healthy
HOW TO STAY HEALTHY
Staying healthy is more than eating healthy and getting physical activity. Here are some other tips to make sure you are healthy all the way around.

- Avoid using any type of tobacco or other smoking products. Also try not to breathe second hand cigarette smoke.
- Always use your seat belt.
- Don’t drink and drive. Don’t get into a car with a driver who has been drinking alcohol or using drugs.
- Wear protective headgear when participating in sports, such bike helmets.
- Always swim with a friend, never alone.
- Talk to your parents or your doctor if you’re feeling really sad, stressed, or if you’re thinking about harming yourself.
- Avoid situations where violence or fighting may cause you to be physically injured.
- If you have sex, protect yourself with condoms to avoid pregnancy and sexually transmitted diseases. (Remember, however, the "safest" sex is no sex.)
- See your doctor regularly.

MAKING IT WORK
Within your community, school, or home; look for chances to move more and eat better. In today’s world, fast food restaurants are on every corner, vending machines are at schools, and safe places to be active are hard to find; making it difficult to eat healthy and be active.

An important step in changing your eating and activity habits is to understand your home, school, and community. This checklist can help you identify barriers and ways to change your behavior and support your success.

HOME
- Make sure YOU have plenty of fruits and veggies, low-fat or fat-free milk and milk products, whole grain items in your fridge and pantry.
- Drink water, low-fat or non-fat milk instead of sugary drink like soda, and sweetened teas.
- Pack healthy lunches to take to school.
- Make sure to have the right gear and clothing to be active at any time.
- Limit the number of hours you spend watching TV or playing video or computer games.

**SCHOOL**
- If you eat at the school cafeteria, choose healthier options such as salads and fruit.
- Avoid snacks and drinks that are high in calories, fat, and sugar.
- Sign up for P.E. classes each semester.
- Participate in after-school sports or other physical activities available aside from gym class.

**COMMUNITY**
- If it is safe to do so, ride a bike, take a hike, or go to the park to play a game.
- Take a dance, self-defense, or other physical activity class at your local community center or church.
- Find a grocery store where you can purchase fruit, vegetables, and other healthy foods.

**WHEN IT IS ALL SAID AND DONE, WHAT IS NEXT?**
Congratulations, you have successfully completed the program! Remember being healthy is a way of life and involves planning and preparation. If you were not able to achieve the goals that you set at the beginning of the eight (8) weeks, recognize what steps you could have done differently that would have helped you to be successful and do them the second time around. If you did achieve your goals, GREAT! Keep it up and set new goals for you to achieve.

**YOU NOW HAVE THE KNOWLEDGE TO BECOME A HEALTHIER YOU!**
OTHER RESOURCES FOR YOU

American Dietetic Association (ADA)
120 South Riverside Plaza, Suite 2000
Chicago, IL 60606-6995
www.eatright.org
Information Nutrition Line:
800-366-1655

Centers for Disease Control and Prevention (CDC)
1600 Clifton Road Northeast
Atlanta, GA 30333
800-311-3435
www.cdc.gov

Food and Nutrition Information Center
National Agricultural Library
U.S. Department of Agriculture, Room 105
10301 Baltimore Avenue
Beltsville, MD 20705-2351
301-504-5719
www.nal.usda.gov/fnic

U.S. Department of Agriculture (USDA)
1400 Independence Avenue, SW
Washington, DC 20250
www.usda.gov
www.choosemyplate.gov

U.S. Government (gateway to nutrition sites)
www.nutrition.gov
www.healthfinder.gov
www.kids.gov

U.S. Food and Drug Administration (FDA)
Consumer Information Office
5600 Fishers Lane
Rockville, MD 20857-0001
888-INFO-FDA (888-463-6332)
www.fda.gov

The President’s Council of Physical Fitness and Sports
www.fitness.gov

Network for a Healthy California
www.cdhc.ca.gov
REFERENCES


Prevention-Division of Nutrition, Physical Activity, and Obesity:
http://www.cdc.gov/physicalactivity/basics/pa-health/

http://www.cdc.gov/healthyschools/physicalactivity/guidelines.htm


http://www.nhlbi.nih.gov/health/educational/lose_wt/index.htm

In-text Captions:
Figure 1 “Goal setting techniques” Retrieved June 15th, 2011 from http://www.urfitnessbuilder.com
Figure 2 Dreams turn into goals* Retrieved June 15th, 2011 from http://www.hubpages.com
Figure 3 “Myplate” Retrieved June 15th, 2011 from http://www.choosemyplate.gov/
Figure 4 “Sizing up servings” Retrieved June 15th, 2011 from http://www.dustinmaherfitness.com
Figure 5 “Serving size” Retrieved June 20th, 2011 from http://www.examiner.com
Figure 6 “Nutrition Fact Label” Retrieved June 20th, 2011 from http://www.fda.gov
Figure 7 “Calorie Balance” Retrieved June 21st, 2011 from http://www.wordpress.kylegrieve.com
Figure 8 “Unhealthy diet methods” Retrieved June 21st, 2011 from http://www.issues.cc
Figure 9 “Fuel your activity” Retrieved June 21st, 2011 from http://www.teamshaklee.com
Figure 10 “Hydrate by drinking water” Retrieved June 21st, 2011 from http://www.fhfitness.wordpress.com
Figure 11 “Physical Activity Pyramid” Retrieved June 22nd, 2011 from http://www.network-toolbox.net
Figure 12 “Safety matters” Retrieved June 23rd, 2011 from http://www.nbweldingsupply.com
Figure 13 “Balance of staying healthy” Retrieved June 23rd, 2011 from http://www.healthplusrx.com
APPENDIX EE

*Formative Evaluation Survey for Panel of Experts*

Formative Evaluation

SF Fuerte-Knowledge for a Healthier You Curriculum

Please return to Amanda Christianson by January 31, 2013 by using the enclosed pre-paid envelope.

CALIFORNIA STATE UNIVERSITY NORTHRIDGE

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SF Fuerte-Knowledge for a Healthier YOU Curriculum

Formative Evaluation Survey

Thank you for taking the time to evaluate my curriculum. *SF Fuerte-Knowledge for a Healthier You* is an 8-week nutrition, fitness, and wellness education program designed for adolescents aged 14-19 years. The Student Handbook was designed to support lesson discussions, establish short term and long term goals, log points earned through program participation, and track FitnessGram® scores before and after the program.

This program was implemented within the city of San Fernando, California in 2011, in conjunction with a physical activity program administered by graduate students within the Kinesiology Department of California State University, Northridge (CSUN). Each week, two (2) 15-20 minute lessons were conducted on non-consecutive days on topics related to nutrition, fitness, and general wellness. Due to unforeseen circumstances, the program ended early; therefore Lessons 15 and 16 were not created. However topics were addressed within prior lesson topics.

The Formative Evaluation Survey is intended to acquire your expert opinion of this curriculum project, which was prepared for my Masters of Science Degree in Family & Consumer Science, option Nutrition and Dietetics from CSUN. Your feedback is vital for the success and collaboration of this project. Please answer the questions on this survey completely and honestly. Additional comments, criticism, and recommendations are also encouraged.

Amanda Christianson

12/30/2012
Formative Evaluation Survey

Part 1: General Information

Please mark or fill in the appropriate response.

1. **Please indicate your appropriate age range:**
   - □ <20 yrs
   - □ 20-29 yrs
   - □ 30-39 yrs
   - □ 40-49 yrs
   - □ 50-59 yrs
   - □ 60-69 yrs
   - □ >70 yrs

2. **Please indicate your gender:**
   - □ Male
   - □ Female

3. **Please indicate your ethnicity:**
   - □ White, Non-Hispanic
   - □ Black, Non-Hispanic
   - □ Hispanic/Latino
   - □ Asian/Pacific Islander
   - □ American Indian
   - □ Other: __________________________

4. **Which most appropriate describes your area(s) of expertise:**
   - □ Education
   - □ Physical Activity
   - □ Curriculum
   - □ Nutrition
   - □ Adolescents
   - □ Health
   - □ Other: __________________________

5. **Please indicate your highest level of education:**
   - □ MA/MS
   - □ PhD
   - □ EdD
   - □ DrPH
   - □ Other: __________________________

6. **Please indicate your current position of employment:**
   - □ Junior High School Teacher
   - □ High School Teacher
   - □ University/College Professor
   - □ Public Health Advocate
   - □ Other: __________________________

7. **Do you have any experience working with adolescents’ ages 12-19 years?**
   - □ Yes
   - □ No
Part II: Evaluation of curriculum

Instructions: Using a scale from 1 to 5, where 1= Strongly Disagree and 5= Strongly Agree, please rate the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>1= Strongly Disagree</th>
<th>2= Disagree</th>
<th>3= Not sure</th>
<th>4= Agree</th>
<th>5= Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The curriculum topic was researched and displayed well.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>The curriculum was clear and concise.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>The curriculum content was presented in an effective manner.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>The curriculum was appropriate for its target audience.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>The curriculum was easy to understand.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>The Student Handbook and other lesson handouts supported the curriculum appropriately.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>The material used in the curriculum was cited and referenced properly.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

Would you recommend the use of this curriculum?

☐ Yes
☐ No
Additional comments, criticisms, or recommendations:
APPENDIX FF

California State Standards for Health Education

Nutrition and Physical Activity

Standard 1: Essential Concepts

1.1.N Distinguish between facts and myths regarding nutrition practices, products, and physical performance.
1.2.N Research and discuss the practical use of current research-based guidelines for a nutritionally balanced diet.
1.3.N Explain the importance of variety and moderation in food selection and consumption.
1.4.N Describe dietary guidelines, food groups, nutrients, and serving sizes for healthy eating habits.
1.5.N Describe the relationship between poor eating habits and chronic diseases such as heart disease, obesity, cancer, diabetes, hypertension, and osteoporosis.
1.6.N Explain how to keep food safe through proper food purchasing, preparation, and storage practices.
1.7.N Describe nutrition practices that are important for the health of a pregnant woman and her baby.
1.8.N Describe the prevalence, causes, and long-term consequences of unhealthy eating.
1.9.N Analyze the relationship between physical activity and overall health.
1.10.N Evaluate various approaches to maintaining a healthy weight.
1.11.N Identify the causes, symptoms, and harmful effects of eating disorders.
1.13.N Describe the amounts and types of physical activity recommended for teenagers’ overall health and for the maintenance of a healthy body weight.
1.15.N Explain the physical, academic, mental, and social benefits of physical activity and the relationship between a sedentary lifestyle and chronic disease.

Standard 2: Analyzing Influences

2.1.N Evaluate internal and external influences that affect food choices.
2.2.N Assess personal barriers to healthy eating and physical activity.
High School (Grades Nine Through Twelve)

2.3.N  Distinguish between facts and myths regarding nutrition practices, products, and physical performance.
2.4.N  Analyze the impact of nutritional choices on future reproductive and prenatal health.
2.5.N  Analyze the impact of various influences, including the environment, on eating habits and attitudes toward weight management.
2.6.N  Analyze internal and external influences that affect physical activity.

Standard 3: Accessing Valid Information

3.1.N  Access sources of accurate information about safe and healthy weight management.
3.2.N  Evaluate the accuracy of claims about food and dietary supplements.
3.3.N  Describe how to use nutrition information on food labels to compare products.
3.4.N  Evaluate the accuracy of claims about the safety of fitness products.
3.5.N  Describe community programs and services that help people gain access to affordable, healthy foods.
3.6.N  Describe internal and external influences that affect physical activity.

Standard 4: Interpersonal Communication

4.1.N  Analyze positive strategies to communicate healthy eating and physical activity needs at home, at school, and in the community.
4.2.N  Practice how to refuse less-nutritious foods in social settings.

Standard 5: Decision Making

5.1.N  Demonstrate how nutritional needs are affected by age, gender, activity level, pregnancy, and health status.
5.2.N  Use a decision-making process to plan nutritionally adequate meals at home and away from home.
5.3.N  Demonstrate how to use safe food handling procedures when preparing meals and snacks.

Standard 6: Goal Setting

6.1.N  Assess one’s personal nutrition needs and physical activity level.
6.2.N  Develop practical solutions for removing barriers to healthy eating and physical activity.
6.3.N  Create a personal nutrition and physical activity plan based on current guidelines.

Standard 7: Practicing Health-Enhancing Behaviors

7.1.N  Select healthy foods and beverages in a variety of settings.
7.2.N  Critique one’s personal diet for overall balance of key nutrients.
7.3.N Identify strategies for eating more fruits and vegetables.
7.4.N Describe how to take more personal responsibility for eating healthy foods.
7.5.N Participate in school and community activities that promote fitness and health.

Standard 8: Health Promotion
8.1.N Advocate enhanced nutritional options in the school and community.
8.2.N Educate family and peers about choosing healthy foods.

Growth, Development, and Sexual Health

Standard 1: Essential Concepts
1.1.G Describe physical, social, and emotional changes associated with being a young adult.
1.2.G Explain how conception occurs, the stages of pregnancy, and the responsibilities of parenting.
1.3.G Discuss the characteristics of healthy relationships, dating, committed relationships, and marriage.¹
1.4.G Identify why abstinence is the most effective method for the prevention of HIV, other STDs, and pregnancy.²
1.5.G Summarize fertilization, fetal development, and childbirth.
1.6.G Explain responsible prenatal and perinatal care and parenting, including California’s Safely Surrendered Baby Law.³
1.7.G Describe the short- and long-term effects of HIV, AIDS, and other STDs.⁴
1.8.G Analyze STD rates among teens.
1.9.G Explain laws related to sexual behavior and the involvement of minors.
1.10.G Recognize that there are individual differences in growth and development, physical appearance, gender roles, and sexual orientation.⁵
1.11.G Evaluate the benefits to mother, father, and child when teenagers wait until adulthood to become parents.
1.12.G Evaluate the safety and effectiveness (including success and failure rates) of FDA-approved condoms and other contraceptives in preventing HIV, other STDs, and pregnancy.⁶

¹ See Education Code (EC) sections 5193(b)(7), (b)(11), and 51934(b)(6).
² EC sections 51930(b)(8), 51934(b)(3).
³ EC Section 51930(b)(12).
⁴ EC Section 51934(b)(1), (b)(4).
⁵ EC Section 51930(b)(2).
⁶ EC sections 51930(b)(10), 51934(b)(3).