**Teacher Notes 8th Grade 1A - Nutrition, Physical Activity, and Sleep**

**Physical Activity** – any movement that increases health (Textbook 9.1)

**Exercise** – Planned activity to increase health (Textbook 9.1)

***HEALTH S.O.L. 8.1b. Assess the health risks of a sedentary lifestyle.***

**Sedentary Lifestyle** – (Textbook 1.3) a way of life that includes little to no physical activity

**Consequences of Living a Sedentary Lifestyle to Your:**

**Physical Health**
- increased risk of heart disease--
- heart attack, stroke
- obesity or overweight
- diabetes
- high blood cholesterol
- difficulty breathing

**Mental/Emotional Health**
- sadness or depression
- low self-confidence
- poor body image
- low self-worth

**Social Health**
- decreases chance of making new friends
- less likely to go out to be with people
- reduced the friends you have
- may withdraw from opportunities to try new or familiar activities

*PTI Activity – Discuss and write down several unnecessary activities that you do that are sedentary.

***HEALTH S.O.L. 8.3b. Evaluate the physical, mental, and social benefits of physical activity (P.A.).***

**Cognitive Performance** - the way in which you think or process when you do a task

**Physical Benefits of P.A.**
- reduces the risk of disease and illness (heart attack, stroke, high blood pressure, Type 2 diabetes, cancer)
- lower resting heart rate
- builds up your immune system
- (fight off colds and other illnesses more efficiently)

**Mental/Emotional Benefits of P.A.**
- improves your self-esteem and self-confidence
- helps you manage stress more efficiently
- more alert
- Think clearer, faster
- -- Happier - therefore you may do better (endorphins)

**Social Benefits**
- meet new friends
- --try new activities or games
- --cooperation with others
- --spend time with friends

*PTI Activity – Discuss and write down how/when you can change some sedentary activities to P.A.

***HEALTH S.O.L. 8.1e. Assess the health risks of not getting enough sleep.***

Deprivation – define: a lack of sleep that negatively affects health, performance, and appearance

Teens should get 8-9 hours of sleep each night

A. **Physical** Effects of not Getting Enough Sleep
   1. more clumsy -- affects balance and coordination -- slows down reaction time
   2. poorer performance in athletics
   3. may get sick more easily (immune system);

B. **Mental/Emotional** Effects of not Getting Enough Sleep
   1. mood: cranky, irritable;
   2. more difficult to concentrate
   3. poor decision-making
   4. negatively affects memory

C. **Social** Effects of not Getting Enough Sleep
   1. negative interactions with family and friends
   2. may miss out on doing things with others due to being tired
   3. may injure others -- falling asleep or being drowsy while driving

*PTI Activity - Discuss and write down how many hours you usually sleep & how you could improve your sleep.
**HEALTH S.O.L. 8.2c.** Determine the benefits of developing and implementing short- and long-term personal and family health and fitness goals that are achievable and purposeful.

**HEALTH S.O.L. 8.2j.** Create short- and long-term health and fitness SMART goals that are achievable, purposeful, and that support cognitive performance and academic success.

**Goal Setting** = steps taken to help reach a desired outcome (Textbook 2.1 pp. 29-30)

A. **Examples** of short-term (2 weeks - 1 month) and long-term (1 month or more, sometimes years)

<table>
<thead>
<tr>
<th>Short-term</th>
<th>Long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/B Honor roll for 1st quarter</td>
<td>A/B Honor Roll for entire year</td>
</tr>
<tr>
<td>Score ** points in next game</td>
<td>Make All-star team</td>
</tr>
<tr>
<td>Run 3 more laps on the PACER</td>
<td>Get 15 more laps on the pacer</td>
</tr>
<tr>
<td>To save $ “work” get a job</td>
<td>Save money for a big $$ item or College</td>
</tr>
<tr>
<td>Get under 9 mins in mile run</td>
<td>Qualify for the Hurricane Mile</td>
</tr>
<tr>
<td>Run, do Push ups 3xs a week for 20 mins</td>
<td>Train for and try out for a sport in high school</td>
</tr>
</tbody>
</table>

**Fill the columns below with your own goals**

<table>
<thead>
<tr>
<th>School -</th>
<th>School-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home-</td>
<td>Home-</td>
</tr>
<tr>
<td>Nutrition-</td>
<td>Nutrition-</td>
</tr>
<tr>
<td>Sports/Exercise</td>
<td>Sports/Exercise</td>
</tr>
<tr>
<td>Your Choice 1</td>
<td>Your Choice 1</td>
</tr>
</tbody>
</table>

B. **Benefits** of setting both short-term and long-term goals

1. helps keep you focused on achieving your goal
2. gives precise steps to achieve a goal
3. helps you recognize your strengths and weaknesses
4. gives you something to work towards

C. Goals should be “**S.M.A.R.T.**”

- “**S**” = Specific – narrow your goal; avoid using words such as “faster”, “better”, “improve”
  Use specific numbers (1 or 4), not a range (2 to 5). Use specific type of activity, not play or exercise, but instead basketball or sit ups.

- “**M**” = Measurable – how will you know if you achieved your goal? You can measure numbers/time.

- “**A**” = Attainable – How will you accomplish or reach this goal? Can you reach this goal?

- “**R**” = Realistic – is this something that truly exists or could take place not something you make up in your mind? Something genuine/real?

- “**T**” = Timely – specific end date; not a time that is so many months or years away that you would have difficulty staying on track

D. Things to remember

1. Set a long term goal first and then set smaller, easier short term goals to help you achieve the long term goal
2. It is recommended to be active for 60 minutes every day.
3. When working to gain muscle strength you should take a day off between workouts.
4. When working on endurance you should work out 5-7 days a week.
5. Planning/writing your goals and time for activity helps you actually do and reach your goals better
6. Music and working with a friends or family also helps you reach your goals

F. **Evaluate** - Last step in the process: What’s next?

1. Determine whether or not you met your goal
2. Assess whether or not your course of action (plan) was effective – what worked or didn't work?
3. Evaluation helps you to determine how you would plan for future goals
4. Set a new goal that is even better.
**Examples for each part of the F.I.T.T. Principle**

<table>
<thead>
<tr>
<th>Frequency (How often?)</th>
<th>Intensity (How hard?)</th>
<th>Time (How long?)</th>
<th>Type (What Activity?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>everyday</td>
<td>Level 3</td>
<td>30 minutes</td>
<td>run</td>
</tr>
<tr>
<td>3 days a week</td>
<td>Level 3-4</td>
<td>12 repetitions</td>
<td>jog</td>
</tr>
<tr>
<td>Every other day</td>
<td>high</td>
<td>1 mile</td>
<td>sprint</td>
</tr>
<tr>
<td>2 times each day</td>
<td>fast</td>
<td></td>
<td>push ups</td>
</tr>
<tr>
<td>Every morning, noon, evening</td>
<td>moderate</td>
<td></td>
<td>sit and reach</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>vigorous</td>
</tr>
</tbody>
</table>

**Long Term Plan /Goal Example**

I will be able to run the mile (type), 1 time during the spring fitness tests (frequency), in under 7:30 minutes (time), at a 3-5 intensity.
Write your own long term physical activity goal using the FITT principal.

**Short Term Plan /Goal Example**

I will jog (Type), 3 times a week (Frequency), for 30 minutes (Time), at an intensity level of 3 (Intensity).
Write your own short-term physical activity goal that will help you reach the above long term goal using the FITT principal.

***HEALTH S.O.L. 8.1c. Examine the health risks caused by food contaminants.***

Food poisoning occurs after eating food contaminated by bacteria. The symptoms of food poisoning are basically the same as those of stomach flu: abdominal cramps, nausea, vomiting, diarrhea, and fever. The bacteria that cause food poisoning cannot be seen, smelled, or tasted.

1. **Staphylococcus Aureus (Staph)**
   Staph contamination is the leading cause of food poisoning. These bacteria ordinarily cause skin infections, such as pimples or boils when food is left at a temperature that is lower than the temperature needed to keep food hot—the staph bacteria multiply and produce a poison (toxin).

2. **Salmonella**
   Salmonella bacteria commonly contaminates foods like raw meat (including chicken), raw or undercooked eggs, and unpasteurized milk. Fortunately, salmonella are killed when the food is cooked thoroughly.

3. **E. Coli**
   A few strains of these bacteria can cause food-related illnesses. Undercooked ground beef is a common source of E. coli, although raw produce and contaminated water have caused some outbreaks.

4. **Other sources of food poisoning include poisonous mushrooms and contaminated fish products.**

**Treatment**

In most cases of food-borne illnesses, all that’s necessary is to limit your eating and drinking for a while. The problem will then usually resolve itself. If you are still vomiting or diarrhea has not decreased significantly after about 4 hours, call your pediatrician.

**Prevention Do’s and Don’ts**

Most food-borne illness is preventable if you observe the following guidelines.

- Be careful when preparing raw meats and poultry. Wash your hands and all surfaces that have come in contact with the raw meat and poultry, with hot, sudsy water before continuing your preparation.
- Always wash your hands before preparing meals and after going to the If you have open cuts or sores on your hands, wear gloves while preparing food.
- Do not prepare food when you are sick.
- Don’t use canned or jarred goods showing any of signs of damage.
- Do not eat raw meat.
- Do not let prepared foods (particularly starchy ones), cooked and cured meats, cheese, or anything with mayonnaise stay at room temperature for more than two hours.
HEALTH S.O.L. 8.2d. Compare healthy and risky approaches to weight management.

Diets aren't the way to go when it comes to losing weight. That's because they create temporary eating patterns and, therefore, temporary results. Most dieters gain back any lost weight when they go back to their old eating habits. Weight loss is most likely to be successful when people change their habits, replacing old, unhealthy ones with new, healthy behaviors. **Here are 5 ways to make that happen:**

1. **Exercise.** Regular physical activity burns calories and builds muscle — both of which help you look and feel good and keep weight off. If you want to burn more calories, increase the intensity of your workout.
2. **Reduce screen time.** One reason people get less exercise these days is because of an increase in "screen time" — the amount of time spent watching TV, looking at the computer, using mobile devices, or playing video games.
3. **Watch out for portion distortion.** Portion sizes are bigger than they used to be, and these extra calories contribute to obesity. Another key factor in weight gain is that more people drink sugary beverages, such as sodas, juice drinks, and sports drinks. So choose smaller portions.
4. **Eat 5 servings of fruits and veggies a day.** Fruits and veggies are about more than just vitamins and minerals. They're also packed with fiber, which means they fill you up.
5. **Don't skip breakfast.** Breakfast kick-starts your metabolism, burning calories from the get-go and giving you energy to do more during the day. People who skip breakfast often feel so hungry that they eat more later on.

Lots of today's popular diets take advantage of our desire to drop weight quickly. Unfortunately, though, "quick-fix" diets don't work.

**Clues that a diet may be more about empty promises than real results:**

1. The diet is based on drastically cutting back calories. Starvation-type diets don't work!
2. The diet is based on taking special pills, powders, or herbs. These are usually just gimmicks and the only thing they slim down is your wallet.
3. Some diet pills force a person's body to eliminate more water. Just like restricted-calorie diets, the weight lost with these supplements is mostly water, not fat.
4. Other supplements claim that their ingredients speed up metabolism; suppress appetite; or block the absorption of fat, sugars, or carbohydrates. For most diet supplements, there's no reliable scientific research to back up their claims. And doctors consider diet supplements risky for teens because not much is known about how the ingredients affect the growing body.
5. The diet tells you to eat only specific foods or foods in certain combinations. Limiting the foods you eat means you might not get all the nutrition you need.
6. The diet makes you completely cut out fat, sugar, or carbs. Depriving our bodies of needed food groups is a bad idea (especially when they're still growing).
7. The diet requires you to skip meals or replace meals with special drinks or food bars. As with diets that ban certain food groups, skipping or substituting meals can mean you don't get the nutrition needed to support healthy development.

HEALTH S.O.L. 8.3d. Identify strategies to increase water intake.

1. **Carry a water bottle with you.**
2. **Replace juice, soda, and sports drinks with water.**
3. **Take a drink every time you pass a water fountain.**
4. **Students brainstorm other strategies.**
5. **______________________________________________________________________________________**

HEALTH S.O.L. 8.2e. Analyze the impact of family and personal influences on eating habits and attitudes toward weight management.

PTI Activity - Discuss family and personal influences on eating habits and weight management. Do your parents exercise? Do they eat out a lot? Do they eat healthy? Do they eat organic? Is it more expensive to eat healthy? Do you care what you look like or if you are overweight? Why do you care? How does social media influence how you eat or want to look? How do commercials influence you? How do your friends, teachers, parents, or famous people influence these attitudes?

PTI Activity – What attitudes do you have about PA and weight management? ______________________
HEALTH S.O.L. 8.3c. Develop practical solutions for removing barriers to physical activity & healthy food choices.
Class partner or / and small group discussion on practical solutions can include: using a calendar, devices or apps, prioritizing time, doing it with family or friends, maybe competition, ask parents for help, make exercise fun (choose something you like to do, with who you like to be with, listen to music, set goals) bring your own lunch to school.

PTI Activity – What barriers do you have to PA and weight management? __________________________
PTI Activity – How can you remove some barriers to PA and weight management? ____________________

***HEALTH S.O.L. 8.1d. Identify eating disorders, and describe the dangers of engaging in unbalanced and unsafe diet practices to gain or lose weight.
***HEALTH S.O.L. 8.2f. Examine the causes and effects of compulsive behaviors, such as eating disorders.

Compulsive Eating Disorders (Textbook 11.2 p.266-269)
Definition = __Extreme and damaging eating behavior that can lead to sickness and even death________________________

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Definition</th>
<th>Typical Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anorexia Nervosa p.267</td>
<td>Self-starvation leading to extreme weight loss</td>
<td>Do WELL ______ in school. LOW Self –Esteem. POOR Body Image. Although dangerously THIN__, still see themselves as FAT <em><em><strong><strong>. If untreated one can DIE _____ from starvation, heart failure or kidney failure. The DEPRESSION</strong></strong></em> that comes from anorexia can lead to thoughts of <em>SUICIDE</em></em>______.</td>
</tr>
<tr>
<td>Anorexia means without</td>
<td>Nervosa means nervous origin ____</td>
<td></td>
</tr>
<tr>
<td>appetite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulimia Nervosa</td>
<td>Condition where a person eats large amounts of food and secretly purges</td>
<td>Vomiting __________________________________________________________________</td>
</tr>
<tr>
<td>They usually do not become extremely THIN__ They purge by <strong>THROWING UP ____ or taking <strong>LAXATIVES</strong></strong>__. Purges means p. 268 to get rid of or remove something__________</td>
<td>Taking laxatives (medicine that causes you to go to the bathroom). Exercising excessively. Some Wrestlers do this. Most common among Males or Females (circle one).</td>
<td></td>
</tr>
<tr>
<td>Binge Eating Disorder</td>
<td>Compulsive over eating</td>
<td>Eat alone __________________________________________________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hide food __________________________________________________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weight problems/obese __________________________________________________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eat when not hungry __________________________________________________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eat amount large enough to make them physically uncomfortable __________________________________________________________________</td>
</tr>
</tbody>
</table>

Reasons why eating disorders may develop p. 266
1. __loss of control over other things in life __________________________
2. __poor body image __________________________

***HEALTH S.O.L. 8.3f. Create a plan to make healthy food choices, including choosing fruits and vegetables, in a variety of settings. Encourage family and peers to choose healthy foods, Activity in PE and a later Portfolio assignment.
**PE S.O.L. 8.2f.** Describe effects of exercise/activity on physical movement, body systems, and brain development.

**Exercise and Your Body**

A balanced exercise program, which includes exercises that will improve your strength, stamina, and flexibility, should be a part of your everyday routine. You must realize, however, that age and physical problems may prevent you from doing all types of exercises. It is possible, though, to be physically active and fit at any age.

Promotes psychological well-being. Those who exercise have more energy, breathe better, and experience more restful sleep. They also function better mentally, have better memories, and have improved reasoning abilities.

Improve resistance to cold

Reduces the risk of death from heart disease. Regular physical activity decreases the risk of cardiovascular disease and coronary heart disease. If you have a heart attack, your chances of survival are improved if your body is strong from regular exercise.

Helps older adults become mobile and avoid falls. There is some evidence that physical activity makes a person more active and less susceptible to falls.

Improves the length and quality of your life. Longevity may be improved by only moderate exercise. Simple activities such as gardening, dancing, walking, swimming, bowling, and household chores will improve the length and quality of your life if they are done on a regular basis. Also, exercises may be just as beneficial when they are done in several short sessions as when the same total amount of exercise occurs in one longer session.

Enhances self-image

Helps build and maintain healthy bones, muscles, and joints. It may benefit those with arthritis. Including weight-bearing activities is also essential for normal bone development during childhood and adolescence and for achieving and maintaining peak bone mass, which is essential in preventing osteoporosis.

Reduces feelings of depression and anxiety. Exercise not only relieves the symptoms of depression and anxiety, there is evidence that it may also reduce the risk of developing depression and anxiety.

Prevents or delays the development of high blood pressure. Reduces blood pressure in people with hypertension.

Reduces the risk of developing diabetes. Regular physical activity lowers the risk of developing non-insulin-dependent diabetes mellitus and seems to stabilize the blood sugar.

Improves muscle strength. Age is no barrier to improving strength in one’s muscles.

Helps control weight. Increasing physical activity while maintaining the same level of caloric intake results in a reduction of fat cells. Also, exercise builds muscle. A muscular body burns more calories even at rest than one that is not muscular.

Reduces the risk of colon cancer. Regular physical activity is associated with a decreased risk of colon cancer, and evidence is accumulating that it may prevent other types of cancer as well.

Improves flexibility or suppleness.

Improves quality of sleep.