



Middle School

National FFA Organization

Lesson MS.17

THE ROLE OF PHYSICAL ACTIVITY IN PERSONAL SUCCESS

Unit.

Stage One of Development-ME

Problem Area.

What Foundational Skills Do I Need for Personal Growth?

Precepts.

G3: Participate in a fitness program.

National Standards.

NPH-H5-8.6 - Develop a plan that addresses personal strengths, needs, and health risks.



Student Learning Objectives. As a result of this lesson, the student will ...

- 1 Identify the role that physical fitness plays in the attainment of personal success.
- 2 Explain the components of a daily exercise program.
- 3 Identify physical activity that can be incorporated into a weekly schedule.



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Time. Instruction time for this lesson: 50 minutes.



Resources

Tips for Exercise Success American Heart Association website.
www.americanheart.org / Retrieved on October 7, 2002.



Tools, Equipment, and Supplies

- ✓ Overhead projector
- ✓ Blank sheets of paper
- ✓ Bathroom scales
- ✓ MS.17.TM.A
- ✓ MS.17.TM.B
- ✓ MS.17.TM.C
- ✓ MS.17.TM.D
- ✓ MS.17.Assess—one per student



Key Terms. The following terms are presented in this lesson and appear in bold italics:

- ▶ Abstain
- ▶ Body Mass Index
- ▶ Obesity
- ▶ Osteoporosis
- ▶ Regimen
- ▶ Sedentary
- ▶ Type II diabetes



Interest Approach



How do you know if you are physically fit? What are some signs that you are not?

Possible responses: obesity; a high Body Mass Index; lack of agility or flexibility; poor overall health



Today we will analyze the role physical fitness plays in the attainment of personal success. We will work individually as well as in groups to develop a physical fitness plan for the attainment of personal success.

To begin the discussion today, you will calculate your Body Mass Index.



In order to calculate Body Mass Index, refer to MS.17.TM.A for additional instructions



Body Mass Index is a measure of a person's healthy body weight and fat mass. A healthy BMI for adults is between 18.5 and 24.9. Ranges are based on the effect body weight has on disease and death. A high BMI is predictive of death from cardiovascular disease. Diabetes, cancer, high blood pressure, and osteoarthritis are also common consequences of excess weight and obesity in adults.

Copy the following onto the writing surface or use MS.17.TM.A.

$$BMI = \text{Weight (pounds)} / \text{Height}^2 \text{ (inches)} \times 703.$$

For an online calculator, go to: www.cdc.gov/nccdphp/dnpa/bmi/calc-bmi.htm.



How does a person decrease his or her Body Mass Index? Why is physical activity important to personal success?

SUMMARY OF CONTENT AND TEACHING STRATEGIES

Objective 1. Identify the role that physical fitness plays in the attainment of personal success.

Teach the following material in a Little Professor Moment. Working in pairs, students take turns teaching the information learned from the teacher. Here is how it works:

- 1. In pairs, each student takes on one of two personas. Examples: Einstein, Magellan, Madam Curie, Edison, or Lincoln.*
- 2. Next, one student of each pair listens to the teacher and takes appropriate notes.*
- 3. That student then teaches his or her partner, ensuring the partner takes notes and learns the key information.*
- 4. Partners switch and repeat steps 2 and 3.*

Provide the following information on the writing surface, and instruct students to capture the information in their notebooks. Use MS.17.TM.B to teach this portion of the lesson. Relate key terms given in student definitions to the definitions given below.



In your pairs, determine who will be Lincoln and who will be Magellan. Magellan's, you are not to listen to anything I am about to say. Lincolns, your job will be to listen intently and take copious notes on what I am about to say so you can teach the Magellan's. Are there any questions?

Teach the following subject matter.



I. A healthy lifestyle is composed of many activities, such as exercise, healthy eating, getting plenty of sleep and rest, and avoiding health-harmful activities, such as smoking or chewing tobacco, drinking excessive amounts of alcohol, or assuming unnecessary physical or sexual risk.

A. What affects your health?

1. Your genes may affect your susceptibility to obesity, but some people simply exercise too little and eat too much, and thus become obese.
2. Obesity, a condition of being 30 or more pounds over your ideal weight, affects about a third of the American adult population.
3. A healthy body is a happy, low-maintenance, useful body that will last a long time.
4. A healthy person who exercises regularly is less tense and stressed.
5. Physical fitness provides many benefits to a person and contributes to his or her attainment of personal success.

Stop the lesson and instruct the students:



Lincolns, it is now your turn to teach the Magellan's what you have just learned. You may begin.

After the students have had time to teach one another, call them back together and state:



All right, Magellan's, it is your turn to listen while the Lincolns take a break. Magellan's, listen intently and take copious notes about what I am about to say so you can teach the Lincolns. Are there any questions?

Teach the following material:

B. Physical activity develops greater energy for daily activities.

1. Your body is a machine and with regular use becomes stronger and provides greater energy.
2. With physical activity, muscles remain healthy and grow, bones replenish themselves, and blood circulates more freely.

Stop the lesson and instruct the students:



Magellan's, it is now your turn to teach the Lincolns what you have just learned. You may begin.

After the students have had time to teach one another, call them back together and state:



All right, Lincolns, it is your turn to listen while the Magellan's take a break. Lincolns, listen intently and take copious notes on what I am about to say so you can teach the Magellan's. Are there any questions?

Teach the following material:

C. Physical activity relieves stress.

1. Stress can build up due to worries; however, physical exercise releases chemicals that reduce stress on the mind and body.
2. Physical activity keeps the body loose and ready for challenges.



Stop the lesson and instruct the students:



Lincolns, it is now your turn to teach the Magellan's what you have just learned. You may begin.

After the students have had time to teach one another, call them back together and state:



All right, Magellan's, it is your turn to listen, while the Lincolns take a break. Magellan's, listen intently and take copious notes on what I am about to say so you can teach the Lincolns. Are there any questions?

Teach the following material:

D. Physical fitness decreases the chances of debilitating illnesses.

1. Exercise maintains bodily health so incidences of common illnesses, as well as long-term illnesses, are reduced.
2. A person can reduce three of the major risk factors of heart attack-high blood pressure, high blood cholesterol, and excess body weight-by implementing healthy food habits.
3. Additionally, benefits of eating healthily include reducing the risk of chronic health problems, including Type II diabetes, some forms of cancer, and osteoporosis, a disease in which the bones become extremely porous and subject to fracture.

Stop the lesson.



All right, Lincolns, you may teach the Magellan's.

Allow the students time to interact and teach.



Are there any questions?

Objective 2. Explain the components of a daily exercise program.



For the next portion of the lesson, you will be learning the key components of a daily exercise program. Think about how much you do exercise and how much you should exercise. You will think quietly and then share your answers.

Teach the following material using a Me-You-Us Moment. This strategy creates a comfortable environment that encourages each student to contribute his or her ideas. The topic to initiate the discussion is:



What are the components of a daily exercise program? Develop a list of components in a daily exercise program.

Discuss the following information with students. Students don't need to capture in notebooks. Great section for an open discussion, about family health problems and how to help break the cycles in their lives.



II. A person should adopt a physically active lifestyle. Exercise can include swimming, cycling, skiing, dancing, or any activity that raises your body temperature and causes you to perspire and breathe heavily without undue stress to muscles.

- A. Adults should engage in moderate activity for 30 minutes or more five or more days a week; 45 minutes or more of moderate to vigorous activity five or more days a week may further enhance reductions in the risk of cancers.
- B. Regular physical activity contributes to the maintenance of a healthy body weight by balancing caloric intake with energy expenditure. If you have been sedentary -a life without physical activity indicated by being overweight or having other chronic health problems-you should see a doctor before beginning a physical exercise regimen, or program. Exercise decreases the chance of several types of cancers and other chronic illnesses.
 - 1. For colon cancer, physical activity accelerates the movement of food through the intestine, thereby reducing the length of time the bowel lining is exposed to potential carcinogens.
 - 2. For breast cancer, vigorous physical activity may decrease the exposure of breast tissue to circulating estrogen.
 - 3. Physical activity may also affect cancers of the colon, breast, and other sites by improving energy metabolism and reducing circulating concentrations of insulin and related growth factors.
 - 4. Physical activity helps to prevent Type II diabetes, the most common form of diabetes, which is associated with increased risk of cancers of the colon, pancreas, and possibly other sites. In Type II diabetes, either the body does not produce enough insulin, or the cells ignore the insulin. Insulin is necessary for the body to be able to use sugar. Sugar is the basic fuel for the cells in the body, and insulin takes the sugar from the blood into the cells. When glucose builds up in the blood instead of going into the cells, it can cause two problems:
 - a. Immediately, your cells may be starved for energy.
 - b. Over time, high blood glucose levels may hurt your eyes, kidneys, nerves, or heart.
 - 5. Exercise also aids in the prevention of heart disease, high blood pressure, osteoporosis, and depression, reduces the likelihood of falls and resulting fractures, and is a known stress-buster.

Objective 3. Identify physical activity that can be incorporated into a weekly schedule.



Think about the physical activities you need to incorporate into your weekly schedule. Think quietly and be prepared to transfer your thoughts to paper.

Use a Hieroglyphics Moment to teach and review this portion of the lesson. Students will create small pictures to represent the information, concepts, or steps in a process. Each picture, or icon, should be unique and distinguishable from the others. Ask students:



What picture or icon will help you to remember the pieces of information, concepts, or steps in this process?



Provide the following information on the writing surface, and instruct students to capture the information in their notebooks. Use MS.17.TM.C and MS.17.TM.D to facilitate instruction about Objective 3. Relate key terms given in student definitions to the definitions given below.

Objective 3. Relate key terms given in student definitions to the definitions given below.

III. Many forms of physical fitness can be integrated into a student's weekly schedule without added expense or great amounts of added time. The bonus is that after the first couple of exercise sessions, the physical activity becomes fun, feels great, and the individual realizes almost immediate results! The same holds true for a change of eating habits.

- A. Weekly physical fitness activities that will make a difference in how you look and feel
 - 1. Walking for half an hour four to five times a week
 - 2. Jogging or skating
 - 3. Playing a sport
 - 4. Riding a bicycle
 - 5. Dancing
- B. Individual can implement a couple of simple changes to increase daily exercise
 - 1. Park at the far end of the parking lot to enable a longer walk to the building entrance.
 - 2. Take the stairs instead of the elevator.
 - 3. Choose water instead of soft drinks.
 - 4. Maintain a clean and orderly room.
 - 5. Push-mow the yard with a non-self-propelled lawn mower instead of a power mower.
 - 6. Change channels on the television manually instead of using the remote control.
 - 7. Get that drink of water yourself instead of having a younger brother or sister get it for you.
 - 8. Walk to the store or library.
- C. There are several tips for exercise success.
 - 1. Choose activities that are fun, not exhausting.
 - 2. Add variety to your routine.
 - 3. Wear comfortable, properly fitting footwear and comfortable, loose-fitting clothing.
 - 4. Find a convenient time and place to exercise.
 - 5. Introduce music in your regimen to keep you entertained.
 - 6. Surround yourself with supportive people.
 - 7. Do not overdo it. Do low- to moderate-level activities, especially at first.
 - 8. Work up to exercising three to four times per week for 30-60 minutes.
 - 9. Keep a record of your activities.
 - 10. Reward yourself at special milestones.
 - 11. **Abstain** from (avoid and do not partake in) alcohol and tobacco products!



Review/Summary

Students should incorporate physical fitness into their weekly schedule.



Activity: Review the lesson with a Go-With-the-Flow Moment. Students represent the role physical fitness plays in the attainment of personal success as a flow chart or diagram that shows the relationship between physical fitness and the attainment of personal success.

Application

►Extended Classroom Activity:

Have students develop a weekly plan for physical fitness.

►FFA Activity:

Have students brainstorm about physical activities to add as a recreation at the end of all FFA meetings or sponsor a cooperative FFA volleyball, softball, or basketball tournament with area FFA chapters.

►SAE Activity:

Have students identify ways they can incorporate physical fitness into their SAE.

✓ Evaluation

Use MS.17.Assess to assess students' knowledge of the role that physical fitness plays in the attainment of personal success.

Answers to Assessment:

Part One: Matching

1. g
2. e
3. d
4. c
5. a
6. b
7. f

Part Two: Completion

1. Energy
2. High blood pressure, high blood cholesterol, and excess body weight
3. 30, 45
4. Maintenance, caloric intake, energy expenditure



Part Three: Short Answer

1. A healthy lifestyle is composed of many activities, such as exercise, eating healthy, getting plenty of sleep and rest, and avoiding health-harmful activities such as smoking or chewing tobacco, drinking alcohol, or assuming unnecessary physical or sexual risk.
2. Walking, jogging, skating, bicycling, dancing, or athletics
3. Choose activities that are fun, not exhausting.
 - Add variety to your routine.
 - Wear comfortable, properly fitting footwear and comfortable, loose-fitting clothing.
 - Find a convenient time and place to exercise.
 - Introduce music into your regimen to keep you entertained.
 - Surround yourself with supportive people.
 - Do not overdo it. Do low- to moderate-level activities, especially at first.
 - Work up to exercising three to four times per week for 30 to 60 minutes.
 - Keep a record of your activities.
 - Reward yourself at special milestones.
 - Abstain from-avoid and do not partake in-alcohol and tobacco products.



THE ROLE OF PHYSICAL ACTIVITY IN PERSONAL SUCCESS

►Part One: Matching

Instructions: Match the term with the correct response. Write the letter of the term by the definition.

- a. Abstain
- b. Body Mass Index
- c. Obesity
- d. Osteoporosis
- e. Regimen
- f. Sedentary
- g. Type II diabetes

- _____ 1. A disease associated with increased risk of cancers of the colon, pancreas, and possibly other organs
- _____ 2. Program
- _____ 3. A disease involving bone loss
- _____ 4. A condition of being 30 or more pounds over one's ideal weight
- _____ 5. To avoid, not to partake in
- _____ 6. A measure of a person's healthy body weight and fat mass
- _____ 7. A life without physical activity, indicated by being overweight or having other chronic health problems

►Part Two: Completion

Instructions: Provide the word or words to complete the following statements.

- 1. Physical activity develops greater _____ for daily activities.
- 2. A person can reduce three of the major risk factors of heart attack—_____, _____, and _____—by implementing healthy food habits.
- 3. Adults should engage in at least moderate activity for _____ minutes or more on five or more days of the week; _____ minutes or more of moderate to vigorous activity on five or more days per week may further enhance reductions in the risk of cancers.
- 4. Regular physical activity contributes to the _____ of a healthy body weight by balancing _____ with _____.



►Part Three: Short Answer

Instructions. Provide information to answer the following questions.

1. What are some of the basic components of a healthy lifestyle.
2. What are basic activities that could be incorporated into your weekly routine to enhance physical fitness.
3. What are several tips for exercise success.



BODY MASS INDEX

◆ **Body Mass Index: a measure of a person's healthy body weight and fat mass**

- ➔ A healthy BMI for adults is between 18.5 and 24.9.
- ➔ A high BMI is predictive of death from cardiovascular disease.
- ➔ Diabetes, cancer, high blood pressure, and osteoarthritis are also common consequences of excess weight and obesity in adults.

◆ **BMI = Weight (pounds) / Height ² (*inches*)**
. 703

- ➔ Underweight = BMI less than 18.5
- ➔ Overweight = BMI of 25.0 to 29.9
- ➔ Obese = BMI of 30.0 or more



ROLE THAT PHYSICAL FITNESS PLAYS IN THE ATTAINMENT OF PERSONAL SUCCESS

◆ Physical activity develops greater energy for daily activities.

◆ Physical activity relieves stress.

◆ Physical fitness decreases the chances for debilitating illnesses.

◆ A person can reduce three of the major risk factors of heart attack—high blood pressure, high blood cholesterol, and excess body weight—by implementing healthy food habits.

◆ Additionally, benefits of eating healthily include reducing one's risk of chronic health problems, including type II diabetes, some forms of cancer, and osteoporosis—bone loss.



WEEKLY PHYSICAL FITNESS ACTIVITIES THAT WILL MAKE A DIFFERENCE IN HOW YOU LOOK AND FEEL

◆ **Walking for half an hour four to five times a week**

◆ **Jogging**

◆ **Skating**

◆ **Riding a bicycle**

◆ **Playing a sport**

◆ **Dancing**

◆ **Parking at the far end of the parking lot to enable a longer walk to the building entrance**

◆ **Taking the stairs instead of the elevator**

◆ **Choosing water instead of soft drinks**

◆ **Maintaining a clean and orderly room**

◆ **Push-mowing the yard with a non-self-propelled lawn mower rather than a power mower**

◆ **Walking to the store or library**



TIPS FOR EXERCISE SUCCESS

- ◆ Choose activities that are fun, not exhausting.
- ◆ Add variety to your routine.
- ◆ Wear comfortable, properly fitting footwear and comfortable, loose-fitting clothing.
- ◆ Find a convenient time and place to exercise.
- ◆ Use music to keep you entertained.
- ◆ Surround yourself with supportive people.
- ◆ Do not overdo it. Do low- to moderate-level activities, especially at first.
- ◆ Work up to exercising three to four times per week for 30-60 minutes.
- ◆ Keep a record of your activities.
- ◆ Reward yourself at special milestones
- ◆ *Abstain from—avoid and do not partake in—* alcohol and tobacco products.

