

**Title:     Fit To Sail**  
**(Physical Fitness)**

**Grade(s):** 6-8

**Introduction:** **Physical fitness** is the condition of the body as a result of participating in exercises that promote muscular strength, muscular endurance, cardiovascular endurance, and flexibility. **Muscular endurance** is the ability to use muscles for an extended period of time. A person can develop muscular endurance by participating in activities that require long periods of work. A sailor will need to sail almost everyday to develop muscular endurance. **Muscular strength** is the ability of muscles to perform tasks with the power such as pulling and pushing. A person may be able to lift heavy object and/or weights, thereby showing that the muscles are strong. **Cardiovascular endurance** is the ability to do exercises that require increased oxygen intake for an extended period of time. Sailing long distance without getting tired indicates that a person has heart fitness. **Flexibility** is the ability to bend easily at the joints and stretch muscles without too much effort. Touching your toes with your fingertips while your knees are locked straight shows that you have flexibility. The reduction of body fat is important in becoming physically fit. **Lean tissue** is tissue that has little or no fat. Becoming physically fit helps reduce the amount of fat tissue and increase the amount of lean tissue in the body. Aerobic exercises such as speed walking and long distance running help reduce the amount of fat tissue.

In this activity students will acknowledge how physical fitness is important. They will observe when people who do not exercise and who participate in unhealthy behaviors can have problems with their circulation.

**Learner Objective(s):**

- The student will be able to recognize the relationship between personal health and individual well-being.
- The student will be able to demonstrate strategies to improve or maintain personal health.
- The student will be able to participate in movement and exercise.
- The student be able to achieve a desirable level of physical fitness.
- The student will be able to improve skill related fitness.

**Florida Sunshine State Standards:** Math: MA.A.1.3.1, Science: SC.C.1.3.1

Physical Education: PE.B.1.3.12, PE.B.1.3.10, PE.B.1.3.4, PE.B.1.3.7, PE.B.1.3.9

**Competency Based Curriculum:** Physical Education: M/J Physical Fitness III.2.A,

M/J Physical Fitness III.3.F, Health: HE.II.2.A

**Materials:**

Straws for each student  
Small Glass for each student  
Water

**Activity Procedure(s):**

1. Start with a glass of water and a straw for each student.
2. Ask the students to drink a small amount of water through the straw.
3. The students will notice that the water moved smoothly through the straw.
4. Make the analogy that the straw is like a healthy blood vessel in that this blood vessel was not clogged, and water (analogous to the blood) flowed easily.
5. Have the students pinch the straw and twist it around.
6. Ask the students to drink the water through the straw.
7. The students will notice that the water does not flow easily through the straw.
8. Explain that this straw (blood vessel) is not healthy. The water (blood) could not flow through it easily.
9. Explain to students that people who do not exercise and who participate in unhealthful behaviors can have problems with their circulation. Their blood vessels may be clogged and not allow blood to flow easily.
10. Explain that being physically fit helps the blood vessels as well as the heart to stay healthy.
11. Define physical fitness (see introduction).
12. Explain the benefits of physical fitness.
13. Provide students the opportunity to add benefits to this list.
14. Explain that to get one's body into top condition, it is important to develop the components of physical fitness. They are muscular endurance, muscular strength cardiovascular endurance, flexibility, and a healthful percentage of body fat.
15. Introduce students to the terms muscular endurance, muscular strength, cardiovascular endurance, flexibility, and lean tissue (see introduction for definitions and examples).

### **Student Assessment:**

Allow student to answer critical thinking skills questions assigned by the teacher.

- a. If you were a sailor, what types of physical activities would you be performing onboard?  
Can you specify which activities are considered muscular strength and which are considered muscular endurance?
- b. Do you think that physical activity reduces “sea sickness”? Explain.

After reviewing the five components of physical fitness, have students identify activities they can do to develop each one.

### **Activity Extension(s):**

1. Demonstrate each of the physical fitness components outdoors (**Physical Education**).
2. Have each student measure their percent body fat. Create a bar graph illustrating student data (**Math**).
3. Allow students to write an essay on the importance of being physically fit (**Language Arts**).

### **Home Learning Activity:**

Have students keep a daily journal of physical activities for one week.

Share journal findings with fellow students, afterwards.

**Vocabulary:** physical fitness, muscular endurance, muscular strength, cardiovascular endurance, flexibility, lean tissue

### **References/Related Links:**

Comprehensive School Health Education, 2<sup>nd</sup> ed.  
Meeks Heit Publishing Co., 1996

# **Fit To Sail**

## **Reading Passage**

There are numerous health benefits derived from obtaining a desirable level of physical fitness. Being physically fit promotes cardiovascular health, reduces the incidence of cancer, helps to control the effects of harmful stress, promotes weight management, and improves the strength and condition of bones, muscles, and joints. A person who has achieved a level of muscular strength, muscular endurance, flexibility, and cardiovascular endurance and who has a healthful body composition is physically fit. There are six kinds of fitness skills. Agility is the ability to change your position or direction quickly. Balance is the ability to keep from falling. Coordination is the ability to use two or more body parts at the same time to do a task. Power is the ability to use muscular strength to do an activity. Reaction time is the length of time you require to move after you have heard a signal. Speed is the ability to move quickly.

Good physical condition adds to the enjoyment of sailing. Trimming sails, hiking out, and adjusting to the constant motion of a boat can tax strength and endurance. The best form of physical preparation for sailing is aerobic (heartbeat) and anaerobic (lifting/pulling) exercise. The exercise program should be tailored to your age, physical condition and should include warm up and cool down periods. Flexibility exercises are also beneficial, as sailing requires movements in many unusual positions. Stretching before and after sailing helps minimize stiffness and discomfort.

A well balanced diet also helps on-the-water performance. Endurance and concentration are directly related to nutritional intake. An active sailor may need more than 3,000 calories a day. A good diet will have a balance of protein, carbohydrate, fat, vitamins, minerals, and plenty of water. Drinking before and during sailing is recommended to avoid dehydration.

# Fit To Sail

## FCAT Questions

**Directions:** Read the passage, then answer all the questions below. Answer multiple-choice questions by circling the letter of the answer that you select. Write your answer to the “Read, Think, and Explain” question on the lines provided.

1. The ability to change direction or position is termed:

- A. Flexibility
- B. Agility
- C. Muscular Endurance
- D. Coordination

Answer: B

2. When sailors lift or pull objects on a ship, they are performing:

- A. Aerobic Exercise
- B. Anaerobic Exercise
- C. Physical Endurance
- D. Muscular Endurance

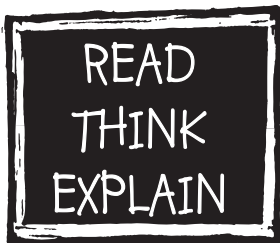
Answer: B

3. While at Sea, sailors need to be *very* aware of:

- A. Drinking Water
- B. Eating Carbohydrates
- C. Sleeping/Rest Time
- D. Protein Intake

Answer: A

4. List routine activities that sailors perform at sea and are classified as physical activities.



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