

Windsor Hockey Skills Academy

Reading: Health-Related Components of Physical Fitness and the F.I.T.T. Principle of Training

Taken from www.glencoe.com

Curricular Competencies:

Students are expected to be able to do the following:

- Grades 8 and 9: Describe how students' participation in physical activities at school, at home, and in the community can influence their health and fitness
- Grade 10: Participate in physical activities designed to enhance and maintain health components of fitness

Content:

Students are expected to know the following:

- Grades 8 and 9: effects of different types of physical activity on the body ("Health and Skill Components of Fitness")
- Grades 8, 9 and 10: training principles to enhance personal fitness levels including the FITT principle
- Grade 10: health benefits of different physical activities

Part A: Introduction

Physical Fitness is defined as a condition in which an individual has enough energy to avoid fatigue and enjoy life, which includes physical activities of interest. Physical fitness can be divided into **Health-Related** components and **Skill-Related** components. All components are incorporated into the PE curriculum that is taught in schools and can be tested to examine the state of a student's fitness, and/or the improvement of a student's fitness over time. **This assignment will focus on the Health-Related components and the F.I.T.T. Principle of Training.**

Part B: Health-Related Components of Fitness

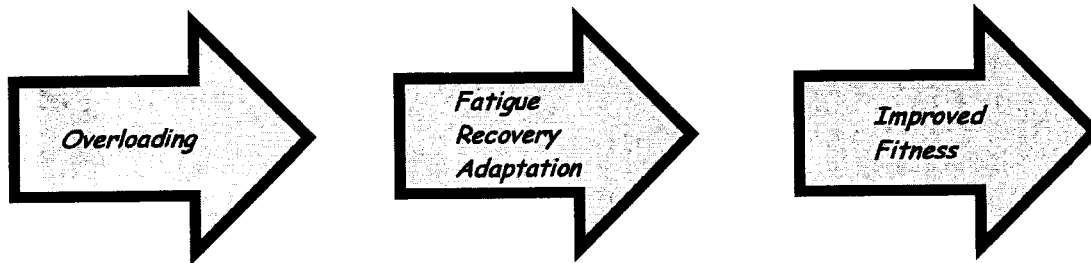
Health-related fitness is the ability to become and stay physically healthy. These components focus on factors that promote optimum health and prevent the onset of disease and problems associated with a sedentary lifestyle (or inactivity).

1. **Cardiovascular Fitness** is the ability of the heart (cardio) and circulatory system (vascular) to supply oxygen to muscles for an extended period of time. Cardiovascular is also called cardiorespiratory (lungs) fitness. Often, the **12 Minute Run** or **Duke Run** is used to assess cardiovascular fitness.
2. **Muscle Strength** refers to the maximum amount of force a muscle can exert against an opposing force. Often, one maximum lift of a particular weightlifting exercise (**bench press** or **leg squat**) will be used to assess muscular strength.
3. **Muscle Endurance** refers to the ability of the muscle to work over an **extended period of time without fatigue**. Performing **push-ups** or **sit-ups** or crunches for one minute is commonly used to test muscle endurance.
4. **Flexibility**: is the ability to move a body part through a full range of motion at a joint (ROM). Good flexibility can help prevent injuries through all stages of life. Often, the **Sit-and-Reach Test** is used to assess flexibility
5. **Body Composition** is the ratio of body fat to lean body mass including water, bone, muscle, and connective tissue like tendons). It is not simply how much you weigh. An athlete with too much fat tissue can be at risk for diabetes, heart disease, and other medical conditions and/or diseases. The **Body-Mass Index (BMI)** is sometimes used to assess body composition.

Part C: Improving Your Fitness Level using Overload and F.I.T.T.

To improve fitness levels (both health related components and skill-related components), an athlete must increase the frequency, intensity, time, and/or type within any given component. For example, if an athlete wants to improve muscle strength, he/she can increase the amount of weight being lifted in a given exercise. This increase is called Overload and is one of the fundamental Principles of Training.

Overload is perhaps the fundamental principle of fitness. It is basically an increase in demand to force bodily adaptation or growth. A training load is the work or exercise that an athlete performs in a training session. Loading is the process of applying training loads — training programs.



Increasing frequency, intensity, time, and/or type is known as the FITT Principle:

- **F = Frequency:** how many times per day, week, or training session the activity is performed
- **I = Intensity:** how hard the activity is performed (lightly, moderately, or vigorously)
- **T = Time:** how long the activity is performed
- **T = Type:** the mode or kind of activity that is performed (*example: throwing overhand instead of underhand*)

When an athlete's fitness is challenged by a new training load (using the FITT Principle) there is a response from the body. This bodily response is called an adaptation. The initial response is fatigue. When the loading stops there is a process of recovery. Recovery and adaptation take the athlete to a higher level of fitness from where he/she started. In other words, if you want to improve your speed, muscle strength, or endurance, you must push past your current level by challenging your abilities and current level of fitness.

Part D: Applying the F.I.T.T. Principle of Training to Hockey

The F.I.T.T. Principle is a very useful tool to incorporate into your hockey practicing and training. This principle simply states that if you want to improve, you need to increase the load or "work that your body is doing" so your body can adapt and improve.

For example, if one of your goals for the Hockey Academy is to improve your stamina (muscle endurance) during a hockey shift, then you need to skate for longer periods of time to improve your ability to skate for long periods of time. Your overload then is the increase in the length of time you skate in practice at full speed to increase your stamina. When developing your goals for the Hockey Academy, keep the F.I.T.T. principle and the concept of overload in mind.

Windsor Hockey Skills Academy
Reading: Health-Related Components of Physical Fitness
and the F.I.T.T. Principle of Training

Name: _____

Block: _____

Date: _____

Value: 20 marks

Taken from www.glencoe.com

Curricular Competencies:

Students are expected to be able to do the following:

- Grades 8 and 9: Describe how students' participation in physical activities at school, at home, and in the community can influence their health and fitness
- Grade 10: Participate in physical activities designed to enhance and maintain health components of fitness

Content:

Students are expected to know the following:

- Grades 8 and 9: effects of different types of physical activity on the body ("Health and Skill Components of Fitness")
- Grades 8, 9 and 10: training principles to enhance personal fitness levels including the FITT principle
- Grade 10: health benefits of different physical activities

Part A: Introduction

Answer each question in a word or a few words in the space provided.

1. According to the article, what is the definition of Physical Fitness? (2 marks)

Part B: Health-Related Components of Fitness

Answer the questions in the space provided in a few words.

2. List the Health-Related Components of Fitness and provide a brief explanation of each. (5 marks)

Component

Explanation

i.	_____:	_____

ii.	_____:	_____

iii.	_____:	_____

iv.	_____:	_____

v.	_____:	_____

3. According to the article, the Sit-and-Reach Test is often used to assess which component of fitness? (1 mark)

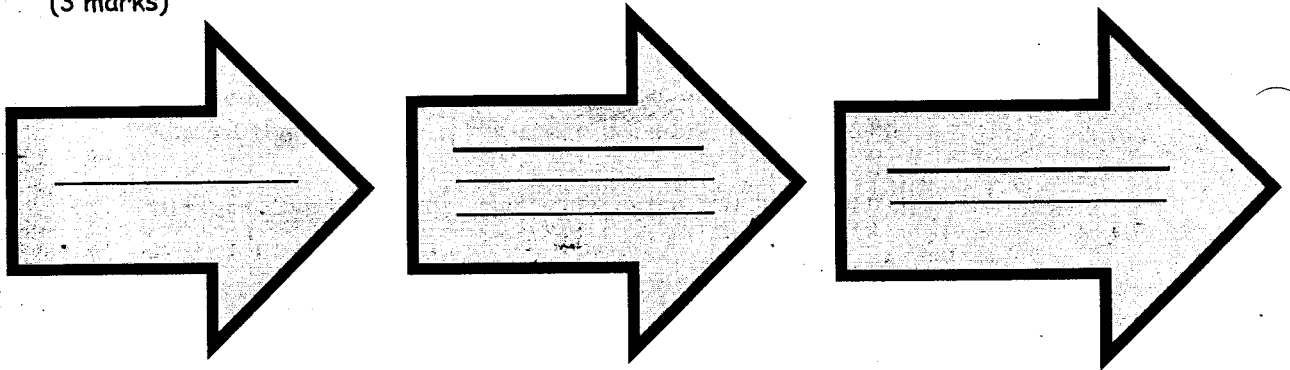
4. According to the article, the 12 Minute Run is often used to assess which fitness component? (1 mark)

Part C: Improving Your Fitness Level Using Overload and F.I.T.T.
Answer the questions in the space provided in a few words.

5. Explain the term Overload as it is mentioned in the article. (2 marks)

6. Review your definition of Overload in questions 5 and then provide an example of how you can use it to train or practice for hockey. (2 marks)

7. Complete the diagram below by filling the appropriate words found in each arrow in the reading. (3 marks)



8. Describe each of the four FITT Principles that an athlete can use to improve his/her fitness level according to the article. (4 marks)

1. _____
2. _____
3. _____
4. _____