

CHAPTER 2

PRINCIPLES OF PHYSICAL FITNESS

MULTIPLE-CHOICE QUESTIONS

1. What is a definition of physical activity?
 - a. movement carried out by the skeletal muscles that requires energy
 - b. any condition that elevates the heart rate
 - c. aerobic exercise
 - d. strength training

Answer: a

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Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

2. To which type of physical activity does the term exercise refer?
 - a. discontinuous and unplanned activity
 - b. planned, structured, and repetitive activity
 - c. very occasional and brief activity
 - d. random or unstructured activity

Answer: b

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Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

3. What does the latest version of the Physical Activity and Exercise Guidelines for Americans recommend?
 - a. getting 150 minutes of moderate-intensity aerobic exercise per week
 - b. varying the volume and intensity of exercise for additional health benefits
 - c. performing some type of resistance training at least two days per week
 - d. getting at least 150 minutes of vigorously intense exercise per day.

Answer: a

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Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

4. Which statement is correct regarding physical activity?
 - a. Activity should be decreased to compensate for common daily activities.
 - b. Regular activity should be intense to provide health benefits.
 - c. Activity must be in the form of a formal, continuous exercise program.
 - d. A little physical activity is better than none.

Answer: d

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Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

5. The Physical Activity and Exercise Recommendations for Promoting General Health, Fitness, and Weight Management suggest which action to achieve or maintain weight loss?
- Exercise moderately for 60 to 90 minutes per day on most days of the week.
 - Exercise 45 to 60 minutes per day on most days of the week.
 - Exercise 10 to 20 minutes per day on most days of the week.
 - Perform resistance exercise daily.

Answer: a

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Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

6. Which type of exercise is a component of health-related fitness?
- meditation
 - non-stretching
 - cardiorespiratory endurance
 - speed

Answer: c

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

7. What term is defined as the ability of the body to perform prolonged, large-muscle, dynamic exercise at moderate to high levels of intensity?
- anaerobic capacity
 - adaptive capacity
 - cardiorespiratory endurance
 - muscular endurance

Answer: c

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

8. What is one effect of increasing one's cardiorespiratory endurance?
- the amount of blood pumped per heartbeat decreases
 - the resting heart rate decreases
 - blood volume decreases
 - the resting blood pressure increases

Answer: b

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

9. Which condition is closely linked to heart disease?
- a. low cardiorespiratory fitness
 - b. low muscular strength
 - c. poor flexibility
 - d. poor reaction time

Answer: a

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

10. What is the definition of muscular strength?
- a. the ability to sustain a given level of muscular tension over time
 - b. the ability to move the joints through a full range of motion
 - c. the amount of force a muscle can produce with a single maximum effort
 - d. the amount of force a muscle can produce repeatedly over 60 seconds

Answer: c

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

11. Which change to muscle cells causes older adults to lose muscular strength?
- a. the cells get smaller in size
 - b. the cells get larger in size
 - c. the cells increase in number
 - d. the cells attach to the nervous system

Answer: a

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

12. What is muscular endurance?
- a. the ability to resist fatigue and to sustain muscular tension over time
 - b. the ability to move the joints through a full range of motion
 - c. the amount of force a muscle can produce with a single maximum effort
 - d. the amount of time required to contract a muscle completely

Answer: a

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

13. Which phrase describes flexibility best?
- a. the ability to move without pain during exercise
 - b. the ability to move the joints through their full range of motion
 - c. sustained motion without resistance
 - d. the ability to move rapidly during exercise

Answer: b

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

14. What characterizes healthy body composition?
- a. high proportion of muscle and bone and an acceptably low proportion of fat and water
 - b. high proportion of muscle, fat, and bone and a low proportion of water
 - c. high proportion of bone, fat, and water and a low proportion of muscle
 - d. high proportion of muscle, bone, and water and an acceptably low proportion of fat

Answer: d

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

15. What is the best way to lose body fat?
- a. crash diets
 - b. exercising alone
 - c. diet pills and supplements
 - d. sensible diet and regular exercise

Answer: d

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

16. Which ability is a skill-related fitness component?
- a. motivation
 - b. agility
 - c. endurance
 - d. flexibility

Answer: b

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

17. Which activity best demonstrates specificity of training?
- a. weight training to develop cardiorespiratory endurance
 - b. doing push-ups to develop chest and shoulder endurance
 - c. running to develop flexibility
 - d. bicycling to develop back strength

Answer: b

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Topic area: Physical Training Principles

Bloom's Taxonomy: Comprehension

18. The body adapting to a gradual increase in the amount of exercise is the definition of which stage of exercising?
- a. progressive overload
 - b. specificity of exercise
 - c. the principle of reversibility
 - d. the principle of assessment

Answer: a

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

19. What determines the amount of overload needed to maintain or improve one's fitness level?
- a. warm down time
 - b. repetition
 - c. specificity
 - d. duration

Answer: d

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

20. What can one expect to experience with exercise intensity?
- a. The intensity level required to obtain health benefits is greater than that needed to improve fitness.
 - b. Fitness benefits occur when a person exercises harder than his or her normal level of activity.
 - c. The appropriate intensity is the same for all people.
 - d. To develop flexibility, a person must stretch the muscles to the same length each time.

Answer: b

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

21. What principle forms the base of the time component of the FITT principle for overload for a muscular strength program?
- a. the amount of weight lifted
 - b. the number of training days per week
 - c. a cardiorespiratory fitness program
 - d. the number of sets and repetitions of specific exercises

Answer: d

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Topic area: Physical Training Principles

Bloom's Taxonomy: Comprehension

22. What is the recommended duration for cardiorespiratory endurance exercise?
- a. 5 to 10 minutes
 - b. 10 to 20 minutes
 - c. 20 to 60 minutes
 - d. 60 to 120 minutes

Answer: c

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

23. How quickly will people who stop exercising lose up to 50% of their fitness improvement?
- a. 1 week
 - b. 2 weeks
 - c. 3 weeks
 - d. 2 months

Answer: d

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

24. If one must temporarily stop exercising regularly, which factor should be maintained while the others are curtailed?
- a. specificity
 - b. intensity
 - c. frequency
 - d. time

Answer: b

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

25. What is the maximal improvement in the body's ability to transport and use oxygen that people can expect because of training?
- a. 5 to 10%
 - b. 5 to 30%
 - c. 40 to 50%
 - d. 60 to 70%

Answer: b

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

26. What does the Physical Activity Readiness Questionnaire (PAR-Q) achieve?
- a. establish a proper exercise intensity level

- b. identify potential exercise resources
- c. determine exercise safety
- d. help set exercise goals

Answer: c

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Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

27. Which condition can an exercise stress test determine?
- a. joint problems
 - b. excess body fat
 - c. excess emotional stress
 - d. symptoms of heart disease

Answer: d

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Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

28. What is the first step in creating a successful fitness program?
- a. determine your training intensity
 - b. assess your current fitness level
 - c. set specific fitness goals
 - d. plan your fitness program

Answer: b

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Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

29. What characteristic helps make goals long lasting and attainable?
- a. Goals should require considerable material rewards.
 - b. Goals should be linked to your peers' perceptions.
 - c. Goals should be clear and important to you personally.
 - d. Goals should focus on the long term rather than the short term.

Answer: c

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Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

30. Which activities are on the bottom level of the physical activity pyramid?
- a. walking, climbing stairs, and yard work
 - b. jogging, swimming, and bicycling
 - c. weight lifting and running
 - d. stretching and walking

Answer: a

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Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

31. Which activities are best for developing cardiorespiratory endurance?
- a. Activities that involve continuous rhythmic movements of large muscle groups.
 - b. Activities that alternate between brief periods of maximal exertion and rest.
 - c. Activities that gently extend joints beyond their normal range of motion.
 - d. Activities that involve working with weights or against resistance.

Answer: a

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Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

32. Which activities best develop muscular strength and endurance?
- a. Activities that involve continuous rhythmic movements of large muscle groups.
 - b. Activities that gently extend joints beyond their normal range of motion.
 - c. Activities that involve working with resistance such as weights or performing callisthenic exercises.
 - d. Activities that decrease body fat.

Answer: c

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Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

33. Which is most effective in improving flexibility?
- a. stretching when muscles feel tight
 - b. stretching once a month
 - c. stretching a few muscles each time
 - d. stretching major muscle groups regularly

Answer: d

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Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

34. What is a key to improving fitness?
- a. exercise very hard
 - b. exercise consistently
 - c. choose the best form of exercise
 - d. exercise for long periods

Answer: b

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Topic area: Safe and Effective Exercise

Bloom's Taxonomy: Knowledge

35. Which combination of activities develops healthy body composition?
- a. weight training, stretching, and cardiorespiratory endurance exercise
 - b. sensible diet, resistance training, and cardiorespiratory endurance exercise

- c. sensible diet, resistance training, and stretching
- d. sensible diet, stretching, and cardiorespiratory endurance exercise

Answer: b

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Topic area: Safe and Effective Exercise

Bloom's Taxonomy: Knowledge

36. When do overuse or overtraining injuries occur?
- a. when a person trains 3 days per week
 - b. when a person warms up prior to exercise
 - c. when a person increases the frequency of exercise before increasing the intensity of exercise
 - d. when a person increases the intensity of exercise before increasing the time (duration) of exercise

Answer: d

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Topic area: Safe and Effective Exercise

Bloom's Taxonomy: Knowledge

37. How does cooling down help those who exercise?
- a. It restores circulation to its normal resting condition.
 - b. It extends the duration of the cardiorespiratory endurance portion of the workout.
 - c. It increases the chance of overtraining.
 - d. It is most effective for workouts of less than 20 minutes in duration.

Answer: a

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Topic area: Safe and Effective Exercise

Bloom's Taxonomy: Knowledge

38. What is one way to develop a higher degree of fitness?
- a. consistently overtrain
 - b. keep a rigid program
 - c. vary the program from time to time
 - d. take time off and then restart the process

Answer: c

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Topic area: Safe and Effective Exercise

Bloom's Taxonomy: Knowledge

39. What is another name for cycle training?
- a. specificity
 - b. skill training
 - c. periodization
 - d. overload

Answer: c

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Topic area: Safe and Effective Exercise

Bloom's Taxonomy: Knowledge

40. Which is a good strategy for evaluating a health and fitness center?
- a. sign a long term contract
 - b. visit at the time one plans to use the club.
 - c. accept the lowest cost of membership
 - d. assume equipment will be updated regularly

Answer: b

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Topic area: Safe and Effective Exercise

Bloom's Taxonomy: Knowledge

TRUE/FALSE QUESTIONS

41. Leisure-time physical activity levels increased slightly in recent years.

Answer: False

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Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

42. The relative risk of death from heart disease decreases by as much as 16% when the least and most active men and women are compared.

Answer: False

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Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

43. "Exercise" and "physical activity" are synonyms.

Answer: False

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Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

44. To obtain health benefits, one should do daily physical activity in one session rather than in multiple bouts.

Answer: False

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Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

45. The benefits of exercise extend beyond disease prevention.

Answer: True

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Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

46. Moderate levels of physical activity can improve brain health and function.

Answer: True

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Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

47. Daily physical activity of 30 minutes per day is sufficient for most people to maintain weight loss.

Answer: False

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Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

48. Moderate-intensity physical activity can improve health but it cannot improve fitness.

Answer: True

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Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

49. Cardiorespiratory endurance is the ability to perform short duration, high intensity exercise.

Answer: False

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

50. Muscular strength is the ability to sustain a given level of muscular tension for a long period of time or to contract a muscle repeatedly.

Answer: False

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

51. Cardiorespiratory endurance training is the best way to increase muscle mass.

Answer: False

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

52. A person with excessive body fat is less likely to experience health problems.

Answer: False

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

53. Coordination is considered a health-related component of fitness.

Answer: False

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

54. Balance is considered a skill-related component of fitness.

Answer: True

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Topic area: Components of Physical Fitness

Bloom's Taxonomy: Knowledge

55. The principle of specificity states that placing increasing amounts of stress on the body causes adaptations that improve fitness.

Answer: False

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

56. The amount of exercise a person needs to improve fitness is dependent on that person's current level of fitness.

Answer: True

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

57. The optimal exercise frequency for improving one's health related cardiorespiratory fitness level is three to five days per week.

Answer: True

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

58. Cardiorespiratory endurance exercise should take place in sessions or bouts of at least 20 continuous minutes in order to build fitness.

Answer: False

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

59. To obtain fitness benefits, one must do high-intensity endurance exercise for a minimum of 45 to 60 minutes.

Answer: False

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

60. A person who stops exercising on a regular basis may lose up to 50 percent of her or his fitness improvements within two months.

Answer: True

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Topic area: Physical Training Principles

Bloom's Taxonomy: Knowledge

61. Only healthy women over the age of 40 should see a physician before beginning an exercise program.

Answer: False

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Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

62. The bottom level of the physical activity pyramid contains strength training and flexibility exercises.

Answer: False

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Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

63. Swimming and jogging can develop cardiorespiratory endurance.

Answer: True

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Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

64. Callisthenic exercises such as sit-ups and push-ups can develop muscular strength and endurance.

Answer: True

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Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

65. Lifestyle physical activities make up the tip of the physical activity pyramid.

Answer: False

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Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

66. The three phases of an exercise program are the beginning, progress, and maintenance phases.

Answer: True

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Topic area: Safe and Effective Exercise

Bloom's Taxonomy: Knowledge

67. A warm-up reduces the temperature of muscles.

Answer: False

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Topic area: Safe and Effective Exercise

Bloom's Taxonomy: Knowledge

68. Training lightly during one workout and intensely during the next workout is an example of periodization.

Answer: True

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Topic area: Safe and Effective Exercise

Bloom's Taxonomy: Knowledge

SHORT ESSAY QUESTIONS

69. Define physical activity and exercise, and describe the differences between them. Give at least three specific examples of each.

Topic area: Recommended Levels of Physical Activity

Bloom's Taxonomy: Knowledge

70. Explain the differences among the guidelines for lifestyle physical activity for health promotion, the guidelines for physical activity to promote weight management, and the guidelines for exercise to build physical fitness. Give an example of a program that meets the goals set by each of these three sets of guidelines.

Topic area: Physical Training Principles

Bloom's Taxonomy: Application

71. List and describe each dimension of progressive overload. Provide an example of how to apply each component to one of the components of health-related fitness.

Topic area: Components of Physical Fitness

Bloom's Taxonomy: Comprehension

72. List the levels of the physical activity pyramid; and describe the type of activity and the recommended frequency for each level.

Topic area: Designing an Exercise Program

Bloom's Taxonomy: Knowledge

73. Describe an appropriate warm-up and cool-down for an exercise session. List at least three positive effects that each exercise has on the body.

Topic area: Safe and Effective Exercise

Bloom's Taxonomy: Comprehension