



Georgia Assessments for the Certification of Educators®



# **GACE® Study Companion**

## **Health and Physical Education Assessment**

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**Last Updated: December 2023**

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## About the Assessment

Assessment Name	Health and Physical Education
Grade Level	P–12
Test Code	Test I: 115 Test II: 116 Combined Test I and Test II: 615
Testing Time	Test I: 2 hours and 10 minutes Test II: 2 hours and 10 minutes Combined Test I and Test II: 4 hours and 20 minutes
Test Duration	Test I: 2.5 hours Test II: 2.5 hours Combined Test I and Test II: 5 hours
Test Format	Computer delivered
Number of Selected-response Questions	Test I: 100 Test II: 100 Combined Test I and Test II: 200
Question Format	The test consists of a variety of short-answer questions such as selected-response questions, where you select one answer choice or multiple answer choices (depending on what the question asks for), questions where you enter your answer in a text box, and other types of questions. You can review the possible question types in the <b><i>Guide to Taking a GACE Computer-delivered Test.</i></b>
Number of Constructed-response Questions	Test I: 0 Test II: 0 Combined Test I and Test II: 0

The GACE Health and Physical Education assessment is designed to measure the professional knowledge of prospective teachers of Health and Physical Education in the state of Georgia.

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This assessment includes two tests. You may take either test individually or the full assessment in a single session. The testing time is the amount of time you will have to answer the questions on the test. Test duration includes time for tutorials and directional screens that may be included in the test. The questions in this assessment assess both basic knowledge across content areas and the ability to apply principles.

The total number of questions that are scored is typically smaller than the total number of questions on the test. Most tests that contain selected-response questions also include embedded pretest questions, which are not used in calculating your score. By including pretest questions in the assessment, ETS is able to analyze actual test-taker performance on proposed new questions and determine whether they should be included in future versions of the test.

## Content Specifications

Each test in this assessment is organized into content **subareas**. Each subarea is further defined by a set of **objectives** and their **knowledge statements**.

- The objectives broadly define what an entry-level educator in this field in Georgia public schools should know and be able to do.
- The knowledge statements describe in greater detail the knowledge and skills eligible for testing.
- Some tests also include content material at the evidence level. This content serves as descriptors of what each knowledge statement encompasses.

See a breakdown of the subareas and objectives for the tests in this assessment on the following pages.

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## Test I Subareas

Subarea	Approx. Percentage of Test
I. Mental and Emotional Health/Professional Issues	25%
II. Personal Health and Wellness, Sexual Health, and Nutrition	40%
III. Safety and Injury Prevention, and Alcohol, Tobacco, and Other Drugs	35%

## Test I Objectives

### Subarea I: Mental and Emotional Health/Professional Issues

*Objective 1: Understands the issues related to mental and emotional health*

The beginning Health and Physical Education teacher:

- A. Understands psychosocial development/emotional well-being
- B. Knows the causes/consequences of mental/emotional health issues
- C. Knows the consequences of risk-taking behaviors
- D. Understands stress management skills
- E. Knows how to identify factors that promote positive self-concept and self-esteem
- F. Understands factors affecting healthy and unhealthy relationships
- G. Understands strategies for coping with changes in families
- H. Understands the concepts of interpersonal communication
- I. Understands skills promoting healthy interactions
- J. Understands the functions of various types of interpersonal relationships
- K. Understands group dynamics
- L. Knows the social/cultural influences on communication
- M. Understands factors affecting decisions about dating
- N. Understands the causes of conflict among youth
- O. Knows the signs, symptoms, causes, and effects of self-destructive behavior

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*Objective 2: Understands the professional issues related to health education*

The beginning Health and Physical Education teacher:

- A. Knows the opportunities available for health education advocacy
- B. Understands how to implement curricular and extracurricular programs
- C. Understands the role of health educator as a liaison
- D. Understands the factors influencing the content of health education
- E. Knows how to locate and use valid sources of health information
- F. Knows how to recognize and use effective peer leadership intervention, resistance, and refusal skills
- G. Understands goal-setting and decision making
- H. Understands risk factors and protective factors related to personal health and safety practices
- I. Knows the components of the Whole School, Whole Community, Whole Child (WSCC) model

**Subarea II: Personal Health and Wellness, Sexual Health, and Nutrition**

*Objective 1: Understands the principles of personal health and wellness*

The beginning Health and Physical Education teacher:

- A. Knows the concepts of personal hygiene
- B. Understands the concepts of anatomy and physiology and body system interrelationships
- C. Knows the patterns and stages of physical, cognitive, social, and emotional growth and development
- D. Understands various factors that affect physical, cognitive, social, and emotional growth and development
- E. Knows how to describe disease etiology and prevention/treatment
- F. Understands the difference between communicable and non-communicable diseases
- G. Understands the role of the body's immune system

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*Objective 2: Understands the issues related to sexual health*

The beginning Health and Physical Education teacher:

- A. Knows the anatomy/physiology of the human reproductive system
- B. Understands the decision-making process and considerations related to planning a family
- C. Knows the stages that occur during pregnancy and childbirth
- D. Knows the factors that influence sexual decisions
- E. Knows the causes of HIV/AIDS
- F. Knows the methods for preventing pregnancy, STDs, and HIV/AIDS

*Objective 3: Understands the principles of nutrition*

The beginning Health and Physical Education teacher:

- A. Knows how to identify the functions and sources of nutrients
- B. Understands the components of My Plate and Dietary Guidelines for Americans
- C. Knows the components of a balanced diet
- D. Understands principles for planning nutritious meals
- E. Understands factors affecting food choices and eating habits
- F. Knows dietary disorders and health issues
- G. Knows how to evaluate diets relative to personal needs

**Subarea III: Safety and Injury Prevention, and Alcohol, Tobacco, and other Drugs**

*Objective 1: Understands the issues related to safety and injury prevention*

The beginning Health and Physical Education teacher:

- A. Understands weather emergencies
- B. Knows methods for promoting self care, safe behaviors, and injury prevention
- C. Knows appropriate ways to respond to accidents
- D. Understands threats to personal safety
- E. Knows the legislation, agencies, and policies that support community health
- F. Knows the characteristics of safe and unsafe places for play, travel, and recreation
- G. Understands the causes, consequences, and prevention of different types of abuse and violence
- H. Understands common causes and effects of accidents

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*Objective 2: Understands the issues related to the use of alcohol, tobacco, and other drugs*

The beginning Health and Physical Education teacher:

- A. Understands the effects of substance use and abuse
- B. Knows the appropriate uses of medicines
- C. Knows the classifications of alcohol, tobacco, and other drugs
- D. Understands the factors contributing to health risks associated with the use of alcohol, tobacco, and other drugs
- E. Knows how the use of alcohol, tobacco, and other drugs affect personal goals
- F. Understands how adolescent and teen drug use contributes to accidents, crime, suicide, mortality, and sexual activity
- G. Understands that alcohol, tobacco, and drug dependencies are treatable diseases
- H. Knows how to analyze alcohol, tobacco, and drug advertisements

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## Test II Subareas

	Approx. Percentage of Test
I. Basic Sciences of Physical Education	20%
II. Motor Learning and Motor Development	15%
III. Sports, Activities, and Fitness	30%
IV. Instructional Principles and Professionalism in Physical Education	35%

## Test II Objectives

### Subarea I: Basic Sciences of Physical Education

*Objective 1: Understands how the applied sciences are related to physical education*

The beginning Health and Physical Education teacher:

- A. Understands biomechanics and kinesiology
- B. Understands exercise physiology and fitness

*Objective 2: Understands the principles of anatomy and physiology as related to physical education*

The beginning Health and Physical Education teacher:

- A. Understands anatomy and physiology
- B. Understands the components of flexibility
- C. Knows the major muscle groups

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## **Subarea II: Motor Learning and Motor Development**

### *Objective 1: Understands the principles of motor learning*

The beginning Health and Physical Education teacher:

- A. Understands principles, stages, sequences, and characteristics of motor development and learning
- B. Understands factors influencing motor development and learning
- C. Understands motor-learning concepts
- D. Knows instructional prompts and cues for providing motor performance feedback
- E. Understands skill themes and ways to promote movement concepts

### *Objective 2: Understands the principles of motor development*

The beginning Health and Physical Education teacher:

- A. Knows how to apply movement concepts
- B. Understands movement principles and their application
- C. Knows critical elements of movement patterns
- D. Understands how to combine locomotor, nonlocomotor, and manipulative skills and patterns
- E. Knows how to select developmentally appropriate techniques, skills, sequences, equipment, and materials for complex rhythmic, aerobic, and dance activities

## **Subarea III: Sports, Activities, and Fitness**

### *Objective 1: Understands the principles of individual, dual, team, and lifetime sports or activities*

The beginning Health and Physical Education teacher:

- A. Knows the skills, rules, strategies, sequences, and performance assessment techniques for individual, dual, team, and lifetime sports, dance, and other activities
- B. Understands critical elements essential to competent performance in individual, dual, and lifetime sports
- C. Understands critical elements essential to competent performance in team sports
- D. Understands critical elements of outdoor, adventure, and cooperative activities
- E. Understands critical elements essential to competent performance in creative movement and dance

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*Objective 2: Understands fitness as it relates to training, fitness plans, sports, and activities*

The beginning Health and Physical Education teacher:

- A. Understands principles of training and conditioning
- B. Knows principles and techniques for designing a fitness plan
- C. Knows the effect of participation in sports and activities
- D. Knows the appropriate etiquette, interactions, care of equipment, safety practices, and environmental considerations

**Subarea IV: Instructional Principles and Professionalism in Physical Education**

*Objective 1: Understands management and motivation as it relates to physical education*

The beginning Health and Physical Education teacher:

- A. Knows the principles of classroom management
- B. Understands the psychological and social factors that affect individual and group learning
- C. Knows how to manage resources
- D. Knows how to motivate students
- E. Knows how to promote positive relationships
- F. Knows how to use rules and routines to create a safe and effective learning environment
- G. Knows how to promote self-management skills

*Objective 2: Understands communication and collaboration as related to physical education*

The beginning Health and Physical Education teacher:

- A. Understands effective verbal and nonverbal communication
- B. Knows how to provide appropriate instructional feedback
- C. Knows how to deliver effective demonstrations and explanations
- D. Knows how to integrate knowledge and skills from multiple subject areas in physical education
- E. Knows how to promote opportunities to be physically active

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*Objective 3: Understands the principles involved in physical education planning and instruction*

The beginning Health and Physical Education teacher:

- A. Knows how to achieve and maintain a health-enhancing level of fitness in a physical education program
- B. Knows how to design and sequence activities for skill development
- C. Knows how to design and sequence activities for health and skill-related fitness
- D. Knows how to integrate information technology
- E. Know how to use technology in physical education

*Objective 4: Understands the principles of student assessment, adapted physical education, and professionalism*

The beginning Health and Physical Education teacher:

- A. Knows how to plan and adapt instruction for special need students
- B. Knows how to assess individuals with disabilities
- C. Knows how to gather and assess data for skill performance
- D. Knows the goals and purposes of the various fitness assessments
- E. Knows how to demonstrate and support the concept that all students can become physically educated individuals
- F. Knows the historical, philosophical, social, and legal issues in physical education
- G. Understands liability and legal considerations pertaining to use of equipment, class organization, supervision, program selection, gender, and disability
- H. Understands the factors affecting participation in physical activity

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## Practice Questions

The practice questions in this study companion are designed to familiarize you with the types of questions you may see on the assessment. While they illustrate some of the formats and types of questions you will see on the test, your performance on these sample questions should not be viewed as a predictor of your performance on the actual test. Fundamentally, the most important component in ensuring your success is familiarity with the content that is covered on the assessment.

To respond to a practice question, choose one of the answer options listed. Be sure to read the directions carefully to ensure that you know what is required for each question. You may find it helpful to time yourself to simulate actual testing conditions. A correct answer and a rationale for each sample test question are in the section following the practice questions.

Keep in mind that the test you take at an actual administration will have different questions, although the proportion of questions in each subarea will be approximately the same. You should not expect the percentage of questions you answer correctly in these practice questions to be exactly the same as when you take the test at an actual administration, since numerous factors affect a person's performance in any given testing situation.

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**Directions:** Each of the questions or incomplete statements below is followed by suggested answers or completions. Select the best option or options in each case.

- Essential amino acids are best described as those amino acids that are
  - required for protein synthesis but cannot be made by the body.
  - naturally occurring substances that help fight infection.
  - important components of carbohydrates, fats, and proteins.
  - high-energy nutrients that promote growth and development.

**Answer and Rationale**

- Which of the following students is most likely to lose weight safely?

Name	Daily Intake (calories)	Daily Expenditure (calories)
A. Robert	3,000	3,000
B. Judy	3,000	2,000
C. Tim	2,000	2,800
D. Alice	1,000	4,000

**Answer and Rationale**

- Which of the following can be used most effectively to determine an individual's body fat composition?
  - Scales and a height-weight chart
  - A skinfold caliper
  - Measurements of the circumference of the individual's waist, hips, thighs, and arms
  - Hydrostatic weighing

**Answer and Rationale**

- 
4. The presence of the ozone layer in the upper atmosphere is important because it
- A. enhances the greenhouse effect
  - B. has led to sharp increases in skin cancers
  - C. absorbs harmful ultraviolet radiation
  - D. reduces acid rain and urban smog

***Answer and Rationale***

5. Approval of AZT for use in treating AIDS came under the jurisdiction of which of the following agencies?
- A. Federal Trade Commission
  - B. United States Consumer Product Safety Commission
  - C. State-level offices of consumer affairs
  - D. United States Food and Drug Administration

***Answer and Rationale***

6. Fetal alcohol syndrome is associated with which of the following?
- A. Phenylketonuria
  - B. Leukemia
  - C. Hepatitis
  - D. Developmental disabilities

***Answer and Rationale***

- 
7. Which of the following correctly describes the usual pathway of sperm through the female reproductive tract to the site of fertilization?
- A. Vagina, cervix, fallopian tube, uterus
  - B. Vagina, uterus, fallopian tube, cervix
  - C. Vagina, cervix, uterus, fallopian tube
  - D. Urethra, vagina, fallopian tube, uterus

***Answer and Rationale***

8. Amniocentesis is most often used to
- A. facilitate artificial insemination
  - B. measure immune-response capability in transplant recipients
  - C. determine the presence of certain disorders in the fetus
  - D. estimate the mother's potential for maintaining a pregnancy to term

***Answer and Rationale***

9. Compared to younger women, women over age 35 have an increased risk of giving birth to children with which of the following genetic disorders?
- A. Cystic fibrosis
  - B. Down syndrome
  - C. Hemophilia
  - D. Sickle-cell anemia

***Answer and Rationale***

- 
10. The Whole School, Whole Community, Whole Child (WSCC) model includes which **THREE** of the following?
- A. Comprehensive school health education
  - B. Physical education and physical activity
  - C. Nutrition environment and services
  - D. Health newsletters

***Answer and Rationale***

11. A high school has had a series of incidents of sexual harassment in the hallways. One of the health education teachers assigns students to create posters in class encouraging positive peer pressure to prevent sexual harassment. The teacher's assignment is contributing to the school's
- A. healthy environment
  - B. health services
  - C. family and community involvement
  - D. counseling services

***Answer and Rationale***

12. HIV may be transmitted from one individual to another in which **THREE** of the following ways?
- A. Through contact made during oral sex
  - B. By an infected mother feeding breast milk to an infant
  - C. Intravenously through sharing injection drug equipment
  - D. Genetically from parent to child

***Answer and Rationale***

- 
13. In which of the following activities can a teacher best observe students demonstrating refusal skills?
- A. Having students interact outside of class
  - B. Having students role-play
  - C. Having students read from the textbook
  - D. Having students create a poster

***Answer and Rationale***

14. When designing integrated activities for the health classroom to address the different needs of young students, the health teacher should consider the theory of cognitive development suggested by which of the following?
- A. Jean Piaget
  - B. John Dewey
  - C. Robert Marzano
  - D. Madeline Hunter

***Answer and Rationale***

15. Which of the following neurotransmitters is affected by the antidepressant Prozac®?
- A. Adrenaline
  - B. Serotonin
  - C. Epinephrine
  - D. Cortisol

***Answer and Rationale***

- 
16. Which of the following environmental problems is most lethal to people worldwide?
- A. Acid rain
  - B. Air pollution
  - C. Ozone depletion
  - D. Water pollution

***Answer and Rationale***

17. According to the Centers for Disease Control and Prevention (CDC), which **THREE** of the following are among the top four causes of death for young people ages 15 to 24 in the United States?
- A. Suicide
  - B. Motor vehicle injuries
  - C. Homicide
  - D. Diabetes

***Answer and Rationale***

18. When planning goals for lessons in health class, which **THREE** of the following should the teacher be most concerned with?
- A. How easily the material can be presented in class
  - B. How the information presented is relevant to the learner
  - C. What motivates enthusiasm for the subject in the learner
  - D. What types of learners make up the class population

***Answer and Rationale***

- 
19. Which of the following best describes a formative evaluation?
- A. Documenting the feasibility of implementing a student exercise program
  - B. Determining the effectiveness of a school system's HIV-prevention initiative
  - C. Documenting the level of dissemination of a research-based curriculum within a state
  - D. Monitoring progress in completing plans for a tobacco-use prevention training event

***Answer and Rationale***

20. Hib is best described as a type of
- A. bacteria
  - B. immune disorder
  - C. health information system
  - D. behavioral disorder

***Answer and Rationale***

21. The affective domain of Bloom's taxonomy includes which **THREE** of the following types of behavior?
- A. Analyzing
  - B. Receiving
  - C. Responding
  - D. Valuing

***Answer and Rationale***

- 
22. Which of the following can be obtained only with a prescription from a licensed physician?
- A. Vitamin supplements
  - B. Birth control pills
  - C. Diet pills
  - D. Weight training supplements

***Answer and Rationale***

23. Which **THREE** of the following are major components of the Whole School, Whole Community, Whole Child (WSCC) model?
- A. Employee wellness
  - B. Comprehensive school health education
  - C. Health insurance for students
  - D. Community involvement

***Answer and Rationale***

24. A negative energy balance of which of the following is required to lose one pound per week?
- A. 4,500 calories
  - B. 3,500 calories
  - C. 2,500 calories
  - D. 1,500 calories

***Answer and Rationale***

- 
25. An increase in the risk of heart disease is associated with an increase in which **THREE** of the following?
- A. Blood pressure
  - B. Serum cholesterol
  - C. Low-density lipoprotein
  - D. High-density lipoprotein

***Answer and Rationale***

26. Which of the following most accurately represents the number of extra calories a pregnant woman should consume per day to prepare for a healthy birth?
- A. 200-300
  - B. 1,000-1,200
  - C. 1,500-2,000
  - D. Double her normal caloric intake

***Answer and Rationale***

27. Which of the following is a respiratory condition characterized by inflammation, excessive mucus production, and the constriction of the bronchi?
- A. Allergic rhinitis
  - B. Emphysema
  - C. Sleep apnea
  - D. Asthma

***Answer and Rationale***

- 
28. Some people feel an improvement in their health after taking a remedy that has no proven scientific effect on health status. This is an example of which of the following?
- A. A medical breakthrough
  - B. A suppressant benefit
  - C. Positive visualization
  - D. The placebo effect

***Answer and Rationale***

29. The hormone released by the hypothalamus in both males and females at the onset of sexual maturity is
- A. norepinephrine
  - B. adrenaline
  - C. progesterone
  - D. gonadotropin-releasing hormone (GnRH)

***Answer and Rationale***

30. The primary means of managing diabetes is to keep
- A. cholesterol levels low
  - B. sodium levels low
  - C. blood sugar levels stable
  - D. blood pressure stable

***Answer and Rationale***

- 
31. In which of the following locomotor skills does a foot complete two tasks before the weight is transferred to the other foot?
- A. Galloping
  - B. Running
  - C. Walking
  - D. Skipping

***Answer and Rationale***

32. Which of the following is a problem most characteristic of performing a forward roll?
- A. Keeping the chin tucked
  - B. Keeping the knees and hips flexed
  - C. Losing the curl
  - D. Using the hands to cushion the head contact

***Answer and Rationale***

33. Which **THREE** of the following actions are characteristic of a correct mature form for striking a ball with a racket?
- A. Taking a forward step with the foot opposite the striking arm
  - B. Coiling and rotating the body forward as the racket is swung
  - C. Putting weight on the back foot and then shifting to the front foot as the racket is swung
  - D. Stopping the racket at the point of contact with the ball

***Answer and Rationale***

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34. When dribbling a soccer ball in a restricted space, a player should attempt to do which **THREE** of the following?
- A. Keep the ball close to the feet
  - B. Stay in a slightly crouched position
  - C. Use body feints and changes of speed
  - D. Use only the dominant foot for better control

***Answer and Rationale***

35. According to legend, the Greek athlete Milo of Croton lifted a newborn calf onto his shoulders every day until the calf became a fully mature ox. Milo followed what two principles of modern muscle strength and endurance conditioning?
- A. Progression and overload
  - B. Variable resistance and overload
  - C. Frequency and progression
  - D. Intensity and retention

***Answer and Rationale***

36. Which of the following is a list of physiological factors that are all related to oxygen consumption, both linearly and proportionately?
- A. Cardiac output, diastolic blood pressure, heart rate
  - B. Cardiac output, heart rate, work rate
  - C. Core temperature, red blood cell count, work rate
  - D. Minute ventilation, red blood cell count, respiration rate

***Answer and Rationale***

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37. In the late 1800s, the greatest influence on the direction of physical education came from individuals with a background in which of the following?
- A. Medicine
  - B. Professional sport
  - C. Intercollegiate sport
  - D. Nutrition

***Answer and Rationale***

38. Most sport sociologists describe sport as primarily what type of activity?
- A. Idealized
  - B. Institutionalized
  - C. Generalized
  - D. Professionalized

***Answer and Rationale***

39. Angular motion is represented by which **THREE** of the following?
- A. The knees of a cyclist
  - B. The legs of a runner
  - C. The arms of a swimmer
  - D. The torso of a cyclist

***Answer and Rationale***

- 
40. The correct racing posture for swimmers, cyclists, and downhill skiers minimizes the effect of
- A. lift
  - B. propulsion
  - C. turbulence
  - D. gravity

***Answer and Rationale***

41. Which of the following practice alternatives would best promote motor learning and safety for potentially injurious sports such as pole vaulting and downhill skiing?
- A. Whole
  - B. Part
  - C. Progressive-part
  - D. Distributed

***Answer and Rationale***

42. Which **THREE** of the following are direct physiological outcomes of cool-down activities following vigorous physical activity?
- A. Preventing blood from pooling in the legs
  - B. Increasing the rate of lactic acid removal from the blood and skeletal muscles
  - C. Promoting the reduction of cholesterol in the blood
  - D. Reducing the risk of cardiac irregularities

***Answer and Rationale***

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43. Which **THREE** of the following are examples of static balance?

- A. Standing in place on a balance beam
- B. Maintaining a handstand position
- C. Skipping across a gymnasium
- D. Placing three limbs inside an exercise ring for five seconds

***Answer and Rationale***

44. Which of the following is the best example of a target game?

- A. Basketball
- B. Lacrosse
- C. Bocce
- D. Badminton

***Answer and Rationale***

45. In teaching a closed skill, a teacher initially should provide which of the following?

- A. A stable environment with varying rates of skill performance
- B. A stable environment with a stable rate of skill performance
- C. A varying environment with varying rates of skill performance
- D. A varying environment with a stable rate of skill performance

***Answer and Rationale***

- 
46. Which **THREE** of the following statements are most appropriate to include in a manual of safety procedures for a physical education program?
- A. Teachers must personally inspect playing fields before soccer classes.
  - B. Teachers must clearly mark appropriate traffic patterns around the throwing area in javelin classes.
  - C. Students must read and sign a copy of the rules for archery classes.
  - D. Students must exercise at or below 50 percent of their maximal heart rate during aerobic fitness activities.

***Answer and Rationale***

47. During a physical education unit focusing on the development of health-related fitness, a teacher asks students to keep a journal about how they personally felt about each activity. Which of the following best describes the activity of keeping a journal?
- A. Criterion-referenced grading
  - B. Cross-curricular instruction
  - C. Identification and recall of information
  - D. Standards-based instruction

***Answer and Rationale***

48. Learning about the rules, traditions, history, and etiquette of sports falls under which of the following domains of learning?
- A. Affective
  - B. Cognitive
  - C. Psychomotor
  - D. Associative

***Answer and Rationale***

- 
49. Which of the following applications of technology will best help a wrestler learn a new takedown technique?
- A. Reading about the proper technique and procedure on the Internet
  - B. Viewing recordings of his or her own wrestling performances
  - C. Viewing a series of videos showing proper execution of the takedown
  - D. Exchanging e-mail messages with other wrestlers about their experience of learning the technique

***Answer and Rationale***

50. The Society of Health and Physical Educators (SHAPE America) is an important resource for beginning physical educators because
- A. it provides liability insurance for physical educators in case of a problem
  - B. its Web\_site contains all the lesson plans a physical education teacher needs
  - C. it disseminates current information to enhance physical education knowledge and improve practice
  - D. it allows access to a blog that allows teachers, students, and parents to collaborate with each other

***Answer and Rationale***

51. The best fitness test for a teacher to use to assess the fitness of students with disabilities is the
- A. Brockport Physical Fitness Test (BPFT)
  - B. Fitnessgram
  - C. Presidential Youth Fitness Program
  - D. ActivityGram

***Answer and Rationale***

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52. Of the following, which lists the best practices for a physical education teacher to follow in the beginning of the school year to establish good classroom management?
- A. Establishing rules and reviewing them with students, creating a record-keeping system, and teaching students a predetermined signal to stop activity
  - B. Posting rules on the wall, not smiling, and learning students' names
  - C. Learning students' names, teaching the class how to do warm-ups, and playing fun games with the students
  - D. Having an open gym period, posting rules on the wall, and creating a record-keeping system

***Answer and Rationale***

53. Of the following, which best exemplifies authentic assessment for a basketball skills unit?
- A. Using standardized instruments on basketball skills at the end of the unit
  - B. Using district-devised assessments of skills at the end of the unit
  - C. Developing a rubric to assess learners as they move through the unit
  - D. Counting the number of baskets made in a class game

***Answer and Rationale***

54. Which of the following best expresses the percentage of maximum heart rate that should characterize students' exercise for health-related fitness in physical education class?
- A. 25–40% of maximum heart rate
  - B. 40–60% of maximum heart rate
  - C. 60–85% of maximum heart rate
  - D. 85–100% of maximum heart rate

***Answer and Rationale***

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55. The exercise system known as plyometrics was designed to meet which of the following objectives?

- A. Cardiovascular fitness
- B. Explosive power training
- C. Improved flexibility
- D. Muscular endurance

***Answer and Rationale***

56. The speed of an object thrown overhand is most affected by which of the following?

- A. Wrist flexion
- B. Hip rotation
- C. Grip release
- D. Hand-head proximity

***Answer and Rationale***

57. Which of the following activities is most aerobically demanding in relation to kcal/hour burned?

- A. Bowling
- B. Volleyball
- C. Walking
- D. Cross-country skiing

***Answer and Rationale***

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58. Swimming one-half mile four times a week is most likely to develop which of the following?
- A. Aerobic fitness
  - B. Balance
  - C. Flexibility
  - D. Agility

***Answer and Rationale***

59. Which **TWO** of the following faults are commonly exhibited by a beginning swimmer who is learning the breaststroke?
- A. Failing to relax
  - B. Moving the arms too fast
  - C. Pulling the arms back too far
  - D. Using improper timing between movements of the legs and arms

***Answer and Rationale***

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## Answer Key and Rationales

Question Number	Correct Answer	Rationale
1	A	<p>Option (A) is correct. Amino acids are the building blocks of proteins. Of the 20 amino acids required for protein synthesis, nine cannot be produced by the human body. These must be supplied by the diet.</p> <p><b><i>Back to Question</i></b></p>
2	C	<p>Option (C) is correct. To reduce body weight, more calories must be expended than are taken in. With a daily expenditure of 800 calories above intake, Tim would lose approximately two pounds per week. Alice, with a calorie expenditure so much greater than her calorie intake, is at risk of ketosis due to carbohydrate deficiency.</p> <p><b><i>Back to Question</i></b></p>
3	D	<p>Option (D) is correct. Underwater weighing identifies the proportion of body fat accurately by calculating specific gravity. The higher the specific gravity, the lower the fat composition.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
4	C	<p>Option (C) is correct. The ozone layer is a region of the upper atmosphere that forms a protective layer that prevents the Sun's most harmful ultraviolet radiation from reaching Earth's surface. The depletion of the ozone layer has resulted in dramatic increases in skin cancers.</p> <p><b><i>Back to Question</i></b></p>
5	D	<p>Option (D) is correct. The FDA is responsible for the approval of medicines.</p> <p><b><i>Back to Question</i></b></p>
6	D	<p>Option (D) is correct. Fetal exposure to alcohol is a leading cause of developmental disabilities.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
7	C	<p>Option (C) is correct. The ovum enters the flared opening of the fallopian tube after it is released from the follicle in the ovary. At ejaculation, the sperm enter the vagina and, within 15 minutes to an hour, move into the cervix, through the uterus, and into the fallopian tubes.</p> <p><b><i>Back to Question</i></b></p>
8	C	<p>Option (C) is correct. Amniocentesis involves the removal and examination of a small sample of cells from the amniotic cavity, enabling doctors to detect genetic disorders.</p> <p><b><i>Back to Question</i></b></p>
9	B	<p>Option (B) is correct. The incidence of Down syndrome increases with the age of the mother. In the United States, for example, among mothers in the age range 20-30, about one in 800 newborns has Down syndrome, whereas the incidence of Down syndrome in newborns of mothers over age 40 is 1 in 100.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
10	A, B, C	<p>Options (A), (B), and (C) are correct. This list makes up three of the ten components of the Whole School, Whole Community, Whole Child (WSCC) model. The other seven are employee wellness, social and emotional school climate, physical environment, health services, counseling, psychological, and social services, community involvement, and family engagement.</p> <p><b><i>Back to Question</i></b></p>
11	A	<p>Option (A) is correct. A healthy school environment fosters a psychosocial climate that helps maximize the health and safety of students and staff.</p> <p><b><i>Back to Question</i></b></p>
12	A, B, C	<p>Options (A), (B), and (C) are correct. HIV can only be transmitted from an HIV-positive to an HIV-negative person through a mucous membrane found in the rectum, vagina, mouth, or tip of the penis, through open cuts or sores, or by direct injection from a needle or syringe. Less commonly, an HIV-positive person can transmit HIV to their baby during pregnancy, birth, or breastfeeding.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
13	B	<p>Option (B) is correct. Role-playing in class is the most appropriate way for students to demonstrate refusal skills in real-life situations.</p> <p><b><i>Back to Question</i></b></p>
14	A	<p>Option (A) is correct. Jean Piaget, a Swiss psychologist, believed that cognitive growth occurred in stages and is credited for creating the theory of cognitive development. The theory suggests that students play an active role in the learning process. As students interact with the world around them, they continually add new knowledge, build upon existing knowledge, and adapt previously held ideas to accommodate new information.</p> <p><b><i>Back to Question</i></b></p>
15	B	<p>Option (B) is correct. Depression is caused by low levels of serotonin in the brain.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
16	D	<p>Option (D) is correct. According to the World Health Organization, between five and ten million people worldwide die each year from exposure to polluted water.</p> <p><b><i>Back to Question</i></b></p>
17	A, B, C	<p>Options (A), (B), and (C) are correct. According to data from the Centers for Disease Control and Prevention (CDC) unintentional injuries are the leading cause of death of young Americans ages 15 to 24, followed by homicide and suicide.</p> <p><b><i>Back to Question</i></b></p>
18	B, C, D	<p>Options (B), (C), and (D) are correct. The ease with which the material can be presented should not be a concern to the teacher.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
19	A	<p>Option (A) is correct. Formative evaluations allow the teacher to evaluate student performance in real-time, provide feedback, and improve the course content and delivery during the learning process.</p> <p><b><i>Back to Question</i></b></p>
20	A	<p>Option (A) is correct. Hib stands for Haemophilus influenza type B, which is a kind of bacteria. Most strains of Hib are opportunistic pathogens that usually live in their host without causing disease; they cause problems only when other viral infections or reduced immune function create an opportunity.</p> <p><b><i>Back to Question</i></b></p>
21	B, C, D	<p>Options (B), (C), and (D) are correct. There are five major categories in the affective domain of Bloom's taxonomy: receiving, responding, valuing, organizing, and characterizing. (A), analyzing, is not one of the five major categories in the affective domain of Bloom's taxonomy.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
22	B	<p>Option (B) is correct. Birth control pills are the only item listed that requires a doctor's prescription.</p> <p><b><i>Back to Question</i></b></p>
23	A, B, D	<p>Options (A), (B), and (D) are correct. There are eleven components of the Whole School, Whole Community, Whole Child (WSCC) model: health education, nutrition environment and services, employee wellness, social and emotional school climate, physical environment, health services, counseling, psychological and social services, community involvement, family engagement, and physical education and physical activity.</p> <p><b><i>Back to Question</i></b></p>
24	B	<p>Option (B) is correct. A pound of body fat equals 3,500 calories. By reducing intake of food as in dieting or burning more calories in exercise, a negative energy balance is created. An individual wishing to lose one pound per week needs to maintain a negative energy balance of 3,500 calories per week.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
25	A, B, C	<p>Options (A), (B), and (C) are correct. A high concentration of low-density lipoprotein (LDL), high blood pressure, and high serum cholesterol are the major factors associated with the artery-narrowing process known as atherosclerosis. A high HDL ratio to LDL in overall serum cholesterol is a desirable trait.</p> <p><b><i>Back to Question</i></b></p>
26	A	<p>Option (A) is correct. During the course of a pregnancy, the fetus weighs anywhere from a few ounces to a few pounds. The mother's body needs only between 200 and 300 extra calories per day during the pregnancy. This is the amount of calories in one cooked chicken breast, without the skin.</p> <p><b><i>Back to Question</i></b></p>
27	D	<p>Option (D) is correct. An asthma episode is a series of events that result in narrowed airways. These include: swelling of lining, tightening of muscles, and increased secretion of mucus in the airway.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
28	D	<p>Option (D) is correct. The placebo effect is created when, in a controlled environment, a patient is given an inert pill and not told it is inert. The patient then describes the improvement the inert pill is causing, thus showing that the improvement is mental and not medical. This is also true in an uncontrolled environment as illustrated in the question.</p> <p><b>Back to Question</b></p>
29	D	<p>Option (D) is correct. GnRH activity is very low during childhood and rises at puberty. During the reproductive years, the release of GnRH in higher quantities is critical for successful reproductive function in both males and females.</p> <p><b>Back to Question</b></p>
30	C	<p>Option (C) is correct. Diabetes is a condition in which blood sugar levels are high due to the body's inability to process the blood sugar correctly; therefore, keeping blood sugar levels stable is the best way to manage diabetes.</p> <p><b>Back to Question</b></p>

Question Number	Correct Answer	Rationale
31	D	<p>Option (D) is correct. In skipping, each foot both walks and hops before the other foot takes over.</p> <p><b>Back to Question</b></p>
32	C	<p>Options (A), (B), and (D) are correct. Losing the curl is characteristic of early or primitive stages of performing the forward roll.</p> <p><b>Back to Question</b></p>
33	A, B, C	<p>Options (A), (B), and (C) are correct. The actions listed are all generally accepted as essential elements of a mature striking form.</p> <p><b>Back to Question</b></p>

Question Number	Correct Answer	Rationale
34	A, B, C	Options (A), (B), and (C) are correct. Although most players, even at fairly advanced levels, will have better control with the dominant foot than with the nondominant foot, it is still essential that practice in dribbling emphasize the use of both feet. The ball should be kept close to the feet, the player should be in a slightly crouched position, and should use body feints and changes of speed to fake opponents.  <b><i>Back to Question</i></b>
35	A	Option (A) is correct. Progression and overload are the terms used in discussions of fitness that refer to adjusting the amount of exercise to a person's present capacity (overload) and gradually increasing the amount of exercise over time to improve the level of fitness (progression).  <b><i>Back to Question</i></b>
36	B	Option (B) is correct. It is the only option that does not include at least one item that does not increase in a linear fashion as oxygen consumption increases.  <b><i>Back to Question</i></b>

Question Number	Correct Answer	Rationale
37	A	<p>Option (A) is correct. The primary role in the development of physical education in the nineteenth century was played by physicians interested in anthropometric measurement and other medically related subjects.</p> <p><b><i>Back to Question</i></b></p>
38	B	<p>Option (B) is correct. A sport is described by most sociologists as an institutionalized activity. An activity becomes a sport after undergoing a process through which behaviors and organization become standardized over time. As a sport, the activity takes on fundamental characteristics, such as official rule enforcement, equipment regulations, and formalized skills.</p> <p><b><i>Back to Question</i></b></p>
39	A, B, C	<p>Options (A), (B), and (C) are correct. Cycling, running, and swimming are all common activities that require the rotation of body parts around joints.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
40	C	Option (C) is correct. Failure to observe this compact bodily arrangement would hinder movement by creating turbulence. <b><i>Back to Question</i></b>
41	C	Option (C) is correct. Progressive-part describes a method of practice that involves working on specific elements of a skill in isolation. This method allows those elements of a skill that present the greatest risk of injury to be mastered under controlled conditions before the full skill is attempted under real conditions. <b><i>Back to Question</i></b>
42	A, B, D	Options (A), (B), and (D) are correct. This question is based on a standard textbook discussion of the rationale for warm down following vigorous physical activity, which clearly establishes that preventing blood from pooling in the legs, increasing the rate of lactic acid removal from the blood and skeletal muscles, and reducing the risk of cardiac irregularities are real effects of proper warm-down procedures. <b><i>Back to Question</i></b>

Question Number	Correct Answer	Rationale
43	A, B, D	<p>Options (A), (B), and (D) are correct. Static balance means to hold a position in place. The correct options describe a person holding a position in place.</p> <p><b><i>Back to Question</i></b></p>
44	C	<p>Option (C) is correct. Target games are activities in which players send an object toward a target while avoiding any obstacles. Thus, bocce is considered to be a target game.</p> <p><b><i>Back to Question</i></b></p>
45	B	<p>Option (B) is correct. A closed skill is one in which the environment remains stable and predictable, and the performer knows what to do and when to do it. A stable environment with a stable rate of skill performance allows the performer to practice the skill at a stable rate, moving to varying rates as mastery is attained. Closed skills are habitual and follow set patterns from beginning to end.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
46	A, B, C	<p>Options (A), (B), and (C) are correct. The way to maintain or increase fitness is to exercise in the target heart rate zone. Students in physical education classes should be exercising this way. Safety procedures for a physical education program include inspection of facilities, marking areas for safety, and having students read and know rules for activities.</p> <p><b><i>Back to Question</i></b></p>
47	B	<p>Option (B) is correct. Cross-curricular instruction allows the teacher to provide a different avenue of learning to students, and it addresses the diverse learning styles that students have. In physical education, a writing assignment will integrate writing skills into a lesson, so the lesson will not rely only on assessing the physical ability and effort of the students.</p> <p><b><i>Back to Question</i></b></p>
48	B	<p>Option (B) is correct. The cognitive domain deals with the acquisition of knowledge and the development of intellectual skills. Affective deals with people's feelings, psychomotor deals with physical manipulations, and associative is not a domain within Bloom's taxonomy.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
49	C	<p>Option (C) is correct. By viewing a series of videos that demonstrate proper technique of the takedown, the wrestler can learn by seeing the move in action and has the ability to stop the video, rewind, use slow motion, and watch the move over and over, then apply what he or she has seen to his or her own performance.</p> <p><b><i>Back to Question</i></b></p>
50	C	<p>Option (C) is correct. SHAPE America’s mission is to advance professional practice and promote research related to health and physical education, physical activity, dance, and sport.</p> <p><b><i>Back to Question</i></b></p>
51	A	<p>Option (A) is correct. The Brockport Physical Fitness Test (BPFT) is a criterion-referenced, health-related test of physical fitness appropriate for students with disabilities. The BPFT is customized to meet the needs of all students with varying abilities.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
52	A	Option (A) is correct. All three practices are critical when implementing a classroom management plan. <b><i>Back to Question</i></b>
53	C	Option (C) is correct. Authentic assessment uses a rubric. <b><i>Back to Question</i></b>
54	C	Option (C) is correct. Training at a level between about 60% and 85% of maximum heart rate increases the benefit of the exercise and decreases the chances of developing cardiac diseases if the exercise is done on a regular basis. <b><i>Back to Question</i></b>

Question Number	Correct Answer	Rationale
55	B	<p>Option (B) is correct. Exercise training drills termed plyometrics, or explosive jump training, are used for football, volleyball, sprinting, basketball, and other sports requiring explosive power.</p> <p><b><i>Back to Question</i></b></p>
56	B	<p>Option (B) is correct. The speed of a thrown object is related to the amount of torque created by the rotation of the hips in addition to the action of the arm. The body as a whole, therefore, throws the object, with hip action being a commonly observed attribute of the mature overhand throw.</p> <p><b><i>Back to Question</i></b></p>
57	D	<p>Option (D) is correct. For a 150-pound person, bowling burns about 140–280 kcal/hour, walking burns 222–300 kcal/hour, and cross-country skiing burns 420–840 kcal/hour, making skiing the most demanding on a person’s aerobic capacity.</p> <p><b><i>Back to Question</i></b></p>

Question Number	Correct Answer	Rationale
58	A	<p>Option (A) is correct. Swimming a distance such as one-half mile would increase cardiovascular fitness, just as distance running would. Swimming may help maintain flexibility but would not develop agility or balance.</p> <p><b><i>Back to Question</i></b></p>
59	C, D	<p>Options (C) and (D) are correct. The swimmer's arms should not be drawn back beyond the shoulders, making pulling the arms back too far a common fault when learning the breaststroke. The pull, kick, glide sequence must also be executed in the proper order, making improper timing between the movement of the legs and arms the second most common fault.</p> <p><b><i>Back to Question</i></b></p>

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## Preparation Resources

The resources listed below may help you prepare for the GACE assessment in this field. These preparation resources have been identified by content experts in the field to provide up-to-date information that relates to the field in general. You may wish to use current issues or editions of these materials to obtain information on specific topics for study and review.

### Guide to Taking a GACE Computer-delivered Assessment

This guide explains how to navigate through a GACE assessment and how to answer different types of test questions. This free download is available in the Test Preparation Resources section of the GACE website at <https://www.gace.ets.org/prepare>.

### Reducing Test Anxiety

This guide provides practical help for people who suffer from test anxiety. Designed specifically for GACE test takers, but useful to anyone who has to take tests, this guide reviews the major causes of test anxiety and offers practical advice for how to counter each one. Download this guide for free from the Test Preparation Resources section of the GACE website at [www.gace.ets.org/prepare](http://www.gace.ets.org/prepare).

### Study Tips: Preparing for a GACE Assessment

This document contains useful information on preparing for selected-response and constructed-response tests. The instruction, tips, and suggestions can help you become a better-prepared test taker. See the Test Preparation Resources section of the GACE website at [www.gace.ets.org/prepare](http://www.gace.ets.org/prepare) for this free download.

### Journals

*JOPERD: Journal of Physical Education, Recreation, & Dance*, The Society of Health and Physical Educators (SHAPE America).

*JTPE: Journal of Teaching in Physical Education*, Human Kinetics Publishers.

### Strategies: A Journal for Physical and Sport Educators, The Society of Health and Physical Educators (SHAPE America). Other Resources

AJHE: American Journal of Health Education (AJHE), The Society of Health and Physical Educators (SHAPE America).

SHAPE America, The Society of Health and Physical Educators. (2011). *The Physical Education for lifelong fitness: The physical best teacher's guide*. Champaign, IL: Human Kinetics. SHAPE America, The Society of Health and Physical Educators Clements, R., and Kinzler, S. (2003). *A Multicultural Approach to Physical Education*. Reston, Va.: National Association for Sport and Physical Education.

Colvin, A. Y., Markos, N. J., and Walker, P. J. (2000). *Teaching the Nuts and Bolts of Physical Education*. Champaign, Ill.: Human Kinetics.

Dougherty, N. (Ed.) (2010). *Physical Activity & Sport for the Secondary School Student*. Reston, Va.: National Association for Sport and Physical Education. Dougherty, N. (Ed.) (2002).

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*Principles of Safety in Physical Education & Sport*. Reston, Va.: National Association for Sport and Physical Education.

Graham, G. (2008). *Teaching Children Physical Education: Becoming a Master Teacher*. Champaign, Ill.: Human Kinetics.

Graham, G., Holt Hale, S. A., and Parker, M. (2003). *Children Moving: A Reflective Approach to Teaching Physical Education with PowerWeb*. New York, N.Y.: McGraw-Hill.

Hellison, D. (2010). *Teaching Personal and Social Responsibility Through Physical Activity*. Champaign, Ill.: Human Kinetics Publishers.

Hoeger, W., and Hoeger, S. A. (2018). *Lifetime Physical Fitness and Wellness*. Belmont, Calif.: Wadsworth Publishing.

Mohnsen, B. (Ed.) (2010). *Concepts of Physical Education: What Every Student Needs to Know*. Reston, Va.: National Association for Sport and Physical Education.

Mohnsen, B. (Ed.) (2008). *Teaching Middle School Physical Education*. Champaign, Ill.: Human Kinetics.

Pangrazi, R. P. (2019). *Dynamic Physical Education for Elementary School Children*. Menlo Park, Calif.: Benjamin/Cummings.

Seaman, J., DePauw, K., Morton, K., and Omato, K. (2003). *Making Connections: From Theory to Practice in Adapted Physical Education*. Scottsdale, Ariz.: Holcomb Hathaway Publishers.

Siedentop, D., and Tannehill, D. (2000). *Developing Teaching Skills in Physical Education*. Mountain View, Calif.: Mayfield Publishing.

Weinberg, R., and Gould, D. (2019). *Foundations of Sport & Exercise Psychology*. Champaign, Ill.: Human Kinetics.

Wilmore, J. H., and Costill, D. L. (2015). *Physiology of Sport and Exercise*. Champaign, Ill.: Human Kinetics.

## Online Resources

American Association of Active Lifestyles and Fitness — [www.aaalf.org](http://www.aaalf.org)

American Red Cross — [www.redcross.org](http://www.redcross.org)

American College of Sports Medicine — [www.acsm.org](http://www.acsm.org)

The Cooper Institute, FitnessGram — [www.fitnessgram.net](http://www.fitnessgram.net)

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Human Kinetics — [\*\*www.HumanKinetics.com\*\*](http://www.HumanKinetics.com)

PE Central: The Web Site for Health and Physical Education — [\*\*www.pecentral.org\*\*](http://www.pecentral.org)

Society of Health and Physical Educators — [\*\*www.shapeamerica.org\*\*](http://www.shapeamerica.org)