

Care and Prevention of Athletic Injuries (1502490)

Item Specifications



Hillsborough County Public Schools

Florida Department of Education

Race to the Top

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**This project was developed as part of the Florida Department of Education's Race to the Top Initiative.**

As a statewide initiative, teachers from districts throughout the state contributed to the development of these materials.

The following districts worked in partnership with HCPS to contribute to the success of the project:

DeSoto  
Duval  
Escambia  
Hendry  
Lake  
Leon  
Manatee  
Polk  
Osceola  
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**NOTE: The contents of these item bank specifications were developed under a grant from the U.S. Department of Education. However, those contents do not necessarily represent the policy of the U.S. Department of Education and you should not assume endorsement by the Federal Government.**

## Item Specifications

**Subject Area:** CCSS: English Language Arts

**Strand:** Language Standards

**Standard:** Vocabulary Acquisition and Use

**Benchmark:** LACC.910.L.3.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 9-10 reading and content, choosing flexibly from a range of strategies.

**Depth of Knowledge:** Moderate Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should address vocabulary content that involves the care and/or prevention of athletic injuries.

**Stimulus Attributes:**

Stimulus may be related to sports and physical activities or clarification of vocabulary.

**Response Attributes:**

Responses may include correct or incorrect statements related to vocabulary in sports and physical activities.

**Sample Item:**

Shedding skin is a physiological function of the human body. Which sentence uses physiological the same way it is used in the sentence above?

- A. The sodium level was physiological.
- \* B. A physiological strain of bacteria was found in the water.
- C. Can you find out what the physiological causes of the changes were?
- D. Red is a physiological color.

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## Item Specifications

**Subject Area:** CCSS: English Language Arts

**Strand:** Literacy in Science and Technical Subjects

**Standard:** Craft and Structure

**Benchmark:** LACC.1112.RST.2.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.

**Depth of Knowledge:** Moderate Complexity, High Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should address the care and prevention of athletic injuries with integration of symbols and key terms.

**Stimulus Attributes:**

Stimulus may be related to sports and physical activities or clarification of vocabulary within the scope of care and prevention.

**Response Attributes:**

Responses may include athletic injuries related to sports and physical activities.  
Responses may list vocabulary words.  
Responses may include definitions of vocabulary.

**Sample Item:**

Annie recently sustained an injury while playing basketball when she collided abruptly with another player. After seeking medical attention, she was told that they would perform traction to the vertebrae.

In the context, what is meant by the word 'traction'?

- \* A. apply pressure to the vertebrae
- B. apply static friction to the vertebrae
- C. splint the vertebrae to prevent movement
- D. shorten the muscle around the vertebrae

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## Item Specifications

**Strand:** Literacy in Science and Technical Subjects: Writing

**Standard:** Production and Distribution of Writing

**Benchmark:** LACC.910.WHST.2.6 Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

**Depth of Knowledge:** Moderate Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should address technology. Items should be related to the care and/or prevention of athletic injuries.

**Stimulus Attributes:**

Stimulus may include the use of technology as a mode of communicating and sharing health and fitness-related information as it relates to the care and prevention of athletic injuries.

**Response Attributes:**

Responses may include proper or incorrect usages of Web 2.0 tools or technology.

**Sample Item:**

Mary wants to share her expertise about treating sports injuries. She decided to create a web-based environment where she can post information and allow others to make additions and modifications to her work. Which technology should Mary use for this task?

- A. blog
- B. forum
- C. social networking
- \* D. wiki

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## Item Specifications

**Strand:** Statistics and Probability: Interpreting Categorical & Quantitative Data

**Standard:** Summarize, represent, and interpret data on a single count of measurement variable.

**Benchmark:** MACC.912.S-ID.1.2 Use statistics appropriate to the shape of data distribution to compare center (mean, median) and spread (interquartile range, standard deviation) of two or more different data sets.

**Depth of Knowledge:** Moderate Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should be limited to methods of calculating center and/or spread. Items should relate to athletic injuries or the prevention of athletic injuries.

**Stimulus Attributes:**

Stimulus may include basic statistics as applied to the care and/or prevention of athletic injuries. Stimulus may include graphs, tables, charts, or diagrams presenting the care and/or prevention of athletic injuries.

**Response Attributes:**

Responses may include correct and incorrect interpretations of mean, median, interquartile range, and/or standard deviation as related to the care and prevention of athletic injuries.

**Sample Item:**

Stimulus: A Physical Education teacher wants to determine if the time spent doing preventive stretching impacts the amount of class time missed due to injury. Class A stretches for ten minutes before each activity and Class B stretches for five minutes before each activity.

In a two to three paragraph response, compare the means, interquartile range, and standard deviation of the number of days missed due to injury for each class. Draw a conclusion about the effect of the time spent doing preventative stretching. Justify your response using data from the chart.

Class A		Class B	
Student	# of days missed due to injury	Student	# of days missed due to injury
Student A	2	Student A	4
Student B	0	Student B	13
Student C	5	Student C	3
Student D	3	Student D	17
Student E	0	Student E	0
Student F	15	Student F	3
Student G	6	Student G	2
Student H	8	Student H	6
Student I	14	Student I	5
Mean	5.9	Mean	5.9
Interquartile Range	10	Interquartile Range	7
Standard Deviation	5.24	Standard Deviation	5.22

Stimulus: In a two to three paragraph response, compare the means, interquartile range, and standard deviation chart.

Rubric:

The interpretation of the data above would yield for example, the determination that the means or average are equal which means that the two data sets have similar values, having similar standard deviations show that the majority of values are clustered in a normalized distribution, and the fact that the interquartile range varies is not surprising since it is a smaller data set, however, it shows that in Class A there are more distant 'outlier' values than in Class B.

**4 Points**

The response includes a thorough understanding and correct comparison of the means, interquartile range, and standard deviation between the two classes. The response includes a correct interpretation of whether or not time spent doing preventative stretching appears to be a causal effect on injury prevention, which in this case the data shows that the length of time stretching does not significantly reduce the severity of injuries received. The response includes justification of his/her conclusion through the thorough use of multiple data elements provided in the chart.

**3 Points**

The response includes an understanding and correct comparison of the means, interquartile range, and/or standard deviation between the two classes. The response includes an interpretation of whether or not time spent doing preventative stretching appears to be a causal effect on injury prevention. The response includes justification of his/her conclusion through the thorough use of one or two data elements provided in the chart.

**2 Points**

The response includes a partial understanding and a partially correct comparison of the means, interquartile range, and/or standard deviation between the two classes. The response includes an interpretation of whether or not stretching appears to have an effect on injury prevention. The response may not include justification of his/her conclusion through the thorough use of data elements provided in the chart.

**1 Point**

The response includes a mostly incorrect comparison of the means, interquartile range, and/or standard deviation between the two classes. The response includes may not include an interpretation of whether or not stretching appears to have an effect on injury prevention. The response may not include justification of his/her conclusion through the thorough use of data elements provided in the chart.

**0 Points**

The response is off topic and/or the student did not make an attempt.

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## Item Specifications

**Strand:** Statistics and Probability: Using probability to make decisions

**Standard:** Use probability to evaluate outcomes of decisions.

**Benchmark:** MACC.912.S-MD.2.7 Analyze decisions and strategies using probability concepts (e.g. product testing, medical testing, pulling a hockey goalie at the end of a game).

**Depth of Knowledge:** High Complexity

**Item Types:** Constructed Response

**Content Limits:** Items should address athletic injuries and/or the prevention along with probability and statistics to guide decision-making.

**Stimulus Attributes:**

Stimulus may be related to athletic injuries and probability related to the decision being made.  
Stimulus may include statistics presented in articles, tables, charts, or graphs.  
Stimulus may require analyzing the data to make decisions regarding athletic injuries.

**Response Attributes:**

Responses may include correct or incorrect interpretations of data.  
Responses may include reasonable responses that are not the best selection.

**Sample Item:**

Stimulus: [Passage from <http://www.infosports.com/clvclinic/femaleacl.htm>]

According to the National Collegiate Athletic Association (NCAA), female basketball players are four times as likely to suffer from an ACL tear as male basketball players. Several studies are underway to explain the discrepancy between male and female ACL injuries. Numerous theories abound, ranging from differences in anatomy and hormones to differences in running and sports styles. Some authors believe that since the female has a wider pelvis, she is more vulnerable to tearing her ACL. Some authors, on the other hand, believe that a female may not have as strong or as large of an ACL as she should for the sport being played. The female menstrual cycle may play a role according to a recent study out of University of Michigan and Vanderbilt. The authors found that females were more vulnerable to ACL injuries near the time of ovulation (mid-cycle). Those females on oral contraception seemed to have the same incidence of ACL tears as males. Others believe that females run and play sports, particularly basketball and soccer, in a more upright position, with their knees more extended and vulnerable to ACL injury. Unfortunately, many theories exist regarding why females have a higher incidence of ACL injuries than males. Time and more research will improve our chances of delineating fully the reason or reasons why females are more vulnerable to tearing their ACL.

Based on the passage, decide whether or not female athletes should be prohibited from playing basketball. Analyze and describe the potential impact of your decision. Select at least three aspects from the studies mentioned to support your position. Utilize probability concepts to support a study's claim or counter the claim using probability concepts and/or strategies.

Rubric:

- 4 Points** The student selects a position as to whether or not females should be prohibited from playing basketball. The student analyzes and thoroughly and accurately describes the potential impacts from the decision. The student selects at least three aspects from the passage to support his/her decision. The response includes a thorough and complete use of probability concepts and/or strategies to support or counter a study's claim.
- 3 Points** The student selects a position as to whether or not females should be prohibited from playing basketball. The student analyzes and accurately describes some of the potential impacts from the decision. The student selects at least two aspects from the passage to support his/her decision. The response includes the use of probability concepts and/or strategies to support or counter a study's claim.
- 2 Points** The student selects a position as to whether or not females should be prohibited from playing basketball. The student partially describes at least one potential impact from the decision. The student selects at least one aspect from the passage to support his/her decision. The response may not include the use of probability concepts and/or strategies to support or counter a study's claim.
- 1 Point** The student selects a position as to whether or not females should be prohibited from playing basketball. The student may not describe at least one potential impact from the decision. The student may not select at least one aspect from the passage to support his/her decision. The response may not include the use of probability concepts and/or strategies to support or counter a study's claim.
- 0 Points** The response is off topic and/or the student did not make an attempt.

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## Item Specifications

**Strand:** Cognitive Abilities

**Standard:** Identify, analyze, and evaluate movement concepts, mechanical principles, safety considerations, and strategies/tactics regarding movement performance in a variety of physical activities.

**Benchmark:** PE.912.C.2.7 Evaluate the effectiveness of specific warm-up and cool-down activities.

**Depth of Knowledge:** Moderate Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should address the importance of warm-up and cool-down activities and the effect on the body in addition to fitness related activities and topics that is designed to care for or prevent injuries.

**Stimulus Attributes:**

Stimulus may include specific warm-up and cool-down activities.

Stimulus may include situations in which a warm-up or cool-down is appropriate.

Stimulus may evaluate the effectiveness of specific warm-up and cool-down activities.

**Response Attributes:**

Responses may include correct or incorrect warm-up or cool-down techniques.

Responses may include correct or incorrect evaluations of warm-up or cool-down techniques.

**Sample Item:**

Stimulus: Examine a minimum of three stretching techniques, a situation in which each would be used, and evaluate the effectiveness of each type of stretch. Examine and describe in one paragraph per technique.

Rubric:

- 4 Points** The student identifies at least three stretching techniques, provides a situation in which the stretch could be used, and evaluates the effectiveness of the type of stretch.
- 3 Points** The student identifies at least two stretching techniques, provides a situation in which each could be used and evaluates the effectiveness of the type of stretch.
- 2 Points** The student identifies at least one stretching technique, provides a situation in which the stretch could be used, and may evaluate the effectiveness of the stretch.
- 1 Point** The student may not identify at least one stretching technique, determine the situation in which it could be used, or evaluate the effectiveness of the stretch.
- 0 Points** The response is off topic and/or the student did not make an attempt.

## Item Specifications

**Strand:** Cognitive Abilities

**Standard:** Identify, analyze, and evaluate movement concepts, mechanical principles, safety considerations, and strategies/tactics regarding movement performance in a variety of physical activities.

**Benchmark:** PE.912.C.2.8 Differentiate between the three different types of heat illnesses associated with fluid loss.

**Depth of Knowledge:** Moderate Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should address heat illness and their role in athletic injuries.

**Stimulus Attributes:**

Stimulus may be related to heat illnesses associated with fluid loss.

Stimulus may include precautions taken.

Stimulus may require differentiating between variations of heat illnesses described in the scenario.

**Response Attributes:**

Responses may include correct and incorrect heat illnesses.

**Sample Item:**

Ocean High School started their football practice in the middle of August. The weather forecasters are predicting a massive heat wave. One of the players, Sammy, has been complaining that he is hot and needs water. The coach asks him to wait until the drill is over. Suddenly, Sammy feels dizzy and feels like he is going to faint. Which heat illness **BEST** describes what Sammy is experiencing?

- A. heat cramps
- \* B. heat exhaustion
- C. heat hypothermia
- D. heat stroke

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## Item Specifications

**Strand:** Cognitive Abilities

**Standard:** Identify, analyze, and evaluate movement concepts, mechanical principles, safety considerations, and strategies/tactics regarding movement performance in a variety of physical activities.

**Benchmark:** PE.912.C.2.9 Explain the precautions to be taken when exercising in extreme weather and/or environmental conditions.

**Depth of Knowledge:** Low Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should address fitness or sport activities during extreme weather and injuries caused by extreme weather conditions.

**Stimulus Attributes:**

Stimulus may be related to extreme weather and/or environmental conditions during sports and physical activities.

Stimulus may include precautions taken.

Stimulus may require identifying weather conditions or precautions.

**Response Attributes:**

Responses may include correct or incorrect precautions related to sports and physical activities.

Responses may include correct or incorrect extreme weather/environmental conditions.

**Sample Item:**

Fernando has decided to join his friends playing tennis down the river on Saturday. The weather station says that there will be a UV Rating of 12. Which precaution should Fernando consider prior to playing tennis?

- A. Use suntan oil, wear a T-shirt, and wear a hat.
- \* B. Use sunscreen, wear a T-shirt, and wear a hat.
- C. Use sunscreen, wear flip flops, and wear a hat.
- D. Use suntan oil, wear a T-shirt, and wear flip flops.

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## Item Specifications

**Strand:** Cognitive Abilities

**Standard:** Identify, analyze, and evaluate movement concepts, mechanical principles, safety considerations, and strategies/tactics regarding movement performance in a variety of physical activities.

**Benchmark:** PE.912.C.2.10 Analyze long-term benefits of regularly participating physical activity.

**Depth of Knowledge:** High Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should address various long-term benefits to participation in regular physical activity relating to athletic injuries.

**Stimulus Attributes:**

Stimulus may relate to the long-term benefits of participating in physical activities.

**Response Attributes:**

Responses may include correct or incorrect statements that relate to long-term health benefits.

**Sample Item:**

Stimulus: In an essay, discuss at least five long-term benefits of physical activity. Analyze the benefits of physical activity and identify the risks associated with a lack of physical activity.

Rubric:

- 4 Points**      The student thoroughly analyzes five long-term benefits of participating in regular physical activity. The response clearly identifies the risks associated with avoiding physical activity.
- 3 Points**      The student analyzes four long-term benefits of participating in regular physical activity. The response identifies the risks associated with avoiding physical activity.
- 2 Points**      The student partially analyzes three long-term benefits of participating in regular physical activity. The response identifies the risks associated with avoiding physical activity.
- 1 Point**        The student partially analyzes three long-term benefits of participating in regular physical activity. The response may not identify the risks associated with avoiding physical activity.
- 0 Points**        The response is off topic and/or the student did not make an attempt.

## Item Specifications

**Strand:** Cognitive Abilities

**Standard:** Identify, analyze, and evaluate movement concepts, mechanical principles, safety considerations, and strategies/tactics regarding movement performance in a variety of physical activities.

**Benchmark:** PE.912.C.2.11 Explain how each of the health-related fitness are improved through the application of training principles.

**Depth of Knowledge:** Low Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should address the health-related fitness components and the application of training principles.

**Stimulus Attributes:**

Stimulus may be related to the health-related components of fitness.

Stimulus may require identifying training practices specific to a particular sport.

Stimulus may require identifying fitness components improved by specific training exercises.

**Response Attributes:**

Responses may include correct or incorrect training practices that improve health-related components of fitness in various sports and activities.

Responses may include correct or incorrect fitness components.

**Sample Item:**

Stimulus: In a paragraph, explain how improving muscular endurance through training will help to prevent injury.

Rubric:

- 4 Points** The response thoroughly describes the improving of muscular endurance through training. The response indicates how improvement in endurance will reduce the likelihood of injury.
- 3 Points** The response describes the improving of muscular endurance through training. The response indicates how improvement in endurance will reduce the likelihood of injury.
- 2 Points** The response describes the improving of muscular endurance through training. The response may not indicate how improvement in endurance will reduce the likelihood of injury.
- 1 Point** The response may correctly describe the improving of muscular endurance through training. The response may not indicate how improvement in endurance will reduce the likelihood of injury.
- 0 Points** The response is off topic and/or the student did not make an attempt.

## Item Specifications

**Strand:** Cognitive Abilities

**Standard:** Identify, analyze, and evaluate movement concepts, mechanical principles, safety considerations, and strategies/tactics regarding movement performance in a variety of physical activities.

**Benchmark:** PE.912.C.2.17 Assess physiological effects of exercise during and after physical activity.

**Depth of Knowledge:** High Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should address physiological effects of exercise and how those promote care of or prevention of athletic injuries.

**Stimulus Attributes:**

Stimulus may include charts or graphs.

Stimulus may include physical activities or exercise.

Stimulus may require the assessment of physiological effects of exercise during and after physical activity.

Stimulus may inquire as to the methods of assessing physiological changes.

**Response Attributes:**

Responses may include correct or incorrect assessments of physiological responses.

Responses may be correct or incorrect methods for assessing physiological changes.

**Sample Item:**

Stimulus: Explain the physiological benefits of stretching that will help prevent injuries. The response should identify at least three benefits.

Rubric:

- 4 Points** The response correctly and thoroughly assesses the physiological benefits of stretching. The response includes a description of at least three benefits. The response describes the impact of the benefits in preventing injuries.
- 3 Points** The response assesses the physiological benefits of stretching. The response includes a description of three benefits. The response may have incorrect benefits or inaccurate descriptions. The response may describe the impact of the benefits in preventing injuries.
- 2 Points** The response may assess the physiological benefits of stretching. The response may include a description of at least two benefits. The response may list incorrect benefits. The response may not describe the impact of the benefits in preventing injuries.
- 1 Point** The response may not assess the physiological benefits of stretching. The response may not include a description of at least one correct benefit. The response does not describe the impact in preventing injuries.
- 0 Points** The response is off topic and/or the student did not make an attempt.

## Item Specifications

**Strand:** Cognitive Abilities

**Standard:** Identify, analyze, and evaluate movement concepts, mechanical principles, safety considerations, and strategies/tactics regarding movement performance in a variety of physical activities.

**Benchmark:** PE.912.C.2.23 Apply appropriate technology and analyze data to evaluate, monitor, and/or improve performance.

**Depth of Knowledge:** Moderate Complexity, High Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should address physical fitness and/or sport related activities along with the technology available.

**Stimulus Attributes:**

Stimulus may reference a variety of technical devices that can evaluate weight lifting performance.

Stimulus may include graphs, charts, tables, and diagrams to present data.

Stimulus may include the comparison of performance data.

Stimulus may be used to describe settings in which technology may be used in sports or physical fitness.

**Response Attributes:**

Responses may include correct and incorrect data interpretations.

Responses may reference correct and incorrect technical devices commonly used in sports or physical fitness activities.

**Sample Item:**

Stimulus: Benny is a cross-country runner. He recently sprained an ankle while running, but has a big race coming up. Benny's doctor will allow him to practice as long as he monitors his tempo while running. Identify and discuss two appropriate technologies that Benny could use in this situation.

Rubric:

- 4 Points** The response includes the identification of technology that can be correctly used to monitor Benny's tempo. The response correctly details the use of at least two technological devices. The response includes a thorough explanation of how the use of each particular technology will help prevent further injury to his ankle.
- 3 Points** The response includes the identification of technology that could be used to monitor Benny's tempo. The response correctly details the use of two technological devices. The response includes a partial explanation of how the use of each particular technology will help Benny to prevent further injury to his ankle.
- 2 Points** The response includes the identification of technology that could be used to monitor Benny's tempo. The response includes a basic idea of at least one correct technological device. The response may not include an explanation of how this particular technology will help Benny. The response may include incorrect technology.
- 1 Point** The response includes the identification of technology that could be used to monitor Benny's tempo. The response may not include the use of at least one technological device. The response does not include an explanation of how this particular technology will help Benny to prevent further injury.
- 0 Points** The response is off topic and/or the student did not make an attempt.

## Item Specifications

**Strand:** Cognitive Abilities

**Standard:** Identify, analyze, and evaluate movement concepts, mechanical principles, safety considerations, and strategies/tactics regarding movement performance in a variety of physical activities.

**Benchmark:** PE.912.C.2.25 Analyze and evaluate the risks, safety procedures, rules, and equipment associated with specific course activities.

**Depth of Knowledge:** Moderate Complexity, High Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should be limited to risks, safety procedures, rules, and equipment in relation to various physical activities.

**Stimulus Attributes:**

Stimulus should be related to various risks, safety procedures, rules, and equipment related to sports and physical activities.

Stimulus may include analyzing safety rules and procedures in relation to their consequences.

Stimulus may include both correct and incorrect applications of safety rules.

Stimulus may include a diagram of correct and incorrect safety procedures.

**Response Attributes:**

Responses may include correct or incorrect safety considerations when participating in sports and physical activities.

Responses may include correct or incorrect equipment needed to safely participate in sports.

Responses may include correct or incorrect outcomes of safety violations.

Responses may include outcomes of correct and incorrect use of equipment.

**Sample Item:**

Stimulus: In a paragraph, discuss the safety equipment used in playing soccer. The response should include an analysis of why the equipment is used and the type of injuries each piece protects against.

Rubric:

**4 Points** The response includes a correct and thorough description of at least two pieces of safety equipment used in soccer, a correct explanation of why each piece is used, and a correct explanation of an injury the safety equipment is designed to prevent.

**3 Points** The response includes a clear description of at least two pieces of safety equipment used in soccer, a correct explanation of why one piece of equipment is used, and a correct explanation of an injury the safety equipment is designed to prevent.

**2 Points** The response includes a description of one piece of safety equipment used in soccer, a partial explanation of why the equipment is used, and an explanation of one injury the equipment is designed to prevent.

**1 Point** The response includes a description of one piece of safety equipment used in soccer, but may not analyze why it is used or what injury it is designed to prevent.

**0 Points** The response is off topic and/or the student did not make an attempt.

## Item Specifications

**Strand:** Cognitive Abilities

**Standard:** Identify, analyze, and evaluate movement concepts, mechanical principles, safety considerations, and strategies/tactics regarding movement performance in a variety of physical activities.

**Benchmark:** PE.912.C.2.26 Evaluate skill patterns of self and/or partner by detecting and correcting mechanical errors.

**Depth of Knowledge:** Moderate Complexity, High Complexity

**Item Types:** Multiple Choice, Performance Task

**Content Limits:** Items should address correcting mechanical errors in various sports.

**Stimulus Attributes:**

Stimulus may be related to skill patterns used in a variety of sports and physical activities.  
Stimulus may include proper mechanical principles for a variety of sports.

**Response Attributes:**

Responses may be statements related to mechanical principles of a skill in sports and physical activities.

**Sample Item:**

Task: (Using a mannequin named Roberta) Imagine that Roberta was at her track meet and rolled her ankle while running. The injury is indicative of a sprained ankle. Properly treat the ankle and apply any materials needed for interim support until additional medical attention could be given.

Observe a partner as he/she tends to Roberta's injury. After the observation, critique your partner's performance of the treatment and application of materials needed for the situation and provide suggestions for improvement.

Rubric:

- 4 Points** The student thoroughly evaluates a partner's actions in response to the scenario. The evaluation detects and corrects mechanical errors and provides useful feedback for the partner. The student's evaluation shows a thorough understanding of the mechanics of dealing with a sprained ankle.
- 3 Points** The student evaluates a partner's actions in response to the scenario. The evaluation detects and corrects most mechanical errors while providing feedback for the partner. The student's response indicates an understanding of the mechanics of dealing with a sprained ankle.
- 2 Points** The student evaluates a partner's actions in response to the scenario. The evaluation detects and corrects mechanical errors while providing limited feedback to the partner. The student's response may not show an understanding of the mechanics of dealing with a sprained ankle.
- 1 Point** The student evaluates a partner's actions in response to the scenario. The evaluation may not detect and corrects mechanical errors or provide feedback to the partner. The response may not show an understanding of the mechanics of dealing with a sprained ankle.
- 0 Points** The response is off topic and/or the student did not make an attempt.

## Item Specifications

**Strand:** Lifetime Fitness

**Standard:** Participate regularly in physical activity

**Benchmark:** PE.912.L.3.6 Identify risks and safety factors that may affect physical activity throughout life.

**Depth of Knowledge:** Low Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should address physical fitness and/or lifelong fitness activities.

**Stimulus Attributes:**

Stimulus may include various risks and safety factors associated with sports or fitness that may affect physical activity throughout life.

Stimulus may include graphs, charts, and diagrams.

Stimulus may inquire about the outcomes of lifelong fitness or sport activities.

Stimulus may inquire about risk prevention regarding lifelong fitness.

**Response Attributes:**

Responses may include priorities before engaging in lifelong fitness.

Responses may include risks and safety factors of specific sports or fitness activities.

Responses may include lifelong risks associated with sports or physical fitness.

**Sample Item:**

Betty is 76 years old and would like to exercise more. She is aware of the increased number of risks to an older individual when starting an exercise program. What should she do first before starting the exercise program to avoid the risks that affect older adults engaging in physical activity?

- \* A. Go to her physician.
- B. Buy appropriate workout clothes.
- C. Find a workout buddy.
- D. Set a goal for her exercise plan.

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## Item Specifications

**Strand:** Lifetime Fitness

**Standard:** Develop and implement a personal fitness program to achieve and maintain a health-enhancing level of physical fitness.

**Benchmark:** PE.912.L.4.6 Identify health-related problems associated with low levels of cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition.

**Depth of Knowledge:** Low Complexity, Moderate Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should address the health-related components of physical fitness and health related problems.

**Stimulus Attributes:**

Stimulus may include health-related problems due to a poor health and low levels of health-related physical fitness components.

Stimulus may ask to identify a health-related problem and identify associated health-related physical fitness components.

**Response Attributes:**

Responses may include correct or incorrect health-related fitness components.

**Sample Item:**

Stimulus: Sean has been concerned with the pain he experiences during his rings routine in gymnastics. He notices that during his iron cross he feels pain in his anterior deltoids as he approaches the horizontal position. Describe a fitness component Sean should improve to decrease the pain during the gymnastic event. Provide 3 exercises that will help to improve his fitness to the gymnastics routine.

Rubric:

**4 Points** The student thoroughly describes the fitness component Sean needs to improve. The student provides three exercises that will help to improve the components of health-related fitness.

**3 Points** The student describes the fitness component Sean needs to improve. The student provides two exercises that will help to improve the components of health-related fitness.

**2 Points** The student partially describes the fitness component Sean needs to improve. The student provides two exercises that will help to improve the components of health-related fitness.

**1 Point** The student may not correctly Provide the fitness component needing improvement. The student provides one exercise that will help to improve the components of health-related fitness.

**0 Points** The response is off topic and/or the student did not make an attempt.

## Item Specifications

**Strand:** Movement Competency

**Standard:** Demonstrate competency in many and proficiency in a few movement forms from a variety of categories.

**Benchmark:** PE.912.M.1.14 The student will utilize technology to assess, enhance, and maintain health and skill-related fitness levels.

**Depth of Knowledge:** Moderate Complexity

**Item Types:** Multiple Choice, Performance Task

**Content Limits:** Items should relate to physical fitness as well as care and prevention activities.

**Stimulus Attributes:**

Stimulus may refer to technology utilization to assess data related to fitness.  
Stimulus may refer to methods of analyzing data using technology.

**Response Attributes:**

Responses may include correct or incorrect uses of technology.  
Responses may include the demonstration of the use of technology.

**Sample Item:**

Shauna injured her foot while running and her doctor told her that she can only do low impact activities for eight weeks. Shauna really would like to maintain her current fitness level, but she is worried that switching to low impact exercises might cause her to lose some of her fitness. How could she utilize technology to help maintain her fitness levels?

- \* A. Use a heart rate monitor to ensure she is still in her target heart rate zone.
- B. Record the duration of her workouts in an online fitness journal.
- C. Weigh herself before and after every workout.
- D. Practice her skills on an exergaming system.

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## Item Specifications

**Strand:** Movement Competency

**Standard:** Demonstrate competency in many and proficiency in a few movement forms from a variety of categories.

**Benchmark:** PE.912.M.1.16 The student will apply the principles of training and conditioning to accommodate individual needs and strengths.

**Depth of Knowledge:** Moderate Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should focus on individual needs and strength based on training and conditioning.

**Stimulus Attributes:**

Stimulus may include individual needs or strengths of an individual.

Stimulus may include classifying principles of training or aspects of the principles of training to meet fitness goals of an individual.

**Response Attributes:**

Responses may include correct or incorrect principles of training and conditioning.

Responses may include correct or incorrect aspects of training principles.

**Sample Item:**

Mark knows he is prone to ankle injuries. How can he apply the principles of training and conditioning in his workouts to prevent future injuries to his ankle?

- \* A. Strengthen the muscles around the ankle for stability.
- B. Avoid exercises that might put strain on the ankle.
- C. Apply moist heat to the entire foot prior to his workouts.
- D. Ice his joint after a hard workout.

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## Item Specifications

**Strand:** Movement Competency

**Standard:** Demonstrate competency in many and proficiency in a few movement forms from a variety of categories.

**Benchmark:** PE.912.M.1.17 The student will demonstrate basic cardiopulmonary resuscitation (CPR) procedures.

**Depth of Knowledge:** Low Complexity

**Item Types:** Multiple Choice, Performance Task

**Content Limits:** Items should relate to care and prevention activities involving cardiopulmonary resuscitation procedures.

**Stimulus Attributes:**

Stimulus may involve a situation where CPR is required.  
Stimulus should not be disturbing or emotionally charged.  
Stimulus may be about CPR procedures.

**Response Attributes:**

Responses may include correct or incorrect CPR procedures.  
Responses may be a demonstration of performing basic CPR.

**Sample Item:**

What is the proper ratio for chest compressions to breaths when administering CPR on an adult?

- A. 30:1
- \* B. 30:2
- C. 15:2
- D. 15:3

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## Item Specifications

**Strand:** Movement Competency

**Standard:** Demonstrate competency in many and proficiency in a few movement forms from a variety of categories.

**Benchmark:** PE.912.M.1.34 The student will demonstrate the use of the mechanical principles as they apply to specific course activities.

**Depth of Knowledge:** Low Complexity, Moderate Complexity

**Item Types:** Multiple Choice, Performance Task

**Content Limits:** Items should relate to mechanical principles involved with care and prevention activities.

**Stimulus Attributes:**

Stimulus may require explanation of proper form or resistance or safety required to perform simple to more complex movement patterns as they pertain to a targeted muscle group, skill, or sport being trained.

Stimulus may identify the exercise that matches a set of complex movements.

**Response Attributes:**

Responses may be correct or incorrect explanations of movement patterns for specific exercises, skills, or sports.

Responses may be correct or incorrect explanations of resistance for specific exercises, skills, or sports.

Responses may be correct or incorrect explanations of safety for specific exercises.

Responses should include mechanical principles as they relate to sports injuries.

Responses may include a demonstration of mechanical principles of specific sports or activities relating to athletic injuries.

**Sample Item:**

Task: Demonstrate the proper principles and technique for dealing with an athlete suffering from muscle spasm in their calf.

Rubric:

- 4 Points**      The student demonstrates a thorough understanding of the proper mechanics and technique of dealing with a muscle spasm in a calf muscle. The student executes a treatment that properly attends to the muscle spasm.
- 3 points**      The student demonstrates an understanding of the proper mechanics and techniques of dealing with a muscle spasm in a calf muscle. The student executes a treatment that attends to the muscle. Demonstration was incorrect and/or with poor form.
- 2 points**      The student demonstrates a partial understanding of the proper mechanics and techniques of dealing with a muscle spasm. The student may not execute a treatment that attends to the muscle. Demonstration was incorrect or with poor form.
- 1 point**      The student demonstrates a poor understanding of the proper mechanics and techniques of dealing with a muscle spasm. The student uses incorrect techniques or omits techniques during treatment. The student may not execute a treatment that attends to a muscle spasm. The student may not execute a treatment that attends to the correct muscle. Demonstration was incorrect and with poor form.
- 0 Points**      The response is off topic and/or the student did not make an attempt.

## Item Specifications

**Strand:** Movement Competency

**Standard:** Demonstrate competency in many and proficiency in a few movement forms from a variety of categories.

**Benchmark:** PE.912.M.1.35 Select proper equipment and apply all appropriate safety procedures necessary for participation.

**Depth of Knowledge:** Low Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should include selecting appropriate equipment and safety procedures needed when participating in specific physical activities.

**Stimulus Attributes:**

Stimulus may require selection of proper equipment and exercise required for a specific activity or sports.

Stimulus may require identification of proper safety measures when performing a specific physical activity or sport.

**Response Attributes:**

Responses may include proper or improper techniques or procedures.

Responses may include proper or improper safety measures or equipment selection.

Responses may include lists or descriptions of the use of safety procedures or proper equipment.

**Sample Item:**

What piece of equipment is the **MOST** important to select for protecting male genitalia in football?

- \* A. athletic cup
- B. helmet
- C. neck guard
- D. thigh pads

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## Item Specifications

**Strand:** Movement Competency

**Standard:** Exhibit responsible personal and social behavior that respects self and others in physical activity settings.

**Benchmark:** PE.912.R.5.4 Maintain appropriate personal, social and ethical behavior while participating in a variety of physical activities.

**Depth of Knowledge:** Low Complexity

**Item Types:** Multiple Choice, Performance Task

**Content Limits:** Items should address appropriate responsible, personal and social behaviors expected while participating in physical activities.

**Stimulus Attributes:**

Stimulus may require identifying appropriate or inappropriate behaviors with participation in sports and physical activities.

Stimulus may include responsible personal, social, or ethical behaviors.

**Response Attributes:**

Responses may include appropriate or inappropriate behaviors in sports and physical activities.  
Responses may include observations of students demonstrating appropriate and inappropriate personal, social and ethical behaviors while participating in physical activities.

**Sample Item:**

You are assisting with school's athletic trainer's office. A student with a suspected dislocated finger comes into the office and the athletic trainer asks you how you would treat the injury. What is the most appropriate way to **FIRST** treat the injury?

- A. Send the patient for x-rays.
- B. Immediately call the students' parents.
- \* C. Apply ice to the wound.
- D. Call 911 and let them handle the situation.

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## Item Specifications

**Strand:** Responsible Behaviors and Values

**Standard:** Exhibit responsible personal and social behavior that respects self and others in physical activity settings.

**Benchmark:** PE.912.R.5.5 Demonstrate appropriate etiquette, care of equipment, respect for facilities, and safe behaviors while participating in a variety of physical activities.

**Depth of Knowledge:** Low Complexity

**Item Types:** Multiple Choice, Performance Task

**Content Limits:** Items should address etiquette, appropriate care of equipment, respect for facilities and safe behaviors shown while participating in a variety of physical activities.

**Stimulus Attributes:**

Stimulus may involve matching responsible behaviors with desired outcomes in relationship to physical activity in a variety of settings.

Stimulus may require identifying appropriate or inappropriate behaviors when using equipment in a gym or in a sport.

Stimulus may require identifying appropriate or inappropriate etiquette in regards to equipment or sportsmanship.

**Response Attributes:**

Responses may be appropriate or inappropriate safety procedures and etiquette on a sports field or in a gym.

Responses may include observations of students demonstrating appropriate etiquette, care of equipment, respect for facilities and safe behaviors while participating in physical activities.

**Sample Item:**

When working out in a weight room, it is important to lift a weight that you feel comfortable with and can potentially handle. Why is it important to lift a reasonable weight?

- \* A. to reduce the risk of tearing a muscle
- B. to avoid dropping the weights to the ground
- C. to limit grunting as you lift the weights
- D. to increase repetitions and speed muscle growth

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## Item Specifications

**Strand:** Responsible Behaviors and Values

**Standard:** Value physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.

**Benchmark:** PE.912.R.6.3 Analyze the role of games, sports, and/or physical activities in other cultures.

**Depth of Knowledge:** Low Complexity, Moderate Complexity

**Item Types:** Multiple Choice, Constructed Response

**Content Limits:** Items should address activities that are popularized in other cultures.

**Stimulus Attributes:**

Stimulus may require identifying the origin of games, sports, and /or physical activities in other cultures.

Stimulus may include instructions for analyzing the role or games, sports and/or physical activities in other culture.

**Response Attributes:**

Responses may include lists, graphs, charts and diagrams of sports from various cultures.

Responses may be names and descriptions of sports in other cultures and the role they play.

Responses may include categorizing, classifying and comparing the sports or activities from other cultures.

**Sample Item:**

Stimulus: The sport of rugby was started many years ago in England. Despite many advances in protective gear, rugby has stayed away from utilizing protective equipment. In a two paragraph response identify a common injury that occurs in rugby. Discuss how that type of injury could potentially be avoided by using protective equipment currently used in a similar sport within the United States.

Rubric:

- 4 Points** The student description shows a thorough understanding of a common injury sustained in the sport of rugby. Response is clear and presents a logical explanation as to how protective equipment could help to prevent injuries. Response draws a correlation to a similar sport that utilizes equipment related to the type of injury described.
- 3 Points** The student description shows an understanding of a common injury sustained in the sport of rugby. Response is mostly clear and presents an explanation as to how protective equipment could help to prevent injuries. There may be minor errors in the description. Response draws a simple correlation to a similar sport that utilizes equipment related to the type of injury described.
- 2 Points** The student description shows an understanding of an injury sustained in a sport. Response is unclear and/or presents an explanation that does not indicate how protective equipment could help to prevent injuries. There may be multiple or major errors in the description. Response may not draw a correct correlation to a similar sport that utilizes equipment related to the type of injury described.
- 1 Point** The student description lists an injury sustained in a sport. Response is fundamentally unclear and/or presents an explanation that does not indicate how protective equipment could help to prevent injuries. There may be major errors or the selection is incorrect. Response may not draw a correlation to a similar sport that utilizes equipment related to the type of injury described.
- 0 Points** The response is off topic and/or the student did not make an attempt.