

Course Name: Fitness Lifestyle Design
Course Number: 1501310

Item Specifications

Subject Area: CCSS: English Language Arts

Strand: Language Standards

Cluster: Vocabulary Acquisition and Use

Standard: 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 include, but are not limited to, aerobic, anaerobic, health-related fitness components, and physical fitness related concepts and activities.

Stimulus Attributes:

Stimulus should address unknown words and words or phrases that have multiple meanings, given a range of content.

Response Attributes:

Responses should include, but are not limited to, aerobic, anaerobic, flexibility, muscular strength and endurance, body composition, cardiovascular fitness.

Responses may include definitions of unknown words.

Responses may include strategies for determining meaning of unknown words.

Responses may clarify unknown words.

Responses may use words correctly or incorrectly in sentences.

Sample Item:

Mary designed a circuit-training program that included a series of exercises using light weights and short periods of rest. Of the options below, which sentence uses **circuit** in the same way?

- A. The high school tennis team plays in the Florida Tennis circuit.
- B. The bike riders completed three circuits around the course.
- * C. The city developed an aerobic circuit of activities at Riverside Park.
- D. The teacher circuited through the gym to instruct students.

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Course Name: Fitness Lifestyle Design

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Item Specifications

Subject Area: CCSS: English Language Arts

Strand: Reading Standards for Literacy in Science and Technical Subjects Literature

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

Item Types: Multiple Choice, Constructed Response

Content Limits: Items should include, but not be limited to, aerobic, anaerobic, health-related fitness components, and physical fitness related concepts and activities. Items may include concepts such as blood pooling, target heart rate, resting and maximum heart rate. Items should be limited to scientific or technical texts relevant to grade 11–12 fitness topics.

Stimulus Attributes:

Stimulus may include a fitness-related scientific or technical text.

Stimulus should address various key terms, symbols and fitness related words and phrases.

Stimulus may include a scenario related to fitness topics.

Stimulus should contain clear and sufficient context for determining the use and meaning of the assessed word or symbol.

Stimulus may include examples of domain-specific words and phrases.

Stimulus may include illustrations with captions, graphics, and charts.

Response Attributes:

Responses may be related to maximum, resting and target heart rate, moderate to vigorous physical activity, aerobic, anaerobic, and health and skill-related components of fitness. Responses may include meanings of the assessed symbol, word or phrases that are correct but are not appropriate for the context surrounding the word or phrases.

Responses may include incorrect meanings of the assessed word or phrases.

Responses may include statements using similar uses of a health vocabulary word. Responses may include details drawn from the text but unrelated to the assessed phrases or test item.

Sample Item:

During aerobic exercise, the human body utilizes oxygen to generate energy. However, during some activities, the human body requires energy production faster than the body can adequately deliver oxygen. During *anaerobic exercise*, the oxygen moving towards the muscles is limited, so glucose becomes the main source of energy. The glucose is broken down into a substance called pyruvate. The body temporarily converts pyruvate into a substance called lactate. The lactate allows glucose to break down and energy production to continue.

According to the passage, how is energy generated in *anaerobic exercise*?

- A. Lactate interacts with glucose.
- * B. Glucose is broken down by lactate.
- C. Pyruvate metabolizes the oxygen.
- D. Oxygen helps break down the glucose.

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Item Specifications

Strand: Statistics and Probability

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

Benchmark: MACC.9-12.S-ID.2 Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

Depth of Knowledge: Moderate Complexity, High Complexity

Item Types: Multiple Choice, Constructed Response

Content Limits: Items should include, but not be limited to, aerobics and physical fitness related activities and topics. Data should be related to topics covered in Fitness Lifestyle Design. Items may require some basic calculations, but should not require more advanced statistical calculations.

Stimulus Attributes:

Stimulus should address topics related to health, wellness, physical activity and physical fitness.
Stimulus should include data presented in a graph, chart, or table.

Response Attributes:

Responses may include answers that can be found in the data provided.
Responses may summarize the data represented in the stimulus.
Responses may compare statistics from data sets.

Sample Item:

Jessica's class participates in FITNESSGRAM®. They do the PACER assessment every 6 weeks in her class. Jessica and her friend Sarah decide to track their progress and compare their scores at the end of the semester. Here are their results:

	Jessica's Results (# of laps)	Sarah's Results (# of laps)
Beginning of Semester	40	38
Middle of Semester	42	43
End of Semester	45	44

Based on their data, how do Jessica's scores compare to Sarah's?

- A. Jessica averaged fewer laps than Sarah did.
- B. Jessica had a larger range of scores than Sarah.
- * C. Jessica's median score was lower than Sarah's.
- D. Jessica's final result was worse than Sarah's.

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Item Specifications

Strand: Statistics and Probability

Standard: Use probability to evaluate outcomes of decisions.

Benchmark: MACC.9-12.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: Moderate Complexity, High Complexity

Item Types: Multiple Choice, Constructed Response

Content Limit: Items should include, but not be limited to, how outcomes and decisions are affected by probability, with a focus on fitness testing and/or skills assessments.

Stimulus Attributes:

Stimulus may include graphs, charts, tables, and diagrams.

Stimulus may include a scenario addressing probability or statistics of outcomes in a fitness related activity.

Stimulus may evaluate a person's health decision based on given statistics.

Stimulus should NOT ask for statistical calculation.

Response Attributes:

Responses may include data from charts, graphs, tables, and diagrams.

Responses may include analyses of decisions.

Sample Item:

A student learned from an article that one in three people with diabetes are unaware they have this condition. The student also found that genetics is a risk factor for the disease. If this student's brother has been diagnosed with diabetes what decision would be **BEST** for this student?

- A. follow his brother's diet and exercise routine
- B. read about diabetes on the internet
- * C. ask his doctor to screen him for diabetes
- D. take herbal supplements for diabetes

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Course Name: Fitness Lifestyle Design

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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, High Complexity

Item Types: Multiple Choice, Constructed Response

Content Limits: Items should include, but not be limited to, warm-up and cool-down specific activities used in physical education.

Stimulus Attributes:

Stimulus may include scenarios describing participation in warm-up and cool-down activities.

Stimulus should address different types of warm-up and cool-down fitness activities.

Stimulus may include different types of stretching activities including their benefits and risks.

Stimulus may include safety considerations used during a warm-up or cool-down activity.

Stimulus may include video clips, pictures, or descriptions of various warm-up and cool-down activities.

Stimulus may include tables, charts or diagrams.

Response Attributes:

Responses may include names of or descriptions of specific types of warm-up or cool-down activities.

Responses may include the following, but are not limited to: warm-up, cool-down, ballistic, static, and dynamic stretching; resting and recovery heart rates; tendons and ligaments; and flexibility.

Responses may include evaluations of warm-up and cool-down activities.

Sample Item

Stimulus: Johnny's resting heart rate is 70. He wears a heart rate monitor when he exercises to ensure he is training in the proper zone. Johnny is running a 5K today which starts less than a mile from his house. He doesn't want to tire himself out for the race, so he decides to walk there for his warm up.

When he arrives, his heart rate is 80.

Write a short paragraph evaluating his warm up. How effective was his choice to walk to the starting line as a warm up? Support your evaluation with examples and details.

Rubric:

- 4 Points** Response provides a thorough evaluation of Johnny's warm up. Response includes an accurate determination of the effectiveness of his warm up, and relevant support for his/her opinion. Response describes how Johnny's heart rate has not increased enough, and provides examples of alternatives for Johnny.
- 3 Points** Response provides an evaluation of Johnny's warm up. Response states an opinion about the effectiveness of his warm-up. Response includes some accurate and relevant details or examples to support the opinion. The description may contain minor errors.
- 2 Points** Response provides a partial evaluation of Johnny's warm up. Response states an opinion about the effectiveness of his warm up. Response provides limited accurate details and examples to support the opinion. The description may contain multiple errors.
- 1 Point** Response is minimal and vague and only states the student's opinion. The description may contain major errors.
- 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.

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

Depth of Knowledge: Moderate Complexity, High Complexity

Item Types: Multiple Choice, Constructed Response

Content Limits: Items should address long-term physical, social, and emotional benefits of regular physical activity.

Stimulus Attributes:

Stimulus may include scenarios of long-term participation in physical activity.

Stimulus should address benefits of long term participation in physical activity and various activity choices that are available.

Response Attributes:

Responses should include the long term benefits of participation in physical activity.

Responses may include physiological and/or psychological benefits of physical activity.

Sample Item:

Stimulus: Roy played football and ran track while he was in high school. After graduation, Roy continued to play flag football in a local league and ran four days a week. He is now 30 years old and has continued his physical activity routine. Analyze and describe five potential physical or emotional benefits that Roy is likely to have experienced as a result of his continued physical activity routine.

Rubric:

- 4 Points** The response demonstrates a thorough understanding of the benefits of physical activity by clearly and correctly describing five physical or emotional benefits. The description includes five correct major benefits and is written with few or only minor errors.
- 3 Points** The response demonstrates a partial understanding of the benefits of physical activity by describing five physical or emotional benefits. The description may have minor errors in the benefits or the description may be somewhat unclear.
- 2 Points** The response demonstrates a minimal understanding of the benefits of physical activity by describing less than five physical or emotional benefits. The description may have many errors in the benefits or the description may be somewhat unclear.
- 1 Point** The response demonstrates a poor understanding of the benefits of physical activity by describing less than five physical or emotional benefits. The benefits may be incorrect, the description may contain major errors, or the description may be very unclear.
- 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.2.13 Document food intake, calories consumed, and energy expended through physical activity and analyze the results.

Depth of Knowledge: Moderate Complexity, High Complexity

Item Types: Multiple Choice, Constructed Response

Content Limits: Items should address nutritional topics as they relate to physical fitness activities. Items may require the use of tools and resources that assist in calorie calculations. Items may require selection of appropriate ideas or written expression of ideas.

Stimulus Attributes:

Stimulus should address calorie consumption, expenditure through exercise (energy), and basic nutritional facts.

Stimulus may include menus, charts, or graphs that display numerical data as it relates to caloric or energy expenditure.

Stimulus may include scenarios that require students to perform calculations commonly associated with Fitness Lifestyle Design coursework.

Response Attributes:

Responses should include but not be limited to calorie consumption, energy expenditure, and nutrition.

Response may include a journal or log that includes dietary consumption and/or physical activity records.

Response should NOT include nutritional or physical fitness definitions.

Response may include an analysis of real or mock documentation of food intake, calories consumed, and energy expended.

Sample Item:

Stimulus: Christina is a 16-year-old female. She calculated that she should eat about 2200 calories per day to maintain her current weight. However, she would like to lose five pounds over the next month. She documented her food intake and calories expended for a week. Examine her data. If she continues to eat a comparable amount of calories and exercise this much, will she meet her goal to lose five pounds over the next month? In 2-3 paragraphs, explain why or why not.

Christina's food and activity log:			
Day of the week	Meal	Calories Consumed	Activity level
Monday	Breakfast	650	Moderate; burned 300 calories
	Lunch	700	
	Dinner	800	
Tuesday	Breakfast	500	Minimal; burned 100 calories
	Lunch	725	
	Dinner	1100	
Wednesday	Breakfast	300	Minimal; burned 100 calories
	Lunch	850	
	Dinner	1200	
Thursday	Breakfast	700	Moderate; burned 350 calories
	Lunch	900	
	Dinner	825	
Friday	Breakfast	500	Moderate; burned 300 calories
	Lunch	750	
	Dinner	1100	
Saturday	Breakfast	650	Minimal; burned 50 calories
	Lunch	500	
	Dinner	950	
Sunday	Breakfast	525	Minimal; burned 100 calories
	Lunch	675	
	Dinner	1000	

Rubric:

4 Points

Response includes a thorough analysis of Christina's eating and activity log. Response accurately explains whether or not Christina will meet her weight loss goal. Response provides relevant details and examples to support his/her opinion. Student references the calories consumed and calories expended in the response.

3 Points

Response is an analysis of Christina's eating and activity log. Explanation of whether or not Christina will meet her weight loss goal is mostly accurate. Response provides some details and examples to support his/her opinion. Student references the calories consumed and calories expended in the response. The response may contain minor errors or may be slightly unclear.

2 Points

Response is a partial analysis of Christina's eating and activity log. Explanation of whether or not Christina will meet her weight loss goal is partially accurate. Response provides few details and examples to support his/her opinion. Student may not reference calories consumed and calories expended in the response. The response may contain multiple errors and may be unclear.

1 Point

Response is a poor analysis of Christina's eating and activity log. Explanation of whether or not Christina will meet her weight loss goal is inaccurate. Response provides limited or no details and examples to support his/her opinion. Student does not reference the calories consumed and calories expended in the response. The response may contain major errors and may be very unclear.

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.2.23 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 appropriate technology available to analyze physical fitness data. Items may require the selection of appropriate technology and/or require the use of technology to analyze data.

Stimulus Attributes:

Stimulus may include a variety of technical devices that can evaluate performance.

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

Stimulus should not require the computation of data.

Stimulus may include the comparison of performance data.

Scenarios may be used to describe settings in which technology may be used in fitness activities.

Response Attributes:

Responses may include correct and incorrect data interpretations.

Responses may include correct and incorrect technical devices commonly used in weight training.

Sample Item:

Which is the **MOST** accurate procedure to use when performing a body composition analysis?

- A. bioelectrical impedance
- B. body mass index
- C. skinfold measuring
- * D. underwater weighing

Sample Item 2:

Stimulus: Describe how one would use skinfold calipers to measure body fat percentage. Assume that you are taking three measurements. Explain where the measurements should be taken, why these are the best locations, and how to take the measurements.

Rubric:

- 4 Points** Response shows a thorough understanding of the process for using skinfold calipers. Student accurately describes the process, selects the appropriate sites for taking the measurements, and explains why these are the best locations. Student provides relevant details and examples and response is virtually error-free.
- 3 Points** Response shows understanding of the process for using skinfold calipers. Student accurately describes the process, but may leave out several minor details. Student selects the appropriate sites for taking the measurements but may not thoroughly explain why these are the best locations. Student provides some details and examples and response contains few errors. There may be minor errors in the student explanation.
- 2 Points** Response shows partial understanding of the process for using skinfold calipers. Student somewhat accurately describes the process, but leaves out many details. Student selects some appropriate sites for taking the measurements but may not explain why these are the best locations. Student provides limited details and examples and response contains numerous errors. There may be multiple details in the student explanation.
- 1 Point** Response is minimal and vague and shows poor understanding of how to use skinfold calipers. Response contains many major errors and inaccuracies.
- 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.2.24 Analyze the mechanical principles as they apply to specific course activities.

Depth of Knowledge: Moderate Complexity, High Complexity

Item Types: Multiple Choice, Constructed Response

Content Limits: Items should address topics, issues and mechanical principles as they relate to the coursework of Fitness and Lifestyle Design. Mechanical principles may include: force, balance, stability, and momentum.

Stimulus Attributes:

Stimulus may include scenarios which describe specific exercises common to physical fitness.
Stimulus may include mechanical principles related to fitness activities.

Response Attributes:

Responses may include correct or incorrect analysis of the mechanical principles as they apply to specific exercises.

Sample Item:

Stimulus: Observe a partner swinging a baseball bat to hit a ball. In writing, explain how your partner's motions absorb and apply force and use balance, stability, and momentum while performing the activity.

Rubric:

- 4 Points** Response provides a thorough explanation of how their partner is absorbing and applying force and using balance, stability, and momentum while hitting the ball. Response includes relevant details and evidence to support the explanation. Explanation is clear and contains few errors.
- 3 Points** Response provides an accurate explanation of how their partner is using three of the four principles. Response includes some details and evidence to support the explanation. There may be minor errors in the explanation.
- 2 Points** Response provides an accurate explanation of how their partner is using two of the four principles. Response includes limited details. There may be multiple errors in the explanation.
- 1 Point** Response provides a poor explanation of how their partner is absorbing and applying force and using balance, stability, and momentum while hitting the ball. Response is minimal and vague. Response is inaccurate, containing many errors.
- 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.2.25 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 address risks, safety, rules and equipment as they relate to fitness activities associated with the coursework of Fitness Lifestyle Design.

Stimulus Attributes:

Stimulus may include scenarios related to various risks that can occur during exercise or other fitness activities.

Stimulus may include safety procedures associated with gyms or sport facilities.

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

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

Stimulus may include images, graphics, or video clips.

Stimulus may include charts, graphs, or tables.

Response Attributes:

Responses may include any of the following: warm-up, cool-down, pulse, heart rate (maximum, target, resting), overtraining, hydration, alignment, proper attire, basic rules and various equipment necessary for participation in physical activity.

Responses may include outcomes of safety violations.

Responses may include outcomes of techniques.

Responses may include evaluations of potential risks, rules, or equipment.

Sample Item:

John can bench press 200 pounds and can shoulder press 150 pounds. The gym requires all lifters to have a spotter. Who would be the best spotter for John?

- A. Janet, who attends the gym at the same time using the machines
- B. Samuel, who lifts less weight at the gym during the same time
- C. Suzanna, the fitness instructor at the gym
- * D. Josh, who lifts the same amount of weights

Sample Item 2:

Stimulus: Janice is enrolled in an online Fitness Lifestyle Design course. As part of the course, she must maintain a health-enhancing level of physical fitness. She rollerblades after school to meet that requirement. Today, she left her house later than usual, wearing dark clothes and no helmet or other protective equipment. She also forgot her identification at home. Analyze Janice’s situation and explain the potential risks that she faces. Provide suggestions for how Janice could be safer.

Rubric:

- 4 Points** Response shows thorough understanding of the potential risks that Janice faces. Response includes relevant details and examples. Response provides at least three accurate suggestions for how Janice could be safer.
- 3 Points** Response shows understanding of some of the potential risks that Janice faces. Response includes some details and examples. Response provides two accurate suggestions for how Janice could be safer. There may be minor errors in the details or explanations.
- 2 Points** Response shows partial understanding of the potential risks that Janice faces. Response includes limited details and examples. Response provides one accurate suggestion for how Janice could be safer. There may be multiple errors in the details or explanations.
- 1 Point** Response shows poor understanding of the potential risks that Janice faces. Response is minimal and vague. Response provides no accurate suggestions for how Janice could be safer.
- 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.2.26 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, Constructed Response

Content Limits: Items should address correcting mechanical errors in fitness activities. Items may require selection of appropriate ideas or written/spoken expression of ideas.

Stimulus Attributes:

Stimulus may describe skill pattern movements, techniques, posture, etc.

Stimulus should address correct mechanical principles as they relate to various physical activities.

Stimulus may include a scenario involving physical fitness mechanical principles.

Stimulus may include video clips or graphics.

Response Attributes:

Responses may include correct or incorrect body positions, posture, techniques and skill patterns necessary for participation in various physical activities.

Responses may include correct or incorrect consequences of improper body positions, posture, techniques and skill patterns necessary for participation in various physical activities.

Responses may include correct or incorrect recommendations for correcting mechanical errors.

Sample Item:

George started running and noticed that the outside soles of his running shoes are wearing out faster than the inside soles. What is the likely cause and solution to this problem?

- * A. George is supinating and needs shoes to correct his foot strike.
- B. George is running on a hard surface and needs to start running on grass.
- C. George is logging too many miles and needs to replace his running shoes.
- D. George needs to change the direction he runs around the track for half of the time.

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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.2.27 Compare and contrast how movement skills from one physical activity can be transferred and used in other physical activities.

Depth of Knowledge: Moderate Complexity, High Complexity

Item Types: Multiple Choice, Constructed Response

Content Limits: Items should address movement skills used during physical activities as they relate to one another.

Stimulus Attributes:

Stimulus should address movement skills related to fitness activities.

Stimulus may include different types of movement skills associated with various types of physical activities.

Stimulus may include scenario to compare different movement skills.

Response Attributes:

Responses may include movement skills.

Responses may describe how a movement skill transfers to a physical activity.

Responses may include comparisons of movement skills.

Responses may identify how movement skills transfer between activities.

Sample Item:

