

New Hampshire K-12 Physical Education Curriculum Guidelines



**New Hampshire Alliance for
Health, Physical Education, Recreation and Dance**

New Hampshire State Department of Education

2005

Governor of New Hampshire

John Lynch

Executive Council

District 1 Raymond S. Burton, Woodsville
District 2 Peter J. Spaulding, Hopkinton
District 3 Ruth L. Griffin, Portsmouth
District 4 Raymond J. Wieczorek, Manchester
District 5 Debora Pignatelli, Nashua

New Hampshire State Board of Education

David B. Ruedig, Chairman (District 2)

[Fred Bramante](#) (at large)

[William E. Boc](#) (District 3)

[Debra L. Hamel](#) (District 5)

[John E. Lyons, Jr.](#) (At Large)

[Mary McNeil](#) (District 4)

[William Walker](#) (District 1)

Commissioner of Education

(position vacant at this time)

Deputy Commissioner

Paul Ezen

pezen@ed.state.nh.us

Administrator, Curriculum & Assessment, Accountability and School Improvement

Lorraine S. Patusky

lpatusky@ed.state.nh.us

The New Hampshire Department of Education does not discriminate on the basis of race, color, religion, marital status, national/ethnic origin, age, sex, sexual orientation, or disability in its programs, activities and employment practices. The following person has been designated to handle inquires regarding the non discriminations policies: Brenda Cochrane, ADA Coordinator, NH Dept. of Education, 101 Pleasant Street, Concord, NH 03301-3860, (603)271-3743 TTY/V or bcochrane@ed.state.nh.us

This information on the following pages is also available on our website at www.ed.state.nh.us

CONTENTS

INTRODUCTION.....	iii
Purpose of the K-12 Physical Education Guidelines.....	iii
What is Physical Education?	iii
Organization of the <i>New Hampshire K-12 Physical Education Curriculum Guidelines</i>	iii-iv
Using the Physical Education Curriculum Guidelines.....	iv
The Role of Physical Education in Schools.....	v
The Contribution of Quality Physical Education Programs to the School Environment	vi
Movement and Learning.....	vi
PE and Curriculum Integration.....	vi
PHYSICAL EDUCATION CURRICULUM GUIDELINES WITH STUDENT PERFORMANCE INDICATORS.....	1
Curriculum Guideline 1: Engages in a physically active lifestyle.....	1
Curriculum Guideline 2: Achieves and maintains a health enhancing level of physical fitness.....	2
Curriculum Guideline 3: Demonstrates competency in motor skills and movement patterns, proficiency in a few, and applies these skills and patterns in a variety of physical activities.....	3
Curriculum Guideline 4: Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the development of motor skills and the learning and performance of physical activities.....	5

Curriculum Guideline 5: Identifies that physical activity provides opportunities for health enhancement, enjoyment, challenge, self-expression and social interaction.....**6**

Curriculum Guideline 6: Exhibits responsible personal and social behavior that respects self and others in physical activity settings.....**7**

GLOSSARY OF TERMS AND ACRONYMS.....9

REFERENCE.....14

CONTRIBUTORS TO THIS GUIDELINE.....17

INTRODUCTION

PURPOSE OF THE *NEW HAMPSHIRE K-12 PHYSICAL EDUCATION CURRICULUM GUIDELINES*

The purpose of the *New Hampshire K-12 Physical Education Curriculum Guidelines* is to provide a vision for physical education in New Hampshire. The expectations for student learning at the primary (Pre-K–2), intermediate (grades 3-5), middle school (grades 6-8), and high school (grades 9–12) levels set forth in this document are to be used as a tool for districts, schools and teachers to make local decisions about a comprehensive physical education curriculum. As with other content areas, specific grade-level course offerings, and instructional methods, activities, and materials remain at the local level.

WHAT IS PHYSICAL EDUCATION

In a definition provided by the New Hampshire State Department of Education and the CCSSO-SCASS Health Education Assessment Project *Health Education Curriculum Guidelines*, 2003, physical education is a planned sequential K-12 program that provides cognitive content and learning experiences in a variety of activity areas. Quality physical education should promote, through a variety of planned activities, each student’s optimum physical, mental, emotional and social development, and should provide activities and sports that all students enjoy and can pursue throughout their lives. Qualified, trained teachers teach physical education. (The New Hampshire Governor’s Council on Physical Activity and Health also supports this definition of physical education.)

ORGANIZATION OF THE *K-12 NEW HAMPSHIRE PHYSICAL EDUCATION CURRICULUM GUIDELINES*

The curriculum guidelines are organized by learning domains; psychomotor (motor skills, health-related fitness), cognitive (knowledge), and affective (dispositions). Rationale statements and student performance indicators are developed for each of the six curriculum guidelines.

The **curriculum guidelines** outline the scope of the content recommended for pre-kindergarten through twelfth grade. These are statements of what students should know and be able to do as a result of participating in quality physical education programs and are as follows:

Curriculum Guideline 1: Engages in a physically active lifestyle.

Curriculum Guideline 2: Achieves and maintains a health enhancing level of physical fitness.

Curriculum Guideline 3: Demonstrates competency in motor skills and movement patterns, proficiency in a few, and applies these skills and patterns in a variety of physical activities.

Curriculum Guideline 4: Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the development of motor skills and the learning and performance of physical activities.

Curriculum Guideline 5: Identifies that physical activity provides opportunities for health enhancement, enjoyment, challenge, self-expression and social interaction.

Curriculum Guideline 6: Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

The **rationales** explain how the guidelines help New Hampshire students become physically educated persons.

The **student performance indicators** specify the level of achievement that students are expected to attain at the completion of grades 2, 5, 8, and 12.

USING THE PHYSICAL EDUCATION CURRICULUM GUIDELINES

These curriculum guidelines are written with the expectation that students are engaged in daily physical activity. Physical activity is an umbrella term used to include activities integrated into everyday living such as walking or biking to school, structured exercise and sports, and leisure activities such as hiking or dancing (source: New Hampshire Governor's Council on Physical Activity and Health, 2004). According to current activity guidelines, children should participate in a minimum of sixty minutes of physical activity daily.

It is the joint responsibility of teachers, administrators, and school board members to design educational programs in partnership with their communities that will provide opportunities for daily physical activity that is above and beyond the physical education program provided at the local school level. To achieve the high, yet attainable expectations for learning expressed in these guidelines, support from both the local community and the school community is required.

THE ROLE OF PHYSICAL EDUCATION IN SCHOOL

Physical education has been an integral part of a student's overall school experience since Horace Mann introduced the discipline into the Massachusetts Common Schools in the mid-1800's with the overarching goal of achieving a healthy body for productive [physical] work. Today, physical education remains one of the student's primary sources for obtaining information on making informed decisions regarding one's lifestyle as it relates to physical activity as well as preventing life threatening diseases such as obesity and diabetes.

Obesity, high blood pressure and diabetes have increased significantly in the American population over the last decade. In this current health crisis, physical education as part of the regular school curriculum is critical. Additionally, today's number one killer in the United States is heart disease. The Surgeon General, the Center for Disease Control and the American Medical Association have all published strong public statements identifying inactivity as one of the four major modifiable risk factors associated with heart disease. Documents from all three organizations have shown support for daily physical activity as a progressive way of combating these hypo-kinetic diseases.

To embrace a physically active lifestyle, individuals must possess an understanding of human physiology and the accompanying attitudes and skill that induce safe, regular activity. Physical education provides the necessary foundation of knowledge, skill and dispositions related to movement and physical activity. Through quality instruction by certified physical educators, students can be guided toward a longer life through healthy living. From motor skill learning to movement concepts, physical education extends beyond those with natural athletic ability and recognizes that students possess their own unique physical capabilities and are in charge of their own well being.

The three learning domains of cognitive, psychomotor and affective define a long-held model of physical education. When these three domains are inter-woven in curriculum, instruction and assessment, physical education offers a unique classroom setting. Within a safe, structured environment, students develop motor skills, identify movement concepts and achieve and maintain a health-enhancing level of physical fitness.

In addition to these three unique goals, students are provided learning opportunities to develop acceptable social and personal behaviors in physical activity settings.

Physical education is a vital part of the school curriculum. Recent research concludes that physical activity increases brain productivity. In an increasingly sedentary population, physical education can help produce generations of active bodies with stimulated minds. Through regular participation in physical activity, students will have the opportunity to develop a pattern of life-enhancing and self-rewarding experiences that contribute to their ability to be healthier members of society.

THE CONTRIBUTION OF QUALITY PHYSICAL EDUCATION PROGRAMS TO THE SCHOOL ENVIRONMENT

Children and youth need the knowledge, skills and dispositions that lead to regular and enjoyable participation in physical activity. These skills are not automatically developed. The responsibility is vested within the school physical education program and the important role that psychomotor, cognitive and affective learning has in developing a physically educated person. All students, regardless of ability or need, deserve an education of the body and the mind.

Quality Physical Education Programs Help Students:

- reduce the risk of heart disease. Physical activity can counteract the four major modifiable risk factors that lead to coronary heart disease. These factors are inactivity, high blood pressure, high cholesterol levels and smoking.
- improve physical fitness. An effective program improves cardio respiratory endurance, muscular strength, muscular endurance and flexibility.
- regulate and maintain weight. An effective program can help students regulate and maintain their weight by burning calories.
- acquire healthy active lifestyles. Physical education develops motor skills and sports skills to promote health and fitness throughout life.
- improve academic performance. Studies have shown that when IQ's are the same, students who have daily physical education classes tend to get higher grades than students who do not.
- increase interest in learning. Regular physical activity makes students more alert and more receptive to learning.

MOVEMENT AND LEARNING

There is an ever-growing body of research supporting the idea that quality daily physical education programs are not only important for the health of students but, in fact, can be a factor in improved overall learning. Abundant evidence shows that increased physical activity can positively impact student performance.

Physical exercise such as spinning, crawling, rolling, tumbling, swinging and jumping strengthens those areas of the brain that are related to mental concentration, planning, and decision-making, while aerobic activity seems to assist in memory (Brink, 1995; Palmer, 1980). Exercise provides the brain with added oxygen to enhance greater connections between neurons (Jensen, 1998). Pollatschek and Hagan conclude "children engaged in daily physical education show superior motor fitness, academic performance, and attitude towards school as compared to

their counterparts who do not participate in daily physical education" (Jensen, 1998, p. 85). In addition to improving students' self-esteem, physical education programs, according to Judith Young, executive director of NASPE, "indirectly enhance children's reading and math performance by improving mental alertness (and) reducing stress" (Young, 2003).

A recent study by the California State Department of Public Instruction "provides compelling evidence that the physical well-being of students has a direct impact on their ability to achieve academically. We now have the proof we've been looking for: students achieve best when they are physically fit" (NASPE, 2002). Physical education programs are pointed to as a primary source for promoting physical fitness.

Physical activity alone does not increase learning. However, if all things are equal, a physically active child will have an advantage in learning over an inactive child. Quality daily physical education programs provide needed physical activity during the school day that gives students an advantage for learning, and therefore may help to increase student achievement. (Blaydes, 2003).

PHYSICAL EDUCATION AND INTEGRATION

Dating back to the early nineteenth century, child developmentalists have studied how the brain functions. From Piaget to Gardner, a significant amount of information is known as to how school age children learn. Brain based research continues to document and support these theories. In her book, *Integrated Thematic Instruction*, Susan Kovalik concludes that movement is needed to enhance learning. Cited research by Caterino and Polk(1999) identify clinical findings that physical activity, and more importantly, physical education offered in schools stimulates brain function, which increases focus and memory that results in students performing better academically. From this, one can deduce that physical education, when integrated with regular classroom curriculum, not only stimulates brain activity and function, but also provides more meaningful learning.

Cross-curricular integration is a natural way of making long-term connections in student learning. Many schools incorporate Gardner's Multiple Intelligences to individualize learning. One of these intelligences is kinesthetic learning, or learning through action or movement. When coupled with brain-based research, a natural connection between movement and academic function develops.

Physical education offers opportunities for integration to take place. This allows students to connect content from one subject area to another, creating a learning environment that best suits their needs. Using locomotor movements and measurement in mathematics allow students to calculate distances and geographical locations. At the middle school level, the study of human motion and velocity can be incorporated into a science unit. Biomechanics, trajectory, and principles of movements can be used in math and science lessons at the high school level. These examples are but a glimpse of when students are able to apply content from one subject area and integrate it with another.

Lessons learned in physical education support learning in the classroom. Teaching kinesthetically to reinforce the cognitive process in students is critical to a well-adapted brain, capable of handling varied amounts of information. Reinforcing connections in all areas of learning provide students with an enriching education.

NEW HAMPSHIRE K-12 PHYSICAL EDUCATION CURRICULUM GUIDELINES WITH STUDENT PERFORMANCE INDICATORS

Curriculum Guideline 1: Engages in a physically active lifestyle (psychomotor).

Rationale: In today's society, physical activity is an essential part of a comprehensive, healthy lifestyle. By participating in an array of physical activities on a regular basis, in school and out-of-school, the student develops both meaningful and enjoyable physical interests. Acquired competencies in movement result when one participates in structured and unstructured play. The teaching of cognitive concepts allows the student to understand the relationship of physical activity to physiological effects of the body, social behaviors and one's emotional well-being.

Student Performance Indicators

K-2:

The student will be able to:

- a. Participate in daily physical activity during and after school.
- b. Identify the physiological changes in the body during physical activity.
- c. Identify benefits gained from participation in physical activity.
- d. List activities that will promote a physically active lifestyle.

Grades 3-5:

The student will be able to:

- a. Participate in daily physical activities that promote healthy lifestyles based on personal abilities and interests.
- b. Discuss reasons for participating in physical activity.
- c. Identify personal reasons for participating in physical activity (e.g. improvement through practice, enjoyment, social interaction, personal challenge).
- d. Describe health benefits that result from regular and appropriate participation in physical activity.

Grades 6-8:

The student will be able to:

- a. Participate in daily physical activities that promote a healthy lifestyle based on personal abilities and interests.
- b. Set personal physical activity goals.
- c. Identify long-term benefits that may result from regular participation in physical activity.

Grades 9-12:

The student will be able to:

- a. Participate in daily health-enhancing and personally rewarding physical activities.
- b. Develop a physical activity plan based on individual needs and interests.
- c. Describe how activity participation patterns are likely to change throughout life and identify strategies to deal with those changes.

Curriculum Guideline 2: Achieves and maintains a health enhancing level of physical fitness (psychomotor).

Rationale: The student will be encouraged to reach his/her highest level of wellness for work and pleasure through the application of wellness concepts and involvement in physical activities. The student should exhibit both the ability and willingness to accept responsibility for one's personal fitness leading to an active healthy lifestyle.

Student Performance Indicators

K-2:

The student will be able to:

- a. Participate in daily health-enhancing physical activities.
- b. Participate in aerobic, anaerobic, flexibility and muscular strength and endurance activities.
- c. Progress in vigorous activities from shorter periods to longer periods of time.

Grades 3-5:

The student will be able to:

- a. Participate in daily health-enhancing physical activities.
- b. Participate in formal physical fitness assessment.
- c. Describe short and long term benefits of engaging in health-related fitness.
- d. Use personal fitness assessment data to enhance his/her understanding of fitness.
- e. Show improvement in all components of health-related fitness.
- f. Participate in aerobic, anaerobic, flexibility and muscular strength and endurance activities.
- g. Identify health-related fitness components inherent in various activities.

- h. Use a beginning level of technology to record physical fitness assessment data.

Grades 6-8:

The student will be able to:

- a. Participate in daily health-enhancing physical activities.
- b. Design a comprehensive personal fitness plan (goals, strategies, timeline) based upon fitness assessment results.
- c. Identify effects of activity on stress levels.
- d. Use personal fitness assessment data to enhance his/her understanding of fitness.
- e. Identify health-related fitness components inherent in various activities.
- f. Show improvement in all components of health-related fitness.
- g. Participate in aerobic, anaerobic, flexibility and muscular strength and endurance activities.
- h. Participate in formal physical fitness assessment.
- i. Use a beginning level of technology to analyze, assess and improve one's fitness level.

Grades 9-12:

The student will be able to:

- a. Participate in daily health-enhancing and personally rewarding physical activities.
- b. Participate in annual fitness assessment.
- c. Develop and implement a personal fitness program based on his/her fitness profile.
- d. Achieve the minimum level on all health-related fitness components.
- e. Differentiate between health-related and skill-related fitness components inherent in various activities.
- f. Use technology to analyze, assess and improve one's physical activity and fitness levels.
- g. Examine the correlation between modifiable health-related risk factors and health-related fitness.

Curriculum Guideline 3: Demonstrates competency in motor skills and movements patterns, proficiency in a few, and applies these skills and patterns in a variety of physical activities (psychomotor).

Rationale: As with all academic subject areas, movement forms are the foundations of an active and productive life. The daily quality application of movement forms is the process by which skillful movers are developed. Successful development of movement forms provide an opportunity to enjoy participation in physical activities and reach advanced levels of performance which, in turn, increases the likelihood of lifetime participation in a wide variety of leisure and work-related physical activities.

Student Performance Indicators

K-2:

The student will be able to:

- a. Demonstrate locomotor, non-locomotor and manipulative skills in a developmentally appropriate form.
- b. Apply fundamental motor skills in a variety of physical activities, such as low-organized games, rhythmic activities, fitness activities, tumbling/gymnastics.

Grades 3-5:

The student will be able to:

- a. Demonstrate developmentally mature patterns in a wide variety of locomotor, non-locomotor and manipulative skills.
- b. Apply fundamental motor skills in a variety of physical activities, such as low organized games, rhythmic activities, fitness activities, tumbling and gymnastics.
- c. Begin to combine fundamental motor skills to develop more complex motor skills.
- d. Begin to use more complex motor skills in a variety of physical activities.

Grades 6-8:

The student will be able to:

- a. Combine and refine fundamental motor skills to competently participate in a variety of physical activities.
- b. Apply fundamental and complex motor skills in a variety of physical activities.
- c. Demonstrate use of strategies and tactics within a variety of physical activities.

Grades 9-12:

The student will be able to:

- a. Demonstrate competency in many and proficiency in a few complex motor skills.
- b. Apply complex motor skills in a wide variety of leisure and work-related physical activities.
- c. Demonstrate use of strategies and tactics within a variety of physical activities.

Curriculum Guideline 4: Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the development of motor skills and the learning and performance of physical activities (cognitive).

Rationale: Cognitive information is essential in understanding and enhancing motor skill acquisition and performance. Knowledge of movement concepts and practice in applying these concepts by the student increase the likelihood of independent learning. This results in more effective participation in physical activity on a regular basis.

Student Performance Indicators

K-2:

The student will be able to:

- a. Begin to use a movement vocabulary.
- b. Begin to describe the critical elements of fundamental motor skills.
- c. Distinguish differences in time, space, force, flow and direction.
- d. Use feedback from teachers to improve motor skill performance and cognitive understanding.

Grades 3-5:

The student will be able to:

- a. Use a movement vocabulary when describing motor skill performance.
- b. Describe critical elements of fundamental motor skills and begin to identify the critical elements of more complex skills.
- c. Explain the use of movement concepts during motor skill performance.
- d. Use feedback from teachers, peers, and other mediums (visual aids, computers, etc.) to improve motor skill performance and cognitive understanding.
- e. Transfer concepts learned in other skills and games for performance of new skill and game.

Grades 6-8:

The student will be able to:

- a. Use a movement vocabulary when describing motor skill performance.
- b. Describe critical elements of complex motor skills.
- c. Analyze the use of movement concepts during motor skill performance.
- d. Use feedback from teachers, peers, other mediums, and a beginning level of self-assessment to improve motor skill performance and cognitive understanding.
- e. Identify when, why, and how to use strategies and tactics within game play.

Grades 9-12:

The student will be able to:

- a. Use a movement vocabulary when describing motor skill performance.
- b. Describe critical elements of complex motor skills.
- c. Evaluate the use of movement concepts during motor skill performance.
- d. Use feedback from teachers, peers, other mediums, and self to improve motor skill performance and cognitive understanding.
- e. Identify movement concepts and principles to independently refine their skills and apply them to the learning of new skills.
- d. Explain appropriate strategical and tactical decisions during game play (what to do when and why).

Curriculum Guideline 5: Identifies that physical activity provides opportunities for health enhancement, enjoyment, challenge, self-expression and social interaction (cognitive).

Rationale: The student needs opportunities to articulate feelings associated with physical activity. This creates an understanding that movement is a meaningful part of every day life.

Student Performance Indicators

K-2:

The student will be able to:

- a. Identify the value of participation in physical activities.
- b. Describe what it is like to work in a group.

Grades 3-5:

The student will be able to:

- a. Identify the value of participation in physical activities.
- b. Describe the benefits and challenges of working in a group.

Grades 6-8:

The student will be able to:

- a. Identify the value of personally participating in physical activities.
- b. Articulate the various roles of group members.
- c. Reflect on personal role(s) within a group.

Grades 9-12:

The student will be able to:

- a. Identify the value of personally participating in physical activities.
- b. Analyze the contributions of group members.
- c. Reflect on personal contribution(s) within a group.

Curriculum Guideline 6: Exhibits responsible personal and social behavior that respects self and others in physical activity settings (affective).

Rationale: The student needs learning opportunities to develop acceptable social and personal behaviors in physical activity settings. The student works toward participating responsibly both individually and as a member of a group. This allows for a productive learning environment.

Student Performance Indicators

K-2:

The student will be able to:

- a. Accept responsibility for his/her participation in physical activity settings.
- b. Work cooperatively and productively with a partner or small groups.
- c. Identify and follow safety rules for all activities.
- d. Display responsible behaviors in physical activity settings.
- e. Recognize the existence of individual uniqueness in physical activity settings.
- d. Display consideration for others in physical activity settings.
- e. Discuss the importance of including all students in physical activity settings.
- f. Resolve conflict in socially acceptable ways.

Grades 3-5:

The student will be able to:

- a. Describe responsible behavior in physical activity settings.
- b. Work productively and respectfully with others to achieve a group goal.
- c. Identify and follow safety rules for all activities.
- d. Demonstrate responsible behavior in physical activity settings.
- e. Recognize and accept the existence of individual uniqueness in physical activity settings.
- d. Display acceptance of others through verbal and non-verbal behaviors.
- e. Identify individual similarities and differences in physical activity settings.
- f. Demonstrate a tolerance for individual differences.
- g. Resolve conflict in socially acceptable ways.

Grades 6-8:

The student will be able to:

- a. Accept responsibility for being part of a group by contributing toward group success.
- b. Participate productively in both cooperative and competitive group activities.
- c. Identify, follow and when appropriate, create safety guidelines for participation in activities.

- d. Demonstrate responsible behavior in physical activity settings.
- e. Discuss the difference between ethical and unethical behavior in physical activity settings.
- f. Demonstrate ethical behavior in physical activity settings.
- g. Accept the existence of individual uniqueness in physical activity settings.
- h. Demonstrate positive attitudes towards self and others through verbal and non-verbal behaviors.
- i. Display sensitivity toward others in physical activity settings.
- j. Develop strategies for including others in physical activity settings.
- k. Resolve conflicts and accept decisions of judgment in socially acceptable ways.

Grades 9-12:

The student will be able to:

- a. Initiate independent responsible behaviors in order to be a positive influence on others in physical activity settings.
- b. Recognize the role of the leader and follower within a group in order to achieve physical activity goals.
- c. Identify, follow and, when appropriate, create safety guidelines for participation in physical activity settings.
- d. Analyze the difference between ethical and unethical behavior in physical activity settings.
- e. Demonstrate ethical behavior in physical activity settings.
- f. Demonstrate positive attitudes towards self and others through verbal and non-verbal behaviors.
- g. Develop strategies for including others in physical activity settings.
- h. Advocate for including all people in physical activity settings.
- i. Resolve conflicts and accept decisions of judgment in socially acceptable ways.

GLOSSARY OF TERMS

Aerobic activity: Light to vigorous intensity physical activity that requires more oxygen than sedentary behavior and thus promotes cardiovascular endurance and other health benefits (e.g. jumping rope, biking, swimming, running, playing soccer, basketball, or volleyball).

Anaerobic activity: Intense physical activity that is short in duration and requires a breakdown of energy sources in the absence of oxygen. Energy sources are replenished as an individual recovers from the activity. Anaerobic activity (e.g. sprinting during running, swimming or biking) requires maximal performances during a brief period of time.

Assessment: Process that enables teachers to evaluate a student's performance, knowledge, and/or behaviors.

Competency: Sufficient ability to enjoy safe participation in an activity; the ability to perform and apply skills.

Complex Motor Skills: Skills that require two or more locomotor and/or manipulative skills.

Developmentally Appropriate: Those aspects of teaching and learning that change with the age, experience, and ability of the learner.

Developmentally Mature Pattern: Movement characterized by mechanically efficient, coordinated, and controlled performances; movement that can be performed with ease, using the critical elements of a skill (e.g. step with the opposite foot when throwing).

Disposition: A behavior, attitude, or value.

Domains of Learning:

- **Psychomotor:** Behavior involving the process of change and stabilization in physical structure and neuromuscular function; the performance component.
- **Cognitive:** Behavior involving the relationship between mind and body; the knowledge component.
- **Affective:** Behavior involving feelings and emotions as applied to self and others through movement; the feelings component.

Fundamental Movement Skills:

- **Locomotor:** Movements that take a person from place to place (e.g. walk, run, hop, jump, leap, gallop, skip, slide).
- **Non-locomotor:** Movements performed around the axis of the body (e.g. bend, stretch, twist, turn, push, pull, raise, lower, shake).
- **Manipulative:** Movements where a person controls an object with hands or feet (e.g. toss, catch, throw, kick, strike).

Modifiable health related risks factors (as defined by the American Medical Association):

- Smoking, High Blood Pressure, High Cholesterol, Inactivity

Movement concepts (used to help students modify motor skills or movement sequences):

Body awareness: Awareness and understanding of what the body does while moving.

Space: Awareness and understanding of where the body moves (general or personal/self space);

Direction: The path of movement (forward, back, side to side, up, down, straight, curvy, zigzag).

Level: The height at which a movement is performed (high, medium, low).

Range: The relative location of one's body (self-space, general space) and how various extensions of the body (wide/narrow, far/near, long/short, large/small) are used in movement.

Effort: Awareness and understanding of how the body moves;

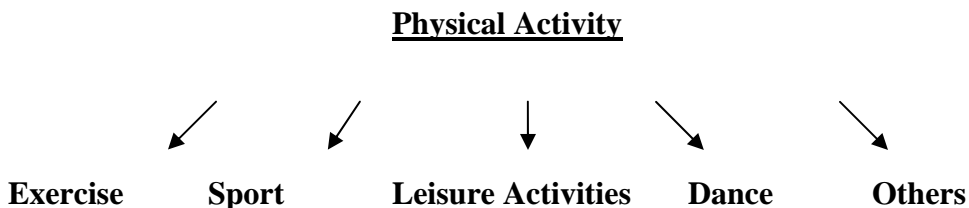
Force: The degree of muscular tension required to move the body or its parts from place to place or to maintain equilibrium (heavy, light, or somewhere in between).

Flow: The continuity or coordination of movements (smooth or jerky, free or restricted) whether movement is free or bound with varying degrees.

Time: The speed at which movement takes place (fast, slow, sudden, gradual, erratic, sustained).

Relationships: How and where the body moves in harmony with objects or other people.

Physical Activity: Bodily movement that is produced by the contraction of skeletal muscle and substantially increases energy expenditure (US Dept. of Health and Human Services, 1996). Physical activity is used as an umbrella term that has multiple dimensions or sub-categories of physical activity.



Physical Fitness: The body's ability to function efficiently and effectively. It is a state of being that consists of at least five health-related and six skill-related, physical fitness components, each of which contributes to total quality of life (Corbin, 2001).

- **Health-related** (physiological adaptation to increase muscle overload);

Cardiovascular Endurance- The ability of the cardiovascular and respiratory system to work together over an extended period of time.

Muscular Endurance- The ability to perform a movement over an extended period of time.

Muscular Strength- The ability to perform a muscle action at maximum effort.

Flexibility- The range of motion of various joints of the body.

Body Composition- The ratio of lean body mass to body fat.

- **Motor skill related** (performance abilities as influenced by);

Speed- The ability to move from point to point in the shortest time possible.

Agility- The ability to move from point to point rapidly while making successive movements in different directions.

Power- The ability to perform a movement with maximum effort in a short period of time.

Balance- The ability to maintain one's equilibrium. Two types: Static and dynamic.

Coordination- The integration of motor sensory systems into a harmonious working relationship.

Reaction time-The ability to show a reflexive response to a person or object.

Physiological changes: The reaction of the body to a task, condition, or stressor.

Physical Education: Programs related to physical fitness, motor skill development, social development, and knowledge – especially K-12 programs. Siedentop (1998).

Proficiency- The ability to perform a skill or the art of learning with expert correctness.

Sport-Related Skills: Movements that are applied to a variety of games, sports, dance, and related recreational activities. Basic locomotor, manipulative, and stability skills are refined, combined, and elaborated upon so they may be used in increasingly demanding activities (e.g. lay up shot, volleyball spike, golf drive, tennis forehand).

ACRONYMS

AAALF:	American Association for Active Lifestyles & Fitness
AAHPERD:	American Alliance for Health, Physical Education, Recreation and Dance
AAHE:	American Association for Health Education
AALR:	American Association for Leisure and Recreation
AFHK:	Action for Health Kids
AMA:	American Medical Association
CCSSO:	Council of Chief State School Officers
CDC:	Centers for Disease Control
COE:	Council for Outdoor Education
COPEC:	Council for Physical Education for Children
DHHS:	Department of Health and Human Services
DOE:	Department of Education
EDA:	Eastern District Association
GCPAH:	Governor's Council on Physical Activity and Health
MASSPEC:	Middle and Secondary School Physical Education Council
NDA:	National Dance Association
NATA:	National Athletic Training Association
NCPPA:	National Coalition for Promoting Physical Activity
NAGWS:	National Association for Girls and Women in Sport
NASPE:	National Association for Sport And Physical Education
NEA:	National Education Association
NHAHPERD:	New Hampshire Association for Health, Physical Education, Recreation and Dance
NHHSC:	New Hampshire Healthy Schools Coalition
NHCAN:	New Hampshire Children's Alliance Network
SCASS:	State Collaborative on Assessment and Student Standards
US DHHS:	United States Department of Health and Human Services

REFERENCES

Action for Healthy Kids
www.actionforhealthykids.org

American Alliance for Health, Physical Education, Recreation and Dance
www.aahperd.org

American College of Sport Medicine
www.acsm.org

American Fitness
www.acefitness.org

American Heart Association
www.americanheart.org

American Medical Association
www.ama-assn.org

Center for Disease Control and Prevention
www.cdc.gov

Healthy People 2010
www.web.health.gov/healthypeople

National Coalition for Promoting Physical Activity
www.ncppa.org

National Standards for Physical Education
www.aahperd.org/naspe/publications-national-standards

NH Association for Health, Physical Education, Recreation and Dance
www.nhaperd.org

NH Children's Advocacy Network
www.info@childrenNH.org

NH Educators Online
www.nheon.org

NH Department of Education
www.ed.state.nh.us

REFERENCES (CONTINUED)

Physical Education Links/Information
www.pelinks-4u.org

President's Council on Physical Fitness and Sports
www.fitness.gov

National Association for Sport and Physical Education
www.aahperd.org/naspe/template.cfm

Physical Education Central
www.pcentral.com

Surgeon General's Call to Action to prevent and Decrease Overweight and Obesity
www.surgeongeneral.gov/topics/obesity

Etnier, J.L., Salazar, W., Landers, D.M., Petruzzello, S.J., Han, M., & Nowell, P. 1997. The influence of physical fitness and exercise upon cognitive functioning: a meta-analysis. *Journal of Sport and Exercise Psychology* 19(3):249-277.

Keays, J., & Allison, R. 1995. The effects of regular moderate to vigorous physical activity on student outcomes: a review. *Canadian Journal of Public Health* 86: 62-66.

National Association for Sport and Physical Education. 2002. New study supports physically fit kids perform better academically.

National Association for Sport and Physical Education. 2001. *Shape of the Nation Report*.

President's Council on Physical Fitness and Sports. 1999. Physical activity promotion and school physical education. *Physical Activity and Fitness Research Digest*.

Sallis, J.F., McKenzie, T.L., Kolody, B., Lewis, M., Marshall, S., & Rosengard, P. 1999. Effects of health-related physical education on academic achievement: Project SPARK. *Research Quarterly for Exercise and Sport* 70: 127-134.

Shepard, R.J. Habitual physical activity and academic performance. 1996. *Nutrition Reviews* 54 (4 supplement):S32-S36.

Shepard, R. J. 1997. Curricular physical activity and academic performance. *Pediatric Exercise Science* 9:113-126.

Shepard, R.J., Volle, M., Lavalee, M., LaBarrre, R., Jequier, J.C., & Rajic, M. 1984. Required physical activity and academic grades: a controlled longitudinal study. In: Limarinen and Valimaki, editors. *Children and Sport*. Berlin: Springer Verlag. 58-63.

Symons, C.W., Cinelli, B., James, T.C., & Groff, P. 1997. Bridging student health risks and academic achievement through comprehensive school health programs. *Journal of School Health* 67 (6): 220-227.

REFERENCES (CONTINUED)

Blaydes, Jean (2003). Advocacy: A Case for Daily Quality Physical Education. <http://www.actionbasedlearning.com/cgi-bin/article.pl>.

Brink, S. (1995, May 15). Smart moves. *U.S. News & World Report*. (Online database).

Chan, Dr. Tak Cheung and Petrie, Dr. Garth F. (1998, November). The brain learns better in well-designed school environments. *Classroom Leadership Online* (2:3).

National Association for Sport and Physical Education. (2002). New study supports physically fit kids perform better academically.

Palmer, L. (1980, September). Auditory discrimination through vestibule-cochlear stimulation. *Academic Therapy* 16 (1), 55-70.

Young, Judith C. (2003, January/February). Does your P.E. meet today's needs? *Principal* (National Association of Elementary and Secondary Principals).

CONTRIBUTORS TO THIS GUIDELINE

This document was created by a team of teachers, consultants, and administrators throughout New Hampshire. Our thanks to the efforts of the following individuals for their part with the New Hampshire Physical Education Curriculum Guidelines K-12.

Committee Chairs:

Andy Blanchard, Conway Elementary School, (K-6)
Susan Powers, Kennett Junior High School, (7-8)

Committee Members:

Lisa Damren, Lyme Elementary School, (K-8)
Kristi Getz Hikel, Alton Central School, (Pre-K-12)
Dr. Beverly King, Keene State College
Dr. Louise McCormack, Plymouth State University

Department of Education Consultant:

Marcia McCaffrey

Department of Education Program Manager

Delbert C. "Skip" Haley III

Reviewers:

Mary Ellen Alger, New England College, Henniker
Dave April, Wilkins Elementary School, Amherst
Judy Dubriske, Fuller Elementary School, Keene
Deb Franzoni, Ray School, Hanover
Russ Holden, Prospect Mt. School, Alton
Nate Heath, Kearsarge Regional Middle School, New London
Peggy Hutter, Kearsarge Regional Middle School, New London
Suzanne Klink, Nashua High School, Assistant Athletic Director, Nashua
Dr. Tamara Martin, University of New Hampshire, Durham
Rebecca Moore, Chair- Conway School Board, Conway
Janice O'Donnell, Ray School, Hanover
Jeanne O'Brien, Milford High School, Milford
Dianne Rappa, Executive Director- New Hampshire Association for Health, Physical
Education, Recreation and Dance
Gerry St. Amand, Wilkins Elementary School, Amherst