SPRING GROVE AREA SCHOOL DISTRICT

PLANNED COURSE OVERVIEW

Course Title: Strength Training for Sports Level 3	**Length of Course:** 15 cycles
Grade Level(s): 10, 11, 12	**Periods Per Cycle:** 6
Units of Credit: .5	**Length of Period:** 40 minutes
Classification: Elective	**Total Instructional Time:** 60 hours

Course Description

Strength 3 students will use skills learned in level one and level two strength courses to elevate their training for high school level athletics. Students will use Nationally recognized strength and conditioning resources through the Volt training program to improve athletic performance. Students will have the opportunity to use this app-based programming and assessment program year long. In-class performance will ensure that students understand the application of the program and develop the skills necessary for full appreciation of the program's value to performance enhancement.

Instructional Strategies, Learning Practices, Activities, and Experiences

Volt Training Application Specific to the Sport of the Students Choosing	Implementation of Pre-Season, In-Season, Post-Season Design	Student Interaction and Leadership Activities with Strength 1 and Strength 2 Students

Assessments

Volt Perceived Exertion Scale	Functional Movement Assessment	Strength and Performance Testing

Materials/Resources

Volt Training Platform	iPad	School Fitness Center

Adopted: 5/23/22
Revised:

CONTENT/KEY CONCEPTS	OBJECTIVES/STANDARDS
Programming and Progression -Pre-season -In-season -Post-season Phases of training -Eccentric -Concentric -Isometric -Power -Active Recovery Loading De-loading Plyometric Deceleration Acceleration Foundational Training Principals	**10.5.12.** A. Apply knowledge of movement skills and skill-related fitness to movement concepts to identify and evaluate physical activities that promote personal lifelong participation. C. Evaluate the impact of practice strategies on skill development and improvement. D. Incorporate and synthesize knowledge of exercise principles, training principles and health and skill-related fitness components to create a fitness program for personal use. E. Evaluate movement forms for appropriate application of scientific and biomechanical principles.

CONTENT/KEY CONCEPTS	OBJECTIVES/STANDARDS
Sport specific exercises and movements should be incorporated into fitness programming Adapt programming to meet the needs of in-season competitions Cycling to prevent plateauing - how to best modify a program over time Develop benchmarks for improvement Goal setting with sport specific testing protocols Sport or activity choice Speed Agility Coordination Strength Endurance Body Composition Overload Progression Plateau Reps Sets Movement Type Frequency Intensity Time Volume Pacing Overtraining	**10.4.12.** A. Evaluate and engage in an individualized physical activity plan that supports achievement of personal fitness and activity goals and promotes life-long participation. B. Analyze the effects of regular participation in a self-selected program of moderate to vigorous physical activities. C. Evaluate how changes in adult health status may affect the responses of the body systems during moderate to vigorous physical activity. D. Evaluate factors that affect physical activity and exercise preferences of adults. E. Analyze the interrelationships among regular participation in physical activity, motor skill improvement and the selection and engagement in lifetime physical activities. F. Assess and use strategies for enhancing adult group interaction in physical activities. **10.5.12.** A. Apply knowledge of movement skills, skill-related fitness, and movement concepts to identify and evaluate physical activities that promote personal lifelong participation. B. Incorporate and synthesize knowledge of motor skill development concepts to improve the quality of motor skills. C. Evaluate the impact of practice strategies on skill development and improvement. D. Incorporate and synthesize knowledge of exercise principles, training principles and health and skill-related fitness components to create a fitness program for personal use. E. Evaluate movement forms for appropriate application of scientific and biomechanical principles. F. Analyze the application of game strategies for different categories of physical activities.

CONTENT/KEY CONCEPTS	OBJECTIVES/STANDARDS
Strength training can -Reduce low back pain -Reduce the incidence of exercise-related injuries -Decrease the incidence of osteoporosis -Aid in the maintenance of functional capacity Muscular Strength – the amount of weight that an individual can lift during one maximal effort Skeletal Muscles -Composed of a collection of fibers and are attached by bones by tendons -Muscular contraction results in the tendons pulling on the bone, causing movement Two primary physiological factors determine the amount of force that can be generated by a muscle -Size of muscle -Number of muscle fibers recruited Muscle Size – increased primarily because of an increase in fiber size (hypertrophy) Research has shown that strength training can also promote the formation of new muscle fibers (hyperplasia) Overload Principal – a muscle will increase in strength and/or endurance only when it works against a workload such as free weights or weight machines	**10.3.12.** D. Evaluate the benefits, risks and safety factors associated with self-selected life-long physical activities. **10.4.12.** A. Evaluate and engage in an individualized physical activity plan that supports achievement of personal fitness and activity goals and promotes life-long participation. B. Analyze the effects of regular participation in a self-selected program of moderate to vigorous physical activities. C. Evaluate how changes in adult health status may affect the responses of the body systems during moderate to vigorous physical activity. D. Evaluate factors that affect physical activity and exercise preferences of adults. E. Analyze the interrelationships among regular participation in physical activity, motor skill improvement and the selection and engagement in lifetime physical activities. **10.5.12.** A. Apply knowledge of movement skills, skill-related fitness, and movement concepts to identify and evaluate physical activities that promote personal lifelong participation. B. Incorporate and synthesize knowledge of motor skill development concepts to improve the quality of motor skills. C. Evaluate the impact of practice strategies on skill development and improvement. D. Incorporate and synthesize knowledge of exercise principles, training principles and health and skill related fitness components to create a fitness program for personal use. E. Evaluate movement forms for appropriate application of scientific and biomechanical principles.