

High School Weights

Physical Education

Grade(s) 9th - 12th, Duration 1 Semester, 1 Credit
Required Course

Course Overview

Grade Level:9-12

Prerequisites: Teacher Approval

Course Description: Designed to introduce beginner to weight training skills and enhance lifting tactics of the advanced participant. This course will acquaint students with various lifting styles and the benefits it places on the human body.

Scope And Sequence

Timeframe	Unit	Instructional Topics
12 Period(s)	Intro to Strength and Conditioning	1. Introduction to weight room etiquette and safety 2. Daily Warmup 3. Form and Technique 4. Basic Anatomy and Physiology of Weight Training 5. First Max out Day
17 Week(s)	Training Programs	1. Power 2. Max Testing 3. Strength 4. Max Testing 5. Injury Prevention 6. Max Testing
3 Period(s)	Nutrition for Weight Training	1. Carbohydrates, protein, and fat 2. Hydration 3. Supplements
6 Week(s)	Program Design	1. Training Programs 2. Designing a Personalized Workout Plan
7 Week(s)	Program Evaluation and Adjustment	1. 2nd Max Out 2. Re-Max and Goal Assessment 3. Individual Training Program 4. Max Testing

Course Details

Unit: Intro to Strength and Conditioning

Duration: 12 Period(s)

Unit Description

Students will be able to demonstrate safe use of equipment and perform basic weight training exercises with proper technique.

Topic: Introduction to weight room etiquette and safety

Duration: 1 Period(s)

Topic Description (short)

This topic covers the proper safety measures and techniques required for students to safely and effectively use weight room equipment such as free weights, machines, and benches.

This topic covers the rules and guidelines for behavior in the weight room, including proper attire, equipment usage, and spotting techniques to maintain a safe and respectful environment.

This topic emphasizes the importance of proper technique and safety guidelines in weight training and how they contribute to optimal results and injury prevention.

Learning Targets

Students will:

Demonstrate safe use of weight room equipment

Perform basic weight training exercises with proper technique

Follow proper weight room etiquette and safety guidelines

Analyze and evaluate the importance of proper technique and safety guidelines in weight training exercises

Formative Assessment

Students will be quizzed on weight room equipment and safety procedures.

Students will perform a series of exercises with proper technique and safety measures in place.

Materials and Resources

Safe Use of Weight Room Equipment: Weight room equipment, resistance bands, instructional videos, posters or charts demonstrating

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proper technique and form.


Proper Technique and Form: Weight room equipment, instructional videos, posters or charts demonstrating proper technique and form.

Weight Room Etiquette and Safety Guidelines: Weight room rules and guidelines, posters or signs with safety guidelines, instructional videos.

Importance of Proper Technique and Safety Guidelines: Instructional videos, articles, books.

Learning Targets

The student will be able to identify the relationship between warm-up, cool-down, proper skill techniques, the use of protective equipment, and proper conditioning to exercise-related injuries

Learning Targets linked to Priority Standard = 

Topic: Daily Warmup

Duration: Ongoing

Topic Description (short)

Activities used daily to prepare the body for the demands of weight training to prevent injury, improve speed and agility, and increase mobility

Learning Targets


By completing these dynamic warm-up exercises, the learner will improve their physical mobility and increase their readiness for high-intensity activities, such as sprints and explosive movements. The learner will also develop an understanding of the importance of proper warm-up techniques for injury prevention and overall physical performance.

Formative Assessment

1. Have the learners perform a baseline sprint or explosive movement, such as a vertical jump, before the warm-up.
2. Instruct the learners to complete the dynamic warm-up sequence.
3. Have the learners perform the same sprint or explosive movement as in step 1 immediately following the warm-up.
4. Ask the learners to reflect on their performance and rate their perceived level of readiness for high-intensity activity before and after the warm-up.
5. Collect and review the data from the pre- and post-warm-up performance, as well as the learners' self-assessments.
6. Use the data to evaluate the effectiveness of the warm-up sequence in improving physical readiness for high-intensity activities.
7. Provide feedback to the learners and make any necessary adjustments to the warm-up sequence based on the data collected.

Learning Targets

The student will be able to identify the relationship between warm-up, cool-down, proper skill techniques, the use of protective equipment, and proper conditioning to exercise-related injuries

Learning Targets linked to Priority Standard = 

Topic: Form and Technique

Duration: 3 Period(s)

Topic Description (short)

This topic covers the basic weight training exercises, such as squats, deadlifts, and bench presses, and emphasizes proper technique and form to prevent injury and maximize results.

Learning Targets

Students will be able to perform basic weight training exercises with proper technique.

Formative Assessment

Exercise: Squats

Step 1: Preparation

Feet should be shoulder-width apart and toes slightly pointed outward.

The barbell should rest on the upper back muscles and not on the neck.

Hands should be placed on the barbell, slightly wider than shoulder-width apart.

Step 2: Execution

Slowly bend the knees and lower the body while keeping the back straight and the chest up.

The thighs should be parallel to the floor or lower.

Slowly stand up and push through the heels.

Assessment Criteria:

Did the student place their feet shoulder-width apart and toes slightly pointed outward?

Did the student place the barbell on their upper back muscles and not on their neck?

Did the student place their hands on the barbell, slightly wider than shoulder-width apart?

Did the student keep their back straight and chest up throughout the exercise?

Did the student lower their body until their thighs were parallel to the floor or lower?

Did the student stand up and push through their heels?

Feedback:

If the student did not meet the assessment criteria, provide corrective feedback and encourage the student to practice the correct technique.

If the student met the assessment criteria, provide positive feedback and encourage them to continue practicing to improve their technique.

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Exercise: Bench Press

Step 1: Preparation

Lie on the bench with feet flat on the floor.

Grip the bar with hands slightly wider than shoulder-width apart.

Unrack the bar and hold it above the chest with arms extended.

Step 2: Execution

Slowly lower the bar to the chest while keeping the elbows close to the body.

Touch the chest lightly with the bar and push it back up to the starting position.

Assessment Criteria:

Did the student lie on the bench with feet flat on the floor?

Did the student grip the bar with hands slightly wider than shoulder-width apart?

Did the student unrack the bar and hold it above the chest with arms extended?

Did the student lower the bar to the chest while keeping the elbows close to the body?

Did the student touch the chest lightly with the bar?

Did the student push the bar back up to the starting position?

Feedback:

If the student did not meet the assessment criteria, provide corrective feedback and encourage the student to practice the correct technique.

If the student met the assessment criteria, provide positive feedback and encourage them to continue practicing to improve their technique.

Exercise: Deadlift

Step 1: Preparation

Stand with feet shoulder-width apart and toes slightly pointed outwards.

Place the barbell on the ground in front of you with your feet under the bar.

Grip the bar with hands shoulder-width apart and palms facing down.

Step 2: Execution

Slowly lift the bar off the ground while keeping the back straight and chest up.

Push through the heels and lift the bar to a standing position.

Slowly lower the bar back to the ground by bending at the hips and knees.

Assessment Criteria:

Did the student stand with feet shoulder-width apart and toes slightly pointed outwards?

Did the student grip the bar with hands shoulder-width apart and palms facing down?

Did the student keep their back straight and chest up throughout the exercise?

Did the student push through the heels and lift the bar to a standing position?

Did the student lower the bar back to the ground by bending at the hips and knees?

Feedback:

If the student did not meet the assessment criteria, provide corrective feedback and encourage the student to practice the correct technique.

If the student met the assessment criteria, provide positive feedback and encourage them to continue practicing to improve their technique.

Exercise: Hang Clean

Step 1: Preparation

Stand with feet shoulder-width apart and toes slightly pointed outwards.

Place the barbell on the ground in front of you with hands shoulder-width apart.

Bend at the hips and knees and grip the barbell with an overhand grip.

Step 2: Execution

Slowly stand up and lift the barbell to your thighs.

Quickly bend your knees and hips and lift the barbell to your shoulders.

Stand up straight and hold the barbell at your shoulders.

Assessment Criteria:

Did the student stand with feet shoulder-width apart and toes slightly pointed outwards?

Did the student grip the barbell with an overhand grip?

Did the student lift the barbell to their thighs?

Did the student quickly bend their knees and hips and lift the barbell to their shoulders?

Did the student stand up straight and hold the barbell at their shoulders?

Feedback:

If the student did not meet the assessment criteria, provide corrective feedback and encourage the student to practice the correct technique.

If the student met the assessment criteria, provide positive feedback and encourage them to continue practicing to improve their technique.

Materials and Resources

Weight room equipment, instructional videos, posters or charts demonstrating proper technique and form

Learning Targets

The student will be able to identify the relationship between warm-up, cool-down, proper skill techniques, the use of protective equipment, and proper conditioning to exercise-related injuries

The student will be able to identify and analyze the critical elements of movement patterns associated with weight training.


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Required Course

Description: The student will be able to identify and analyze the performance of themselves and others when performing...

- Bench Press
- Hang Clean
- Back Squat
- Deadlift
- Associated Auxiliary Exercises

Learning Targets linked to Priority Standard = 

Topic: Basic Anatomy and Physiology of Weight Training

Duration: 4 Period(s)

Topic Description (short)

This topic covers the anatomy and physiology of the major muscle groups involved in weight training exercises, including the chest, back, legs, and arms, and how they work together during weight training.

Learning Targets

Identify major muscle groups and their functions in weight training exercises.

Identify which muscle groups are worked when performing the bench press, squat, dead lift, and hang clean exercises.

Formative Assessment

- Students will complete a labeling and matching exercise.
- Student groups will also create a visual diagram of the major muscle groups.
- Vocabulary matching activity
- Participation in exercise demonstrations and exercise creation
- Reflection on how to apply knowledge to personal weight training routine

Materials and Resources


- PowerPoint presentation on basic physiology
- Whiteboard and markers
- Handouts with vocabulary terms and definitions
- Examples of exercises and their effects on the body
- Weight lifting equipment (optional)

Learning Targets

The student will be able to identify the major muscle groups used during specific exercises.

Description: The student will be able to identify the muscle(s) used during a variety of exercises including but not limited to...

- Bench Press
- Hang Clean
- Back Squat
- Deadlift
- Associated Auxiliary Exercises

Learning Targets linked to Priority Standard = 

Topic: First Max out Day

Duration: 3 Period(s)


Topic Description (short)

Students will perform a 1 rep max or multiple rep max in the core lifts:
Bench Press, Squats, Power Cleans, and Dead Lift.

Learning Targets

The student will be able to identify the relationship between warm-up, cool-down, proper skill techniques, the use of protective equipment, and proper conditioning to exercise-related injuries

The student will be able to analyze their present physical fitness levels to create long-term personal fitness goals to meet current and future needs for maintenance of health and fitness.

Learning Targets linked to Priority Standard = 

Unit: Training Programs

Duration: 17 Week(s)

Unit Description

Students will learn how to program a training regimen to improve their ability to move mass at rapid speed.

Topic: Power

Duration: 5 Week(s)

Topic Description (short)

Students will learn the definition of power in terms of weight training and how to assign repetitions, sets, percentages, and rest to best improve power.

Learning Targets

Students will be able to assign repetitions, sets, percentages, and rest to best improve their power output.

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Learning Targets

The student will be able to identify and analyze the critical elements of movement patterns associated with weight training.

Description: The student will be able to identify and analyze the performance of themselves and others when performing...

- Bench Press

- Hang Clean

- Back Squat


- Deadlift

- Associated Auxiliary Exercises

The student will be able to identify the relationship between warm-up, cool-down, proper skill techniques, the use of protective equipment, and proper conditioning to exercise-related injuries

The student will be able to apply the FITT principle to design a personal fitness plan to improve power output in weight training.

Description: Power is the ability to overcome resistance in the shortest period of time leading to the ability to produce higher velocities against a given load. The neurological adaptations are higher firing frequency and a stronger activation of the high threshold motor units.

Learning Targets linked to Priority Standard = 

Topic: Max Testing

Duration: 4 Period(s)

Topic: Strength

Duration: 5 Week(s)

Topic Description (short)

Students will learn how to adjust their training program to improve total strength output and the benefits of training for strength.

Topic: Max Testing

Duration: 4 Period(s)

Topic: Injury Prevention

Duration: 5 Week(s)

Topic Description (short)

Students will learn the benefits of training for injury prevention and how to program their training regimen to improve ability to prevent injury when performing in athletics and work.

Topic: Max Testing

Duration: 4 Period(s)

Unit: Nutrition for Weight Training

Duration: 3 Period(s)

Unit Description

This unit will teach students about the importance of nutrition for weight training. Students will learn about the role of carbohydrates, protein, and fat in the body, and how to hydrate properly before, during, and after a weight training workout. Students will also learn about the potential benefits and risks of using supplements.

Topic: Carbohydrates, protein, and fat

Duration: 1 Period(s)

Topic Description (short)

Students will learn about the role of carbohydrates, protein, and fat in the body, and how to get the right balance of these nutrients for weight training.

Topic: Hydration

Duration: 1 Period(s)

Topic Description (short)

Students will learn about the importance of hydration for weight training. It is important to drink plenty of fluids before, during, and after a workout.

Topic: Supplements

Duration: 1 Period(s)

Topic Description (short)

Students will learn about the potential benefits and risks of using supplements. Supplements should only be used under the guidance of a qualified healthcare professional.

Unit: Program Design

Duration: 6 Week(s)

Unit Description

Students will be able to design a weight training program for themselves or a hypothetical client based on individual goals and needs.

Topic: Training Programs

Duration: 1 Period(s)

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Topic Description (short)

Students will understand the different types of weight training programs, including hypertrophy, strength, and endurance training, injury prevention and how they target specific fitness goals.

Learning Targets

Identify and analyze the role of different exercises, sets, reps, and rest periods in achieving specific fitness goal.

Identify different types of training programs and their purposes.

Create a SMART goal.

Formative Assessment

Students will create a chart or graphic organizer of different types of training programs and their intended purposes.

Students will create a goal for their training to aid in their choosing their preferred training program.

Materials and Resources

Articles, books, instructional videos.

Topic: Designing a Personalized Workout Plan

Duration: 6 Week(s)

Topic Description (short)

This topic covers the process of designing a personalized workout plan, including exercise selection, sets, reps, and rest periods, and how to adjust it as necessary based on progress and goals.

Learning Targets

Analyze and evaluate the importance of individualization in program design

Design a weight training program based on individual fitness goals and needs

Identify and analyze the role of different exercises, sets, reps, and rest periods in achieving specific fitness goals

Formative Assessment

Analyze and evaluate the importance of individualization in program design: Students will participate in a class discussion or complete a written response on why individualization is important in program design, citing examples.

Design a weight training program based on individual fitness goals and needs: Students will create a personalized workout plan, including exercises, sets, reps, and rest periods, with teacher guidance and feedback.

Materials and Resources

Workout plan templates, instructional videos, articles, fitness assessments, workout logs

Unit: Program Evaluation and Adjustment

Duration: 7 Week(s)

Unit Description

Students will evaluate the effectiveness of their individual training program and make adjustments to better achieve their goals.

Topic: 2nd Max Out

Duration: 4 Period(s)

Topic Description (short)

Students will test their max strength in the four core lifts.

Topic: Re-Max and Goal Assessment

Duration: 1 Day(s)

Topic Description (short)

Students will use their new strength numbers to assess their progress towards achieving their fitness goal.

Students will be given time to make up missed max test.

Topic: Individual Training Program

Duration: 4 Week(s)

Topic Description (short)

Students will create and implement a new individual training program based on their prior goals and max testing data.

Topic: Max Testing

Duration: 4 Period(s)